

RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CHS. 271—273, 277, 279, 281 AND 283—285]

Municipal Waste

The Environmental Quality Board (Board) by this order amends Chapters 271—273 and 277—285. The amendments are the result of the Department of Environmental Protection (Department) evaluating the municipal waste regulations promulgated in 1988, 1991 and 1992 in accordance with the Secretary of the Department's Regulatory Basics Initiative (RBI) and the Governor's Executive Order 1996-1 (relating to regulatory review and promulgation), which required all departments to reevaluate existing regulations based on specific criteria.

This order was adopted by the Board at its meeting of September 19, 2000.

A. Effective Date

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final-form rulemaking.

B. Contact Persons

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C. Statutory Authority

The final-form rulemaking is being made under the authority of the following:

The Solid Waste Management Act (SWMA) (35 P. S. §§ 6018.101—6018.1003), which in section 105(a) of the SWMA (35 P. S. § 6018.105(a)) grants the Board the power and the duty to adopt the rules and regulations of the Department to carry out the provisions of the SWMA.

The Clean Streams Law (CSL) (35 P. S. §§ 691.1—691.1001), which in section 5(b) of the CSL (35 P. S. § 691.5(b)) grants the Board the authority to formulate, adopt, promulgate and repeal the rules and regulations as are necessary to implement the provisions of the CSL and which in section 402 of the CSL (35 P. S. § 691.402) grants the Board the authority to adopt rules and regulations requiring permits or establishing conditions under which an activity shall be conducted for any activity that creates a danger of pollution of the waters of this Commonwealth or that regulation of the activity is necessary to avoid such pollution.

The Municipal Waste Planning, Recycling and Waste Reduction Act (Act 101) (53 P. S. §§ 4000.101—4000.1904), which in section 302 of Act 101 (53 P. S. § 4000.302) gives the Board the power and duty to adopt

the regulations of the Department to accomplish the purposes and carry out the provisions of Act 101.

The Land Recycling and Environmental Remediation Standards Act (Act 2) (35 P. S. §§ 6026.101—6026.909), which in section 104(a) of Act 2 (35 P. S. § 6026.104(a)) authorizes the Board to adopt Statewide health standards, appropriate mathematically valid statistical tests to define compliance with Act 2 and other regulations that may be needed to implement the provisions of Act 2. Section 301(c) of Act 2 (35 P. S. § 6026.301(c)) authorizes the Department to establish by regulation procedures for determining attainment of remediation standards when practical quantification limits set by the United States Environmental Protection Agency (EPA) have a health risk that is greater than the risk levels established in Act 2. Section 303(a) of Act 2 (35 P. S. § 6026.303(a)) authorizes the Board to promulgate Statewide health standards for regulated substances for each environmental medium and the methods used to calculate the Statewide health standards.

The Infectious and Chemotherapeutic Wastes Law (ICWL) (35 P. S. §§ 6019.1—6019.6), which in sections 2(b) and 4(b) of the ICWL (35 P. S. §§ 6019.2(b) and 6019.4(b)) grants the Department the authority to propose regulations as may be necessary or appropriate to accomplish the purposes of the ICWL and grants the Board the authority to adopt rules and regulations of the Department to accomplish the purposes and to carry out the provisions of the ICWL.

The Administrative Code of 1929 (Administrative Code) (71 P. S. §§ 510-5, 510-17 and 510-20), which in section 1905-A of the Administrative Code authorizes the Department to require applicants for permits and permit revisions to provide written notice to municipalities, in section 1917-A of the Administrative Code authorizes and requires the Department to protect the people of this Commonwealth from unsanitary conditions and other nuisances, including any condition which is declared to be a nuisance by any law administered by the Department, in section 1920-A of the Administrative Code grants the Board the power and the duty to formulate, adopt and promulgate the rules and regulations as may be determined by the Board for the proper performance of the work of the Department and in section 1937-A of the Administrative Code (71 P. S. § 510-37) revises the requirements for grant applications for development and implementation of municipal recycling programs.

The Small Business and Household Pollution Prevention Program Act (SBHPPP) (35 P. S. §§ 6029.201—6029.209), which in section 207 grants the Board the power to promulgate regulations as needed to implement the SBHPPP.

Section 15(a) of the act of November 26, 1997 (P. L. 530, No. 57) (Act 57), repeals section 512(b) of Act 101 pertaining to permit review periods.

The revisions to § 285.219 (relating to transporting foodstuffs and feedstuffs in vehicles used to transport waste) are made under the previously cited authorities and also under the authority of 75 Pa.C.S. (relating to Vehicle Code) (Vehicle Code), which in section 4909(e) of the Vehicle Code (relating to transporting foodstuff in vehicles used to transport waste) grants the Board the power and duty to adopt regulations, if necessary, to carry out the requirements of section 4909 of the Vehicle Code.

The provisions of 27 Pa.C.S. §§ 6101—6133 (relating to Environmental Stewardship and Watershed Protection Act) (ESWPA), which in section 6105(g) of the ESWPA (relating to agencies), grants the Board the authority to promulgate regulations necessary to carry out the purposes of the ESWPA.

The Radiation Protection Act (RPA) (35 P. S. §§ 7110.101—7110.703), which, in sections 301 and 302 of the RPA (35 P. S. §§ 7110.301 and 7110.302), grants the Department the authority to propose regulations and the Board the authority to adopt the Department's regulations to accomplish the purposes and carry out the provisions of the Radiation Protection Act.

D. Background and Summary

The municipal waste program in this Commonwealth was developed under the SWMA and Act 101. The SWMA authorizes the Department to develop and promulgate regulations to manage municipal waste. Act 101 authorizes the Department to regulate municipal waste planning, which includes the development and implementation of county municipal waste management plans, and to administer the planning, recycling and waste reduction programs under Act 101 and the regulations promulgated under it. Under these acts, municipal waste generally consists of waste resulting from operation of residential, municipal, commercial or institutional establishments and from community activities, and includes non-residual and nonhazardous waste sludge from a municipal, commercial or institutional water supply treatment plant, wastewater treatment plant or air pollution control facility. Municipal waste does not include source-separated recyclable materials. The municipal waste program also includes the management of infectious and chemotherapeutic waste.

At 18 Pa.B. 1681 (April 8, 1988), the Department promulgated a comprehensive set of regulations for the management of municipal waste. At 22 Pa.B. 4185 (August 7, 1992), the Department promulgated revisions to these regulations to address infectious and chemotherapeutic waste management. At 21 Pa.B. 4179 (September 14, 1991), the Department promulgated revisions concerning financial assurances for municipal waste management. Regulations for municipal waste planning, recycling and waste reduction were promulgated at 22 Pa.B. 5101 (October 10, 1992). Regulations concerning general permits for the beneficial use of municipal waste and the land application of sewage sludge, as well as other regulatory changes, were promulgated at 27 Pa.B. 521 (January 25, 1997). This comprehensive final-form rulemaking includes revisions to regulations promulgated under each of these rulemakings.

The Commonwealth's municipal waste landfill program is a Federally-approved program under the EPA "Subtitle D" Criteria for Municipal Solid Waste Landfills (40 CFR Part 258) (Subtitle D criteria), which became effective October 9, 1993. The EPA Subtitle D criteria contain minimum National criteria for the location, design, operation, cleanup and closure of municipal waste landfills. The Subtitle D criteria give a State flexibility in implementing the criteria if the State has an EPA-approved program, as the Commonwealth does. The Commonwealth's regulations are at least as stringent as the Subtitle D criteria. In several instances in the final-form rulemaking, revisions were made to regulations that are more stringent than the Subtitle standards. Where this occurred, a justification for the regulation's stringency was provided in the "Summary of Regulatory Require-

ments." A list of the regulatory revisions that include requirements that are more stringent than the Subtitle D criteria is as follows:

§ 271.342 (relating to final closure certification).

Chapter 273, Subchapter B (relating to municipal waste landfills-application requirements):

§ 273.202 (relating to areas where municipal waste landfills are prohibited).

§ 273.203 (relating to certification).

§ 273.211 (relating to signs and markers).

§ 273.214 (relating to measurement and inspection of waste).

§ 273.218 (relating to nuisance minimization and control).

§ 273.221 (relating to daily volume).

§ 273.232 (relating to daily cover).

§ 273.233 (relating to intermediate cover and slopes).

§ 273.234 (relating to final cover and grading).

§ 273.251 (relating to scope and requirements).

§ 273.252 (relating to general limitations).

§ 273.253 (relating to subbase).

§ 273.255 (relating to leachate detection zone).

§ 273.258 (relating to leachate collection system within protective cover).

§ 273.275 (relating to leachate collection and storage).

§ 273.276 (relating to leachate analysis and sludge handling).

§ 273.283 (relating to standards for wells and casing of wells).

§ 273.284 (relating to sampling and analysis).

§ 273.286 (relating to groundwater assessment plan).

§ 273.287 (relating to abatement plan).

§ 273.291 (relating to mineral resources).

§ 273.292 (relating to gas control and monitoring).

§ 273.302 (relating to emergency equipment).

§ 273.311 (relating to daily operational records).

For a detailed description and justification of the standards more stringent than EPA Subtitle D, please refer to these sections in the Preamble to the proposed rulemaking, 28 Pa. B. 4319 (August 29, 1998) and in Section E of this Preamble.

This rulemaking was developed in response to the Department Secretary's RBI and the Governor's Executive Order 1996-1, which required all departments to reevaluate existing regulations. The RBI requires evaluation of regulations based on the following criteria: agency requirements are no more stringent than standards imposed by Federal law unless justified by a compelling and articulable Pennsylvania interest or authorized by state law; requirements are eliminated which are no longer necessary or redundant; performance-based requirements are encouraged; new green technologies are encouraged; a pollution prevention approach is supported; and information is prepared in plain, simple, clear and concise language.

The RBI review process invited the regulated community, local governments, environmental interests and the general public to help the Department identify specific

regulations which should be changed based on the RBI criteria. Input was solicited from the Solid Waste Advisory Committee (SWAC), the Pennsylvania Chamber of Business and Industry, the Pennsylvania Waste Industries Association, the Solid Waste Association of North America, and numerous other groups, individual companies and the public. The opportunity for involvement in this process was noticed in the *Pennsylvania Bulletin* with a 90-day comment period. Evaluation of the municipal waste regulations under the RBI criteria resulted in the Department's preparation of eight separate reports. These reports were made available to the general public, the regulated community, local governments and environmental interest groups. In addition, the Department prepared a Comment and Response Document to address the comments received during the RBI evaluation and to identify which regulations would be revised in response to the comments.

In addition to the process previously outlined for the RBI evaluation, the Board held three public hearings and provided a 60-day period of public comment on the proposed regulations. Notice of the proposed rulemaking was published at 28 Pa. B. 4319 (August 29, 1998). During the public comment period of this rulemaking, the Department received 341 comments from 45 commentators. As a result of the comments, the Department made well over 100 changes to the final-form rulemaking.

The final-form regulations also reflect several of the recommendations made in 1996 by the Municipal Waste Stakeholders Group, a 28-member group of recyclers, haulers, landfill operators, county waste authorities, municipal and county government representatives, and environmental and public interest groups, formed to discuss municipal waste issues and cosponsored by the Department and the County Commissioners Association of Pennsylvania. In addition, the final-form regulations clarify the application of the Act 2 remediation standards, which became effective on August 16, 1997, to municipal waste facilities that ceased accepting waste prior to the effective date of the Federal Subtitle D criteria and the application of the Subtitle D standards for facilities that ceased or cease accepting waste after that date.

The final-form regulations include various provisions for protecting the public health and safety from radioactive materials that occasionally arrive at municipal waste facilities. Language was included in the proposed rulemaking that would have required the facilities to screen and monitor waste for radioactive materials. Public comments were received on the proposal. The Department also proposed a *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, document no. 250-3100-001, which received extensive public comment. The Department has prepared a comment/response document for the guidance document. The Department met a number of times with representatives of several components of the waste industry, and on several occasions with SWAC, to discuss its proposed approach. The Department discussed the guidance document with SWAC at its September 9, 1999, and June 8, 2000, meetings. Based on the input the Department received from SWAC and the commentators on the proposed rulemaking and the guidance document, the Department revised the municipal waste regulations and guidance concerning radioactive materials and monitoring. Provisions were placed in various sections throughout the rulemaking to specify the prohibitions and restrictions on acceptance of this type of material. Implementation of the rulemaking will be assisted by the detailed guidance document.

The Department returned to SWAC on July 13, 2000, to address two specific concerns raised by a SWAC member at the June 8th meeting. The SWAC member had expressed concern that short-lived radioactive material from a patient having undergone a medical procedure would unnecessarily cause alarms to trigger frequently. The final-form regulations authorize such material to be disposed in waste facilities upon case-by-case permission from the Department or upon advance authorization in the facility's approved radiation protection action plan, using the general concepts provided in the Department's guidance document to protect the facility workers, the public health and safety and the environment. The same SWAC member expressed concern that grass clippings may cause an alarm to trigger as the result of fertilizer uptake. Some fertilizers may contain naturally occurring radioactive material. The Department feels that it is unlikely that the uptake of and constituents in fertilizer would cause a monitor to alarm. If this should occur, however, the material would be considered naturally occurring radioactive material (NORM), and as such could be approved for disposal or processing at the facility.

On March 11, 1999, and July 8, 1999, the Department briefed SWAC on the comments that were received on the entire municipal waste proposed rulemaking. The Department met with SWAC to present final changes to the regulations on June 8, 2000, at which time SWAC voted unanimously to approve the regulations.

E. Summary of Comments and Responses on the Proposed Rulemaking and Changes Made in the Final Rulemaking

CHAPTER 271. MUNICIPAL WASTE MANAGEMENT

GENERAL PROVISIONS

Subchapter A. GENERAL

§ 271.1. Definitions.

"Airport."

A definition of "airport" was added to the final-form regulations to clarify the types of landing areas that are implicated in the siting restrictions, environmental assessment, permit issuance or denial criteria and notice requirements that are included in the final regulations. The definition cross references the Department of Transportation's regulations.

"Aquifer."

One commentator suggested that the definition of "aquifer" be amended to be based upon the ability of a geological formation to yield "significant quantities of ground water to wells or springs." The Board declined to make this amendment because the current definition of "aquifer" was constructed to reflect a need to prevent groundwater degradation in water-bearing zones that are capable of yielding sufficient water for monitoring purposes, not just areas that have the ability to yield "significant" quantities. A water-bearing zone that is capable of being monitored has the potential to degrade a resource that may be used as an aquifer by an end user. Even formations that yield small volumes of groundwater to a well (monitoring or otherwise) have the potential to discharge to surface water and impact its receptors. Also, lateral variations in permeability of a formation may allow groundwater contamination to migrate into higher producing water-bearing zones that are used for well production.

"Association."

A definition of "association" was added to the final-form regulations to clarify the meaning of that term as used in these regulations, particularly with regard to the identification of interests and compliance history requirements associated with permit applications. The definition is taken from 15 Pa.C.S. § 102 (relating to definitions).

"Autoclave."

One commentator, who had no specific changes for the proposed definition of autoclave, suggested that the Department develop technical guidance that clarifies the phrases "specified temperatures" and "retention times" as used in the definition. The commentator stated that other states, such as Ohio and New York, have adopted detailed regulatory operating requirements for autoclaves that include specific temperatures and retention times necessary to render the waste safe, unusable and unrecognizable. The Board does not believe comprehensive operating standards are necessary for the operation of autoclaves. The current regulations are performance oriented and focus on the use of biological indicators to ensure adequate disinfecting of autoclaves and other types of infectious waste processing facilities. The Board believes that a performance-based scheme is still the best approach.

"Autofluff."

The Board added a definition of "autofluff" to the final-form regulations in response to a commentator's request for a definition to support the use of the term in § 271.2 (relating to scope).

"Byproduct material," "NARM," "NORM," "radioactive material," "source material," "special nuclear material," "TENORM" and "transuranic radioactive material."

All chapters of this final-form rulemaking, except Chapter 285 (relating to storage, collection and transportation of municipal waste), contain provisions designed to protect facility workers, the general public and the environment from the dangers associated with radioactive materials if these materials are unlawfully brought to a municipal waste processing or disposal facility. To facilitate understanding of these provisions, the final rulemaking contains definitions of eight terms relating to radioactive materials that appear in these provisions.

The terms "byproduct material" and "source material" are defined by incorporating by reference their Federal definitions from the *Code of Federal Regulations*. The term "special nuclear material" is also defined by incorporating by reference its Federal definition, but an explanation of several terms in the Federal definition was necessary to relate them to the Commonwealth's regulations.

The term "NARM" is defined as naturally occurring or accelerator-produced radioactive material. The term does not include byproduct, source or special nuclear material. The definition of "NARM" is taken from 25 Pa. Code § 215.2 (relating to definitions).

The term "NORM" is defined as naturally occurring radioactive material. NORM is a nuclide which is radioactive in its natural physical state—that is, not man-made—but does not include source or special nuclear material. The definition of NORM is taken from § 215.2 (relating to definitions).

The term "radioactive material" is defined as a substance, which spontaneously emits alpha or beta particles or photons (gamma radiation) in the process of decay or

transformation of the atom's nucleus. This definition is taken from Document 250-3100-001 and taken from § 215.2.

The term "TENORM" is defined as technologically enhanced naturally occurring radioactive materials. TENORM is NORM which has been altered by human activity in a manner that results in increased radiation exposure to people. The alteration could be a chemical or physical change in form, relocation of the NORM or removal of barriers that isolated the NORM.

The term "transuranic radioactive material" is defined as material contaminated with elements that have an atomic number greater than 92, including neptunium, plutonium, americium and curium.

"Clean fill."

While revisions to the definition of "clean fill" were included in the proposed rulemaking, the Department decided not to make changes to the final-form rulemaking on issues relating to clean fill. Hence, the definition of "clean fill" appears in this final-form rulemaking unchanged from the current *Pennsylvania Code* version. Based on the recent release of the safe fill package for public comment, and an alternative proposal submitted by the Cleanup Standards Scientific Advisory Board, the Department intends to continue its evaluation of recommendations received. The Department will propose a new rulemaking package to address issues relating to clean fill.

"Dredged material."

On final-form rulemaking, the Board added language to clarify that material removed or dredged from an impoundment that received solid waste does not fall within the meaning of "dredged material". Dredged material typically refers to material excavated from waterways and ponds.

"Environmental Stewardship and Watershed Protection Act."

The Board included the citation for 27 Pa.C.S. §§ 6101—6113 (relating to the Environmental Stewardship and Watershed Protection Act) in this section, as this new law is referenced in a number of places in the final-form regulations.

"FAA."

The final-form regulations include a definition of "FAA," which is the Federal Aviation Administration of the United States Department of Transportation. This definition was added because new restrictions on the construction and operation of landfills near airports involve the FAA.

"Facility."

Two commentators suggested that the definition of "facility" should not include the term "beneficial use." The Board disagreed and left the definition as proposed. Materials being beneficially used are still considered waste and the area where the use occurs needs to be considered a facility for inspection purposes.

"Home self-care."

Two commentators objected to the definition of "home self-care." The objection is that, because of the growth in home healthcare, an exemption from the definition of infectious waste for wastes generated in the home would allow used sharps and other potentially infectious waste items to be disposed in the regular trash stream. The Board added this definition for clarification purposes only.

The definition of infectious waste has included an exemption for in-home generated infectious waste since 1988. However, the Department still recommends and encourages home healthcare providers to collect these wastes they generate through in-home care and transport the waste to their hospital or home-base for proper disposal. The Board declined to make additional changes to the definition of "home self-care."

"Leachate."

Two commentators suggested that the definition of "leachate" be amended to conform to the Federal definition, but the Board declined this suggestion because the current definition has been in effect since 1988 and provides an accurate description.

"Mobile infectious waste processing facility."

The Board added this definition of a "mobile processing facility" to clarify that the Department may issue general permits for both mobile and stationary infectious waste processing facilities.

"Municipal-like residual waste."

The Board deleted the proposed definition of "municipal-like residual waste" in the final-form rulemaking because commentators objected that the term was confusing and raised concerns about unacceptable wastes becoming authorized at municipal waste facilities. The term was likewise deleted from § 271.611 (relating to chemical analysis of waste).

"Perennial stream."

Three commentators suggested that a flow-based definition of "perennial stream" should replace the biological-based definition. The Board declined to make this change because the current definition is based on technical criteria, is less arbitrary in determining if a stream is perennial and has successfully been used in other Department programs. The definition now conforms to the definition for perennial stream in the residual waste regulations.

"Regional water table."

One commentator suggested a change to the definition of "regional water table." The Board did not make this change because the current definition adequately defines the term.

"Related party."

Two commentators suggested that the definition of "related party" be limited to persons with the responsibility or ability to direct or control activities relating to the processing or disposal of solid waste at a facility. The Board declined to make this change because even a party without the ability to direct or control activities can still significantly affect them.

"Risk-based standard."

On final-form rulemaking, the Board deleted the reference to "primary" MCLs to be consistent with the use of this term in the groundwater abatement sections of these regulations.

"Seasonal high water table."

Two commentators suggested that the definition of "seasonal high water table" be changed to conform to the Federal regulations. The Board declined to make this change because it would create unnecessary inconsistencies in the State program.

"Secondary contaminants."

On final-form rulemaking, the Board added a definition for "secondary contaminants," which refers to a substance for which a secondary MCL exists, and no lifetime health advisory level exists. This definition was added to define contaminants that may qualify, at closure, for an alternative point of compliance beyond the property boundary.

"Special handling waste."

Dredged material is being added to the definition of "special handling waste" because the variability of the physical and chemical characteristics may necessitate additional management considerations.

"Thermal processing."

The Board added the definition to clarify that the term "thermal processing" does not include incineration and autoclaving type facilities. This needed to be clarified, particularly for biological indicator spore monitoring found in the former § 283.402 (relating to infectious waste monitoring requirements), which is now § 284.321 of the final-form regulations.

"Unrecognizable infectious waste."

One commentator suggested that the size limitation for processed infectious waste under the definition of "unrecognizable infectious waste" be changed from a maximum size of 3/4 inch to an average size of 3/4 inch. The Board declined to make a change to this requirement because using an average size of 3/4 inch, as opposed to a maximum size of 3/4 inch, may result in recognizable waste satisfying this definition. The Board believes the maximum size specification is the best approach to ensure that the processed waste is unrecognizable.

"Waste."

The Board amended the definition of "waste" in the final-form rulemaking to clarify that as a general rule a material whose original purpose has been completed and which is directed to a beneficial use facility or is otherwise beneficially used is a waste. This amendment corrects an oversight by which the regulation had excluded materials that were beneficially used in certain circumstances from the definition of "waste" without having expressly included them. The final language makes clear the original intention of the definition. The exclusions remain in the definition.

"Wetlands."

The Board amended the definition of "wetlands" in the final-form rulemaking to make it consistent with the definition in § 105.1 (relating to definitions).

§ 271.2. Scope.

The Board updated subsection (a) by adding new Chapter 284 (relating to infectious and chemotherapeutic waste) to the list of chapters.

Subsection (b) lists wastes that are to be managed under Article VIII (relating to municipal waste) and regulated as if the wastes are municipal waste, regardless of whether the waste is a municipal waste or residual waste. The proposed revision to subsection (b)(3) had revised the phrase: "Sewage sludge, including sewage sludge that is mixed with other residual waste" to "Sewage sludge, including sewage sludge that is mixed with a small quantity of residual waste." This change was designed in part to remove the connotation that sewage sludge was residual waste, because it is not. Sewage sludge is, by definition, municipal waste. In mixtures of sewage sludge and residual waste, the sewage sludge

retains its character as municipal waste and the residual waste retains its character as residual waste. Two commentators objected to allowing sewage sludge mixed with "a small quantity of residual waste" to be managed as municipal waste because of concerns over toxicity and volume of the residual waste. To address these concerns, the Board deleted subsection (b)(3) entirely and addressed mixtures of sewage sludge and residual waste in greater detail in Subchapter I (relating to beneficial use). Under the final-form regulations, mixtures of sewage sludge and residual waste will only be permitted under Subchapter I, which now incorporates the relevant safeguards of Subchapter J (relating to beneficial use of sewage sludge by land application) and provisions concerning residual waste.

A new category of waste—waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material—has been added in subsection (b)(4) to the list of wastes that are subject to the municipal waste regulations. This waste primarily has characteristics that are generally found in the municipal waste stream.

One commentator asked for an expanded description of the term "autofluff" or a definition in § 271.1. In response, the Board defined the term in § 271.1.

§ 271.4. Computerized data submission.

A new subsection (b) has been added in the final-form rulemaking to authorize the Department to require data submissions electronically or on magnetic or optic storage media in a format specified by the Department. The language of subsection (b) was taken from § 287.4 (relating to computerized data submission) of the residual waste regulations and the title of this section was changed to read the same as the title to § 287.4.

A new subsection (c) was added to authorize the Department specifically to require a different scale on maps, reports and plans that are submitted electronically or on magnetic or optic storage media. Maps, reports and plans submitted in this format are capable of showing much more detail than paper maps, reports and plans, and the more detailed information can be accessed and used in many useful new ways when submitted in this format.

Subchapter B. GENERAL REQUIREMENTS FOR PERMITS AND PERMIT APPLICATIONS REQUIREMENT

§ 271.101. Permit requirement.

While the proposed rulemaking proposed deletion of subsection (b)(3) concerning clean fill, the Department decided not to make changes to the final-form rulemaking on issues relating to clean fill. Hence, subsection (b)(3) appears in this final-form rulemaking unchanged from the current *Pennsylvania Code* version. Based on the recent release of the safe fill package for public comment, and an alternative proposal submitted by the Cleanup Standards Scientific Advisory Board, the Department intends to continue its evaluation of recommendations received. The Department will propose a new rulemaking package to address issues relating to clean fill.

On final-form rulemaking, the Board retained the permit exemption for activities relating to the use of waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material if the waste is not hazardous. Due to problems associated with mismanagement of these materials, however, the final regulations include mandatory implementation of

best management practices. To assist persons who use this material, the Department will prepare a manual describing best management practices. A person may identify for Departmental approval best management practices, on a case-by-case basis, other than those identified in the manual.

On final-form rulemaking, new language has been added to subsection (c) that clarifies circumstances when the Department may require a person or municipality to obtain a permit, regardless of the exemptions outlined in subsection (b), based on harmful conduct.

§ 271.102. (Reserved).

This section has been relocated to § 284.2.

§ 271.103. Permit-by-rule for municipal waste processing facilities other than for infectious or chemotherapeutic waste; qualifying facilities; general requirements.

The written notice requirements that already existed for permits by rule for septage treatment facilities and mechanical processing facilities have proven helpful to the Department, so the Board added the same notice requirements to subsections (d), (f) and (h) for the processing of special handling waste at a captive processing facility, for on-site incinerators and for yard waste composting facilities. The captive processing facility notice requirement was limited to facilities processing special handling waste in order to avoid unnecessary notification by owners of processors that have little or no impact on the environment, such as home trash compactors.

EXISTING FACILITIES

§ 271.113. Closure plan.

Subsections (b) and (c) have been modified to delete references to § 271.111, which is now obsolete, and add a reference to this section. Relevant requirements pertaining to a closure plan for these older operations are now consolidated into this section.

The Board has modified proposed subsections (g) and (h) to clarify the remediation standards for older facilities that are subject to closure plan requirements under this section. Rather than repeating the standards in this section, subsection (g)(2) cross references final closure remediation standards in § 271.342. In addition, language has been added to subsection (h) that gives a person who completes closure plan requirements the opportunity to obtain final closure certification.

§ 271.114. Transition period.

Almost everything on earth is naturally radioactive to some degree, but most materials do not endanger the public health or safety or the environment. The final-form regulations establish a system for protecting the public (including municipal waste facility employees) and the environment from the improper disposal and processing of radioactive materials that could endanger the health and safety of the public or the environment. These requirements appear in each chapter of the regulations and are the result of public comments received on proposed § 273.214(c) (relating to measurement and inspection of waste). Section 271.114 has been added to establish a transition period for coming into compliance with the requirement to have the permit designate an area for vehicles in the event of the detection of waste containing radioactive material and the requirement to have the permit include an action plan specifying, among other things, procedures for monitoring for and responding to radioactive material entering the facility. The Depart-

ment's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, document number 250-3100-001, gives direction for developing action plans, monitoring for radioactive material in waste and preparing records and reports. A facility operator may adopt the standards and procedures in the guidance document even before the regulatory requirements that are transitioned under § 271.114 become applicable. An operator may also seek approval of an action plan and a designated area before the deadline established in this section.

GENERAL APPLICATION REQUIREMENTS

§ 271.122. *Form of application.*

The Board amended subsection (d) on final to conform it to the corresponding residual waste regulation, which requires that a Pennsylvania registered professional engineer supervise the preparation of a permit application and provide his seal to the design section of the application. The Board also clarified that the geologist who supervises the geology and groundwater sections of an application must be licensed in this Commonwealth.

§ 271.123. *Right of entry.*

Because the Department currently requests information required by subsections (b) and (c) on one form, the Board amended subsection (d) to require that all of the information on that form—landowner consent to waste activities and landowner consent to the Commonwealth's right to enter the permit area—be recorded.

A new subsection (e) has been added to indicate that subsequent landowners are deemed to have constructive knowledge of this Commonwealth's right of entry and the consent of solid waste activities on the land if the forms required by this section are properly filed at the office of the recorder of deeds in the county in which the proposed solid waste activity is situated.

§ 271.124. *Identification of interests.*

Subsection (b) was amended to include limited liability companies, a type of association recognized in the Pennsylvania Corporations Code since 1994. A correlating change was made to subsection (c) to include the members and managers of limited liability companies, who are the parallels of owners and officers in corporations.

Two commentators suggested that contractors should not have to be identified unless they have responsibility or ability to direct or control activities relating to the processing or disposal of solid waste. The Board declined to make this change because all contractors performing work at a facility should be identified and reliable. The same commentators suggested that limited partners and, sometimes, principal shareholders, should not have to be identified. The Board declined to make these changes because these persons may have the ability to control or direct activities at a facility, whether officially or not.

§ 271.125. *Compliance information.*

The Board updated subsection (a)(7) in the final-form regulations to include requirements for limited liability companies and partnerships. Now, any cross-ownership will be relevant, not just cross-ownership between corporate shareholders.

Two commentators suggested reducing the information that must be reported concerning legal proceedings and other jurisdictions' environmental laws. The Board declined to make this change because relevant information, which might otherwise not come to the Department's attention, is often brought to light in the types of actions

proposed for deletion by the commentators. Requiring applicants to describe applicable laws in other jurisdictions encourages thorough analysis by the applicant in advance of submitting a permit application and provides further useful information to the Department in its permit review.

§ 271.127. *Environmental assessment.*

A number of comments were received on the proposed changes to this section.

One commentator suggested that public and private facilities should be viewed differently in an environmental assessment. The Board did not make this change because the ownership of a facility does not automatically dictate any particular harms or benefits.

One commentator objected that the proposed "benefits and harms" test is vague and ambiguous and could be used to justify any result. Another commentator thought that the test should simply be one of mitigation, with no reference to benefits or balancing. The final-form regulation retains the balancing test for many reasons. The test is reasonable, takes into account input from and dialogue with interested parties, including the applicant, and involves close scrutiny of all factors by the Department. The environmental assessment, including the balancing test, carries out the Department's obligation under the Act SWMA to implement Article I, § 27 of the Pennsylvania Constitution, which mandates that the Commonwealth protect public resources. The test is designed to take into account the site-specific impacts the waste management facility may have on the specific location of the facility and other affected areas. Under Article I, § 27, the Department has been balancing harms and benefits for many years. Balancing harms and benefits finds support in case law.

One commentator thought the word "clearly" should be eliminated from subsections (c) and (d), and that social and economic benefits should not be reduced by social and economic harms. The Board retained both concepts because the balancing test is not a simple mathematical computation, so benefits must "clearly" outweigh harms in order to ensure that public resources are protected; and social and economic harms should be considered because they help to create a true picture of the social and economic impacts of the facility. To complete the picture, environmental benefits are also considered.

Several commentators suggested that the environmental assessment evaluation should be performed following Phase I of permit review and during technical review. The Board has retained the requirement that the assessment be performed in Phase I so that an applicant does not have to submit detailed design plans if the application will be denied based upon the environmental assessment. Subsection (h) provides an opportunity for further assessment under this section during Phase II if additional harms or potential harms are discovered at that point.

A commentator asked the Board to explain why the word "prime" has been deleted from the term "prime farmland." There are many categories of farmland that may be impacted by the location of a waste management facility. Some are more sensitive than prime farmland and others are not. This information is necessary for the Department of Agriculture and other agencies to evaluate the potential harms the facility may present to agricultural land.

A commentator stated that if subsection (c) is retained, the Board should not allow private parties to determine specific "known and potential harms." The response is

that the applicant must identify all known and potential harms and must evaluate all harms identified by itself, potentially affected persons, the Department and other agencies. Section 271.127 is designed to elicit information from affected parties as to their perceptions of the known and potential harms in order to ensure a comprehensive environmental assessment. Ultimately, upon review of the application and all other input received, the Department determines what the specific "known and potential harms" are.

The same commentator expressed concern that subsection (f), which is subsection (g) in the final-form regulations, would result in litigation if not every potentially affected person were consulted by the Department. The response is that this section describes the timing of the Department's evaluation of the environmental assessment. The timing is not new and should not create a new right since the same timing was described in subsection (b) before this section was revised by this rulemaking.

Several changes were made to the final-form regulations. The Board added "local parks" to the list of features in subsection (a) that an applicant must consider in determining the potential impacts of a proposed facility or modification to fill in the gap left by only listing state and Federal parks.

The Board added "airports" to the list of features in subsection (a) to clarify that if a proposed facility will have the potential of causing harm to aircraft arriving at or departing from an airport, the application will have to include a plan to mitigate the harm or potential harm.

The Board added a requirement to subsection (a) that an application contain all correspondence from any agencies to the applicant in regard to the environmental assessment in order to facilitate the Department's review of the environmental assessment.

The Board amended subsection (c) to clarify that harms and mitigation measures described in subsection (b) will be taken into consideration when the benefits and harms of the proposed facility are weighed. The Board similarly amended subsection (d).

The Board amended the language in subsection (f) regarding "need" for a facility. Under the previous structure, "need" had to be demonstrated as part of an applicant's demonstration of social and economic benefits. Under the final-form regulation, need may be considered as one kind of benefit, but is not necessary. It may be demonstrated in the sense that the proposed facility or expansion is needed by the public by showing, for example, a scarcity in disposal capacity which threatens the public health, safety or welfare. Simply increasing total capacity will not be a sufficient demonstration of need. Likewise, being provided for in a municipal waste plan does not mean that a proposed facility or expansion is actually needed, even if the applicant demonstrates that it will actually receive waste under the plan.

§ 271.128. Permit application fee.

The final-form regulations moves the fee for a minor permit modification from subsection (b) to subsection (c). Now, subsection (b) exclusively lists fees for modifications under § 271.144 (relating to public notice and public hearings for permit modifications), which are all major modifications, and subsection (c) addresses minor modifications. Subsection (c) also cross references § 271.222 (relating to permit modification) for clarity. All minor modifications, including onsite modifications authorized under § 271.222(c), will be subject to this fee.

PUBLIC NOTICE AND COMMENTS

§ 271.141. Public notice by applicant.

A commentator suggested that the public must be directly involved in all water issues and alternatives and options for remediation in both major and minor permit modification applications. The Board declined to amend this section in response because not all modifications pertaining to water issues need to go through the public notice requirements. Minor modifications would not be changes to the overall plan, but may involve such things as detailed changes in well design that do not affect the alternative chosen for remediation and will have no impact on public health or safety.

Another commentator noted that the requirement for display advertisements in subsection (a)(5) is frequently "met" through the use of legal notices. The commentator suggested specific regulatory requirements on the size of the advertisements and of the typeface that would result in more public access. The Board declined to regulate the advertisements in this manner, because the regulation as written does not authorize legal notices.

§ 271.144. Public notice and public hearings for permit modifications.

The Board received numerous comments on the proposed clarification to subsections (a)(2) and (b)(7) regarding average and maximum daily waste volumes. In response, the Board retained the proposed language in subsection (a)(2) but deleted "average or" from subsection (b)(7).

Several commentators requested the Board to explain the need to classify a change in average daily waste volume as a major permit modification and objected that these revisions will make permitting more time consuming, expensive and uncertain. The current regulation is written to require that a change in daily volume requires a major modification. The Department has applied this as requiring a major modification for changes in average and maximum daily volumes. The changes in the final-form regulation were included in order to address questions that had arisen in implementing this section. In addition to modifying the phased-in bonding for a facility, increasing the average daily volume may significantly change day-to-day operations at the facility and may impact the surrounding area. It is necessary to notify the public regarding this modification to determine if problems exist that were not identified or anticipated in the original application.

Several commentators urged the Board to delete the words "average or" from subsection (a)(2) because all potential "impacts" are based on the maximum daily tonnage. Significant operational changes may occur with increased trash flow on a daily basis, however. There is a need to provide the public opportunity to identify the actual problems that may be occurring or can be expected to occur that were not identified or anticipated in the original application.

One commentator specifically recommended only requiring a major modification under subsection (a)(2) if the average or maximum daily volume would increase by 10% or more. The Board declined this suggestion because a facility's size and operating procedures are often more determinative of the impacts from a change than is the amount of the volume increase.

One commentator suggested that only an increase in average daily volume (averaged over a week) should be considered a major modification. The commentator ex-

plained that waste receipts peak early in the week and a focus on weekly receipts would allow a facility to operate in accordance with the needs of its customers and allow waste-to-energy facilities to continue operating on a continuous basis. The Board deleted average daily volumes entirely from subsection (b)(7) because processing facilities will not be required to have an average daily volume, but the Board retained the need for a major modification for a change in the maximum daily volume.

Two similar comments were received concerning subsection (a)(3). The proposed amendment limits the instances in which a major permit modification will be required for changes in excavation contours or final contours, including final elevations and slopes, to those changes that result in increased disposal capacity or that impact groundwater isolation distances or groundwater quality. The commentators suggested that a major modification be required only if the change results in 6 months or more of increase in disposal capacity. In the final regulations, the Board retained the provision as amended in the proposed rulemaking because an increase in airspace or size could trigger operational changes at the facility.

Two comments were received concerning the proposed amendment to subsection (b)(1). The proposed amendment limits the instances in which a major permit modification will be required for changes in specifications or dimensions of waste storage or residue storage areas at municipal waste processing facilities to those changes that result in increased processing or storage capacity. One commentator objected that the provision is not necessary to promote a legitimate environmental or public health/safety goal and will make permitting more time consuming, expensive and uncertain. The other commentator suggested that the requirement should only apply when the increase is 10% or more. In the final-form regulations, the Board retained the provision as amended in the proposed rulemaking because any increase in specifications or dimensions of waste storage or residue storage areas could have a number of effects which the public should be able to comment on, including effects on day-to-day operations, impacts on the surrounding area, changes required to the erosion and sedimentation control plan or increases in the potential for offsite odors and other nuisances.

Subsection (a)(10) and (14) relate to change of owner or operator. The Board amended subsection (a)(10) and added subsection (a)(14) to ensure that a change in the owner or operator of a landfill will require a major permit modification if the party that is changing is not the permittee. If the party that is changing is the permittee, the change will require permit reissuance under § 271.221 (relating to permit reissuance).

The Board added subsection (a)(13), which requires a major modification to dispose of waste in areas that have reached final permitted elevations because reopening areas that have reached final permitted elevations may significantly affect the closure and postclosure construction activities that have been undertaken. In addition, the structural stability of the landfill must be reevaluated to account for the additional waste.

The Board added subsection (a)(15) to clarify that submission of a radiation protection action plan for Department approval will be considered an application for a major permit modification.

The Board deleted the proposed language "average or" from subsection (b)(7) because municipal waste processing facilities do not have average daily volumes.

The Board added identical provisions to the provisions it added in subsection (a) regarding change in owner or operator in new subsection (b)(8) and (9), relating to municipal waste processing facilities. The effect will be the same.

The Board added an identical provision to subsection (a)(15) regarding radiation protection action plans in subsection (b)(10).

PERMIT REVIEW

§ 271.201. Criteria for permit issuance or denial.

Several commentators suggested that the lead-in language in this section be revised to prohibit a permit application from being approved unless the "Department has determined" that the conditions in this section have been met. The Board declined to make this change because the current statement that a permit application will not be approved unless the "applicant affirmatively demonstrates" that the conditions are met means the same thing.

The same commentators suggested adding a paragraph that requires that the expected benefits from the facility clearly outweigh the anticipated harms or potential for harms. The Board included language like this in § 271.127 (relating to environmental assessment) rather than in this section.

A new paragraph (9) was added to prohibit a new landfill from operating if the landfill is within 6 miles from an airport covered by the April 5, 2000, Federal legislative amendment to 49 U.S.C.A. § 44718(d) (relating to limitation on construction of landfills), unless the Administrator of the Federal Aviation Administration has determined that exemption of the landfill from application of § 44718(d) would have no adverse impact on aviation safety. (*Wendell H. Ford Aviation Investment and Reform Act for the 21st Century*, Pub. L. No. 106-181, § 503, 114 Stat. 61 (2000), amending 49 U.S.C.A. §§ 44718(d) and 46301(a)(3).) Section 44718(d) expressly prohibits the construction of a new landfill within 6 miles of a public airport that has received grants under 49 U.S.C.A. Chapter 471 and is primarily served by general aviation aircraft and regularly scheduled flights of aircraft designed for 60 passengers or less. The Board's regulation is designed so that the states' aviation agencies and the FAA—not the Department—will determine which airports are covered by the legislation. Under the Federal legislation and the final-form regulations, the FAA exemption is only available if the aviation agency in the state in which the airport is located requested the FAA to exempt the landfill from the construction prohibition in the new Federal provision. The Board has added this provision to the municipal waste regulations to ensure that no new landfill is built if the state aviation agency is unwilling to seek an exemption and FAA is unwilling to provide an exemption from the construction prohibition of the Federal statute.

§ 271.202. Receipt of application and completeness review.

The Board amended the title of this section to reflect changes in the section.

One commentator recommended that the Board clarify subsection (a)(2) of the proposed rulemaking to allow either party to request that the Department impose a timeline if an agreement is not reached, rather than using the proposed language that allows the Department to determine an appropriate timeline "if the parties are unable to reach agreement." The commentator felt that

the proposed rulemaking is unclear as to who makes the decision that the parties are unable to reach agreement and that parameters for making the decision would be helpful. The Board retained its proposed language on this point because it is not possible to set specific parameters for making the decision until the reasons why the parties are unable to reach an agreement are known. The procedure in the final-form regulations represents current Department practice as set forth in the "Money-Back Guarantee Permit Review Program Expansion," published in 26 Pa. B. 3038 (June 29, 1996) and is also incorporated in technical guidance developed in response to the Governor's Executive Order 1996-5 (relating to municipal waste facilities review program).

Under the final version of this section, a permit application for a new facility or a modification that would result in an increased average or maximum daily waste volume, increased disposal capacity or expansion of the permit area will not be considered to be "received" by the Department until the Department, applicant and municipal officials have met to discuss the proposed application. (Subsection (b)(1).) For purposes of this section, the term "municipal officials" includes representatives of local municipalities, including the host municipality and county, municipalities adjacent to the host municipality, municipalities located within 1 mile of the permitted or proposed area, other municipalities that demonstrate that they may be adversely impacted by the proposed project and municipalities located along the approach routes. (Subsection (g).) This paragraph builds on procedures already in place under the Department's guidance document entitled "Local Municipality Involvement Process," document no. 254-2100-100, which was developed under the Governor's Executive Order No. 1996-5 to increase public involvement in the permitting process.

Subsection (b)(2) remains much as it looked on proposal, except that resource recovery facilities have been added. This subsection requires an alternative project timeline to be developed for a municipal waste landfill, construction/demolition waste landfill or resource recovery facility permit application, regardless of whether requested under Act 57 of 1997 (section 1935-A of the Administrative Code (71 P. S. § 510-35), added by the act of November 26, 1997 (P. L. 530, No. 57)). Act 57 mandated an alternative project timeline for municipal waste landfill and resource recovery facility permit application reviews, if an applicant so requested. The legislation was silent as to construction/demolition waste landfills, but the Department's practice for many years under the money-back guarantee permit review program has been to require an alternative timeline for these facilities, as well as for municipal waste landfills. The Department's money-back guarantee permit review program will be updated to reflect these new regulatory requirements. The final-form regulations require an alternative timeline for these three types of facilities because these facilities tend to invoke the most public concern and are therefore the best candidates in the municipal waste program for an alternative project timeline.

Subsection (b)(2) contains two additional amendments in the final rulemaking. First, the term "host community" has been changed to "host county and host municipality." This amendment clarifies the necessary parties to the negotiation and is consistent with Act 57. Second, the last sentence has been amended to clarify that the announcement referred to is that required by § 271.142 (relating to public notice by Department).

Reference to alternative timelines was deleted from subsection (c) because alternative timelines are now addressed in subsection (b).

Proposed subsection (f) indicated that the Department would not accept a permit application for an expansion if more than 5 years of disposal capacity remained at the landfill at the time of submission of the permit application. On final, this subsection has been revised to clarify that it applies to municipal waste landfills and construction/demolition waste landfills. It has also been clarified to indicate that it only applies to permit applications for expansions that will result in an increase in capacity. This would allow an application to be submitted that would shift the remaining capacity from one part of the site to another. This subsection was also amended to clarify how remaining disposal capacity will be calculated. Under the final regulation, the calculation of remaining disposal capacity will be based upon information submitted in the facility's most recent annual report or equivalent information.

Several commentators objected that a 5-year limitation on expansion applications was unnecessarily restrictive. The Board disagrees because this time period is necessary to avoid permitting facilities that are technologically obsolete by the time they are utilized. The 5-year limitation also enables the more efficient use of Department staff who review permits. These commentators also suggested that disposal capacity should be measured utilizing the maximum daily tonnage in the facility's permit. This would not be appropriate because most landfills do not accept their maximum daily tonnage on a daily basis. Instead, the remaining capacity will be based upon the data submitted by the operator as part of the annual report. By using the annual report information, the calculation will be based upon factual data and updated on an annual basis.

New subsection (g) includes definitions of the terms "local municipalities," "approach routes" and "municipal officials," as those terms are used in this section.

§ 271.203. Review period.

Two commentators suggested that an alternative project timeline be applied to resource recovery facilities as it is to municipal waste landfills and construction/demolition waste landfills. The Board has amended subsection (a) in this fashion to include resource recovery facilities because these facilities will now have alternative project timelines, under the amendments to § 271.202 (relating to receipt of application and completeness review).

GENERAL PERMIT RESTRICTIONS

§ 271.211. Term of permits.

In response to public comment, the Board corrected an error it made in the proposed rulemaking when it inadvertently deleted the word "no" at the beginning of subsection (c). The word "no" appears in the final-form rulemaking.

The Board amended subsection (d) to require an operator to provide a summary of changes to the operations since approval of the initial permit or latest major permit modification when the Department conducts its 5-year review of the facility. This requirement was added because it provides the Department with the information in a format that will facilitate the review of the existing permit.

One commentator suggested that the public should be informed of applications for new municipal waste facil-

ities through a newspaper notice that sets out the applicant's compliance history, sets a 30-day comment period and announces the opportunity to request a hearing. The regulations were not changed in response to this comment because newspaper notice of a permit application is already required to be published by the applicant under § 271.141 (relating to public notice by applicant). That notice must include a 60-day comment period and state that the Department will accept comments from the public. The applicant's compliance history must be submitted with the application. The compliance history is a lengthy document and is available for review by anyone during the public comment period. Under § 271.143 (relating to public comments), the Department may schedule a hearing if there is significant public interest, so the opportunity already exists to request a hearing.

§ 271.212. *Conditions of permits.*

The proposed provisions in paragraph (4) required the permittee to notify the Department after the transfer of a controlling interest in the permittee. The final-form regulations clarify that this notification should occur when there is a transfer of a controlling interest in the owner or operator of the facility, regardless of whether that party is the permittee. The final-form regulations also clarify that if the transfer of controlling interest triggers a major permit modification or permit reissuance, notification under this section is not required. Paragraph (4) is not intended to apply to changes in managers or directors, which will be described in the permittee's annual report.

PERMIT REISSUANCE, MODIFICATION AND RENEWAL

§ 271.221. *Permit reissuance.*

One commentator opposed the revision to subsection (a), stating that existing permits should be grandfathered. The Board retained the revision because it merely clarifies existing Department practice.

§ 271.222. *Permit modification.*

In the proposed rulemaking, subsection (c) had been added to authorize the Department to approve onsite a minor modification for the construction of liner systems or of erosion and sedimentation control devices if impracticable to comply with the standard procedures for minor modifications and if the modification would improve the permitted design. The Board received several comments on this proposal.

One commentator recommended that the regulation require an onsite modification to be followed up in writing within a short time period to avoid later disagreements over what specific modification was approved or the extent of the modification. The Board agrees with this comment and has revised the regulation to authorize the Department to issue a conditional approval onsite. The approval will be conditioned on the applicant submitting the supporting design modifications and fee within 5 working days.

Two commentators requested the Board to amend this regulation to allow onsite approvals for other systems too, including final cover, gas management and leachate management systems. The Board declined to make this change. The onsite conditional approvals are limited to liner system and erosion and sedimentation control systems because minor field changes have historically been necessary during construction of these systems and there is not always sufficient time available to use the existing minor permit modification process. The onsite minor

permit modification process cannot be used in instances where background design or other information is necessary for review by the Department prior to approval or when sufficient time exists for the modification to be done through the existing minor permit modification process.

§ 271.223. *Permit renewal.*

The proposed rulemaking did not contain a change to this section but two comments were received that requested that resource recovery facility permit terms should be automatically extended if the permit renewal application was filed timely.

The Board did not include an automatic extension in this regulation, but amended the regulation to require earlier submission of permit renewal applications so that there will be adequate opportunity for timely review by the Department. The final-form regulations have been amended to require a processing facility to submit a permit renewal application 270 days prior to the expiration date and a disposal facility to submit a permit renewal application at least 1 year before the expiration date. To address applications received near the effective date of the final-form regulations that could not meet the new requirements, the final regulation provides that renewal applications for permits that will expire within 270 days and 1 year, respectively, of the effective date of the final rulemaking need only be submitted within 180 days of their expiration date.

Subchapter D. FINANCIAL ASSURANCES REQUIREMENTS

GENERAL

§ 271.301. *Scope.*

The Board deleted subsection (e) in the final-form rulemaking because the Environmental Stewardship and Watershed Protection Act repealed the statutory requirement in Act 101 upon which it had been based.

BOND AND TRUST REQUIREMENTS—TYPES

§ 271.321. *Special terms and conditions for surety bonds.*

Subsection (b) has been modified on final-form rulemaking. First, language has been deleted to be consistent with a repealer in the laws relating to casualty insurance. See 40 P. S. § 730, which provided for foreign companies, associations and exchanges to do business through resident agents, and which was repealed December 21, 1998 (P. L. 1108, No. 150).

Secondly, language has been added that requires surety bonds for facilities permitted after the effective date of these regulations and permit modifications issued after the effective date of these regulations to be listed in Circular 570 of the United States Department of Treasury. If the surety is removed from the circular, the bond issued by the surety must be replaced. The Federal government uses different, more comprehensive standards to qualify a surety than the Insurance Department. The listing and bond replacement requirements are consistent with Federal requirements for both municipal waste landfills and hazardous waste landfills.

BOND AND TRUST REQUIREMENTS—AMOUNT

§ 271.331. *Bond and trust amount determination.*

Three commentators suggested that the bond amount should be determined based upon the net amount placed in the site-specific postclosure trusts because the funds in the trusts are intended for conducting identical activities as those in the bond amount determination. The Board did not make this change because the bond amount is

calculated according to the requirements of the SWMA and does not allow for diminution by amounts in a trust fund.

§ 271.332. Bond and trust amount adjustments.

On final-form rulemaking, the Board added language to subsection (b)(2) that allows the Department to require additional bonding at the time of a bond replacement if the bond being replaced is inadequate to protect human health and the environment.

BOND AND TRUST REQUIREMENTS—RELEASE

§ 271.341. Release of bonds.

The Board changed the phrase “completion of a stage of closure” in subsection (b)(3) to “completion of a measure carried out in preparation for closure” in order to avoid confusion, as “closure” is the point at which the entire facility permanently ceases to accept waste. Areas of the facility may reach permitted final elevations and may not be used for further waste disposal during the operation, but these areas are ultimately integrated together when the entire facility closes.

In subsection (g)(2), a misprint has been corrected. The words “or monitoring” were inadvertently printed instead of the proper language, “and to maintain.”

Two commentators questioned why any money has to remain in a site-specific post closure trust if the bond amount is adequate to cover the cost of long-term remediation. The question has largely been mooted by the passage of the Environmental Stewardship and Watershed Protection Act in 1999, which authorized the host county to spend the money in a site-specific postclosure trust for “growing greener” purposes consistent with that act. As before, the landfill may only have access to the money—while it remains in the trust—for emergency measures and remedial actions for which the Department has authorized release of the money in writing.

§ 271.342. Final closure certification.

For final closure certification, the Board consolidated all remediation standards for facilities. With the introduction of 40 CFR Part 258 (relating to criteria for municipal solid waste landfills) in 1993 and Act 2 in 1995, it was necessary to clarify which remediation standards apply to landfills and other facilities at the time of final closure certification. Subsection (b)(2) identifies the remediation standards that apply to municipal waste landfills permitted on or after the effective date of these regulations. With the exception of MCLs (discussed in § 273.287 (relating to abatement plan)), the standards for municipal waste landfills mirror the Federal requirements. Paragraph (3) identifies the remediation standards that apply to municipal waste landfills that received waste between October 9, 1993, and the date these regulations become effective. The regulations for these landfills continue to include any remediation standards previously identified in a closure plan. If none was identified, the remediation standards in subparagraph (b)(2) will apply. Paragraph (4) applies to all other facilities, including facilities other than municipal waste landfills. Remediation standards relating to Act 2 will apply.

On final-form rulemaking, the cross reference in subsection (b)(2)(iv)(A) to a *Federal Register* cite has been deleted. Although, the Department may consider the documents cited on proposed in its guidelines, the reference to Federal guidelines here was inadvertent.

On final-form rulemaking, the Board added a new subsection (c) for facilities other than municipal waste

landfills that allows the movement of the point of compliance for secondary contaminants beyond the property boundary up to a water source with approval by the Department. This language has been added to provide some relief for the remediation of contaminants that do not pose a public health threat.

The Board added a new subsection (i) on final-form rulemaking that defines the term “property boundary” as it is used in this section. The definition clarifies a point in time when the point of compliance cannot be extended by purchasing additional property to avoid remediation.

§ 271.343. Withdrawals from municipal trust.

A numerical cross reference has been updated to reflect changes in the numbering within the section cross referenced.

Subchapter E. CIVIL PENALTIES AND ENFORCEMENT

CIVIL PENALTIES

§ 271.413. Assessment of penalties—minimum penalties.

On final-form rulemaking, the Board added language to subsection (d) to clarify an ambiguity regarding the minimum penalty for a person that applies sewage sludge to an area that is not permitted. The new language makes it clear that the \$1,000 fine is applied to a portion of land up to an acre.

Several commentators suggested that the first sentence of proposed subsection (j) lacked clarity because it is not clear whether an “administrative order” or “another abatement order” would provide the “abatement period set in the order.” Two of these commentators also asked that subsection (j) be deleted because it is confusing as to which solid waste activities it would cover and the commentators expressed concern about whether the time frame the Department would set for compliance would be reasonable or practical. These two commentators suggested a replacement provision allowing the Department to reduce or eliminate penalties for violations discovered by the operator under a voluntary system of audits and inspections conducted by the operator, provided the violation is promptly reported to the Department and voluntarily and promptly corrected by the operator.

The Board did not amend or delete this provision in response to these comments. This provision was in place for many years before it was inadvertently deleted in 1997, and it is simply being reinstated here. As the provision is structured, the word “order” in the phrase “abatement period set in the order” refers to either an administrative order or other abatement order, so amendment for clarification is not necessary. A majority of the orders issued by the Department are cessation orders, but this section includes all orders. The \$1,000/day penalty provides economic incentives for compliance with orders. If the regulated entity does not agree with the Department’s assessment and decision, the entity may appeal the decision and apply for a supersedeas. The final-form regulations do not include authorization for the Department to reduce or eliminate penalties for self-reported violations because the regulatory economic disincentive is important in compelling compliance. With regard to the penalty established in subsection (j), a violator should not be excused for continuing to cause violations that were already the basis of a cessation or abatement order against the violator.

ENFORCEMENT

§ 271.421. Administrative inspections.

The Board decided to retain the original language in subsection (b)(1)(iv) which requires the Department to inspect sewage sludge land reclamation facilities at least twice a year. While the proposed modifications to subsection (b) did not prohibit the Department or its agents from inspecting facilities on a more frequent basis, maintaining the current twice a year minimum is useful to address increased public concerns regarding the use of sewage sludge for land reclamation activities.

Subchapter F. DEMONSTRATION FACILITIES

§ 271.501. Scope.

One commentator stated that the proposed amendment to this section is not clear as to the permit requirement. Two commentators stated that demonstration projects need more public scrutiny and more regulation. The Board has retained the proposed language, which allows the demonstration of new or unique technology at permitted facilities through a modification to the permit, where significant controls exist. The demonstration of new or unique technology will be able to be accomplished through a permit for a demonstration facility, which will require public notice under § 271.141 (relating to public notice by applicant) or through a modification to an existing disposal or processing facility permit. The latter may be accomplished through a major or minor modification, which receive differing degrees of public notice. Regardless of whether the demonstration is reviewed as a major or minor modification, operation of the facility may not impact public health or the environment.

§ 271.502. Relationship to other requirements.

One commentator insisted there should be no waiving of rules applicable to permit applications. The Board retained the proposed language, however, because flexibility in the approval process is necessary to allow new technology to be tested adequately. The sites are carefully monitored and evaluated. The Board added a requirement that the public notice requirements of § 271.141 (relating to public notice by applicant) may not be waived or modified.

Subchapter G. RESIDUAL WASTE

ADDITIONAL APPLICATION REQUIREMENTS

§ 271.611. Chemical analysis of waste.

In the final-form rulemaking, the Board added a new subsection (a)(1)(v). This subparagraph requires an application for disposal of residual waste or special handling waste at a municipal waste landfill or construction/demolition waste landfill to include a demonstration that the waste meets the requirements for disposal at the facility. Some wastes may not be accepted at the facility due to restrictions in the regulations, the permitted waste acceptance plan or the permitted operating plan. It is necessary for the operator to demonstrate that the disposal of the waste is consistent with the disposal restrictions in the regulations and approved permit.

One commentator suggested that subsection (a)(4) should be amended to apply to processing and disposal facilities, not just disposal facilities. The Board made this change by deleting the word "disposal."

The proposed reference to "municipal-like-residual waste" in subsection (a)(4)(ii) was deleted in the final-form rulemaking in response to public comments that it was too confusing. New language is intended to clarify that the evaluation required by this subsection may be

waived or modified if the applicant demonstrates that additional analysis is not necessary to determine that the waste can be received without adversely affecting the effectiveness of waste processing or disposal operations, established emission and wastewater discharge limits, liner systems, leachate systems or, at an unlined construction/demolition waste landfill, the attenuating soil base.

§ 271.612. Source reduction strategy.

The Board received two public comments on the proposed revision to this section. One commentator suggested that the regulations should not require a processing or disposal facility to obtain and submit to the Department copies of source reduction strategies because the generators already submit this information to the Department. That is not the case, however: the residual waste regulations do not require generators to submit these reports routinely. The other commentator objected to § 271.612 requiring submission of the generator's source reduction strategy if the waste is to be used as daily cover. The Board retained the provision as proposed, however, because the goal of the source reduction strategy is to reduce the volume of waste generated. Using the waste as landfill cover does not reduce the volume of waste generated nor of waste disposed.

Subchapter H. (Reserved)

This subchapter has been deleted and moved to Chapter 284, Subchapter B (relating to general permits).

GENERAL PROVISIONS

§§ 271.711—271.712. (Reserved).

These sections have been relocated to §§ 284.101 and 284.102.

ISSUANCE OF A GENERAL PERMIT

§§ 271.721—271.725. (Reserved).

These sections have been relocated to §§ 284.111—284.115.

CONTENT OF GENERAL PERMITS AND WAIVERS

§§ 271.731—271.732. (Reserved).

These sections have been relocated to §§ 284.121—284.122.

REGISTRATION AND DETERMINATION OF APPLICABILITY

§§ 271.741—271.744. (Reserved).

These sections have been relocated to §§ 284.131—284.133, except for § 271.744, which has been deleted.

Subchapter I. BENEFICIAL USE

SCOPE

§ 271.801. Scope.

Subsection (a)(2) has been amended on final to create an exception to this subchapter's permitting restriction on the land application of sewage sludge. This change is made in concert with the deletion of § 271.2(b)(3) (relating to scope), described above. Under the amendment to § 271.801(a)(2), sewage sludge mixed with residual waste may not be permitted under Subchapter I except as provided in § 271.821(b)(6) (relating to application for general permit). As before, a general or individual permit for the beneficial use of sewage sludge not mixed with residual waste will be issued only under Subchapter J (relating to beneficial use of sewage sludge by land application).

GENERAL PERMIT FOR PROCESSING OR BENEFICIAL USE, OR BOTH, OF MUNICIPAL WASTE AUTHORIZATION AND LIMITATIONS

§ 271.811. Authorization for general permit.

Subsection (a)(1) was amended on final rulemaking to correct an oversight in the existing regulations. The language is taken from § 287.611 (relating to authorization for general permit) of the residual waste regulations, which is the counterpart to this municipal waste section, and should have been included in this subchapter originally.

The Board amended subsection (e) to clarify that a general permit for processing or beneficial use of combinations of sewage sludge and residual waste shall be issued only under this subchapter. This clarifies which regulations apply to applicants proposing the beneficial use of mixtures of sewage sludge and residual waste.

The Board amended subsection (g) to state that a general permit for the beneficial use of sewage sludge by land application will not be issued under Subchapter I except for general permits in which sewage sludge is mixed with residual waste.

One commentator offered the opinion that the proposed revision to subsection (g)(5) required a complete rewrite because it was difficult to comprehend. Another suggested that the provision should allow for mitigating circumstances. The Board does not agree with either suggestion. This provision has been added to clarify that a general permit for beneficial use will not be issued for the use of materials at permitted resource recovery or disposal facilities. Materials used during construction or operation at those facilities need to be identified and evaluated as part of the permit application. It is necessary to modify the permit at a waste management facility to ensure the wastes proposed for use will not affect the design or operation of the facility. The final-form regulations maintain the existing requirement for an equivalency review for such an approval.

ISSUANCE OF GENERAL PERMITS

§ 271.821. Application for general permit.

The Board changed the phrase "municipal waste" to "waste" in subsection (b)(1) because the analysis required in this subsection is needed for residual wastes as well as municipal wastes when residual waste is blended with municipal waste.

Subsection (b)(5) has been added on final to address mixtures of municipal and residual waste. This provision was taken from § 287.621 (relating to application for general permit). An applicant for a general permit or for coverage under a general permit under Subchapter I must now demonstrate that all of the components of the mixture have a beneficial use. This applies to processing permits as well as beneficial use permits.

The Board added subsection (b)(6) in the final-form rulemaking to regulate more closely the land application of sewage sludge mixed with residual waste. In order to obtain a general permit for land application of sewage sludge mixed with residual waste, an applicant will have to meet all of the requirements of this subchapter, including the applicable requirements for the residual waste component, and will also have to meet relevant requirements of Subchapter J (relating to beneficial use of sewage sludge by land application) to ensure the quality and safe application of the wastes to be land applied. The requirements in subparagraph (i) are taken from § 271.902 (relating to permits and direct enforceability),

which is in Subchapter J; they are modified slightly to include a reference to residual waste. The requirements in subparagraph (ii) are taken directly from other specific sections in Subchapter J.

Subsections (c) and (d) were amended on final to identify a permit application fee of \$2,000 for issuance of a general permit that involves the mixture of residual waste and municipal waste.

§ 271.832. Waiver and modification of requirements.

The Board added language on final-form rulemaking to subsection (b) that clarifies the Department's intention not to waive the permit application requirements in § 271.123 pertaining to the Commonwealth's right of entry and the landowner's consent to solid waste activities. Although the requirements of this section cannot be waived, the Department may modify the requirements. Circumstances relating to the imminent sale of property present an example of when the Department has modified the requirements in an effort to work with the existing and future landowners to meet the regulatory obligations of a landowner.

The Board also amended subsection (b) on final rulemaking by deleting reference to Subchapter H, because Subchapter H has been relocated to Chapter 284, Subchapter B.

CHAPTER 272. MUNICIPAL WASTE PLANNING, RECYCLING AND WASTE REDUCTION

Subchapter A. GENERAL

§ 272.1. Scope.

The Board deleted the phrase "host municipalities" from the scope section because this subchapter no longer involves rights or responsibilities of host municipalities, in light of the passage of the Environmental Stewardship and Watershed Protection Act in 1999. Most of the other changes made to this subchapter on final are the result of that act.

Subchapter B. HOST COUNTIES

§ 272.101. County withdrawals from trust fund.

The Board has deleted the requirement to establish new trust funds in subsection (a) since the site-specific post closure fee that funds these trusts has been eliminated by the Environmental Stewardship and Watershed Protection Act. Language has been added to allow host counties to withdraw funds from the trusts for purposes consistent with that act. Similarly, subsections (b) and (c) have been deleted to comply with the Act.

§ 272.102. Trust requirements.

Language has been added in subsection (a) to clarify the section in response to the Environmental Stewardship and Watershed Protection Act. The lead-in to subsection (a) has been changed because this section no longer requires trust funds to be established. Subsection (a)(1) has been deleted because under the ESWPA the requirement for establishment of these trusts has been eliminated and the potential utilization of the trusts has been expanded. Two provisions in subsection (a)(3) (now subsection (a)(2)) have been deleted because counties are no longer required to establish the trusts and the language regarding spendthrift trusts is duplicative of existing language. Language in subsection (a)(4) (now subsection (a)(3)) has been deleted because it is duplicative of existing language in the trust agreements. Language has been added to subsection (a)(5) (now subsection (a)(4)) to clarify that payments that were due under Act 101, but have not yet been made belong in the trust, and were

required for waste received until January 1, 2000. Language has been deleted from paragraph (5) since payments are no longer required to be paid into the trust quarterly, but the requirement for a quarterly statement of trust account transactions remains since the trusts are still in place.

The Board deleted subsection (f) because the trusts are no longer being established as a result of the ESWPA.

§ 272.103. Failure to make payment.

As with § 272.102, the Board revised this section to reflect the fact that regular payments are no longer expected to be made to the trusts, but that delinquent payments are still owed.

§ 272.104. Operator withdrawals from trust fund.

The Board added the word operator to the title of this section to clarify what withdrawals from the trust were covered in this section.

The Board deleted language in subsection (a) which is no longer relevant because of the ESWPA.

The Board amended subsection (b) to clarify that this subsection addresses money paid over to the operator. The Board added the qualification that was previously found in § 272.102(a)(1), that such payment may only be made for remedial measures and emergency actions required by the Department for prevention or abatement of adverse effects on the environment. This language previously existed in Act 101, under which these regulations were first drafted, and now exists in the ESWPA.

Subsection (c)(4) has been modified because the trusts are no longer available only to the facility, but also to the host county. An additional requirement has been added in subsection (c)(6) to assure that the operator does not have the financial ability to perform remedial measures or emergency actions before a withdrawal from a trust is approved. This includes the exhaustion of the bond that has been posted for the closure and post closure care of the facility. For certain old, closed dumps that had no bond or a bond less than \$10,000 and which have not been abandoned, special provision is made in subsection (f).

A modification has been made to subsection (d) to clarify who is making the withdrawal.

Modifications have been made to subsection (f) to clarify that the trustee shall make moneys available for those sites that closed shortly after April 8, 1988, for the purposes designated in the proposed regulations. It clarifies that a facility with a bond of less than \$10,000 may qualify for moneys and the facility must not have been abandoned. (Abandonment of trust is addressed in § 272.107.)

Subsection (g) has been amended to clarify who is making the withdrawal.

§ 272.105. County withdrawals from the trust fund for administering the trust fund.

This section has been retitled to clarify the purpose of these withdrawals from the trust fund.

Subsection (a) has been amended to reflect the fact that establishment of site-specific postclosure trusts is no longer required.

Text of subsection (b) has been deleted due to the new authority for a county to withdraw moneys from a trust upon request of a trustee for purposes authorized by the ESWPA.

Proposed subsection (c), which is labeled subsection (b) in the final-form regulations, has been amended to delete the requirement for establishment of new trusts as in subsection (a). In addition, this subsection in the final-form rulemaking restates and embodies the revision that was proposed to subsection (d), which allowed the county's administrative fee to be based on all of the moneys in the trust. The final sentence has been deleted because it now appears in the new subsection (c).

Subsection (d) has been deleted because the payments to the county are governed by language retained in subsection (b). The second sentence has been deleted because it conflicts with the definition of deposits which now includes earnings and profits of the trust.

New subsection (c) has been added to clarify the requirement, as on proposed, that, after the trustee receives certification of closure, a county may not be reimbursed more than the lowest of its actual costs, 0.5% of the moneys in the trust fund or the earnings and profits from the trust during the billing period. This section seeks to protect the corpus of these trusts from being depleted by administrative charges.

§ 272.106. Termination of trust.

The section has been retitled to be consistent with its content.

Subsection (a) remains unchanged from the proposed rulemaking.

Subsection (b) remains unchanged from the proposed rulemaking with the exception of the deletion of the last sentence. Termination of the trust fund other than after final closure certification is now addressed in new subsection (d).

Subsection (c) has been amended to conform with the ESWPA which allows the county to receive the remainder of the trust for use as authorized by that act.

Subsection (d) has been added to allow termination of the trust when all moneys have been withdrawn and paid out.

**Subchapter C. MUNICIPAL WASTE PLANNING
PLAN CONTENT**

§ 272.221. Scope of plan.

The cross reference to § 272.211(b) has been deleted from subsection (a) because it no longer exists.

§ 272.223. Description of waste.

The proposed rulemaking added construction/demolition waste (other than waste from demolition of an industrial site) to the list of wastes described in subsection (b) that a county must specifically address in describing the waste generated in the county. One commentator questioned adding construction/demolition waste to this list and asked why other wastes, like tires and appliances containing CFCs, are not also added. Construction/demolition waste is added to the list because generation and recycling opportunities for it are increasing, so counties should become aware of the magnitude of this component of the waste stream within their borders and its recycling potential. Furthermore, the EPA is considering adding construction/demolition waste to the list of materials it uses to compare recycling progress from state to state, so county generation and recycling data will become even more important. The other wastes suggested by the commentator are not included because they are included in existing subsection (e), which encourages counties to address them, at the counties' discretion.

Another commentator believed that adding construction/demolition waste to a county plan would require a substantial plan revision. This will only be true if the county intends to provide capacity assurance for construction/demolition waste and did not do so in its previous plan. Of course, even if a plan revision is not required to be substantial, a county may choose to follow the substantial revision process.

A new paragraph was added to subsection (c) to clarify the planning requirements for construction/demolition waste. That paragraph requires an estimate of the amount of construction/demolition waste currently generated in the county, that will be generated in the county within the next 10 years, that is currently recycled and that could be recycled during the next 10 years.

The recycling rate in subsection (d)(3) was changed from 25% to 35% to reflect the Commonwealth's goal established by proclamation of the Governor in 1998.

§ 272.224. Description of facilities.

A new paragraph (4) was added to subsection (a) to require counties' plans to identify and describe the recycling capabilities of the facilities at which the county's municipal waste is currently being disposed or processed. This requirement is intended to provide a more complete understanding of the recycling capabilities of the facilities and the potential for recycling the waste generated within each county.

§ 272.227. Selection and justification of municipal waste management program.

The proposed rulemaking confirmed that the regulations do not require a county to select the lowest bid when selecting facilities for the county's municipal waste management plan. One commentator suggested a clarification, which the Board adopted. The final-form regulations explain that the county does not have to select the alternative with the lowest cost.

The Board added a new subsection (d), which explains that a landfill or resource recovery facility selected by a county for capacity assurance shall be considered "provided for" in that county's plan under section 507 of Act 101. This change was made in response to a commentator's suggestion that § 273.139(b)(1) (relating to relationship to county plans) be incorporated into this section.

§ 272.228. Location.

One commentator suggested that this section should apply to transfer facilities so that they are regarded equally with landfills and resource recovery facilities. The Board declined to modify this section because the section already applies to processing facilities, which include transfer facilities. However, since a county is required to assure capacity for the ultimate disposal (that is, landfilling) or processing (that is, resource recovery) of the waste, if a county designates transfer facilities it must also designate a facility for the ultimate disposition of the waste.

PLAN REVIEW PROCEDURES

§ 272.244. Departmental review of plans.

The provision stating that a nonsubstantial plan revision will be deemed approved within 30 days of receipt by the Department, unless the Department responds in writing, was moved to subsection (a) from § 272.252 (relating to development of plan revisions), because it applies to the Department's review of a plan, not a county's development of a plan.

PLAN REVISIONS

§ 272.251. Submission of revisions.

A commentator noted that the brackets in the proposed rulemaking inadvertently eliminated paragraph (2). Reformatting on final corrects that error.

§ 272.252. Development of plan revisions.

Subsection (f) was deleted in the final-form rulemaking because this provision already appears in § 272.244 (relating to Departmental review of plans). Subsection (g) was deleted and moved to § 272.244. A new subsection (f) was added to explain that even if the Department does not determine a plan revision to be substantial, a county may still treat it as though it is substantial.

Subchapter D. GRANTS

GENERAL PROVISIONS FOR AWARDING GRANTS

§ 272.314. Limits on Department's authority to award grants.

A minor amendment to subsection (b)(3) is intended to clarify that prior reimbursements are related to the expenses being requested, not other expenses that might have been requested at other times.

Subsection (e) was amended to allow a grant offering to lapse if the offeree or the Department determines that the grant funds will not be utilized. This flexibility will enable others to obtain grant moneys that otherwise could be unnecessarily tied up.

§ 272.316. Performance audit.

The Board deleted the proposed language authorizing the Department's review of a disbursement request to serve as a performance audit because the scope of review required in a performance audit exceeds that performed by the Department in reviewing a disbursement request. The Board also deleted the sentence that prohibited a grant under this subchapter from being used to pay for a performance audit. Specifically, if a county recycling coordinator is qualified to perform a performance audit of a municipality's use of grant money given under this subchapter, the performance of that audit may be a reimbursable expense under § 272.341 (relating to scope of grant).

PLANNING GRANTS

§ 272.322. Eligible costs.

The proposed revision stated that indirect costs, as defined in Office of Management and Budget Circular A-87, as amended, will not be approved for a grant under § 272.321 (relating to scope of grant). This restriction is intended to reduce or eliminate requests for duplicate reimbursements for costs and implements a recommendation of the Department's Comptroller's Office based on past audits. A number of commentators expressed concern that this provision would exclude legitimately incurred costs and asked the Board to justify relying on OMB Circular A-87.

This provision has been retained and further clarified on final. Compliance with the provision may in fact lead to greater, not lower, reimbursements for counties, because it requires greater specificity in accounting by the counties and their consultants, which can lead to greater reimbursement. OMB A-87 has been used by Federal, State and local governments and their subcontractors for over 20 years in determining eligible payment under their grant programs, such as the Federal Community Development Block Grant program. Circular A-87 defines "indirect costs" as: "... those (a) incurred for a common or

joint purpose benefiting more than one cost objective and (b) not readily assignable to the cost objectives specifically benefited without effort disproportionate to the results achieved." *Cost Principles for State, Local and Indian Tribal Governments*, 60 FR 26, 484, at 26, 292 (1995). Consequently, if a cost that otherwise would be considered an indirect cost is properly assigned to a specific cost objective, the Department will reimburse it as a direct cost. The "double billing" associated with fees expressed only as bulk fees, such as a consultant's "contingency fee" listed after itemized costs, will no longer occur. In order for these generalized costs to be reimbursed under this section, the bill simply needs to attribute them to a specific task. They will then be considered "direct costs."

GRANTS FOR DEVELOPMENT AND IMPLEMENTATION OF MUNICIPAL RECYCLING PROGRAMS

§ 272.332. Eligible costs.

Subsection (d) was amended on final to allow equipment purchased with funds from a grant to be owned by a municipal authority or an organization of municipal governments, and to allow such equipment to be used by or leased to another municipality, a not-for-profit agency, an organization of municipal governments or a municipal authority. The equipment may not be used by or leased to private entities, in order to prevent grantees from giving a competitive advantage to a particular business through a public-private partnership. This codifies the Department's policy position that has been in place for several years.

Language was added to new subsection (g) to enable a grantee who purchased property with grant money to trade the property in toward recycling equipment, in order to facilitate the improvement of recycling in this Commonwealth.

§ 272.333. Grant application.

Subsection (c)(1)(v) was amended to authorize the public notice to be in the form of a legal notice or public notice, as opposed to only in the form of a display advertisement. This amendment was made to enable municipalities to select the most economical approach to meeting their statutory notice requirement.

GRANTS FOR COUNTY RECYCLING COORDINATORS

§ 272.341. Scope of grant.

The Board made several changes to this section on final. The Board added "litter control" to the list of activities for which a county recycling coordinator grant may be used. The Board specified that data collected about municipal recycling programs, commercial, institutional and municipal establishment recycling, and recycling at community activities should be submitted to the Department by April 1 of each year. The Board replaced the term "used oil" with "automotive waste oil," to cover programs to recycle waste oil from vehicles. The Board expanded the list of special materials that recycling coordinators may develop programs for and be reimbursed for to include batteries, electronic equipment, computers and devices that contain cathode ray tubes. Finally, the Board added a new paragraph (15) to the list of reimbursable activities. Paragraph (15) allows county coordinators to be reimbursed for completing a performance audit of a municipality recycling program for a municipality within the county. This correlates to the deletion in § 272.316 (relating to performance audit) of the previously existing

text that prohibited grant moneys under this subchapter from being used as reimbursement for a performance audit.

GRANTS FOR HOST MUNICIPALITY INSPECTORS

§ 272.362. Eligible costs.

Subsection (b)(7) has been amended to reflect the new "inactive status" that is described in § 272.364 (relating to maintaining certification; inactive status; decertification; recertification).

§ 272.364. Maintaining certification; inactive status; decertification; recertification.

Commentators objected that decertification was too strident of a consequence for failing to perform at least one inspection per calendar year, as was proposed under subsection (a)(2). In response, the Board amended subsection (a) to state that failure to conduct one inspection a year will result in automatic "inactive status" (instead of decertification) 6 months later (July 1 of following year), unless the inspector takes the Department sponsored advanced training course and performs satisfactorily on the written examination in the meantime. A written examination is necessary to ensure that the inspector stays current with important operational, environmental, health and safety developments. Similarly, the Board added the requirement that, to maintain active status, an inspector must complete the advanced training course once every 3 years and perform satisfactorily on the written examination.

One commentator asked why subsection (a) requires testing every 3 years to maintain certification. The Board retained this requirement to ensure that the host municipality inspectors remain current and understand developments regarding health and safety, regulations and policies for waste facilities and environmental issues. Testing will confirm for the Department that the inspector has mastered the material. In addition, a majority of the host municipality inspectors are not environmental practitioners by trade or vocation; therefore, they do not receive pertinent environmental information as part of their job functions on a daily basis.

Subsection (b) is new on final. It describes the restrictions applicable to an inspector whose status is "inactive."

The decertification provisions in subsection (c) have been modified in response to public comment. Proposed paragraphs (1) and (7) were deleted because their commission now leads to "inactive status" instead of decertification. Paragraphs (2), (4)—(6) have been revised to require that the activity occur "knowingly." The Board also amended subsection (c)(4) to clarify that knowingly distributing information to an employe of the Department, the EPA, the Office of the Attorney General or the United States Department of Justice would not be a reason for decertification.

Subsection (d) sets forth the notification procedures that will be followed if a host municipality inspector violates subsection (c). Commentators suggested that a more detailed process be established, that the regulation specify that decertification actions are subject to appeal before the hearing board, that the Department should not issue a decertification order until proceedings before the Environmental Hearing Board (EHB) are concluded and that a special hearing board be established. Concern about procedural due process was expressed. It was not necessary to include these changes in the final-form regulations because all Department actions, including decertification, are subject to appeal before the EHB.

Case law has established that this appeal procedure satisfies due process considerations. Information regarding the appeal process will be disseminated to host municipality inspectors through the advanced training course, education seminars and host inspector meetings conducted by the Department. The Department will not send out a notice of decertification unless and until an investigation has taken place and the Department has made an informed decision to decertify. The Department will provide the inspector and host municipality with notice of the pending investigation. Procedures involving possible decertification and appeal will be explained in the notice of the pending investigation. The notice will not be sent to the facility, but if decertification is warranted, a notice of decertification will be sent to the facility, as well as the host municipality and host municipality inspector, because the facility and host municipality need to know if an inspector is currently authorized to perform his duties. At that point, the inspector would have a right to appeal the decertification. As with all appealable actions of the Department, the order would be effective unless and until the appellant obtained a supersedeas.

An inspector who is decertified may be eligible for recertification. Subsection (c) requires the Department to state in its notification of decertification whether an inspector will be eligible for recertification. The Department will consider the nature and gravity of the misconduct in making this determination. This decision may be part of an appeal, as will be a decision to decertify. An eligible decertified inspector may become recertified after 2 years by meeting the statutory requirements for becoming a host municipality inspector in section 1102 of Act 101 (53 P.S. § 1102) (relating to joint inspections with host municipalities).

Subchapter E. MUNICIPAL RECYCLING PROGRAMS

REQUIRED RECYCLING PROGRAMS

§ 272.411. Affected municipalities.

The proposed amendment of subsection (d) had included the date of July 15, 2003, as the date by which a municipality meeting the conditions of this subsection would have to conduct a recycling program. The date has been deleted on final because the date on which the 2000 census data will become official is uncertain. The 2-year deadline contained in this subsection will apply.

Subchapter F. HOUSEHOLD HAZARDOUS WASTE COLLECTION

REGISTRATION AND APPROVAL OF PROGRAMS

§ 272.513. Contract.

A typographical error in the numbering of paragraph (3) is corrected in this final-form rulemaking.

CHAPTER 273. MUNICIPAL WASTE LANDFILLS

Subchapter B. APPLICATION REQUIREMENTS

PHASE I APPLICATION REQUIREMENTS

§ 273.112. Facility plan.

One commentator suggested that language be added to indicate how the soil quantities would be provided. The Board agrees and added language in paragraph (2) to require the permit application for a municipal waste landfill to include a description of the method by which the soil necessary for construction and operation will be delivered. If soil is not located onsite, the traffic, access

roads and other impacts need to be evaluated when performing the environmental assessment process.

§ 273.115. Geology and groundwater description.

Subsection (a)(3) was amended to allow alternative techniques for characterizing groundwater to be employed when the standard multiple well aquifer tests are not feasible. This allows the applicant to use alternative methods if unique hydrogeologic conditions are not conducive to standard testing techniques.

The Board also added language in subsection (a)(9) to allow the Department to require more frequent water level measurements after significant precipitation events. This information is necessary if the monthly measurements required by the regulations do not adequately represent the highest possible water levels which are needed to design the site.

Two commentators suggested that the duration and frequency of water level measurements were unreasonable as a preapplication obligation. One of these commentators also indicated that the required groundwater contour map should be made from measurements obtained during the same month, not the highest measurement obtained from a particular well. The Board declined to make changes to address the first issue, since water level measurements obtained over the course of a year, and after significant precipitation events, are the only way to determine the inherent periodic and seasonal groundwater fluctuations that occur at most sites. The Board agrees with the second issue, but no changes to the Annex are necessary because the error was in the preamble explanation of how the contour map would be used. The contour map is only used to determine appropriate liner system isolation distances from the regional water table, and cannot be used to depict groundwater flow patterns.

One commentator requested clarification on the purpose, construction and duration of the borings used to measure water levels. The Board declined to modify the regulations to address this issue, as the specifics of borehole construction and maintenance may be tied to conditions unique to each facility. These details are routinely decided based upon discussions with the Department during the background groundwater characterization and monitoring process.

§ 273.120. Mineral deposits information.

The Board amended the language in subsection (b) to require that the applicant either own the underlying mineable coal, or own the land or enter into an enforceable option contract to purchase land on which an expansion would operate and have an agreement with the owner of the coal to maintain support as long as waste remains on the site. These requirements are necessary to prevent failure of the landfill liner system should settlement occur into voids created by coal mining. Under the previous structure, the applicant was required to demonstrate that the owner of underlying mineable minerals would not mine the minerals as long as municipal waste remained on the site. The amendments remove the ambiguity of the term mineable mineral deposits and instead apply the restrictions to mineable coals, which is the mineral most likely to be mined and is consistent with the mineral deposits information in the residual waste regulations. The amendments also provide some opportunity for existing facilities to expand onto areas where the applicant does not own the underlying coal.

§ 273.121. Notification of proximity to airport.

This section has been revised on final to reflect the new Federal legislation restricting construction of landfills within 6 miles of certain airports. (*Wendell H. Ford Aviation Investment and Reform Act for the 21st Century*, Pub. L. No. 106-181, § 503, 114 Stat. 61 (2000), amending 49 U.S.C.A. §§ 44718(d) and 46301(a)(3).) Under the revisions, an applicant will have to notify and include copies of the notifications to the FAA, the airport and the Department of Transportation's Bureau of Aviation as well as any responses received from those entities. This information will assist the Department in determining whether construction of the facility or modification thereof would be safe. If any of the respondents expresses safety concerns, the applicant will generally be required to submit a mitigation plan under § 271.127 (relating to environmental assessment), at a minimum. If § 271.201(9) (relating to criteria for permit issuance or denial) is triggered and the Administrator of the FAA is not asked to or does not exempt the proposed facility from 49 U.S.C.A. § 44718(d) (relating to limitation on construction of landfills), the application will be denied. The section has also been revised to apply to all applications for new landfills or expansions, not just to new landfills and lateral expansions, because the phrase "lateral expansions" was unnecessarily restrictive.

PHASE II APPLICATION REQUIREMENTS

GENERAL PROVISIONS

§ 273.132. Operation plan.

Two commentators suggested that paragraph (6) be changed to require the applicant to differentiate between waste acceptance, construction and other activities. The Board declined to make this change as the applicant may differentiate between the various activities when describing the proposed operating hours.

One commentator opposed the proposed addition to paragraph (6), which clarifies that operating hours include those hours related to construction and other activities related to the operation of the facility. The Board is retaining this language because the hours when construction and other activities take place can cause considerable nuisances to the surrounding community, and this should be identified for comment and consideration during the application phase of the proposed facility.

§ 273.133. Map and grid requirements.

The Board has added a requirement in new subsection (a)(14) that an application for a municipal waste landfill indicate on the topographic map a designated area for vehicles for use in the event of the detection of waste containing radioactive material. As with the other requirements in this subchapter, this requirement applies to all permit applications, not just applications for new facilities. A transition schedule has been developed in § 271.114 (relating to transition period) for existing facilities to come into compliance with this regulation. The designated area must protect the environment, facility staff and public from radiation originating in the vehicle. The Department's *Guidance Document on Radioactivity Monitoring at Municipal and Residual Waste Processing and Disposal Facilities*, document number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

§ 273.134. Plan for access roads.

A commentator suggested that the proposed requirement that access roads be designed and constructed to

adequately handle the truck traffic was not clear. The Board agreed and removed the proposed changes to this section.

One commentator indicated that access roads should comply with a Department of Transportation standard. The Board declined to make this change because the access roads are designed based upon the expected use, and one standard could not adequately address all possible uses.

§ 273.136. Nuisance minimization and control plan.

One commentator requested clarification as to whether certification was required for professionals under contract to provide extermination or other nuisance minimization and control services. The Board declined to make changes to this section. The exterminator or other professional used to minimize nuisances does not need to be certified but should be familiar with and able to conform to the technical standards of the activity.

§ 273.139. Relationship to county plans.

One commentator suggested that subsection (b)(1) be incorporated into Chapter 272. In response, the Board incorporated the concept of being "provided for" in § 272.227 (relating to selection and justification of municipal waste management program). The same commentator questioned whether being "provided for" in relation to providing capacity assurance applied to processing facilities in addition to disposal facilities. The use of this phrase in Chapter 273 only refers to municipal waste landfills. Two commentators asked the Board to clarify that modifications and expansions of facilities provided for in host county plans need not be separately provided for in county plans. The Department generally considers expansions to be "provided for" if the facility is provided for in a county's plan; however, the terms and conditions of the county's plan may specifically address the inclusion of a facility's future modifications and expansions. The Board did not change the regulation in this regard.

§ 273.140a. Radiation protection action plan.

The Board has added a new section in the final-form rulemaking requiring that an application for a municipal waste landfill contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting. As with the other requirements in this subchapter, this requirement applies to all permit applications, not just applications for new facilities. A transition schedule has been developed in § 271.114 (relating to transition period) for existing facilities to come into compliance with this regulation. The action plan must be incorporated into the landfill's approved waste analysis plan, under § 271.613 (relating to waste analysis plan). The permit modification will be a major modification. The action plan must be prepared in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Municipal and Residual Waste Processing and Disposal Facilities*, document number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

An approved action plan will specify the radiation exposure rate, in accordance with these regulations and the foregoing guidance document, at which the facility's radiation detection monitors will indicate the presence of radioactive material in waste in accordance with § 273.223 (relating to radiation monitoring and response). A waste load that does not trigger a radiation monitor

will need no further action regarding radioactive materials screening. A waste load that does trigger a radiation monitor may only be accepted at the landfill if it is within the acceptable range approved in the action plan in accordance with these final regulations and the operator obtains additional written approval of the Department for that particular waste load. The Department's written approvals will be decided situation by situation or in advance in the facility's approved action plan. The Department will not authorize any waste containing radioactive material to be accepted at a municipal waste landfill if it is above regulatory limits or if its disposal would endanger the health and safety of the public or the environment.

PHASE II APPLICATION REQUIREMENTS COVER AND REVEGETATION

§ 273.141. *Compaction and cover plan.*

The Board amended the language in paragraph (4) to require that the application identify procedures to establish intermediate cover, in addition to the procedures already required for final cover. The design and procedures to place intermediate cover are important as the intermediate cover may be in place for extended periods of time.

One commentator suggested that language in paragraph (1) be changed to reference "cover soil" instead of "waste". The Board declined to make the change. This section includes requirements for waste, daily, intermediate, and final cover. Paragraph (1) refers to waste compaction.

A commentator suggested that paragraph (4) be reworded to reference the procedures to establish intermediate and final elevations for the landfill cap. The Board declined to make the suggested change because the plan does not solely apply to the cap.

PHASE II APPLICATION REQUIREMENTS LINERS AND LEACHATE MANAGEMENT

§ 273.161. *Liner system and leachate control plan.*

Several changes were made to the final-form regulations in this section.

The Board amended the existing liner testing properties to reflect current liner compatibility testing procedures. The following properties were added: density, carbon black content, carbon black dispersion, stress crack resistance and oxidative induction time. The following properties were deleted: the modulus of elasticity, impact resistance, operating temperature range, ozone resistance, water vapor transmission, coefficient of linear thermal expansion, and low temperature/brittleness.

Several commentators questioned why the proposed rulemaking required percent recycled material as a testing property and suggested that it be deleted unless this information is relevant. The Board declined to make the change. The percent recycled material can significantly vary during the manufacturing of liners and can change the performance of the liner.

A number of commentators suggested changes to the liner testing properties. The Board made changes based upon the suggestions of the commentators and based upon current liner testing procedures.

One commentator suggested that liner friction is not by itself an adequate determination of engineering acceptance and that a stability analysis using actual liner friction values should be required. The Board declined to

make a change in this section, but agrees that the liner friction angle is one of many factors considered during the stability analysis required as part of the permit application process.

PHASE II APPLICATION REQUIREMENTS CLOSURE PROVISIONS

§ 273.192. *Closure plan.*

Several commentators found the phrase "toward and after closure" to lack clarity. The Board replaced this phrase with "in preparation for closure and after closure." "Closure" is the point at which the entire facility permanently ceases to accept waste. It happens only once at a landfill. Under the final-form regulations, the application shall contain a plan describing the activities that are proposed to occur in preparation for closure and after closure and a narrative description of the measures that are proposed to be carried out.

§ 273.196. *Recycling plan.*

A commentator suggested that the Board clarify that salvaging allow for materials recovery during landfill mining. The Board did not make a change to this section. Landfill mining is a municipal waste processing operation that can be approved as a major modification to the landfill disposal permit or can be approved under an individual or general processing permit.

Subchapter C. OPERATING REQUIREMENTS. GENERAL PROVISIONS

§ 273.201. *Basic limitations.*

Subsection (g) has been revised to prohibit the practice of landfill operators accepting bulk or noncontainerized liquid but provides for the acceptance of containers holding free liquids for the purpose of disposal on site if approved in the permit.

This section has been revised in the final rulemaking to specify clearly the types of radioactive materials that might be found in the municipal waste stream that may not be accepted at a municipal waste landfill.

Subsection (l) lists six types of radioactive materials that are controlled under specific or general license or order. These are prohibited from disposal at a municipal waste landfill unless they are specifically exempted from disposal restrictions by an applicable Pennsylvania or Federal statute or regulation.

The first type, in paragraph (1), is NARM, which includes naturally occurring and accelerator produced radioactive material. Examples of NARM are radium, potassium-40, various isotopes produced in accelerators, such as cobalt-57, and members of the uranium-238 and thorium-232 decay chains when they don't meet the requirements for source material or special nuclear material.

Paragraph (2) prohibits disposal of byproduct materials. These are produced by nuclear fission, or otherwise, in the nuclear energy cycle. Prominent examples are cesium-137 and strontium-90.

Paragraph (3) prohibits disposal of source material which, by definition, is uranium and/or thorium present at a combined concentration, by weight, of 0.05% or more. Examples are uranium ores and slags produced by smelting rare earth ores containing uranium and thorium.

Paragraph (4) prohibits disposal of special nuclear material, which includes those isotopes of uranium and plutonium that will split, or fission, when struck by

neutrons. Examples of special nuclear material include uranium-233, uranium-235, and plutonium-239.

Paragraph (5) prohibits disposal of transuranic radioactive materials, which include all elements with an atomic number greater than 92 (92 = uranium). Examples include neptunium, plutonium, americium, curium, californium, berkelium, einsteinium, fermium, mendelevium, and others. Transuranic elements do not occur naturally and are produced in high energy accelerators.

Paragraph (6) prohibits disposal of low-level radioactive waste. A definition of low-level radioactive waste is contained in section 130 of the Low-Level Radioactive Waste Disposal Act (35 P. S. § 7130.130).

Subsection (m) lists three categories of radioactive materials that are prohibited from being accepted at a municipal waste landfill unless approved in writing by the Department, and the disposal does not endanger the environment, facility staff or public health and safety.

The first radioactive material, in paragraph (1), is short-lived radioactive material from a patient having undergone a medical procedure. Certain short-lived radioactive materials are administered to medical patients for diagnosing or treating some illnesses. Once these materials are administered to the patient, they no longer fall under Nuclear Regulatory Commission (NRC) or Pennsylvania licensing. Some of the material is retained in the patient and some is excreted in urine, feces, sweat, saliva or mucous and may get into solid waste through disposal of personal care items. The Department's intent is to authorize this material to be disposed in waste facilities upon case-by-case permission from the Area Health Physicists or Director of the Bureau of Radiation Protection, or advance authorization in the landfill's approved action plan, using the general concepts provided in the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, document number 250-3100-001.

Paragraph (2) addresses TENORM, which is naturally occurring radioactive material which has been altered by human activity in a manner that results in increased radiation exposure to people. The alteration could be chemical or physical change in form, relocation of the norm, or removal of barriers that isolated the norm. The Department's intent is to authorize disposal of TENORM in municipal waste landfills only in amounts and concentrations that will not result in concentrations of the NORM isotopes significantly above local background. Authorization will be given as case-by-case permission from the Area Health Physicists or Director of the Bureau of Radiation Protection, or advance authorization in the landfill's approved action plan.

Paragraph (3) addresses consumer products containing radioactive material. Some consumer products, such as smoke detectors, luminous dial clocks and watches, or some ceramics will wind up in the waste stream. The Department intends to allow disposal of small quantities of these under conditions specified in the facility's approved action plan or on a case-by-case basis with permission from the Area Health Physicist or Director of the Bureau of Radiation Protection.

Subsection (n) provides that the limitations set forth in this section will not apply to radioactive material as found in the undisturbed natural environment of the Commonwealth. The original soil and rock in many parts of this Commonwealth contain sufficient uranium, thorium, radium and potassium-40 to cause monitors to

alarm even at quite high settings. This provision ensures that facilities may use soil and rock from undisturbed sites for cover, regardless of the content of radioactive material.

§ 273.202. Areas where municipal waste landfills are prohibited.

The Board changed the lead-in language in subsection (a) to be more specific and limited. The lead-in no longer contains the "grandfathering" language, but cross references new subsections (b) and (c), in which it is now located. Areas that had been grandfathered under the 1988 regulations but not re-permitted under 1988 regulations will no longer be grandfathered. See explanation of subsection (b) below.

Several commentators suggested that the word "land" be inserted into the lead-in language to subsection (a), as: "Except for land areas that were permitted . . ." This change is not warranted because the definition of "municipal waste landfill" in § 271.1 (relating to definitions) already includes land affected by the operations and includes support facilities, sheds, storage facilities and more.

Several commentators suggested that a new isolation distance be created limiting the acceptable distance for a landfill from a freeway interchange ramp, because of the impacts of trucks traveling greater distances along secondary roads. The Board declined to include this provision because locating a facility within 10 miles of a freeway interchange may prohibit areas where the siting of landfills may be ideal. A detailed traffic analysis is done during the application review and considered during the environmental assessment process.

Two commentators suggested that all setbacks be measured from areas used for disposal, processing, recycling or storage of solid waste, including the storage and treatment of leachate. The Board declined to make this change. All setback distances are measured from the permit boundary, in accordance with the statutory definition of "municipal waste landfill."

Two commentators suggested that subsection (a)(2)(ii) be made clearer so there is no doubt that it applies to new permitted municipal waste landfills. The Board amended the rulemaking to make this clearer. The final-form rulemaking applies the 100 foot isolation distance from wetlands other than exceptional value wetlands only to new facilities.

Two commentators asked that permit applications on file with the Department prior to the effective date of these regulations be grandfathered from the new limitations in subsection (a)(3)(i) relating to underlying minerals and asked that this subparagraph indicate clearly that it applies to existing facilities and expansions thereof. The same commentators asked that the old rule be retained, which allowed the operator either to own the minerals or to enter into an agreement with the owner to provide support. Another commentator suggested that the proposed requirement that an operator own the subsurface rights to all minerals is overly broad, ambiguous and required definition. The final-form rulemaking does not grandfather permit applications, but does clarify which facilities are subject to which rules. Portions of the old rule were retained, but new provisions were also added. The clarifications appear in subsections (a)(3) to (a)(5), all of which relate to coal now.

Under subsection (a)(3), an area that was permitted as a municipal waste landfill between April 9, 1988, and the effective date of this final-form rulemaking remains sub-

ject to the rule in place during that time period and may not be operated in areas underlain by recoverable or mineable coals unless the operator of the facility demonstrates and the Department finds that the operator owns the underlying coal or has entered an agreement with the owner of the coal to provide support. The Board deleted the proposed language in subparagraph (ii) that would have required the operator of a facility permitted on or after publication of the final-form regulations to own the underlying mineable minerals.

Under subsection (a)(4), a later expansion of a municipal waste landfill that was permitted between April 9, 1988, and the effective date of this final-form rulemaking may not be operated in coal bearing areas underlain by recoverable or mineable coals unless the applicant satisfies one of two conditions. The first condition is that the applicant own the underlying coal. The second condition is that the applicant owned or entered into an enforceable option contract to purchase land on which the expansion would operate on or before the effective date of this final-form rulemaking and still holds the options rights, owns the land or owns the land under the option rights contract when the permit expansion is issued. In order to meet the second condition, the applicant must demonstrate in its application that coal providing support for the expansion area will not be mined as long as waste remains on the site.

Under subsection (a)(5), a new municipal waste landfill permitted on or after the effective date of this final-form rulemaking may not be operated in coal bearing areas underlain by recoverable or mineable coal, unless the permittee owns the underlying coal.

One commentator suggested that the prohibition against operating a landfill over limestone or carbonate formations (former subsection (a)(5)) should be modified to allow mitigation. This change was not made because a landfill, including the liner system, cannot be safely designed to adequately address unknown future stresses or areas of instability that could result from siting the landfill over limestone or carbonate formations. Karst topography in this Commonwealth is predominantly associated with limestone or carbonate formations.

Regarding subsection (a)(8), (former subsection (a)(6)), three commentators asked that the old 300-foot isolation distance from occupied dwellings apply to existing facilities and expansions of existing facilities. Three commentators asked that the new 300-yard isolation distance apply to expansions and also to major modifications. One commentator objected to the new 300-yard isolation distance applying in any situation. The Board made a number of changes to this provision, breaking it into four subsections, numbered (a)(8)—(11). The new provisions allow some flexibility for currently operating facilities and facilities expanding onto land already owned or under option rights on the effective date of these final-form regulations, but impose the new isolation distance on new and reopened landfills.

Subsection (a)(8) addresses operations at existing municipal waste landfills and at permitted non-captive (Class I) residual waste landfills that were operating under their residual waste permit and not closed as of the effective date of this final-form rulemaking and that convert to a municipal waste landfill after the effective date. Under the final-form regulation, these are subject to the old 300-foot setback. Disposal areas may not be closer than 500 feet except upon waiver by the owner of the dwelling.

Subsection (a)(9) addresses expansions of municipal waste landfills where the landfill was permitted before the effective date of this final rulemaking. The subsection also addresses expansions of residual waste landfills that were operating under their residual waste permit and not closed as of the effective date of this final rulemaking and that converts to a municipal waste landfill after the effective date of this final rulemaking. Expansions must be 900 feet from an occupied dwelling unless the owner provides a written waiver that meets the requirements of this subparagraph (i) or the expansion will be on land owned by the applicant on the effective date of the final-form regulations, subject to an enforceable option contract for purchase of the land on that date or purchased after the effective date of the final-form regulations under an option contract entered into prior to the effective date. (Subparagraph (ii).) If the contract/option provision applies, the expansion may not be operated closer than 300 feet and the disposal area may not be within 500 feet of an occupied dwelling unless the applicant obtains a waiver as described in subparagraph (i).

New municipal waste landfills will be subject to the 900-foot isolation distance, unless they obtain a waiver in accordance with subsection (a)(10). A closed landfill that submits an application to reopen and expand shall also be subject to this paragraph.

Access roads are not subject to the 900-foot isolation distance. Under subsection (a)(11), access roads are subject to a 300-foot setback. While an increase in the setback to 900 feet from landfill activity is necessary to address issues such as noise, dust and odors, these issues can continue to be adequately addressed for access roads with a 300-foot setback.

One commentator suggested that the isolation distance from a perennial stream should be the same as in the residual waste regulations. The Board agrees and has amended subsection (a)(12) accordingly. A municipal waste landfill cannot be located within 100 feet of a perennial stream unless storage, processing and disposal will not occur within that distance and no adverse hydrologic or water quality impacts will occur.

The proposed rulemaking had proposed to revise the airport isolation distances so that an exception would be available to an operator who could demonstrate that the landfill was designed and operated so that it would not pose a bird hazard to aircraft. On final, the Board deleted the exception and returned the regulatory language to its original form as it existed in subsection (a)(9) and (10). These provisions are found in new subsection (a)(14). The Board inserted date restrictions in this subsection, so that it applies to the areas to which it had already applied, namely those permitted on or after April 9, 1988, and before January 25, 1997. The proposed language, that would have transformed this paragraph into a copy of the EPA regulation that allows operations if the facility has provided a bird hazard mitigation plan, was discarded in favor of greater protection of the public health, safety and welfare and the environment by outright restrictions.

Subsection (a)(15) carries over language from the 1997 regulatory amendment that eliminated the modifier "FAA certified." All landfill areas permitted on or after January 25, 1997 are still subject to the isolation distance in this paragraph. The word "airport" used in paragraph (15) is defined in § 271.1 to comport with the Department of Transportation's definition of "public airport," except that the definition in § 271.1 does not include heliports.

The prohibition in paragraph (16)(i) against operating within the "conical airspace" was retained, although its deletion had been proposed. This prohibition offers important protection against air traffic accidents by protecting against construction at heights that would interfere with an airport's flight path. A new subparagraph (ii) was added to paragraph (16), to include all of the "imaginary surfaces" which the Federal Aviation Administration protects in 14 CFR 77.23(a)(5) (relating to standards for determining obstructions), not just the conical airspace. This will offer greater protection against intrusion into the airport's flight paths.

Several commentators wanted the Board to apply the isolation distance from schools, parks and playgrounds to expansions of existing facilities as well as to new facilities. These commentators also wanted this isolation distance to apply to places of worship and their grounds. The Board retained the proposed language because it is consistent with section 511 of Act 101. Impacts on places of worship can be evaluated during the balancing of harms and benefits in the environmental assessment.

A new subsection (b) has been added to § 273.202 to explain which areas are grandfathered. This regulation no longer grandfathers all areas permitted prior to April 9, 1988. Instead, it grandfathers those areas only if they were later included in a municipal waste landfill permit issued between April 9, 1988, and the effective date of these regulations. Those areas are not subject to the isolation distances cross referenced in subsection (b) as long as the permit did not become void. Hence, an area permitted as a municipal waste landfill prior to April 9, 1988, that has not been permitted under the 1988 regulations no longer receives protection from isolation distances. Areas are not grandfathered from the prohibition in subsection (a)(1) against operating in a 100-year floodplain because this prohibition existed before 1988. Areas are not grandfathered from the underlying coal restrictions in subsection (a)(4) and (5) because those paragraphs contain their own dates of applicability. The same is true of subsection (a)(9) and (10), relating to occupied dwellings, (a)(15) relating to airports, (a)(16)(ii) relating to obstructions to air navigation and (a)(18) relating to schools, parks and playgrounds.

New subsection (c) establishes that none of the isolation distances applies for purposes of conducting postclosure activities for areas permitted as a municipal waste landfill prior to the effective date of these final-form regulations. This subsection is designed to allow postclosure activities to continue despite isolation distances in order to achieve proper and effective final closure.

§ 273.203. Certification.

Two commentators asked the Board to combine paragraphs (2)—(6) to allow certification of all liner construction activities at the same time. The Board did not make the change. The certification of each major construction activity is necessary because the incorrect construction of one component may compromise the integrity of the entire liner system.

DAILY OPERATIONS

§ 273.211. Signs and markers.

One commentator suggested that the sign requirements should continue to require the name, address and telephone number of the organization operating the facility. The Board agrees and retains the name, business address and telephone number of the person or municipality that operates the facility, the operating hours and the permit identification number.

§ 273.213. Access roads.

Two commentators suggested that access roads should be considered those roads from the entrance gate to the disposal area. The Board did not make this change because certain operating requirements, such as stormwater management and dust controls, apply to all access roads. Where necessary, this section sets additional standards for roads leading to the disposal area which do not apply to other access roads.

§ 273.214. Measurement and inspection of waste.

Subsection (a) has been amended to reflect the repeal of the Weights and Measures Act of 1965 and the Public Weighmasters Act of 1961. Both acts were replaced with 3 Pa.C.S. §§ 4101—4194 (relating to Consolidated Weights and Measures Act).

Subsection (c) has been amended to delete the requirement to monitor and inspect incoming waste for radioactive isotopes. In response to public comments received on subsection (c), this requirement was refined and moved to §§ 273.133, 273.140a, 273.223, 273.311 and 273.313. Similar provisions appear in Chapters 277, 279, 281 and 283, and a transition schedule appears in § 271.114.

A number of commentators submitted comments on subsection (c). The commentators suggested that the Board clarify the amount of inspection necessary for an operator to determine the characteristics of incoming waste. The Board has clarified this in § 273.140a (relating to radiation protection action plan) and § 273.223 (relating to radiation monitoring and response). More detailed information on monitoring and inspection is provided in the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001, which is cross-referenced in these sections.

The commentators requested that the specific level that would trigger rejection of a load of waste containing radioactive material be stated in the regulations. In response to this comment, the Board included in § 273.223 the levels at which an operator must immediately isolate a vehicle and notify the Department. One level is for radiation dose rates detected in the cab and the other level is for radiation detected from any other surface.

Once notified, the Department staff and possibly staff from Federal agencies will assist the facility and its consultants in identifying, localizing and quantifying the radioactive material in the load. This is a stepwise investigative process that will ultimately determine what corrective action is needed. The entire problem may be in one bag or the whole load may require disposal. These procedures are further described in the guidance document mentioned above. It is noted that there is a lower alarm level which calls for the facility to investigate the problem in accordance with its approved action plan, guidelines for which are set forth in the guidance document. In the range between this lower alarm level (Action Level I) and the levels above where the Department is called immediately (Action Level II), a facility has a variety of options available, including rejection of the load and sending it back to origin providing that a Department of Transportation Exemption is obtained from the Department. At levels at or above Action Level II, special handling of the radioactive material will be required and simple rejection is not permissible.

The commentators also asked the Board to examine the costs and capital necessary for landfills to monitor and inspect waste for radioactive material. The commentators

asked that the Board consider establishing a reasonable time frame for compliance with the new regulations if the costs were significant. In response, the Department analyzed the costs necessary to inspect for radioactive materials and determined that the costs of installing the equipment and implementing the required procedures is minimal compared to the costs associated with managing radioactive wastes that have been improperly disposed in a landfill or resource recovery facility. Nevertheless, to accommodate the transition, the Board included a new section, § 271.114 (relating to transition period), which establishes a schedule by which each regulated facility is to come into compliance with the new requirements.

§ 273.216. Unloading and compaction.

One commentator indicated that the proposed amendments to the working face requirements should not be deleted, but rather reworded to define the working face in terms of daily cover requirements. The Board did not make this change because the information concerning the procedures used at the working face is covered in sections dealing with the placement of daily, intermediate and final cover.

§ 273.217. Air resources protection.

The Board clarified in subsection (b) that an air quality plan approval and air quality operating permit are issued under Chapter 127 (relating to construction, modification, reactivation and operation of sources). The Board declined to make further revisions in response to comments suggesting that a separate air plan should be required under the municipal waste regulations and that methane gas control should be focused on. The air quality plans address methane gas control and management. Odors that result from transportation or landfill working face activities can also be addressed by operational changes.

§ 273.218. Nuisance minimization and control.

The Board amended subsection (b) to require the operator to minimize and control "public nuisances" from odors. The proposed subsection had only referenced "nuisances." Subsection (b) is now consistent with subsection (c). Similarly, to harmonize subsection (c) with (b), the requirement was added that the operator implement the plan approved under § 273.136 (relating to nuisance minimization and control plan). The Board did not revert to the "prevent and eliminate" language of the prior regulation as suggested by several commentators because field experience shows that nuisances cannot always be prevented. Finally, the Board reversed the order of subsections (b) and (c) for clarity.

§ 273.221. Daily volume.

Two commentators suggested that this section be deleted because the design and operation of the landfill is based upon the maximum daily volume. The Board declined to delete this section. Act 101 requires that a municipal waste landfill include an average and maximum daily volume.

§ 273.223. Radiation monitoring and response.

A new § 273.223 has been added to this final rule-making to address monitoring for and responding to radioactive materials in municipal waste. Subsection (a) requires the facility operator to implement the action plan approved under § 273.140a (relating to radiation protection action plan). Subsection (b) requires the operator to monitor in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Municipal and Residual Waste Processing and Disposal Facilities*, document number 250-3100-001 (or in an

equally protective manner), the facility's approved radiation protection action plan and this section. Subsection (c) describes the required sensitivity of the monitors and establishes the maximum level of radiation at which they must be set to alarm. In addition to the monitors described in subsections (b) and (c), portable radiation monitors that can determine the radiation dose rate and the presence of contamination on a vehicle that has caused an alarm are required by subsection (d). When radiation is detected at a landfill and the alarm exceedance is confirmed, the operator must perform a radiological survey of the vehicle. If a dose rate specified in subsection (e) is detected, the operator must notify the Department immediately and isolate the vehicle. Once notified, the Department staff, and possibly staff from Federal agencies, will assist the facility and its consultants in identifying, localizing and quantifying the radioactive material in the load. This is a stepwise investigative process that will ultimately determine what corrective action is needed.

To ensure that the monitoring equipment continues to function properly, subsection (f) requires that the equipment be calibrated at least once a year and more often if so specified by the manufacturer.

Subsection (g) notes the Federal requirement that, once the presence of radioactivity is detected (that is, above Action Level I, as described in the guidance document), the vehicle is not permitted to leave the facility with the material on board without written Department approval and an authorized Federal Department of Transportation exemption form issued by Department. The exemption forms will usually be issued by telephone or fax communication for levels between Action Level I and the Action Level II limits specified in subsection (e).

COVER AND REVEGETATION

§ 273.231. Topsoil storage.

In response to the proposal to delete this section, one commentator suggested that it may be more appropriate to modify this section to address topsoil used as part of a cap. The Board deleted this section, as proposed, because the design and performance standards for the final layer of soil placed over a cap are found in § 273.234.

§ 273.233. Intermediate cover and slopes.

One commentator expressed the concern that using waste as a cover material has the potential for pollution from erosion caused by excessive rain or flooding. The Board declined to amend this section in response because the intermediate slopes are located within the lined disposal area.

§ 273.234. Final cover and grading.

The Board amended subsections (a)(1)(i) and (c) to require the cap to have a permeability less than or equal to the permeability of the primary liner. This requirement is consistent with Federal Subtitle D requirements related to caps and will prevent the buildup of leachate during post closure activities. To be consistent with the amendments in § 273.234(a)(1)(i) and (c), the Board amended § 273.256, Table I by removing the option to use clay or bentonite caps.

Several commentators questioned the proposed requirement that the caps should limit the migration of precipitation into the landfill to the greatest degree technologically possible. The Board agreed and has deleted the requirement.

The Board amended subsection (b) to clarify that all layers of the final cover must be protected from differential settlement.

Two commentators suggested a variety of amendments to the design requirements of this section. The Board declined to make these amendments because they are unnecessarily prescriptive, and subsection (e) allows the operator to propose alternative designs through the equivalency review process.

WATER QUALITY PROTECTION

§ 273.241. *General requirements.*

One commentator indicated that the language in subsection (c) which requires the operator not to allow pollution within the site may be interpreted to mean that the operator would be in violation of the regulation if pollution from an upgradient industrial facility entered the site. The Board amended subsection (c) to indicate the operator may not cause water pollution within or outside the site from the operation of the facility.

§ 273.242. *Soil erosion and sedimentation control.*

A commentator suggested that subsection (c) include a specific time period for meeting the performance standards set for erosion and sedimentation control after a storm event has occurred.

The Board declined to make this change. The operator should repair the storm damage as soon as possible; and weather and planting conditions are taken into consideration.

LINER SYSTEM

§ 273.251. *Scope and requirements.*

Several commentators suggested that requiring the secondary or primary liner to be constructed as a composite liner is not necessary and that a single composite liner system or a double liner without a composite component is adequate. The Board declined to make this change because the performance of the liner system is greatly enhanced by adding a composite component to one of the liners. Many landfill operators in this Commonwealth recognize the composite component as state of the art in the industry and have added the layer to the design of their facilities to improve performance and long-term integrity. The final-form regulations allow construction of a liner under an existing permit for a period of 1 year from the effective date of the regulations. After that date, all liner construction must include a composite component.

§ 273.252. *General limitations.*

The Board amended subsection (c) to clarify that in confined layers at least 8 feet shall be maintained between the bottom of the liner system and where groundwater occurs in confined layers as the result of upward leakage. The term "upward" was added to clarify the intent.

The Board added requirements in subsections (d)—(f) to clarify the construction of berms and the placement of waste in relation to the berms. These were added to identify which requirements applied to temporary and perimeter berms.

One commentator suggested that the word "table" should be deleted when it is used in relation to the seasonal high water table and perched water table. The Board declined to make this change because the terms seasonal high water table and perched water table are defined in the regulations and are not inconsistent in their application.

§ 273.253. *Subbase.*

One commentator suggested that subsection (b) be modified to describe standards for the use of geosynthetic

or soil-like material in the subbase. The Board declined to make this change because the use of alternative materials can be demonstrated through the existing equivalency review process.

§ 273.254. *Secondary liner.*

Subsection (d) was amended to clarify that liners made of clay shall be compacted in 6-inch lifts unless data from a field demonstration validates the suitability of compacted lifts greater than 6 inches. Subsection (e) concerning the design and construction of the secondary liner is deleted because the standards for a composite secondary liner are now identified in the reformatted subsection (e). Minor amendments to the wording in subsection (e) were made to be consistent with the residual waste regulations.

Several commentators suggested language changes to terms used in this section concerning liner construction. The Board changed the term "stability" to "suitability" in subsection (d), and added the word "geosynthetic" before "liner" in subsection (e)(1).

§ 273.255. *Leachate detection zone.*

The Board amended subsection (b)(7) to remove the requirement that the stones or aggregates used to construct the detection zone be noncarbonate. This concern is addressed in the performance standards, which require the zone to be able to withstand chemical attack and function without clogging.

The proposed changes to subsection (d) concerning flow in the leachate detection zone were deleted. The current requirement, which requires the operator to test any leakage in the zone, was retained because this testing is used to determine whether the leakage is leachate. Subsection (e) was amended to require the flow calculation be based upon the flow in a lined collection area instead of the entire lined area. This can be used to more effectively address the leak on a localized basis.

The Board amended subsection (f) to require the operator to submit a plan for further action if the sampling results indicate that the concentration of constituents in the leachate detection zone could result in groundwater degradation. It is very important to address the leakage through the liner if the leakage has any potential to affect groundwater because addressing liner system problems early may have a significant impact on the long-term performance of the entire operation.

Two commentators suggested that changes should be made to subsection (d) to require that the liquid flow in the detection zone be determined on a quarterly average instead of on a weekly average. One commentator indicated that the proposed 10-gallon-per-day threshold would be routinely exceeded. The Board declined to make these changes. The final-form regulations maintain the current language because it is necessary to characterize any flow in the leachate detection zone.

§ 273.256. *Primary liner.*

The Board changed subsection (d)(1)(i) to require that the upper component of a composite liner be constructed of geosynthetic material. The Board changed the word "lower" to "composite" when describing the liner component made of earthen material in subsection (d). This change was made to be more descriptive and to be consistent with the residual waste requirements.

One commentator suggested that natural and remolded clay should be added as allowable material for the composite component. The Board modified Table I to

allow the composite component to be constructed of natural or remolded clay and to reflect the geosynthetic liner requirement. These materials are commonly used as composite components.

Two commentators indicated that Table I should be reformatted in a more readable manner and should be performance based. The Board declined to make these changes because the table has successfully been used in the past and if the operator does not prefer to use the identified design requirements, an alternative design may be approved through the equivalency process.

§ 273.257. Protective cover.

A commentator indicated that the term "graded" in subsection (b)(2) was incomplete. The Board deleted the design standard, which required that the protective cover be graded. This design requirement was not necessary.

§ 273.258. Leachate collection system within protective cover.

The Board deleted the proposed requirement in subsection (a)(2) that allowed the leachate depth on the primary liner to exceed 1 foot in depth in certain instances. This requirement was inconsistent with the Federal municipal waste landfill requirements in Subtitle D.

One commentator suggested that the term "noncarbonate" be defined. The Board amended subsection (b)(4) to delete the requirement that stones or aggregates in the leachate collection zone be noncarbonate. The performance standards in subsection (a) address this issue by requiring that the collection system be able to withstand chemical attack from the leachate.

One commentator suggested that there should be a requirement for at least two methods for leachate to flow to the low point of the landfill. The Board declined to make the change. The current design and performance standards for leachate removal are successfully being implemented at operating landfills.

LEACHATE TREATMENT

§ 273.272. Basic treatment methods.

Two commentators indicated that offsite hauling should be allowed as an unrestricted supplement to another approved method. In addition, leachate recirculation and leachate evaporation should be added as an allowable treatment option.

The Board declined to make these changes because offsite hauling is dependant on contracts with offsite treatment facilities that may not always be available. Leachate recirculation and evaporation can augment a permitted treatment method, but cannot be approved as a basic treatment method.

§ 273.273. Leachate transportation.

Two commentators suggested that subsection (b)(4) be revised to eliminate the requirement for 6-month advance notice for leachate treatment contracts. The Board declined to make amendments to this section because the 6-month advance notice is necessary should the operator need to construct an onsite treatment facility or secure another means for leachate treatment or disposal.

§ 273.274. Leachate recirculation.

A commentator suggested that leachate recirculation should be allowed as it promotes biological degradation of the waste and enhances gas production and recovery. The Board declined to make amendments to this section because leachate recirculation can be approved as part of the permit.

§ 273.275. Leachate collection and storage.

The Board amended subsection (g) to apply the new requirements for the design of underground leachate pipes to facilities permitted after the effective date of the final-form regulations. The new pipes must have secondary containment or comply with alternative methods of release detection identified in the underground storage tank regulations.

A commentator suggested that the 30-day leachate storage requirement allow more room for engineering mitigation. The Board declined to make the change because the 30-day storage requirement, in effect since 1988, has proven to be necessary to ensure sufficient storage during adverse weather conditions or unforeseen leachate handling problems.

Two commentators indicated that the dual containment piping required in subsection (g) is excessive, and proper performance can be assured through routine inspections. The Board amended subsection (g) to allow for alternative methods of release detection to be used.

§ 273.276. Leachate analysis and sludge handling.

The Board amended the proposed changes to subsection (a)(2) to not allow a reduction in the quarterly leachate chemical analyses testing requirements. It is necessary to have current information on the leachate quality to determine such things as the impact of the leachate on the liner system, the effectiveness of the leachate treatment system and the need for additional groundwater monitoring.

A commentator suggested that four quarters of testing is insufficient and that a longer period of time is necessary to evaluate the movement of contaminants. The Board declined to make this change.

WATER QUALITY MONITORING

§ 273.282. Number, location and depth of monitoring points.

The Board amended subsection (f) to ensure groundwater sampling would not be affected by materials used in the installation of the well. Two commentators suggested that the requirement for a groundwater monitoring point within 200 feet of the disposal area should be deleted as it is mutually exclusive with the point of compliance monitoring point. The Board declined to make this change because the detection monitoring wells within 200 feet of the disposal area monitor the performance of the facility and determine if groundwater assessment is required. The point of compliance is 150 meters and is used to determine when abatement is necessary.

One commentator suggested that the requirement for well drillers to be licensed should be maintained. The Board agreed and retained the requirement that the well drillers be licensed.

§ 273.283. Standards for wells and casing of wells.

The Board amended subsection (a)(3) to require that the well screen maximize open area to minimize entrance velocities and allow rapid sample recovery. This is necessary to make sure that the groundwater sampling can be done in an efficient manner.

The Board added new subsection (c)(7) to allow for alternative well casing designs in stable formations, if approved by the Department. This provides some design flexibility based upon the tightness of the hydrogeologic formation.

One commentator suggested that monitoring wells should be constructed in accordance with an ASTM standard. The Board declined to make the change because some requirements in the ASTM standard are in conflict with hydrogeologic and other portions of the Commonwealth's rules and regulations.

§ 273.284. Sampling and analysis.

The Board amended this section to move magnesium from an annual testing parameter to a quarterly parameter because magnesium is an effective early indicator of liner leakage or failure.

Several commentators suggested the regulations allow the reduction in the number of parameters and sampling frequency in the groundwater monitoring program. The Board declined to make the suggested changes for monitoring at facilities prior to closure. The waste acceptance plans approved at most landfills allow for a variety of waste to be disposed that may impact water quality in the event of liner failure. Reducing the number of parameters or sampling frequency may significantly reduce the effectiveness of the groundwater monitoring program. The Board did amend § 273.322 to allow the operator to request a reduction in the sampling frequency for parameters after closure.

§ 273.286. Groundwater assessment plan.

The Board amended subsection (c)(1) to clarify that groundwater monitoring devices installed at the point of compliance must be constructed in accordance with the design requirements for detection monitoring wells. Monitoring wells need to be constructed to the standards established for detection monitoring wells so that the groundwater information gathered is consistent and can be compared to data from other wells.

One commentator suggested that the time period for submitting reports under subsection (a) should be changed from 60 to 90 days because most sites request a 30-day extension. The Board declined to make this change. Based upon information from existing sites, most sites do not request an extension up to 90 days when submitting analytical results and the results need to be reported in a timely manner for use in evaluating the assessment plan.

§ 273.287. Abatement plan.

Subsection (d)(4) has been amended on final rulemaking to delete the term "primary" in reference to MCLs. As a result of this amendment, abatement and remediation standards will include primary and secondary MCLs. The insertion of the word "primary" in the proposed rulemaking was inadvertent and would have established an inconsistency with the references to MCLs in other parts of this section. Remediation standards for MCLs under the Federal regulations, at 40 CFR Part 258, refer only to primary MCLs, but in this Commonwealth secondary MCLs are enforceable drinking water standards, so the final-form regulations include all promulgated MCLs. The final-form regulations are thereby more stringent than the Federal regulations. The Board is primarily concerned about containing contamination on-site and minimizing offsite migration during the operation of a landfill. Facility design and operations must be adequate to minimize the release and migration of all contamination.

The Board also amended subsection (d)(4) to delete the redundant reference to the Safe Drinking Water Acts, which are already referenced in subsection (d)(1). The Board added a requirement in subsection (d)(4)(v) to

address the abatement levels for systemic toxicants. This is necessary to address action levels for parameters where MCL's have not been established.

A commentator indicated that the background standard should be the same as that used in the Land Recycling program. The term is defined in § 271.1 and has the same meaning as it has in the Land Recycling and Environmental Remediation Standards Act.

MINERALS AND GAS

§ 273.293. Gas recovery.

Two commentators suggested that there would not be a gas recovery byproduct generated as part of the gas recovery process. The Board amended subsection (b) to delete the word "gas" as the gas would not be a byproduct of gas recovery.

EMERGENCY PROCEDURES

§ 273.301. Hazard prevention.

A commentator recommended that first aid equipment and supplies should be available on site. The Board declined to require that first aid equipment and supplies be available at the facility. The Pollution Prevention Compliance plan submitted with the application identifies first aid equipment and procedures. These may or may not be directly located at the site.

RECORDKEEPING AND REPORTING

§ 273.311. Daily operational records.

Subsection (b)(10) has been added on final to require information to be kept in the daily record describing radioactive materials detected in waste loads. This information will be helpful to the operator, the host municipality inspector and the Department. If the origin of the material is known, it will be stated in the daily record, along with the identity of the supplier or handler of the radioactive material and the driver. Identifying these parties will enable the operator and the Department to take steps to prevent inappropriate distribution of radioactive materials in the future. The final disposition of the material is also required to be stated in the daily record. This will help the operator, host municipality inspector and Department know that the material will be properly disposed of.

Subsection (b)(11) has been added on final to require a landfill operator to identify vehicles that have arrived at the landfill over the maximum gross weight allowed on roadways of this Commonwealth under section 4941 of the Vehicle Code (relating to maximum gross weight of vehicles). This requirement is designed to help reduce the number of overweight waste vehicles traveling on roadways of this Commonwealth. While the Department will not use this part of the daily operational record to institute a direct enforcement action against a waste hauler for exceeding a roadway weight limit or against a waste facility for accepting an overweight vehicle, the Department may use the information in enforcing the daily volume limits at the facility, in selecting locations for routine vehicle inspections and in taking other steps toward reducing the number of overweight waste vehicles.

§ 273.313. Annual operation report.

Two commentators suggested that the proposed reporting changes that required the annual report to include plans showing cross sections was unnecessary and should be deleted because it could be obtained from topographic contour maps. The Board deleted this requirement in the final-form regulations because the information can be obtained through other requirements in the report.

The Board added subsection (b)(1)(iii) on final to require an annual reporting to the Department of radioactive materials detected at the landfill. This requirement was added to allow the Department to track the amount of radioactive material arriving at solid waste facilities and to use the data to better resolve the extent of the problem and for future problem solving.

§ 273.315. Recycling fee.

When the proposed rulemaking was published, the recycling fee had recently been extended under an amendment to the Administrative Code. Since then, the Environmental Stewardship and Watershed Protection Act further extended the fee. Because of the frequent statutory amendments, the Board has revised subsection (a) so that it no longer identifies a fee termination date, but instead states that the fee shall terminate in accordance with statute.

§ 273.316. Environmental stewardship fee.

This section used to be entitled "Site-specific postclosure trust fee," however, that fee is no longer collected, under the ESWPA, which passed after the regulations were proposed in 1998. The Board has therefore replaced the site-specific postclosure trust provisions with new Environmental Stewardship fee provisions. These provisions implement the new act and, where appropriate, borrow procedures from Act 101 and § 273.315 (relating to recycling fee) regarding collection of the recycling fee.

CLOSURE PROVISIONS

§ 273.322. Closure.

The Board deleted the proposed requirement in subsection (c)(2) that requires acceptance of the operator's selection of the remediation standard because the decision may be impacted by other closure considerations. The Board added subsections (e) and (f) to allow the Department to approve modifications to the frequency of groundwater sampling during the postclosure period if the operator demonstrates that the parameter has not caused or contributed to groundwater degradation and that the parameter is unlikely to cause or contribute to groundwater degradation in the future. The Board added subsection (g) to authorize the Department to reinstate the more frequent monitoring requirements for any parameter if the Department has reason to believe that the parameter may cause or contribute to groundwater degradation.

Subchapter E. ADDITIONAL OPERATING REQUIREMENTS FOR SPECIAL HANDLING AND RESIDUAL WASTES SPECIFIC WASTES

§ 273.513. Sewage sludge.

One commentator suggested that the sewage sludge stabilization requirements reference the appropriate standards in Chapter 271. The Board agreed and amended this section to require that sewage sludge disposed at a landfill meet one of the processes to significantly reduce pathogens or to further reduce pathogens set forth in Chapter 271, Subchapter J, Appendix A and one of the vector attraction reduction standards in § 271.933(b). This is the minimum level of treatment needed to minimize odors and vectors during transportation and disposal.

Another commentator questioned why the requirements for disposal of sewage sludge at a landfill required the control of odors. The Board declined to make a change in

response to this comment as odors need to be controlled if sewage sludge is to be disposed at the facility.

CHAPTER 277. CONSTRUCTION/DEMOLITION WASTE LANDFILLS.

One commentator indicated that the construction/demolition waste requirements closely mirror the Class II residual waste requirements and suggested that the construction/demolition chapter be a subset of the residual waste regulations. The Board declined to make this change. While there are some parallel design concepts between the construction/demolition landfill requirements and the Class II residual waste landfill requirements, there are a number of differences due to the nature of residual and construction/demolition (municipal) waste.

Subchapter B. APPLICATION REQUIREMENTS PHASE I APPLICATION REQUIREMENTS

§ 277.110. Modification to expand existing landfill. (Proposed only.)

This section was added in the proposed rulemaking, but has been relocated to § 277.122 in the final-form rulemaking.

§ 277.112. Facility plan.

The Board added language in paragraph (2) to require the permit application for a municipal waste landfill to include a description of the method by which the soil necessary for construction and operation will be delivered. If soil is not located onsite, the traffic, access roads and other impacts need to be evaluated when performing the environmental assessment process.

§ 277.115. Geology and groundwater description.

Subsection (a)(3) was amended to allow alternative techniques for characterizing groundwater to be employed when the standard multiple well aquifer tests are not feasible. This allows the applicant to use alternative methods if unique hydrogeologic conditions are not conducive to standard testing techniques.

The Board also added language in subsection (a)(9) to allow the Department to require more frequent water level measurements after significant precipitation events. This information is necessary if the monthly measurements required by the regulations do not adequately represent the highest possible water levels which are needed to design the site.

§ 277.116. Groundwater quality description.

The Board amended subsection (a)(1) to add lead to the list of parameters analyzed during background groundwater monitoring. Lead is prevalent in construction/demolition waste and establishing the background is necessary to compare to future monitoring data.

§ 277.120. Mineral deposits information.

The Board amended the language in subsection (b) to require that the applicant either own the underlying mineable coal, or own the land or enter into an enforceable option contract to purchase land on which an expansion would operate and have an agreement with the owner of the coal to maintain support as long as waste remains on the site. These requirements are necessary to prevent failure of the landfill liner system should settlement occur into voids created by coal mining. Under the previous structure, the applicant was required to demonstrate that the owner of underlying mineable minerals would not mine the minerals as long as municipal waste remained on the site. The amendments remove the ambiguity of the term mineable mineral deposits and

instead apply the restrictions to mineable coals, which is the mineral most likely to be mined and is consistent with the mineral deposits information in the residual waste regulations. The amendments also provide some opportunity for existing facilities to expand on to areas where the applicant does not own the underlying coal.

§ 277.121. Notification of proximity to airport.

This section has been revised in the final-form rule-making to be consistent with its municipal waste landfill corollary, § 273.121 (relating to notification of proximity to airport). The revision restricts construction of construction/demolition waste landfills within 6 miles of airports. Under the revisions, an applicant will have to notify and include copies of any notifications to the FAA, the airport and the Department of Transportation's Bureau of Aviation as well as any responses received from those entities. This information will assist the Department in determining whether construction of the facility or modification thereof would be safe. If any of the respondents expresses safety concerns, the applicant will generally be required to submit a mitigation plan under § 271.127 (relating to environmental assessment), at a minimum. The section has also been revised to apply to all applications for new landfills or expansions, not just to new landfills and lateral expansions, because the phrase "lateral expansions" was unnecessarily restrictive.

§ 277.122. Modification to expand existing landfill.

This section was proposed as § 277.110 and has been renumbered as § 277.122 for structural formatting purposes. The final text is identical to the proposed text.

**PHASE II APPLICATION REQUIREMENTS
GENERAL PROVISIONS**

§ 277.133. Map and grid requirements.

The Board added a requirement in new subsection (a)(14) that an application for a construction/demolition waste landfill indicate on the topographic map a designated area for vehicles for use in the event of the detection of waste containing radioactive material. This provision is the same as the provision added for municipal waste landfills, in § 273.133 (relating to map and grid requirements), which is discussed in more detail above.

§ 277.134. Plan for access roads.

A commentator indicated that the proposed modification to the access road application requirements was a performance standard and should be located in the operating requirements for access roads in § 277.213. The commentator also indicated that the proposed requirement that access roads be designed and constructed to adequately handle the truck traffic was not clear. The Board agreed and removed the proposed changes to this section.

§ 277.139. Daily volume.

A commentator opposed the setting of a maximum and average daily volume for construction/demolition sites and suggested that the average daily volume be calculated on a semiannual period. The Board declined to make the suggested changes. The operator needs to identify the average and maximum volumes to prepare the nuisance minimization and control plan and to evaluate the potential impact in the environmental assessment process. The quarterly computation requirement is consistent with the municipal waste landfill regulations.

§ 277.140. Radiation protection action plan.

The Board has added a new section in the final-form rulemaking requiring that an application for a

construction/demolition waste landfill contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, record keeping and reporting. This provision is the same as the provision added for municipal waste landfills, in § 273.140a (relating to radiation protection action plan), which was previously discussed in more detail.

**PHASE II APPLICATION REQUIREMENTS
COVER AND REVEGETATION**

§ 277.141. Compaction and cover plan.

The Board amended the language in paragraph (4) to require that the applicant identify procedures to establish the intermediate and final elevations for the landfill because this information is critical during the design and construction of the facility. This change is consistent with the municipal waste landfill requirements.

**PHASE II APPLICATION REQUIREMENTS
LINERS AND LEACHATE MANAGEMENT**

§ 277.161. Liner system and leachate control plan.

Several changes were made to the final-form regulations in this section.

The Board amended the existing liner testing properties to reflect current liner compatibility testing procedures. The following properties were added: density, carbon black content, carbon black dispersion, stress crack resistance and oxidative induction time. The following properties were deleted: the modulus of elasticity, impact resistance, operating temperature range, ozone resistance, water vapor transmission, coefficient of linear thermal expansion, and low temperature/brittleness.

Several commentators questioned why the proposed rulemaking required percent recycled material as a testing property and suggested that it be deleted unless this information is relevant. The Board declined to make the change. The percent recycled material can significantly vary during the manufacturing process which can change the performance of the liner.

**PHASE II APPLICATION REQUIREMENTS
CLOSURE PROVISIONS**

§ 277.192. Closure plan.

The Board replaced the phrase "toward and after closure" with "in preparation for closure and after closure." "Closure" is the point at which the entire facility permanently ceases to accept waste. It happens only once at a landfill. Under the final-form regulations, the application shall contain a plan describing the activities that are proposed to occur in preparation for closure and after closure and a narrative description of the measures that are proposed to be carried out.

**Subchapter C. OPERATING REQUIREMENTS
GENERAL PROVISIONS**

§ 277.201. Basic limitations.

This section has been revised in the final-form rule-making to specify clearly the types of radioactive materials that might be found in the waste stream that may not be accepted at a construction/demolition waste landfill. These provisions are the same as the provisions added for municipal waste landfills, in § 273.201 (relating to basic limitations), which were previously discussed in detail.

§ 277.202. Areas where construction/demolition waste landfills are prohibited.

One commentator asked for clarification in the final-form rulemaking of whether the prohibitions against operating over mineable minerals will apply if the owner of the mineral rights guarantees that no mining will occur and for clarification of what prohibition applies to expansions of landfills that were permitted prior to the effective date of these final-form regulations. The isolation distances pertaining to minerals have been revised and clarified in the final-form regulations, consistent with the final revisions in § 273.202 (relating to areas where municipal waste landfills are prohibited). Portions of the old rule were retained, but new provisions were also added. The clarifications appear in subsections (a)(3) to (a)(5), all of which relate to coal now.

Under subsection (a)(3), an area that was permitted as a construction/demolition waste landfill between April 9, 1988, and the effective date of this final-form rulemaking remains subject to the rule in place during that time period and may not be operated in areas underlain by recoverable or mineable coals unless the operator of the facility demonstrates and the Department finds that the operator owns the underlying coal or has entered an agreement with the owner of the coal to provide support. The Board deleted the proposed language in paragraph (ii) that would have required the operator of a facility permitted on or after publication of the final-form regulation to own the underlying mineable minerals.

Under subsection (a)(4), a later expansion of a construction/demolition waste landfill that was permitted between April 9, 1988, and the effective date of this final-form rulemaking may not be operated in coal bearing areas underlain by recoverable or mineable coals unless the applicant satisfies one of two conditions. The first condition is that the applicant own the underlying coal. The second condition is that the applicant owned or entered into an enforceable option contract to purchase land on which the expansion would operate on or before the effective date of this final-form rulemaking and still holds the option rights, owns the land or owns the land under the option rights contract when the permit expansion is issued. In order to meet the second condition, the applicant must demonstrate in its application that coal providing support for the expansion area will not be mined as long as waste remains on the site.

Under subsection (a)(5), a new construction/demolition waste landfill permitted on or after the effective date of this final-form rulemaking may not be operated in coal-bearing areas underlain by recoverable or mineable coal, unless the permittee owns the underlying coal.

The Board made a number of changes to the occupied dwelling provisions of proposed subsection (a)(6), breaking it into four subsections, numbered (a)(8)—(11). The new provisions allow some flexibility for currently operating facilities and facilities expanding onto land already owned or under option rights on the effective date of these regulations, but impose the new isolation distance on new and reopened landfills.

Subsection (a)(8) addresses operations at existing facilities. Under the final-form regulations, these are subject to the old 300-foot setback. Disposal areas may not be closer than 500 feet except upon waiver by the owner of the dwelling.

Subsection (a)(9) addresses expansions of facilities where the facility was permitted before the effective date of this final-form rulemaking. Expansions must be 900

feet from an occupied dwelling unless the owner provides a written waiver that meets the requirements of this subparagraph (i) or the expansion will be on land owned by the applicant on the effective date of the regulations, subject to an enforceable option contract for purchase of the land on that date or purchased after the effective date of the regulations under an option contract entered into prior to the effective date. (Subparagraph (ii).) If the contract/option provision applies, the expansion may not be operated closer than 300 feet and the disposal area may not be within 500 feet of an occupied dwelling unless the applicant obtains a waiver as described in subparagraph (i).

New landfills will be subject to the 900-foot isolation distance, unless they obtain a waiver in accordance with subsection (a)(10). A closed landfill that submits an application to reopen and expand shall also be subject to this paragraph.

Access roads are not subject to the 900-foot isolation distance. Under subsection (a)(11), access roads are subject to a 300-foot setback. While an increase in the setback to 900 feet from landfill activity is necessary to address issues such as noise, dust and odors, these issues can continue to be adequately addressed for access roads with a 300-foot setback.

The Board amended subsection (a)(12) so that a construction/demolition waste landfill cannot be located within 100 feet of a perennial stream unless storage, processing and disposal will not occur within that distance and no adverse hydrologic or water quality impacts will occur. This change is consistent with the change in § 273.202 made in response to public comment.

The Board added a phrase at the end of subsection (a)(15), regarding the isolation distance from a school, park or playground to make this section consistent with its municipal waste corollary in § 273.202.

The Board added a new paragraph (16) to subsection (a) to prohibit a construction/demolition waste landfill from operating in a manner in which any portion of the landfill would be an obstruction to air navigation under 14 CFR 77.23(a)(5) (relating to standards for determining obstructions). This protects the "imaginary surfaces" which the Federal Aviation Administration protects under 14 CFR 77.25 (relating to civil airport imaginary surfaces) for safety reasons.

DAILY OPERATIONS

§ 277.211. Signs and markers.

One commentator suggested that the sign requirements should continue to require the name, address and telephone number of the organization operating the facility. The Board agrees and retains the name, business address and telephone number of the person or municipality that operates the facility, the operating hours and the permit identification number.

§ 277.214. Measurement and inspection of waste.

Subsection (a) has been amended to be consistent with the requirement for municipal waste landfills in § 273.214 (relating to measurement and inspection of waste).

§ 277.217. Air resources protection.

One commentator asked why the "air quality plan" and "air quality operating permit" need to be referenced in this section. The commentator suggested that if such references are necessary, appropriate regulatory citations should be provided. The Department retained the refer-

ences to assist operators in understanding their requirements and included appropriate regulatory cross references in the final-form rulemaking to indicate that an air quality plan approval and air quality operating permit are issued under Chapter 127 (relating to construction, modification, reactivation and operation of sources).

§ 277.218. Nuisance minimization and control.

The Board amended subsection (b) to require the operator to minimize and control "public nuisances" from odors. The proposed subsection had only referenced "nuisances." Subsection (b) is now consistent with subsection (c). Similarly, to harmonize subsection (c) with (b), the requirement was added that the operator implement the plan approved under § 277.136 (relating to nuisance minimization and control plan). The Board did not revert to the "prevent and eliminate" language of the prior regulation as suggested by several commentators because field experience shows that nuisances cannot always be prevented. Finally, the Board reversed the order of subsections (b) and (c) for clarity.

§ 277.222. Radiation monitoring and response.

This new section has been added to the final-form rulemaking to address monitoring for and responding to radioactive materials in the construction/demolition waste stream. This section is the same as the section added for municipal waste landfills, § 273.223 (relating to radiation monitoring and response), which was previously discussed in more detail.

COVER AND REVEGETATION

§ 277.232. Intermediate cover and slopes.

The Board amended this section to require that nonfriable asbestos containing waste shall be covered within 24 hours after disposal. This provision is necessary to comply with Federal standards concerning the disposal of asbestos containing waste. The Board also amended subsection (e) to insert performance standards for establishing vegetation. This makes the revegetation standards in this subsection consistent with the rest of this section.

§ 277.233. Final cover and grading.

The Board made several changes to this section. Subsection (a) requires a cap to be placed over the waste, and it allows the Department to waive or modify the cap and drainage layer for construction/demolition landfills permitted prior to the effective date without liners. The Board removed the requirement that the cap limit the migration of precipitation into the landfill to the greatest degree that is technologically possible, and has moved the permeability requirement for the cap from the design to the performance standards. Subsection (c) has been amended to require that the cap have a permeability less than or equal to the permeability of the primary liner. This requirement is consistent with Federal Subtitle D requirements related to caps and will prevent the buildup of leachate during post closure activities. Subsection (d) has been modified to delete the reference to the design requirements for intermediate cover. This reference was not necessary because the design requirements for the 2 feet of soil above the drainage layer are specifically listed in this subsection.

One commentator questioned the proposed requirement that the caps should limit the migration of precipitation into the landfill to the greatest degree technologically possible. The Board agreed and has deleted the requirement.

WATER QUALITY PROTECTION

§ 277.241. General requirements.

The Board amended subsection (c) to clarify that the operator may not cause water pollution within or outside the site from the operation of the facility. This was added to be consistent with changes made to the municipal waste regulation in response to concerns that the proposed language appeared to not consider the possibility of offsite pollution entering the facility.

LINER SYSTEM

§ 277.251. Scope and requirements.

The Board amended subsection (a) to reference § 277.122 (relating to modification to expand existing landfill) which was § 277.110 in the proposed regulations. Several commentators suggested that requiring all new construction/demolition waste landfills to be lined was unnecessary as natural attenuation construction/demolition waste landfills can be operated without causing groundwater pollution due to the characteristics of the waste. The Board declined to make changes in response to this suggestion because the physical and chemical nature of construction/demolition waste is more complex and is generated from a greater variety of demolition projects and activities. It may not be possible to screen each waste load for contaminants that may have potential to degrade the groundwater at unlined facilities.

§ 277.252. General limitations.

The Board amended subsection (c) to clarify that in confined layers at least 8 feet shall be maintained between the bottom of the liner system and where groundwater occurs in confined layers as the result of upward leakage. The term "upward" was added to clarify the intent.

The Board added requirements in subsections (d)-(f) to clarify the construction of berms and the placement of waste in relation to the berms. These were added to identify which requirements applied to temporary berms and perimeter berms.

§ 277.253. Subbase.

The Board amended subsection (b)(4) to clarify that the postsettlement slope for the subbase must be at least 2% and no more than 33%. This change was added to be consistent with the subbase requirements for municipal waste landfills and is critical to the design of the liner system.

§ 277.254. Leachate detection zone.

The Board amended subsection (b)(6) to remove the requirement that the stones or aggregates used to construct the detection zone be noncarbonate. This concern is addressed in the performance standards, which require the zone to be able to withstand chemical attack and function without clogging.

The proposed changes to subsection (d) concerning flow in the leachate detection zone were deleted. The current requirement, which requires the operator to test any leakage in the zone, was retained because this testing is used to determine whether the leakage is leachate. Subsection (e) was amended to require that the flow calculation be based upon the flow in a lined collection area instead of the entire lined area. This can be used to more effectively address the leak on a localized basis.

One commentator indicated that the proposed 10-gallon-per-day threshold would be routinely exceeded. The Board declined to make these changes. The final-form

regulations maintain the current language because it is necessary to characterize any flow in the leachate detection zone. If the flow is leachate, further analysis of the integrity of the primary liner may be necessary.

§ 277.255. Liner.

The Board made several amendments in this section and the corresponding Table I. Subsection (d) was amended to clarify that liners made of clay shall be compacted in 6-inch lifts unless data from a field demonstration validates the suitability of compacted lifts greater than 6 inches. The Board amended subsection (e) and Table I to clarify that the upper component of a composite liner is a geosynthetic liner. The Board modified Table I to allow the composite component to be constructed of natural or remolded clay, bentonite or be part of a geosynthetic clay liner. These materials are commonly used as composite components and are consistent with the options available in the municipal waste landfill regulations.

§ 277.256. Protective cover.

The Board deleted the design standard in subsection (b)(2) which required that the protective cover be graded. This design requirement was not necessary.

§ 277.257. Leachate collection system within protective cover.

The Board deleted the proposed requirement in subsection (a)(2) which allowed the leachate depth on the primary liner to exceed 1 foot in depth in certain instances. This requirement was inconsistent with the Federal municipal waste landfill requirements in Subtitle D and, therefore, was changed in Chapter 273. The Board is changing it in Chapter 277 to be consistent with the municipal waste regulations.

The Board amended subsection (b)(4) to delete the requirement that stones or aggregates in the leachate collection zone be non-carbonate. The performance standards in subsection (a) address this issue by requiring that the collection system be able to withstand chemical attack from the leachate. Subsection (b)(4) was also modified to require the leachate collection system to contain stones or aggregates while the Board deleted the requirement that the stones or aggregates be placed around the pipes within the zone. The Board added the requirement in subsection (b)(5) that the leachate collection pipes have a postsettlement grade of at least 2% because it is necessary for the pipes to evacuate the leachate by gravity.

LEACHATE TREATMENT

§ 277.275. Leachate collection and storage.

The Board amended subsection (g) to apply the new requirements for the design of underground leachate pipes to facilities permitted after the effective date of the regulations. The new pipes must have secondary containment or comply with alternative methods of release detection identified in the underground storage tank regulations.

§ 277.276. Leachate analysis and sludge handling.

The Board amended the proposed changes to subsection (a)(2) to not allow a reduction in the quarterly leachate chemical analyses testing requirements. It is necessary to have current information on the leachate quality to determine such things as the impact of the leachate on the liner system, the effectiveness of the leachate treatment system, and the need for additional groundwater monitoring.

WATER QUALITY MONITORING

§ 277.283. Standards for wells and casing of wells.

The Board added new subsection (c)(7) to allow for alternative well casing designs in stable formations, if approved by the Department. This provides some design flexibility based upon the tightness of the hydrogeologic formation.

§ 277.286. Groundwater assessment plan.

The Board amended subsection (c)(1) to clarify that groundwater monitoring devices installed at the point of compliance must be constructed in accordance with the design requirements for detection monitoring wells. Monitoring wells need to be constructed to the standards established for detection monitoring wells so that the groundwater information gathered is consistent and can be compared to data from other wells.

§ 277.287. Abatement plan.

On final-form rulemaking, the Board added an introductory clause to subsection (d)(4), that was inadvertently excluded in the proposed rulemaking. The Board amended subsection (d)(4)(v) to address the abatement levels for systemic toxicants. This is necessary to address action levels for parameters where MCL's have not been established.

RECORDKEEPING AND REPORTING

§ 277.311. Daily operational records.

Subsection (b)(10) has been added on final to require information to be kept in the daily record describing radioactive materials detected in waste loads. This requirement is the same as the requirement added for municipal waste landfills, in § 273.311 (relating to daily operational records), which is discussed in more detail above.

Subsection (b)(11) has been added on final to require a landfill operator to identify vehicles that have arrived at the landfill over the maximum gross weight allowed on roadways of this Commonwealth under section 4941 of the Vehicle Code. This requirement is designed to help reduce the number of overweight waste vehicles traveling on roadways of this Commonwealth. While the Department will not use this part of the daily operational record to institute a direct enforcement action against a waste hauler for exceeding a roadway weight limit or against a waste facility for accepting an overweight vehicle, the Department may use the information in enforcing the daily volume limits at the facility, in selecting locations for routine vehicle inspections and in taking other steps toward reducing the number of overweight waste vehicles.

§ 277.312. Annual operation report.

The Board added subsection (b)(9) on final to require an annual reporting to the Department of radioactive materials detected at the landfill. This requirement was added to allow the Department to track the amount of radioactive material arriving at solid waste facilities and to use the data to better resolve the extent of the problem and for future problem solving.

§ 277.322. Closure.

The Board deleted the proposed requirement in subsection (c)(2) that requires acceptance of the operator's selection of the remediation standard because the decision may be impacted by other closure considerations. The Board added subsections (e) and (f) to allow the Department to approve modifications to the frequency of groundwater sampling during the post closure period if the

operator demonstrates that the parameter has not caused or contributed to groundwater degradation and that the parameter is unlikely to cause or contribute to groundwater degradation in the future. The Board added subsection (g) to authorize the Department to reinstate the more frequent monitoring requirements for any parameter if the Department has reason to believe that the parameter may cause or contribute to groundwater degradation.

One commentator questioned why the remediation standards do not reference the cleanup standards in Chapter 250 (relating to the land recycling program). The Board declined to make changes to address this. The remediation standards incorporated into this rulemaking parallel the Federal requirements and are identical to those that apply to municipal waste landfills, which are Federally mandated.

CHAPTER 279. TRANSFER FACILITIES.

Subchapter B. APPLICATION REQUIREMENTS FOR TRANSFER FACILITIES

GENERAL

§ 279.102. Operating plan.

The Board amended subsection (c), requiring that safety measures to prevent injuries be part of the facility operating plan. The Board added subsection (f), requiring that procedures for inspection and monitoring of incoming waste be included in the application.

§ 279.103. Maps and related information.

The Board added a requirement in new subsection (a)(8) that an application for a transfer facility indicate on the topographic map a designated area for vehicles for use in the event of detection of waste containing radioactive material. This provision is the same as the provision added for municipal waste landfills, in § 273.133 (relating to map and grid requirements), which was previously discussed in more detail.

§ 279.104. Plan for access roads.

A comment was received for facilities other than transfer facilities that the proposed requirement that access road design include adequate handling of traffic flow to a facility is vague, as it does not provide clear standards. The Board agreed with this comment and has deleted the proposed requirement for all waste facilities, including transfer stations.

§ 279.105. Soil erosion and sedimentation control plan.

The Board added the term "erosion and sedimentation control" to the title, as this is more descriptive of the contents of the section.

§ 279.110. Radiation protection action plan.

The Board has added a new section in the final-form rulemaking requiring that an application for a transfer facility contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting. This provision is the same as the provision added for municipal waste landfills, in § 273.140a (relating to radiation protection action plan), which was previously discussed in more detail.

§ 279.111. Daily volume.

The Board added a new section requiring the applicant to state and justify a proposed maximum daily volume. This requirement builds on practices already in place and is drawn from § 273.140 (relating to daily volume) of the

municipal waste landfill chapter. Establishing daily volumes involves, in part, analyzing odors, facility traffic and other factors under the environmental assessment of § 271.127 (relating to environmental assessment).

Subchapter C. OPERATING REQUIREMENTS FOR TRANSFER FACILITIES
GENERAL PROVISIONS

§ 279.201. Basic limitations.

This section has been revised in the final-form rulemaking to specify clearly the types of radioactive materials that might be found in the municipal waste stream that may not be accepted at a transfer facility. These provisions are the same as the provisions added for municipal waste landfills, in § 273.201 (relating to basic limitations), which were previously discussed in more detail.

§ 279.202. Areas where transfer facilities are prohibited.

The Board revised the isolation distance of a transfer facility from a perennial stream in subsection (a)(4) to add an option consistent with revised § 273.202 (relating to areas where municipal waste landfills are prohibited). Under this option, in subparagraph (i), a transfer facility cannot be located within 100 feet of a perennial stream unless storage and processing will not occur within that distance and no adverse hydrologic or water quality impacts will occur. The Board also revised the option in subparagraph (iii) to require that if the transfer facility transfers waste to barges at the transfer facility location, the waste must be containerized. This provision is designed to ensure that the stream is protected from the potential of runoff from precipitation and spillage that could occur through routine operations or accidents.

One commentator questioned why the language allowing a transfer facility to operate within 50 feet of a property line if waste processing is not occurring within that distance was proposed to be deleted. The commentator also asked whether the 50-foot prohibition applies to access roads. In the final-form rulemaking, this subsection has been revised to allow a transfer facility to operate within 50 feet of a property line if the operator demonstrates that actual processing of waste is not occurring within that distance. This would allow access roads to be located within 50 feet of a property line. The final-form rulemaking also allows storage and processing to occur within 50 feet of a property line if the storage and processing take place in an enclosed facility.

DAILY OPERATIONS

§ 279.211. Signs and markers.

One commentator suggested that the sign requirements should continue to require the name, address and telephone number of the organization operating the facility. The Board agrees and retains the name, business address and telephone number of the person or municipality that operates the facility, the operating hours and permit identification number.

§ 279.214. Measurement and inspection of waste.

The Board amended this section to be consistent with the other chapters in this article. A transfer facility must inspect and monitor incoming waste to ensure that the receipt of waste is consistent with Article VIII and, if the facility receives 30,000 or more cubic yards of solid waste in a calendar year, the facility shall weigh the waste when it is received. Standards for the weigh scale and a licensing requirement for the operator of the scale are included.

§ 279.215. Operations and equipment.

A commentator stated that deleting the requirement that standby equipment be available within 24 hours weakens this section since the purpose of transfer is one of convenience. The commentator suggested that if the transfer station is not fully functional, then the requirement should be redirection of the waste loads to another facility. The Board declined to make an additional change because it is up to the facility operator to determine how the operation of the facility can be maintained in times of equipment breakdown, as long as harm to persons or the environment is not a threat.

The inspection and monitoring requirement that was proposed to be added in this section has been deleted because it was moved into § 279.214 (relating to measurement and inspection of waste). The requirement to monitor and inspect incoming waste for radioactive isotopes was deleted. In response to public comments received on this section, this requirement was refined and moved to various other sections throughout the final-form rulemaking.

A commentator submitted comments on subsection (c). The commentator suggested that the Board clarify the amount of inspection necessary for an operator to determine the characteristics of incoming waste. The Board has clarified this in § 279.110 (relating to radiation protection action plan) and § 279.222 (relating to radiation monitoring and response). More detailed information on monitoring and inspection is provided in the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, document number 250-3100-001, which is cross referenced in these sections.

The commentator requested that the specific level that would trigger rejection of a load of waste containing radioactive material be stated in the regulations. In response to this comment, the Board included in § 279.222 the levels at which an operator must immediately isolate a vehicle and notify the Department. One level is for radiation dose rates detected in the cab and the other level is for radiation detected from any other surface.

Once notified, the Department staff and possibly staff from Federal agencies will assist the facility and its consultants in identifying, localizing and quantifying the radioactive material in the load. This is a stepwise investigative process that will ultimately determine what corrective action is needed. The entire problem may be in one bag or the whole load may require disposal. These procedures are further described in the guidance document previously mentioned. It is noted that there is a lower alarm level which calls for the facility to investigate the problem in accordance with its approved action plan, guidelines for which are set forth in the guidance document. In the range between this lower alarm level (Action Level I) and the levels above where the Department is called immediately (Action Level II), a facility has a variety of options available, including rejection of the load and sending it back to origin providing that a Department of Transportation Exemption is obtained from the Department. At levels at or above Action Level II, special handling of the radioactive material will be required and simple rejection is not permissible.

The commentator also asked the Board to examine the costs and capital necessary for transfer facilities to monitor and inspect waste for radioactive material. The commentator asked that the Board consider establishing a

reasonable time frame for compliance with the new regulations if the costs were significant. In response, the Department analyzed the costs necessary to inspect for radioactive materials and determined that the costs of installing the equipment and implementing the required procedures is minimal compared to the costs associated with managing radioactive wastes that have been improperly disposed in a landfill or resource recovery facility. Nevertheless, to accommodate the transition, the Board included a new section, § 271.114 (relating to transition period), which establishes a schedule by which each regulated facility is to come into compliance with the new requirements.

§ 279.219. Nuisance minimization and control.

The Board amended the title of this section to be consistent with the revisions made to this section in the proposed rulemaking and to be consistent with the other chapters. The Board also deleted the unnecessary word "also" from the proposed revision to subsection (b).

§ 279.222. Radiation monitoring and response.

This new section has been added to the final-form rulemaking to address monitoring for and responding to radioactive materials in the municipal waste stream. This section is the same as the section added for municipal waste landfills, § 273.223 (relating to radiation monitoring and response), which was previously discussed in more detail.

§ 279.223. Daily volume.

The Board added to the final-form regulations an operating requirement based on the general application requirement concerning daily volume proposed for acceptance at a facility (§ 279.111).

SOIL AND WATER PROTECTION

§ 279.233. Soil and groundwater monitoring.

The Board amended this section and added new language clarifying that water quality monitoring requirements, assessment and abatement plans and recordkeeping requirements are the same as in Chapter 273. This was done by cross-referencing those sections from Chapter 273. Subsection (b) was added to clarify certain terms from Chapter 273 as they apply to a transfer station.

RECORDKEEPING AND REPORTING

§ 279.251. Daily operational records.

Subsection (b)(11) has been added on final to require information to be kept in the daily record describing radioactive materials detected in waste loads. This requirement is the same as the requirement added for municipal waste landfills, in § 273.311 (relating to daily operational records), which is discussed in more detail above.

§ 279.252. Annual operation report.

The Board added subsection (b)(6) on final to require an annual reporting to the Department of radioactive materials detected at a transfer facility. This requirement was added to allow the Department to track the amount of radioactive material arriving at solid waste facilities and to use the data to better resolve the extent of the problem and for future problem solving.

CESSATION AND CLOSURE

§ 279.262. Cessation of operations.

The Board added language in § 279.262(c) to incorporate the remediation standards in § 271.342(b)(4) for

final closure certification for the Department when considering whether to discontinue groundwater monitoring.

CHAPTER 281. COMPOSTING FACILITIES.

Subchapter A. GENERAL

§ 281.1. Scope.

A commentator believes that the current regulations deter the development of composting facilities due to the bonding requirements that are in place. The commentator stated that as they are currently written, the regulations treat composting facilities like trash handling facilities for bonding purposes. The commentator added that composting facilities and landfills are very different entities yet they carry the same bonding conditions. The Board does not agree that any change is required in response to these comments. In developing the bonding forms, the Department must account for the cost to remediate the site should remediation become necessary. For composting, the bond is primarily based upon the cost to transport and dispose of the waste to a municipal waste landfill. The bonding forms are generic enough to account for each site's design and operating procedures when determining bonding costs.

Subchapter B. APPLICATION REQUIREMENTS FOR GENERAL COMPOSTING FACILITIES

PLANS

§ 281.111. Operating plan.

The Board added paragraph (11) requiring that procedures for inspection and monitoring of incoming waste be included in the application.

§ 281.112. Maps and related information.

The Board added a requirement in new subsection (a)(20) that an application for a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, indicate on the topographic map a designated area for vehicles for use in the event of the detection of waste containing radioactive material. This provision is the same as the provision added for municipal waste landfills, in § 273.133 (relating to map and grid requirements), which is discussed in more detail above.

§ 281.115. Plan for access roads.

A commentator objected to the addition of a road specification to the plan and the phrase "adequately handle". The comment suggested that any access road specification should properly be addressed in § 281.212. The Board agrees on both issues. The proposed language has been deleted from § 281.115, retaining the current regulatory language only. No additional changes are incorporated into § 281.212 from the proposed rulemaking.

§ 281.119. Radiation protection action plan.

The Board has added a new section in the final-form rulemaking requiring that an application for a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting. This provision is the same as the provision added for municipal waste landfills, in § 273.140a (relating to radiation protection action plan), which was previously discussed in more detail. This section has also been added in Chapters 277, 279 and 283.

COMPOSTING

§ 281.123. Daily volume.

The Board added a new section requiring the applicant to state and justify a proposed maximum daily volume. This builds on practices already in place and is drawn from § 273.140 (relating to daily volume) of the municipal waste landfill chapter. Establishing daily volumes involves, in part, analyzing odors, facility traffic and other factors under the environmental assessment of § 271.127 (relating to environmental assessment).

Subchapter C. OPERATING REQUIREMENTS FOR GENERAL COMPOSTING FACILITIES

GENERAL PROVISIONS

§ 281.201. Basic limitations.

This section has been revised in the final-form rulemaking to specify clearly the types of radioactive materials that might be found in the waste stream that may not be accepted at a general composting facility. These provisions are the same as the provisions added for municipal waste landfills, in § 273.201 (relating to basic limitations), which were previously discussed in more detail.

§ 281.202. Areas where general composting facilities are prohibited.

The Board revised the isolation distance of a general composting facility from a perennial stream in subsection (a)(4) to add an option consistent with revised § 273.202 (relating to areas where municipal waste landfills are prohibited). Under this option, in subparagraph (i), a general composting facility cannot be located within 100 feet of a perennial stream unless storage and processing will not occur within that distance and no adverse hydrologic or water quality impacts will occur.

In the final-form rulemaking, the setback from a property line in subsection (a)(5) has been revised to allow a general composting facility to operate within 50 feet of a property line if the operator demonstrates that actual processing of waste is not occurring within that distance. This would allow access roads to be located within 50 feet of a property line. The final-form rulemaking also allows storage and processing to occur within 50 feet of a property line if the storage and processing take place in an enclosed facility.

DAILY OPERATIONS

§ 281.211. Signs and markers.

One commentator suggested that the sign requirements should continue to require the name, address and telephone number of the organization operating the facility. The Board agrees and retains the name, business address and telephone number of the person or municipality that operates the facility, the operating hours and permit identification number.

§ 281.214. Measurement and inspection of waste.

The Board amended the word "measuring" in the title to "measurement," to be consistent with other chapters.

Subsection (a) has been amended to reflect the repeal of the Weights and Measures Act of 1965 and the Public Weighmasters Act of 1961. Both acts were replaced with the Consolidated Weights and Measures Act of 1996.

Subsection (c) has been amended to delete the requirement to monitor and inspect incoming waste for radioactive isotopes. In response to public comments received on subsection (c), this requirement was refined and moved to the various other sections throughout the final-form

rulemaking. For further discussion, see § 273.214 (relating to measurement and inspection of waste).

§ 281.218. Nuisance minimization and control.

The Board amended the title of this section to be consistent with the revisions made to this section in the proposed rulemaking and to be consistent with the other chapters.

One commentator suggested that changing words "prevent and eliminate" to "control and minimize" does not afford an equal level of protection. The Board declined to make changes to address this comment because experience shows that nuisances cannot always be prevented.

§ 281.221. Radiation monitoring and response.

This new section has been added to the final-form rulemaking to address monitoring for and responding to radioactive materials in the municipal waste stream. This section is the same as the section added for municipal waste landfills, § 273.223 (relating to radiation monitoring and response), which was previously discussed in more detail.

§ 281.222. Daily volume.

The Board added to final-form regulations an operating requirement based on the general application requirement concerning daily volume proposed for acceptance at a facility (§ 281.123).

SOIL AND WATER PROTECTION

§ 281.254. Soil and groundwater monitoring.

The Board amended this section and added new language clarifying that water quality monitoring requirements, assessment and abatement plans and recordkeeping requirements are the same as in Chapter 273. This was done by cross referencing those sections from Chapter 273. Subsection (b) was added to clarify certain terms from Chapter 273 as they apply to composting facilities.

RECORDKEEPING AND REPORTING

§ 281.271. Daily operational records.

Subsection (b)(9) has been added on final to require information to be kept in the daily record describing radioactive materials detected in waste loads. This requirement is the same as the requirement added for municipal waste landfills, in § 273.311 (relating to daily operational records), which was previously discussed in more detail.

§ 281.272. Annual operation report.

The Board added subsection (b)(9) on final to require an annual reporting to the Department of radioactive materials detected at a general composting facility. This requirement was added to allow the Department to track the amount of radioactive material arriving at solid waste facilities and to use the data to better resolve the extent of the problem and for future problem solving.

CESSATION AND CLOSURE

§ 281.282. Cessation of operations.

The Board added language in § 281.282(d) to incorporate the remediation standards in § 271.342(b)(4) for final closure certification for the Department when considering whether to discontinue groundwater monitoring.

CHAPTER 283. RESOURCE RECOVERY AND OTHER PROCESSING FACILITIES

A commentator indicated that no air quality regulations address the incineration of municipal waste in conjunction with municipal-like residual waste or for that matter,

with residual waste. The commentator stated that while it could be argued that the incinerator operator will still have to meet permit emission levels, only a limited number of toxic metals are tested twice a year; the extremely toxic dioxin and furans are tested only once a year, and many organics and inorganics are never even measured. The commentator also noted that while some permits call for a representative sample of municipal-like residual waste to be included in test samples, no criteria are listed in permits or guidance. The commentator stated it would be nearly impossible to find a representative sample with such a variable and unpredictable waste stream. The commentator added that such an undertaking could destroy the validity of an incinerator operator's testing program. The Board did not change the regulations because the regulations require the applicant to identify the composition and volume of waste that is to be received at the facility. This information is available to and used by the programs within the Department that are required to approve or issue a permit for the operation of the facility.

Another commentator noted that the EPA and the Department's Bureau of Air Quality have recently adopted air quality standards for municipal waste combustors that incorporate a true performance-based capacity limit that is based upon a recent Federal rule. The commentator proposed that the municipal waste regulations also reflect the concept of a performance-based capacity limit. Specifically, the commentator stated that the 4-hour steam limit is set at 110% of the steam production rate achieved during the most recent dioxin emissions testing and the regulations should establish short-term throughput limits in terms of steam produced rather than waste tonnage. The commentator suggested that such a limit quantitatively relates plant capacity with demonstrated environmental performance, and is consistent with the stated goals of the RBI. The Board did not change the regulations because, while short-term throughput, expressed in terms of steam produced, may be appropriate to limit combustor capacity, the Department also considers the impact that the daily volume, expressed as waste tonnage, has on the storage and transportation of waste when issuing waste permits.

Subchapter B. APPLICATION REQUIREMENTS GENERAL PROVISIONS

§ 283.103. Maps and related information.

The Board added a requirement in new paragraph (20) that an application for a resource recovery facility or other processing facility indicate on the topographic map a designated area for vehicles for use in the event of the detection of waste containing radioactive material. This provision is the same as the provision added for municipal waste landfills, in § 273.133 (relating to map and grid requirements), which is discussed in more detail above.

§ 283.105. Plan for access roads.

A comment was received for facilities other than resource recovery or processing facilities that the proposed requirement that access road design include adequate handling of traffic flow to a facility is vague as it does not provide clear standards. The Board agreed with this comment and has deleted the proposed requirement for all waste facilities, including resource recovery or processing facilities.

§ 283.113. Radiation protection action plan.

The Board has added a new section in the final-form rulemaking requiring that an application for a resource

recovery facility or other processing facility contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting. This provision is the same as the provision added for municipal waste landfills, in § 273.140a (relating to radiation protection action plan), which was previously discussed in more detail.

§ 283.114. Daily volume.

The Board added a new section requiring the applicant to state and justify a proposed maximum daily volume. This builds on practices already in place and is drawn from § 273.140 (relating to daily volume) of the municipal waste landfill chapter. Establishing daily volumes involves, in part, analyzing odors, facility traffic and other factors under the environmental assessment of § 271.127 (relating to environmental assessment).

**Subchapter C. OPERATING REQUIREMENTS
GENERAL PROVISIONS**

§ 283.201. Basic limitations.

This section has been revised in the final-form rulemaking to specify clearly the types of radioactive materials that might be found in the waste stream that may not be accepted at a processing facility. These provisions are the same as the provisions added for municipal waste landfills, in § 273.201 (relating to basic limitations), which were previously discussed in more detail.

§ 283.202. Areas where resource recovery facilities and other processing facilities are prohibited.

The Board corrected an error in subsection (a)(4) concerning the isolation distance from a perennial stream by deleting the reference to an intermittent stream. The Board also deleted the redundant reference to a perennial stream.

The Board revised the isolation distance from a property line to be consistent with § 279.202 (relating to areas where transfer facilities are prohibited).

DAILY OPERATIONS

§ 283.211. Signs and markers.

One commentator suggested that the sign requirements should continue to require the name, address and telephone number of the organization operating the facility. The Board agrees and retains the name, business address and telephone number of the person or municipality that operates the facility, the operating hours and permit identification number.

§ 283.214. Measurement and inspection of waste.

Subsection (a) has been amended to reflect the repeal of the Weights and Measures Act of 1965 and the Public Weighmasters Act of 1961. Both acts were replaced with the Consolidated Weights and Measures Act of 1996.

Subsection (c) has been amended to delete the requirement to monitor and inspect incoming waste for radioactive isotopes. In response to public comments received on subsection (c), this requirement was refined and moved to the various other sections throughout the final-form rulemaking. For further discussion, see § 273.214 (relating to measurement and inspection of waste).

§ 283.217. Cleaning and maintenance.

A commentator objects to limiting storage of putrescible waste at a waste-to-energy facility to 24 or 72 hours, stating that these time limits are shorter than what is practical and they are unnecessary. The commentator

requests that either the Board delete the storage time limits or extend them up to 120 hours, justifying that environmental impacts associated with waste storage (odor, fugitive emissions, vector control and liner) are adequately addressed in other regulations. The Board disagrees. To minimize the potential for nuisance problems, putrescible waste needs to be removed in the shortest time practicable. While a system can be possibly designed to accommodate a longer time period, the potential and likelihood of problems occurring is greatly increased. The proposed and final period of 72-hours accounts for 3-day weekends when the facility may not be operating.

§ 283.218. Air resources protection.

A commentator expressed two concerns with this section. First, the need to reference the guidance document should be explained since resource recovery facilities must already meet the requirements contained in the Air Pollution Control Act (35 P. S. §§ 4001—4015) and the Federal Clean Air Act. Second, if there is a need to reference the guidance document in this rulemaking, the Board needs to assure that the document is consistent with the Federal regulations. A second commentator believes this reference should be removed and that the BAT Guidelines are inconsistent with the new Federal air emission standards established for waste-to-energy facilities. The BAT guidelines are not regulations and have not undergone the formal regulatory process of public notice and public commentary.

The Board agrees that the Bureau of Air Quality's BAT Guidelines should not be incorporated by reference into this subsection. Therefore, the proposed language in § 283.218 pertaining to "the most recent edition of the Department's criteria for best available technology" was not included in the final-form rulemaking. The deletion of language pertaining to BAT Guidelines from this rulemaking, however, does not relieve the owners or operators of new sources from their obligation to comply with applicable BAT requirements authorized by the Air Pollution Control Act and regulations adopted under the act.

§ 283.220. Radiation monitoring and response.

This new section has been added to the final-form rulemaking to address monitoring for and responding to radioactive materials in the municipal waste stream. This section is the same as the section added for municipal waste landfills, § 273.223 (relating to radiation monitoring and response), which was previously discussed in more detail.

§ 283.223. Daily volume.

The Board added an operating requirement based on the general application requirement for daily volume (§ 283.114).

SOIL AND WATER PROTECTION

§ 283.233. Soil and groundwater monitoring.

The Board amended this section and added new language clarifying that water quality monitoring requirements, assessment and abatement plans and recordkeeping requirements are the same as in Chapter 273. This was done by cross-referencing those sections from Chapter 273. Subsection (b) was added to clarify certain terms from Chapter 273 as they apply to resource recovery or processing facilities.

RECORDKEEPING AND REPORTING

§ 283.261. Daily operational records.

Subsection (b)(11) has been added on final to require information to be kept in the daily record describing

radioactive materials detected in waste loads. This requirement is the same as the requirement added for municipal waste landfills, in § 273.311, which was previously discussed in more detail.

Subsection (b)(12) has been added on final to require a facility operator to identify vehicles that have arrived at the facility over the maximum gross weight allowed on the roadways of this Commonwealth under section 4941 of the Vehicle Code. This requirement is designed to help reduce the number of overweight waste vehicles traveling on the roadways of this Commonwealth. While the Department will not use this part of the daily operational record to institute a direct enforcement action against a waste hauler for exceeding a roadway weight limit or against a waste facility for accepting an overweight vehicle, the Department may use the information in enforcing the daily volume limits at the facility, in selecting locations for routine vehicle inspections and in taking other steps toward reducing the number of overweight waste vehicles.

§ 283.262. *Annual operation report.*

The Board added subsection (b)(6) on final to require an annual reporting to the Department of radioactive materials detected at a resource recovery facility or other processing facility. This requirement was added to allow the Department to track the amount of radioactive material arriving at solid waste facilities and to use the data to better resolve the extent of the problem and for future problem solving.

§ 283.264. *Recycling fee.*

When the proposed regulations were published, the recycling fee had recently been extended under an amendment to the Administrative Code. Since then, the ESWPA further extended the fee. Because of the frequent statutory amendments, the Board has revised subsection (a) so that it no longer identifies a fee termination date, but instead states that the fee shall terminate in accordance with statute.

CESSATION AND CLOSURE

§ 283.272. *Cessation of operations.*

The Board added language in subsection (c) to incorporate the remediation standards in § 271.342 (b)(4) for final closure certification for the Department when considering to discontinue groundwater monitoring.

Subchapter D. ADDITIONAL APPLICATION REQUIREMENTS FOR SPECIAL HANDLING WASTES

§ 283.302. *(Reserved).*

This section has been relocated to § 284.311.

Subchapter E. ADDITIONAL OPERATING REQUIREMENTS FOR SPECIAL HANDLING WASTES

§ 283.402. *(Reserved).*

This section has been relocated to § 284.321.

CHAPTER 284. INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

The proposed rulemaking requested comments regarding consideration by the Department to consolidate the infectious and chemotherapeutic waste regulations into one chapter. Six commentators strongly recommended that, for purposes of clarity and ease of use, the infectious and chemotherapeutic waste regulations should be consolidated. A consolidation is clearly within the scope and

spirit of the Governor's Executive Order 1996-1 and the Regulatory Basics Initiative. The Board agrees. The final-form rulemaking consolidates infectious and chemotherapeutic waste requirements into this chapter.

Two commentators objected to the use of general permitting across the board, and especially when infectious waste is the subject. The Board affirms that the general permitting process is appropriate for the approval of new infectious waste processing technologies. Only the generator of the waste will qualify for general permit coverage, and the general permit will only be issued for the processing of infectious waste at doctor's offices, hospitals or other medical treatment facilities.

For the reader's ease, the Department has created the following table, which cross-references the old location and new location of the regulations in this chapter:

ICW Regulations in Chapter 284

<i>Former Pa. Code Reference</i>	<i>New Pa. Code Reference</i>
Title 25, § 271.102	Title 25, § 284.2
Title 25, § 271.711	Title 25, § 284.101
Title 25, § 271.712	Title 25, § 284.102
Title 25, § 271.721	Title 25, § 284.111
Title 25, § 271.722	Title 25, § 284.112
Title 25, § 271.723	Title 25, § 284.113
Title 25, § 271.724	Title 25, § 284.114
Title 25, § 271.725	Title 25, § 284.115
Title 25, § 271.731	Title 25, § 284.121
Title 25, § 271.732	Title 25, § 284.122
Title 25, § 271.741	Title 25, § 284.131
Title 25, § 271.742	Title 25, § 284.132
Title 25, § 271.743	Title 25, § 284.133
Title 25, § 283.302	Title 25, § 284.311
Title 25, § 283.402	Title 25, § 284.321
Title 25, § 285.132	Title 25, § 284.419
Title 25, § 285.142	Title 25, § 284.411
Title 25, § 285.143	Title 25, § 284.412
Title 25, § 285.144	Title 25, § 284.413
Title 25, § 285.145	Title 25, § 284.414
Title 25, § 285.146	Title 25, § 284.415
Title 25, § 285.147	Title 25, § 284.416
Title 25, § 285.148	Title 25, § 284.417
Title 25, § 285.222	Title 25, § 284.512
Title 25, § 285.223	Title 25, § 284.513
Title 25, § 285.224	Title 25, § 284.514
Title 25, § 285.301	Title 25, § 284.601
Title 25, § 285.302	Title 25, § 284.602
Title 25, § 285.303	Title 25, § 284.603
Title 25, § 285.311	Title 25, § 284.611
Title 25, § 285.312	Title 25, § 284.612
Title 25, § 285.321	Title 25, § 284.621
Title 25, § 285.322	Title 25, § 284.622
Title 25, § 285.323	Title 25, § 284.623
Title 25, § 285.324	Title 25, § 284.624
Title 25, § 285.325	Title 25, § 284.625
Title 25, § 285.331	Title 25, § 284.631
Title 25, § 285.332	Title 25, § 284.632
Title 25, § 285.333	Title 25, § 284.633
Title 25, § 285.334	Title 25, § 284.634
Title 25, § 285.341	Title 25, § 284.641
Title 25, § 285.342	Title 25, § 284.642
Title 25, § 285.343	Title 25, § 284.643
Title 25, § 285.344	Title 25, § 284.644
Title 25, § 285.345	Title 25, § 284.645
Title 25, § 285.401	Title 25, § 284.701
Title 25, § 285.402	Title 25, § 284.702
Title 25, § 285.403	Title 25, § 284.703
Title 25, § 285.411	Title 25, § 284.711

<i>Former Pa. Code Reference</i>	<i>New Pa. Code Reference</i>
Title 25, § 285.412	Title 25, § 284.712
Title 25, § 285.413	Title 25, § 284.713
Title 25, § 285.414	Title 25, § 284.714
Title 25, § 285.421	Title 25, § 284.721
Title 25, § 285.422	Title 25, § 284.722
Title 25, § 285.423	Title 25, § 284.723
Title 25, § 285.424	Title 25, § 284.724
Title 25, § 285.431	Title 25, § 284.731
Title 25, § 285.432	Title 25, § 284.732
Title 25, § 285.433	Title 25, § 284.733
Title 25, § 285.434	Title 25, § 284.734

Subchapter A. GENERAL PROVISIONS

§ 284.1. Scope.

This section was added to solidify the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.2. Permit by rule for infectious or chemotherapeutic waste processing facilities; qualifying facilities; general requirements.

This section is the former § 271.102 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from the proposed rulemaking except to add a clarification regarding the requirement of managing resulting ash. One commentator objected to the Department's distinction between "onsite" and "offsite" autoclave facilities under the § 271.102 (now § 284.2 in final-form rulemaking) permit-by-rule permitting provisions. The Board proposed changes to this section in order to clarify the limitations under which permit-by-rule facilities must operate, so as to maintain their permit-by-rule status. "Onsite" facilities have been afforded permit-by-rule permitting since 1992. It is the Board's position that the "onsite" handling and autoclaving of infectious waste eliminates the need for "offsite" transportation and processing of the waste. This "onsite" management also reduces the potential for adverse public health and environmental impacts. The Board declined to expand the scope of this section beyond "onsite" facilities.

§ 284.101. Authorization for general permits.

This section is the former § 271.711 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from the proposed rulemaking except to limit chemotherapeutic waste processing to stationary facilities and infectious waste processing to either mobile or stationary facilities.

§ 284.102. Nature of a general permit; substitution for individual applications and permits.

This section is the former § 271.712 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from the proposed rulemaking.

ISSUANCE OF A GENERAL PERMIT

§ 284.111. Application for general permit.

§ 284.112. Completeness review.

These sections are the former §§ 271.721 and 271.722 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from the proposed rulemaking or current regulations.

§ 284.113. Public notice and review period.

This section is the former § 271.723 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is one change from the proposed rulemaking: notifications during the comment period for those applications that would operate under an approved general permit on the effective date of the permit have been deleted. This process slowed down the original application review. The Department no longer accepts these applications. The applications that would operate under an issued general permit are registrations or determinations of applicability.

§ 284.114. Approval or denial of an application.

This section is the former § 271.724 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from current regulations.

§ 284.115. Department-initiated general permits.

This section is the former § 271.725 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is one change from the proposed rulemaking: notifications during the comment period for those applications that would operate under an approved general permit on the effective date of the permit have been deleted. This process slowed down the original application review. The Department no longer accepts these applications. The applications that would operate under an issued general permit are registrations or determinations of applicability.

CONTENTS OF GENERAL PERMITS AND WAIVERS

§ 284.121. Contents of general permits.

This section is the former § 271.731 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from the proposed rulemaking.

§ 284.122. Waiver or modification of certain requirements.

This section is the former § 271.732 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. One commentator asked that the original regulations be retained. The substance of this section has been retained. On final-form rulemaking, language has been added, however, that clarifies the Department's intention not to waive the permit application requirements in § 271.123 pertaining to the Commonwealth's right of entry and the landowner's consent to solid waste processing and beneficial use activities. The revisions to this section have been made to be consistent with the parallel sections for general permits for municipal waste and residual waste activities. Although the requirements of this section cannot be waived, the Department may modify the requirements. Circumstances relating to the imminent sale of property present an example of when the Department has modified the requirements in an effort to work with the existing and future landowners to meet the regulatory obligations of a landowner. In addition, the reference in subsection (b) to Subchapter D has been deleted to correct an error in the proposed rulemaking.

REGISTRATION AND DETERMINATION OF APPLICABILITY

§ 284.131. Authorization for persons or municipalities to be included in a general permit.

§ 284.132. Determination of applicability.

§ 284.133. Registration.

These sections are the former §§ 271.741—271.743 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from the proposed rulemaking.

Subchapter C. TRANSFER FACILITIES

§ 284.201. Scope.

This section was added to frame the application and operating requirements for the general permitting of transfer stations as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.210. Application requirements.

This section was added to frame the application requirements for the general permitting of transfer stations as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.220. Operating requirements.

This section was added to frame the operating requirements for the general permitting of transfer stations as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

Subchapter D. PROCESSING FACILITIES

§ 284.301. Scope.

This section was added to frame the application and operating requirements for the general permitting of processing facilities as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.310. Application requirements.

This section was added to frame the application requirements for the general permitting of processing facilities as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.311. Plan for monitoring.

This section is the former § 283.302 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from the proposed rulemaking except to change the reference resulting from the consolidation into this chapter.

§ 284.320. Operating requirements.

This section was added to frame the operating requirements for the general permitting of processing facilities as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.321. Infectious waste monitoring requirements.

This section is the former § 283.402 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from the proposed rulemaking.

Subchapter E. STORAGE

§ 284.401. Scope.

This section was added to frame the operating requirements for storage for the general permitting of transfer

stations and processing facilities as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

§ 284.411. Basic storage requirements.

This section is the former § 285.142 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are two changes from the proposed rulemaking. One deletes the lower temperature from the temperature range regarding refrigeration or freezing. The deletion clarifies the requirement and is protective of public health and safety. Also, language was revised in subsection (a)(6) to prevent unauthorized access to waste stored in enclosures and containers. The intent never was to exclude either an enclosure or a container.

The Board added a new subsection (d) to allow the movement of different wastes in a facility, such as a hospital, on the same cart as long as the wastes are sorted and separately containerized.

§ 284.412. Sorting.

§ 284.413. Duration of storage of infectious waste for generators.

These sections are the former §§ 285.143 and 285.144 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no others change from the current regulations.

§ 284.414. Duration of storage of infectious waste for processors.

This section is the former § 285.145 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are two changes from the proposed rulemaking. One increases the duration of storage, and another deletes the lower temperature from the temperature range regarding refrigeration or freezing. The deletion clarifies the requirement and is protective for public health and safety. Feedback from transporters identified storage problems encountered on holidays and weekends.

§ 284.415. Storage containers.

This section is the former § 285.146 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are two changes from the proposed rulemaking. One includes additional colors for infectious waste packaging, and another changes a reference from the consolidation into this chapter. The additional colors mirror the Federal OSHA requirements.

§ 284.416. Marking of containers.

This section is the former § 285.147 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is a change from the proposed rulemaking. The Board deleted subsection (d) and replaced it with new language that clarifies proposed rulemaking text and incorporates the new OSHA standards for packaging.

§ 284.417. Reuse of containers.

This section is the former § 285.148 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. One commentator recommended that cardboard boxes should not be reused or recycled and must be managed as infectious or chemotherapeutic waste. Subsection (b) (formerly § 285.148(b)) specifically allows for the reuse of cardboard boxes which had contained infectious or chemotherapeutic waste pro-

vided the surface of the container was protected from direct contact with the waste. Reuse of these containers for infectious and chemotherapeutic waste continues to be appropriate, so the Board has retained this provision in the final-form rulemaking.

§ 284.418. Storage and containment of ash residue from infectious or chemotherapeutic waste incineration.

This section was added to identify these requirements. The language is identical to § 285.131 (relating to storage and containment of ash residue from municipal waste incineration, including from infectious or chemotherapeutic waste incinerations), which could not be moved to this chapter because those requirements are still applicable to ash residue from municipal waste incineration that is not from infectious or chemotherapeutic waste incineration.

§ 284.419. Storage and containment of processing residue from an infectious or chemotherapeutic waste processing facility.

This section is the former § 285.132 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from current regulations.

Subchapter F. COLLECTION AND TRANSPORTATION

GENERAL

§ 284.501. Scope.

This section was added to frame the operating requirements for collection and transportation for the general permitting of transfer stations and processing facilities as a result of the consolidation of the infectious and chemotherapeutic waste regulations into one chapter.

TYPES OF WASTE

§ 284.511. Transportation of ash residue from infectious or chemotherapeutic waste incineration.

This section was added to identify these requirements. The language is identical to § 285.221 (relating to transportation of ash residue from municipal waste incineration and from infectious or chemotherapeutic waste incineration), which could not be moved to this chapter because those requirements are still applicable to ash residue from municipal waste incineration that is not from infectious or chemotherapeutic waste incineration.

§ 284.512. Transportation of infectious and chemotherapeutic waste; general provisions.

This section is the former § 285.222 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. The Board amended this section to delete the lower temperature from the temperature range regarding refrigeration or freezing. The deletion clarifies the requirement and is protective of public health and safety.

§ 284.513. Transportation of infectious and chemotherapeutic waste; additional provisions.

This section is the former § 285.223 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are two changes from the proposed rulemaking. One includes additional colors for infectious waste packaging, and another changes a reference from the consolidation into this chapter. The additional colors mirror the Federal OSHA requirements.

§ 284.514. Transportation of processing residue from an infectious or chemotherapeutic waste facility.

This section is the former § 285.224 and has been moved to this chapter to consolidate infectious and che-

motherapeutic waste into one chapter. There is no other change from current regulations.

Subchapter G. TRANSPORTER LICENSING FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

GENERAL PROVISIONS

§ 284.601. Scope.

§ 284.602. License requirement.

§ 284.603. Identification number.

These sections are the former §§ 285.301—285.303 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from current regulations.

LICENSE APPLICATION REQUIREMENTS

§ 284.611. General application requirements.

§ 284.612. Vehicular liability insurance.

These sections are the former §§ 285.311—285.312 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from the proposed rulemaking or current regulations.

LICENSE APPLICATION REVIEW

§ 284.621. Criteria for license issuance or denial.

§ 284.622. Term of license.

§ 284.623. Conditions of licenses.

§ 284.624. License renewal.

§ 284.625. Public notice.

These sections are the former §§ 285.321—285.325 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from current regulations.

OPERATIONAL REQUIREMENTS

§ 284.631. Basic limitations.

This section is the former § 285.331 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is one change from the proposed rulemaking in the reference resulting from the consolidation into this chapter.

§ 284.632. Infectious or chemotherapeutic waste discharges or spills.

§ 284.633. Safety.

§ 284.634. Annual report.

These sections are the former §§ 285.332—285.334 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from current regulations.

BOND

§ 284.641. Bond requirement.

§ 284.642. Release of bond.

§ 284.643. Bond forfeiture.

§ 284.644. Replacement of existing bond.

§ 284.645. Preservation of remedies.

These sections are the former §§ 285.341—285.345 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from current regulations.

Subchapter H. MANIFESTING FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

GENERAL

§ 284.701. *Scope.*

§ 284.702. *Transfer facilities.*

§ 284.703. *Recordkeeping.*

These sections are the former §§ 285.401—285.403 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from current regulations.

GENERATOR RESPONSIBILITIES

§ 284.711. *Use of manifest.*

§ 284.712. *Preparation of manifest.*

§ 284.713. *Generator's distribution of copies.*

These sections are the former §§ 285.411—285.413 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from the proposed rulemaking or current regulations.

§ 284.714. *Exception reporting.*

This section is the former § 285.414 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. One change on final-form rulemaking extends the amount of time a generator has to report a manifest discrepancy.

TRANSPORTER RESPONSIBILITIES

§ 284.721. *Basic requirements.*

§ 284.722. *Preparation and use of manifest.*

§ 284.723. *Waste delivery.*

§ 284.724. *Transportation limitations.*

These sections are the former §§ 285.421—285.424 and have been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from the proposed rulemaking or current regulations.

FACILITY RESPONSIBILITIES

§ 284.731. *Scope.*

This section is the former § 285.431 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There are no other changes from the proposed rulemaking or current regulations.

§ 284.732. *Use of manifest.*

This section is the former § 285.432 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. Minor clarifications have been made to subsection (a) including the update of a cross-reference.

§ 284.733. *Distribution of copies.*

This section is the former § 285.433 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. One change from the proposed rulemaking increases the number of days from 7 to 14 to send a manifest copy to the generator of the waste. Feedback from transporters indicates that an increase would account for long hauls, holidays, weekends and intransit storage. This is an administrative requirement.

§ 284.734. *Significant discrepancies.*

This section is the former § 285.434 and has been moved to this chapter to consolidate infectious and chemotherapeutic waste into one chapter. There is no other change from current regulations.

CHAPTER 285. STORAGE, COLLECTION AND TRANSPORTATION OF MUNICIPAL WASTE

Subchapter A. STORAGE OF MUNICIPAL WASTE SCOPE

§ 285.101. *Scope.*

A reference revision was made to this section that was previously overlooked.

GENERAL

§ 285.112. *Design and operation.*

The Board added subsection (c) to indicate that water quality monitoring requirements and a groundwater assessment plan may be required and are the same as in Chapter 273. Cross-referencing those sections from Chapter 273 did this. The Board also required groundwater monitoring for sewage sludge impoundments constructed after January 25, 1997 and for leachate storage impoundments.

§ 285.117. *Emergency storage.*

A commentator questioned if 5 days is a reasonable time period for a facility to submit a permit modification. This requirement has been successfully implemented in the residual waste program since 1992. The requisite permit modification application includes a narrative describing the emergency, current or future activities and may include some plan drawings. The narrative and plans can reasonably be submitted in 5 days.

ADDITIONAL REQUIREMENTS FOR CERTAIN TYPES OF WASTE

§ 285.132. *(Reserved).*

This section has been relocated to § 284.419.

ADDITIONAL REQUIREMENTS FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

§§ 285.142—285.148. *(Reserved).*

These sections have been relocated to §§ 284.411—284.417.

Subchapter B. COLLECTION AND TRANSPORTATION OF MUNICIPAL WASTE SCOPE

§ 285.201. *Scope.*

A correction was made to references as a result of the consolidation into Chapter 284.

GENERAL PROVISIONS

§ 285.211. *General requirements.*

A commentator requested that this section be amended to provide that the tarps used are water resistant and of a fine mesh type thereby preventing many of the problems that are associated with the bulky heavy "waterproof" tarps. The proposed regulations already required that tarps be water resistant, which is retained in the final-form rulemaking. Also, as long as the performance standards are met, the mesh type can vary.

The Board has added subsection (c) to prohibit the combining of waste with source separated recyclable materials in a collection or transportation vehicle. Act 101

established that waste reduction and recycling are preferable to the processing or disposal of municipal waste. Act 101 provided specific waste reduction and recycling goals, and targets for the attainment of these goals, to encourage the development of waste reduction and recycling as a means of managing municipal waste. By removing recyclables from the municipal waste stream, the Commonwealth benefits through the conservation and recovery of valuable resources and energy, and Commonwealth industries benefit from a reliable supply of reusable feedstock materials. The Department is receiving complaints of waste haulers combining source separated recyclable materials with the trash picked up on the same route. Mixture of recyclable materials and waste materials within waste collection vehicles decreases the efficiency of processing recyclable materials into commodities and feedstocks, increases the amount of residue requiring processing or disposal due to contamination from contact with waste materials, and reduces the amount of reusable material that can be returned to the economic mainstream in the form of raw materials or products. Loss of these commodities impairs the Commonwealth's scrap and recycling industries that have historically purchased, processed and marketed recoverable materials, and it erodes the orderly, incremental and long-term commitment of the Commonwealth to an effective and coherent solid waste management strategy.

§ 285.214. *Transportation equipment cleaning area and securing loads in vehicles.*

A commentator requested deletion of the sentence "The load shall be no higher than the solid sides of the vehicle" in subsection (b)(1). The commentator asserts that allowance needs to be made for shifting of loads in transit and for the possible unevenness of loads of construction and demolition waste. The Board does not agree. This requirement is a statutory requirement found in section 4903(c.1) of the Vehicle Code. It protects against the potential for waste to fall from a vehicle if waste is higher than the solid side of the vehicle and helps to further prevent litter and other nuisances from occurring.

§ 285.219. *Transporting foodstuffs and feedstuffs in vehicles used to transport waste.*

A commentator proposed language for a vehicle used to transport municipal, residual or hazardous waste, or any chemical or liquid, in bulk, which is not a food product or produce, to be thoroughly cleansed and sanitized and thereafter be used to haul a food product or produce intended for human or livestock consumption. A number of requirements for cleaning and sanitizing are also included in this comment. The Board did not accept this language. The statutory prohibition against backhauling, upon which this regulation is based, is absolute and does not make an exception for vehicles that have been cleaned. See section 4909 of the Vehicle Code.

TYPES OF WASTE

§§ 285.222—285.224. *(Reserved).*

These sections have been relocated to §§ 284.512—284.514.

Subchapter C. TRANSPORTER LICENSING FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

GENERAL PROVISIONS

§§ 285.301—285.303. *(Reserved).*

These sections have been relocated to §§ 284.601—284.603.

LICENSE APPLICATION REQUIREMENTS

§§ 285.311—285.312. *(Reserved).*

These sections have been relocated to §§ 284.611—284.612.

LICENSE APPLICATION REVIEW

§§ 285.321—285.325. *(Reserved).*

These sections have been relocated to §§ 284.621—284.625.

OPERATIONAL REQUIREMENTS

§§ 285.331—285.334. *(Reserved).*

These sections have been relocated to §§ 284.631—284.634.

BOND

§§ 285.341—285.345. *(Reserved).*

These sections have been deleted and moved to §§ 284.641—284.645.

Subchapter D. MANIFESTING FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

§§ 285.401—285.403. *(Reserved).*

These sections have been relocated §§ 284.701—284.703.

GENERATOR RESPONSIBILITIES

§§ 285.411—285.414. *(Reserved).*

These sections have been relocated to §§ 284.711—284.714.

TRANSPORTER RESPONSIBILITIES

§§ 285.421—285.424. *(Reserved).*

These sections have been relocated to §§ 284.721—284.724.

FACILITY RESPONSIBILITIES

§§ 285.431—285.434. *(Reserved).*

These sections have been relocated to §§ 284.731—284.734.

F. Benefits, Costs and Compliance

Executive Order 1996-1 requires a cost/benefit analysis of the proposed regulation.

Benefits

The final amendments to the municipal waste regulations clarify existing regulations; eliminate many requirements that are more stringent than standards imposed by Federal law; eliminate requirements which are no longer necessary or are redundant; encourage performance-based requirements; encourage green technologies; and support a pollution prevention approach.

Numerous changes are made to encourage flexibility and innovation by facility operators. The final amendments to the technical standards for municipal waste facilities, for example daily cover requirements, focus on providing performance standards instead of design standards wherever appropriate. Where a design standard is stated and an equivalent method or technology is available if demonstrated by the applicant/operator to be adequate, the equivalency approval process has been simplified. Similarly, the proposed amendments limit the types of permit modifications which must go through a major modification process (including public notice and comment).

The final regulations may result in lower costs for municipal waste disposal because the regulations incorporate Act 2 remediation standards for facilities that ceased accepting waste prior to the effective date of the Federal Subtitle D criteria (October 9, 1993) and are consistent with the Subtitle D standards for facilities that ceased accepting waste after October 9, 1993.

To promote green technologies, the final-form regulations allow for the demonstration of new technology at existing facilities to be done through a permit modification process.

The final-form regulations clarify and simplify the requirements for revising a county municipal waste management plan while focusing on the county's requirement to assure adequate disposal and processing capacity for waste generated within the county. Counties should benefit from these revisions when they prepare their plan revisions. Both counties and municipalities will realize financial benefits from the streamlined planning and grant procedures.

The final-form regulations facilitate easier access to moneys in the site-specific postclosure trust funds established under section 1108 of Act 101 for conducting postclosure activities at municipal waste landfills that operated prior to the 1988 municipal waste regulations and closed with little or no bond in place. This will provide greater protection of the environment and of persons living near these facilities. The final-form regulations also protect the corpus of small site-specific postclosure trust funds from being depleted by administrative costs. This will help ensure availability of the corpus if and when the money is needed for emergency actions or remedial measures during postclosure, as envisioned under Act 101. Amendments were also made to the regulations to authorize host counties to access the trust funds in accordance with the Environmental Stewardship and Watershed Protection Act.

The citizens of this Commonwealth will benefit as a result of the more detailed environmental assessment process, which requires actual mitigation of existing and potential harms to the public and the environment from the facility. Citizens will also benefit from better protection from the improper disposal of radioactive materials.

Compliance Costs

This comprehensive rulemaking may result in overall increased costs to the regulated community, spread over several hundred facilities, of over \$1 million each of the first 2 years, after which the savings should exceed the costs. Increased costs to industry will largely be reflected in the requirements of establishing systems for monitoring for and responding to radioactive materials unlawfully arriving at a waste facility. Increased costs also include the cost of installing a composite component in a landfill liner system. Industry will also experience minor cost increases as a result of increases in permit application fees and annual report fees. Increased costs to local governments, small by comparison, will be reflected in the costs of placing signs on equipment purchased with Recycling Fund money.

Savings are projected to be significant. Savings to municipal waste facility operators will be enjoyed largely as a result of the reduced costs associated with preparation of permit modifications and as a result of the increased use of performance-based standards such as those for landfill daily cover materials. Local governments will particularly enjoy savings as a result of the opportu-

nity to avoid having an independent audit performed in many cases in which a grant is sought under Chapter 272.

Compliance Assistance Plan

The Department will assist the regulated community by developing fact sheets where they would be helpful. In addition, the Department will continue to work with the Pennsylvania Waste Industries Association, the Solid Waste Association of North America (Pennsylvania Chapter), the Public Recycling Officials of Pennsylvania, the Pennsylvania Resources Council and other industry and government groups. The Department's field staff will provide compliance assistance during routine facility permitting and inspections, and in assisting counties with the county planning and recycling requirements.

Paperwork Requirements

The proposed regulations will not increase paperwork requirements on the part of the regulated community.

G. Pollution Prevention

The Federal Pollution Prevention Act of 1990 established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally-friendly materials, more efficient use of raw materials, or the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. These final-form regulations have incorporated the following pollution prevention provisions and incentives:

The final-form regulations will encourage pollution prevention by authorizing grants under the Small Business and Household Pollution Prevention Program Act for educational programs on pollution prevention and household hazardous waste and for other technical assistance to small business for pollution prevention. The regulations retain the requirement for generators of residual waste disposed in municipal waste landfills to have a source reduction strategy and requires landfills to provide a plan for recycling and salvaging wastes.

H. Sunset Review

These regulations will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on August 11, 1998, the Department submitted a copy of the notice of proposed rulemaking, published at 28 Pa. B. 4319, to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing these final-form regulations, the Department has considered all comments from IRRC, the Committees and the public.

Under section 5.1(d) of the Regulatory Review Act (71 P.S. § 745.5a(d)), on October 12, 2000, these final-form regulations were deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on October 19, 2000, and approved the final-form regulations.

J. Findings of the Board

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa.B. §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law, and all comments were considered.

(3) These final-form regulations do not enlarge the purpose of the proposal published at 28 Pa.B. 4319.

(4) These final-form regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.

K. Order of the Board

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapters 271—273 and 277—285, are amended by amending §§ 271.1—271.4, 271.101, 271.103, 271.113, 271.122—271.128, 271.141, 271.142, 271.144, 271.201—271.203, 271.211, 271.212, 271.221—271.223, 271.231, 271.301, 271.312, 271.321, 271.332, 271.341—271.343, 271.413, 271.421, 271.501, 271.502, 271.504, 271.505, 271.611—271.613, 271.801, 271.811, 271.821, 271.832, 271.915, 272.1, 272.101—272.106, 272.211, 272.221, 272.223—272.228, 272.233, 272.244, 272.245, 272.251, 272.252, 272.261, 272.311, 272.313, 272.314, 272.316, 272.321—272.323, 272.332, 272.333, 272.341, 272.342, 272.342, 272.353, 272.362, 272.411, 272.426, 272.513, 273.111—273.117, 273.120, 273.132—273.134, 273.136, 273.139, 273.140, 273.141, 273.152, 273.161, 273.163, 273.192, 273.196, 273.197, 273.201—273.203, 273.211—273.218, 273.221, 273.232—273.234, 273.241, 273.245, 273.251—273.258, 273.272, 273.274—273.277, 273.281—273.284, 273.286, 273.287, 273.291—273.293, 273.301—273.303, 273.311, 273.313, 273.315, 273.316, 273.322, 273.501, 273.511, 273.513, 277.111—277.117, 277.120, 277.131—277.134, 277.136, 277.138, 277.141, 277.152, 277.161—277.164, 277.192, 277.201—277.203, 277.211—277.218, 277.232, 272.233, 277.241, 277.245, 277.251—277.257, 277.259, 277.272, 277.274—277.277, 277.281—277.284, 277.286, 277.287, 277.291, 277.292, 277.301—277.303, 277.311, 277.312, 277.322, 279.1, 279.101—279.106, 279.109, 279.121, 279.201, 279.202, 279.211—279.219, 279.221, 279.231—279.233, 279.242, 279.243, 279.251, 279.252, 279.262, 281.101, 281.111, 281.112, 281.121, 281.132, 281.134, 281.201, 281.202, 281.211, 281.212, 281.214, 281.215, 281.217, 281.218, 281.220, 281.231, 281.234, 281.251, 281.253, 281.254, 281.263, 281.271, 281.272, 281.282, 283.102, 283.103, 283.107, 283.112, 283.121, 283.201, 283.202, 283.211, 283.212—283.219, 283.231—283.233, 283.253, 283.261, 283.262, 283.264, 283.272, 283.281, 285.101, 285.111, 285.112, 285.115, 285.121, 285.124, 285.201, 285.211, 285.212, 285.214, 285.216, 285.217 and 285.219; by adding §§ 271.5, 271.114, 272.364, 273.121, 273.140a, 273.223, 277.121, 277.122, 277.139, 277.140, 277.221, 277.222, 279.110, 279.111, 279.222, 279.223, 279.234, 281.119, 281.123, 281.221, 281.222, 281.255, 283.113, 283.114,

283.220, 283.223, 283.234, 284.1, 284.2, 284.101, 284.102, 284.111—284.115, 284.121, 284.122, 284.131—284.133, 284.201, 284.210, 284.220, 284.301, 284.310, 284.311, 284.320, 284.321, 284.401, 284.411—284.419, 284.501, 284.511—284.514, 284.601—284.603, 284.611, 284.612, 284.621—284.625, 284.631—284.634, 284.641—284.645, 284.701—284.703, 284.711—284.714, 284.721—284.724, 284.731—284.734, 285.116 and 285.117; and by deleting §§ 271.102, 271.111, 271.112, 271.711, 271.712, 271.721—271.725, 271.731, 271.732, 271.741—271.744, 273.231, 277.110, 277.231, 283.302, 283.402, 285.132, 285.142—285.148, 285.222—285.224, 285.301—285.303, 285.311, 285.312, 285.321—285.325, 285.331—285.334, 285.341—285.345, 285.401—285.403, 285.411—285.414, 285.421—285.424 and 285.431—285.434 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of the Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson shall submit this order and Annex A to IRRC and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

JAMES M. SEIF,
Chairperson

(Editor's Note: For the text of the order of the Independent Regulatory Review Commission relating to this document, see 30 Pa.B. 5807 (November 4, 2000).)

Fiscal Note: Fiscal Note 7-340 remains valid for the final adoption of the subject regulations.

Annex A

**TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL
PROTECTION**

**Subpart D. ENVIRONMENTAL HEALTH AND
SAFETY**

ARTICLE VIII. MUNICIPAL WASTE

**CHAPTER 271. MUNICIPAL WASTE
MANAGEMENT—GENERAL PROVISIONS**

Subchapter A. GENERAL

§ 271.1. Definitions.

The following words and terms, when used in this article, have the following meanings unless the context clearly indicates otherwise:

* * * * *

Abatement standards—Background, MCLs and risk-based standards as those terms are defined under this article.

* * * * *

Airport—“Public airport,” as defined in 67 Pa. Code § 471.2 (relating to definitions). The term does not include heliports.

* * * * *

Alternative groundwater protection standard—A risk-based remediation standard for substances that have no primary MCLs under the Federal and State Safe Drinking Water Acts (42 U.S.C.A. §§ 300f–300j-18; and 35 P.S. §§ 721.1–721.17). For carcinogens, the standard represents a concentration associated with an excess lifetime cancer risk level between 1×10^{-4} and 1×10^{-6} , including the cumulative risk of all contaminants. For systemic toxicants, the standard represents a concentration to which the human population, including sensitive subgroups, could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. When several systemic toxicants affect the same target organ or act by the same method of toxicity, the hazard index may not exceed one.

* * * * *

Aquifer—A geologic formation, group of formations or part of a formation capable of yielding sufficient groundwater for monitoring purposes.

Association—A corporation, partnership, limited liability company, business trust or two or more persons associated in a common enterprise or undertaking.

* * * * *

Autoclave—A pressure vessel in which infectious waste is disinfected using high temperature steam, directly or indirectly, to maintain specified temperatures for retention times consistent with the waste being processed.

Autofluff—The residue from the shredding of automobiles, after all fluids have been removed.

Background standard—A numerical value as determined under section 302 of the Land Recycling and Environmental Remediation Standards Act (35 P.S. § 6026.302) and § 250.202 (relating to establishing background concentrations).

* * * * *

Byproduct material—The Federal definition for “byproduct material” in 10 CFR 20.1003 (relating to definitions) is incorporated by reference.

* * * * *

Clean fill—Uncontaminated, nonwater-soluble, nondecomposable inert solid material used to level an area or bring the area to grade. The term does not include material placed into or on waters of this Commonwealth.

* * * * *

Closure certification—A written document attested to by a corporate official that states that a landfill has permanently ceased accepting waste and access has been limited to activities necessary for postclosure care, maintenance and monitoring.

* * * * *

Construction/demolition waste—Solid waste resulting from the construction or demolition of buildings and other structures, including, but not limited to, wood, plaster, metals, asphaltic substances, bricks, block and unsegregated concrete. The term does not include the following if they are separate from other waste and are used as clean fill:

- (i) Uncontaminated soil, rock, stone, gravel, brick and block, concrete and used asphalt.
- (ii) Waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.

* * * * *

Dredged material—Material dredged or excavated from waters for the direct or indirect purpose of establishing or increasing water depth, or increasing the surface or cross-sectional area of a waterway and which includes sediment, soil, mud, shells, gravel or other aggregate. The material does not include waste removed or dredged from an impoundment that has received solid waste.

* * * * *

Environmental Stewardship and Watershed Protection Act—27 Pa.C.S. §§ 6101–6113.

* * * * *

FAA—The Federal Aviation Administration of the United States Department of Transportation.

Facility—Land, structures and other appurtenances or improvements where municipal waste disposal, processing or beneficial use is permitted or takes place.

* * * * *

General composting facility—A composting facility other than an individual backyard composting facility or yard waste composting facility operating under § 271.103(h) (relating to permit-by-rule for municipal waste processing facilities other than for infectious or chemotherapeutic waste; qualifying facilities; general requirements).

* * * * *

Groundwater degradation—A measurable increase in the concentration of one or more contaminants in groundwater above background concentrations for those contaminants.

* * * * *

Highly virulent diseases—Diseases derived from Class IV etiologic agents, as defined by the Centers for Disease Control, United States Department of Health and Human Services. Information about Class IV etiologic agents may be obtained from CDC-NIH Biosafety, Microbiological and Biomedical Laboratories Centers for Disease Control, 1600 Clifton Road, N.E., Atlanta, Georgia 30333.

Home self-care—The provision of medical care in the home setting (for example, private residents) through either self-administration practices or by a family member or other person.

* * * * *

Infectious waste—

(i) *General*. Municipal and residual waste which is generated in the diagnosis, treatment, immunization or autopsy of human beings or animals, in research pertaining thereto, in the preparation of human or animal remains for interment or cremation, or in the production or testing of biologicals, and which falls under one or more of the following categories:

* * * * *

(C) *Human blood and body fluid waste*.

* * * * *

(VII) Items saturated or dripping with body fluids or caked with dried body fluids from persons during surgery, autopsy, other medical procedures or laboratory procedures.

* * * * *

(F) *Used sharps*. Sharps that have been in contact with infectious agents or that have been used in animal or human patient care or treatment, at medical, research or industrial laboratories.

* * * * *

* * * * *

(iii) *Exceptions.* The term does not include the following:

(A) Wastes generated as a result of home self-care.

* * * * *

(G) Reusable or recyclable containers or other nondisposable materials, if they are cleaned and disinfected, or if there has been no direct contact between the surface of the container and materials identified in subparagraph (i). Laundry or medical equipment shall be cleaned and disinfected in accordance with the United States Occupational Safety and Health Administration Requirements in 29 CFR 1910.1030 (relating to bloodborne pathogens).

* * * * *

MCL—Maximum contaminant level.

* * * * *

Mobile infectious waste processing facility—An infectious waste processing unit which is moved from one waste generation site to another for the purpose of onsite processing of a generator's infectious waste. The term refers to any processing activity designed to disinfect infectious waste in accordance with § 284.321 (relating to infectious waste monitoring requirements) to render the waste noninfectious. The term does not include any permanently placed waste processing units.

* * * * *

NARM—*Naturally occurring or accelerator-produced radioactive material*—The term does not include byproduct, source or special nuclear material.

NORM—*Naturally occurring radioactive material*—A nuclide which is radioactive in its natural physical state—that is, not manmade—but does not include source or special nuclear material.

* * * * *

Radioactive material—A substance which spontaneously emits alpha or beta particles or photons (gamma radiation) in the process of decay or transformation of the atom's nucleus.

* * * * *

Remediation standards—Background, MCLs, site-specific, Statewide health and alternative groundwater protection standards as those terms are defined under this article.

* * * * *

Risk-based standard—A risk-based abatement standard for substances that have no MCLs under the Federal and State Safe Drinking Water Acts.

(i) For carcinogens the standard represents a concentration associated with an excess lifetime cancer risk level between 1×10^{-4} and 1×10^{-6} , including the cumulative risk of all contaminants and represents a concentration associated with an excess cancer risk level of 1×10^{-5} at the property boundary of a municipal waste facility.

(ii) For systemic toxicants, the standard represents a concentration to which the human population, including sensitive subgroups, could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime.

(iii) When several systemic toxicants affect the same target organ or act by the same method of toxicity, the hazard index may not exceed one.

Secondary contaminant—A substance for which a secondary MCL exists, and no lifetime health advisory level exists.

* * * * *

Sharps—Broken glass that has been in contact with pathogenic organisms, hypodermic needles and syringes to which a needle can be attached, with or without the attached needle, suture needles, disposable razors, pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, culture dishes, suture needles, slides, cover slips and other broken or unbroken glass or plasticware.

* * * * *

Site-specific standard—A numerical value as determined under section 304 of the Land Recycling and Environmental Remediation Standards Act (35 P. S. § 6026.304) and Chapter 250, Subchapter F (relating to exposure and risk determinations).

* * * * *

Small Business and Household Pollution Prevention Program Act—35 P. S. §§ 6029.201—6029.209.

* * * * *

Source material—The Federal Definition for “source material” in 10 CFR 20.1003 is incorporated by reference.

* * * * *

Special handling waste—Solid waste that requires the application of special storage, collection, transportation, processing or disposal techniques due to the quantity of material generated or its unique physical, chemical or biological characteristics. The term includes dredged material, sewage sludge, infectious waste, chemotherapeutic waste, ash residue from a solid waste incineration facility, friable asbestos containing waste, PCB containing waste and waste oil that is not hazardous waste.

Special nuclear material—The Federal definition for “special nuclear material” in 10 CFR 20.1003 is incorporated by reference. The term “Commission” refers to the Nuclear Regulatory Commission. The term “act” refers to the Atomic Energy Act of 1954 (42 U.S.C.A. §§ 2011—2297h-13). The term “Department” shall be substituted for the term “Commission” when the Department assumes Agreement State Status from the Nuclear Regulatory Commission.

* * * * *

Statewide health standard—A numerical value as determined under section 303 of the Land Recycling and Environmental Remediation Standards Act (35 P. S. § 6026.303) and § 250.304, except for subsection (d), §§ 250.305 and 250.308 (relating to MSCs for groundwater; MSCs for soil; and soil to groundwater pathway numeric values).

* * * * *

TENORM—*Technologically Enhanced Naturally Occurring Radioactive Materials*—A naturally occurring radioactive material not subject to regulation under the laws of the Commonwealth or the Atomic Energy Act of 1954, whose radionuclide concentrations or potential for human exposure have been increased above levels encountered in the natural state by human activities.

* * * * *

Thermal processing—A method, technique or process, excluding incineration and autoclaving, designed to disinfect infectious waste by means of exposure to high thermal temperatures through methods such as ionizing radiation or electric or plasma arc technologies.

* * * * *

Transuranic radioactive material—Material contaminated with elements that have an atomic number greater than 92, including neptunium, plutonium, americium and curium.

* * * * *

Unrecognizable infectious waste—All components of the waste have been processed to produce indistinguishable and unusable pieces smaller than 3/4 of an inch, except that all sharps must be smaller than 1/2 inch. The term does not mean compaction or encapsulation except through:

- (i) Processes such as thermal treatment or melting, during which disinfection and destruction occur.
- (ii) Processes such as shredding, grinding, tearing or breaking, during or after disinfection occurs.
- (iii) Processes that melt plastics and fully encapsulate metallic or other sharps and seals waste completely in a container that will not be penetrated by untreated sharps.

* * * * *

Waste—A material whose original purpose has been completed and which is directed to a disposal, processing or beneficial use facility or is otherwise disposed of, processed or beneficially used. The term does not include source separated recyclable materials, material approved by the Department for beneficial use under a beneficial use order issued by the Department prior to May 27, 1997, or material which is beneficially used in accordance with a general permit issued under Subchapter I (relating to beneficial use) or Subchapter J (relating to beneficial use of sewage sludge by land application) if a term or condition of the general permit excludes the material from being regulated as a waste.

* * * * *

Wetlands—Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas.

* * * * *

§ 271.2. Scope.

- (a) This chapter specifies certain general procedures and rules for persons who operate municipal waste management facilities. This chapter, together with Chapters 273, 275, 277, 279, 281, 283, 284 and 285, specifies the Department's requirements for municipal waste processing, disposal, transportation, collection and storage.
- (b) Management of the following types of residual waste is subject to this article instead of Article IX (relating to residual waste management), and shall be regulated as if the waste is municipal waste, regardless of whether the waste is a municipal waste or residual waste.
 - (1) Construction/demolition waste, except construction/demolition waste with greater than 4 ppm PCBs.
 - (2) Infectious and chemotherapeutic waste.
 - (3) Leaf waste and grass clippings.
 - (4) Waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.

(c) Management of the following types of waste is subject to Article IX instead of this article, and shall be regulated as if the waste is residual waste, regardless of whether the waste is municipal waste or residual waste:

- (1) Water supply treatment plant sludges.
- (2) Waste oil that is not hazardous waste.
- (3) Waste tires and auto fluff.
- (4) Contaminated soil.
- (5) Used asphalt.
- (6) Dredged material.

(d) The disposal, processing, storage and transportation at a municipal waste management facility of the following types of special handling waste is subject to the applicable additional requirements for the disposal, processing, storage and transportation of these wastes in Article IX, and shall be regulated as if the waste is residual waste, regardless of whether the waste is municipal waste or residual waste:

- (1) Friable asbestos containing waste.
- (2) PCB containing waste.

§ 271.3. Environmental protection.

(a) The Department may, in writing, request information from a permit applicant or operator not specifically identified in this article that the Department deems necessary to implement the purpose and provisions of the act, the environmental protection acts and the regulations promulgated thereunder, including a provision of this article.

(b) The Department may, in issuing a permit under this article, impose terms and conditions the Department deems necessary to implement the provisions and purposes of the act, the environmental protection acts and the regulations promulgated thereunder, including this article.

§ 271.4. Computerized data submission.

(a) Data required under this article may be submitted electronically or on magnetic or optic storage media in a format specified by the Department, if authorized by the Department.

(b) Data required under this article shall be submitted electronically or on magnetic or optic storage media in a format specified by the Department, if required by the Department.

(c) The Department may require a different scale than required in the application and operation requirements in this article to facilitate the use of data on maps, reports and plans submitted electronically or on magnetic or optic storage media.

§ 271.5. Public records and confidential information.

(a) Except as provided in subsection (b), records, reports or other information submitted to the Department under this article shall be available to the public for inspection or copying during regular business hours.

(b) The Department may, upon request, designate records, reports or other information as confidential when the person or municipality providing the information demonstrates the following:

(1) The information contains trade secrets, processes, operations, style of work or apparatus of a person or municipality or is otherwise confidential business information.

(2) The information is not emission or discharge data or other information that relates to public health, safety, welfare or the environment.

(c) When submitting information under this article, a person or municipality shall designate the information which the person or municipality believes is confidential or shall submit that information separately from other information being submitted.

(d) Information which the Department determines to be confidential under this section will not be made available to the public.

(e) This section does not prevent the disclosure of information to the Federal Government or other State agencies as may be necessary for purposes of administration of Federal or State Law.

(f) This section does not prevent the disclosure of information submitted to the Department as part of a general permit application under § 271.821 (relating to the application for general permit) which meets one of the following:

(1) The Department is required to make the information available to the public as part of the general permit.

(2) The Department determines that it is necessary to disclose the information during the comment period for the general permit to obtain informed public comment on the general permit.

Subchapter B. GENERAL REQUIREMENTS FOR PERMITS AND PERMIT APPLICATIONS

REQUIREMENT

§ 271.101. Permit requirement.

(a) Except as provided in subsection (b), a person or municipality may not own or operate a municipal waste disposal or processing facility unless the person or municipality has first applied for and obtained a permit for the facility from the Department under the requirements of this article.

(b) A person or municipality is not required to obtain a permit:

(1) For the use or application of agricultural waste in normal farming operations, unless the proposed use or application of the waste may cause pollution to air, water or other natural resources of this Commonwealth.

(2) For a source separation and collection program for recycling municipal waste, or for dropoff points, or collection or processing centers for source separated recyclable materials.

(3) For the use as clean fill of the following materials if they are separate from other waste:

(i) Uncontaminated soil, rock, stone, gravel, unused brick and block and concrete.

(ii) Waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.

(4) For temporary storage, which facilitates the transportation or transfer of infectious or chemotherapeutic waste, that does not exceed 24 hours. The stored waste shall remain in its original packaging, as received for storage.

(5) For the use of waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material if the waste is not hazardous. A person managing waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material, shall implement best management practices. The Department will prepare a manual for the management of waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material which identifies best management practices and may approve additional best management practices on a case-by-case basis. If a person fails to implement best management practices for managing waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material, the Department may require compliance with the disposal, composting, processing and storage operating requirements of Chapters 271, 281, 283 and 285.

(c) Subsection (b) does not relieve a person or municipality of the requirements of an applicable environmental protection act or an applicable regulation promulgated under it. Notwithstanding subsection (b), the Department may require a person or municipality to apply for, and obtain, an individual or general solid waste permit, or take other appropriate action, when the person or municipality is conducting a solid waste activity that harms or presents a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth.

§ 271.102. (Reserved).

§ 271.103. Permit-by-rule for municipal waste processing facilities other than for infectious or chemotherapeutic waste; qualifying facilities; general requirements.

* * * * *

(d) *Captive processing facility.* A facility that processes municipal waste that is generated solely by the operator, onsite or offsite, shall be deemed to have a municipal waste processing permit under this article if, in addition to subsections (a)—(c), the following conditions are met:

* * * * *

(5) For special handling waste, the operator submits a written notice to the Department that includes the name, address and telephone number of the facility, the individual responsible for operating the facility and a brief description of the facility.

* * * * *

(f) *Incinerator.* A municipal waste incinerator located at the generation site shall be deemed to have a municipal waste permit under this article if, in addition to the requirements of subsections (a)—(c), the operator submits a written notice to the Department that includes the name, address and telephone number of the facility, the individual responsible for operating the facility and a brief description of the facility and the facility meets one of the following:

* * * * *

(h) *Yard waste composting facility.* A person or municipality that operates a yard waste composting facility that is less than 5 acres, other than an individual backyard composting facility, shall be deemed to have a municipal waste processing permit-by-rule if the person or municipality meets the requirements of subsections (a)—(c), the facility is operated in accordance with the Department's guidelines on yard waste composting and the operator submits a written notice to the Department that includes

the name, address and telephone number of the facility, the individual responsible for operating the facility and a brief description of the facility.

EXISTING FACILITIES

§ 271.111. (Reserved).

§ 271.112. (Reserved).

§ 271.113. Closure plan.

(a) The Department may require a person or municipality that closed a municipal waste landfill, construction/demolition waste landfill or municipal waste disposal impoundment after September 7, 1980, and before April 9, 1988, to submit a closure plan to the Department under this section. The person or municipality shall submit the closure plan to the Department within 6 months after receiving written notice.

(b) A closure plan for municipal waste landfills or municipal waste disposal impoundments submitted under this section shall show how the operator plans to close in a manner that will protect public health, safety and the environment. At a minimum, the closure plan shall be consistent with the following:

(1) Final cover and grading requirements in § 273.234 (relating to final cover and grading).

(2) Sedimentation and erosion control requirements in § 273.242 (relating to soil erosion and sedimentation control).

(3) Revegetation requirements in §§ 273.235 and 273.236 (relating to revegetation; and standards for successful revegetation).

(4) Water quality monitoring requirements in §§ 273.281—273.288 (relating to water quality monitoring).

(5) Leachate management requirements in §§ 273.271—273.277 (relating to leachate treatment).

(6) Gas venting and monitoring requirements in § 273.292 (relating to gas control and monitoring).

(7) Bonding and insurance requirements in Subchapter D (relating to financial assurances requirements).

(c) A closure plan for construction/demolition waste landfills submitted under this section shall show how the operator plans to close in a manner that will protect public health, safety and the environment. At a minimum, the closure plan shall be consistent with the following:

(1) Final cover and grading requirements in § 277.233 (relating to final cover and grading).

(2) Sedimentation and erosion control requirements in § 277.242 (relating to soil erosion and sedimentation control).

(3) Revegetation requirements in § 277.235 (relating to standards for successful revegetation).

(4) Water quality monitoring requirements in §§ 277.281—277.288 (relating to water quality monitoring).

(5) Leachate management requirements in §§ 277.271—277.277 (relating to leachate treatment).

(6) Bonding and insurance requirements in Subchapter D.

(d) The Department may waive or modify the applicable regulations concerning subsection (b)(1)—(6) or subsection (c)(1)—(5) if a person or municipality can demon-

strate that an existing system or design performs at a level that is equivalent to the applicable regulations.

(e) The Department may approve, approve with modifications or disapprove a closure plan submitted under this subchapter.

(f) A person or municipality may not implement a closure plan submitted under this subchapter until the Department has approved the closure plan.

(g) Groundwater degradation at a municipal waste landfill which ceased receiving waste between September 7, 1980, and October 9, 1993, and groundwater degradation at a construction/demolition waste landfill or municipal waste disposal impoundment which ceased receiving waste after September 7, 1980 and before April 9, 1988, shall be remediated in accordance with one of the following:

(1) An approved closure plan, permit or any prior administrative consent order, consent adjudication, judicially approved consent order or other settlement agreement entered into with the Department.

(2) The remediation standards for other facilities in § 271.342(b)(4) (relating to final closure certification).

(h) A person or municipality may request final closure certification under § 271.342 (relating to final closure certification) upon completion of a closure plan approved under this section.

§ 271.114. Transition period.

A person or municipality possessing a permit for a municipal waste disposal or processing facility which was issued by the Department prior to December 23, 2000, shall file with the Department an application for permit modification to bring the facility operation into compliance with the following requirements for radioactive material monitoring and detection that became effective on December 23, 2000, according to the following schedule, unless the Department imposes in writing an earlier date in a specific situation for reasons of public health, safety or environmental protection:

(1) *Municipal waste landfill.* An application for a permit modification addressing the requirements of §§ 273.133(a)(14) and 273.140(a) (relating to map and grid requirements and radiation protection action plan) shall be filed by December 23, 2001.

(2) *Construction/demolition waste landfills.* An application for a permit modification addressing the requirements of §§ 277.133(a)(14) and 277.140 (relating to map and grid requirements and radiation protection action plan) shall be filed by December 23, 2001.

(3) *Municipal waste transfer facility.* An application for a permit modification addressing the requirements of §§ 279.103(a)(18) and 279.110 (relating to maps and related information; and radiation protection action plan) shall be filed by December 23, 2002.

(4) *Commercial municipal waste composting facility that will receive sewage sludge or unseparated municipal waste, or both.* An application for a permit modification addressing the requirements of §§ 281.112(a)(20) and 281.119 (relating to maps and related information; and radiation protection action plan) shall be filed by June 23, 2001.

(5) *Resource recovery and other processing facilities.* Including infectious and chemotherapeutic waste processing facilities, an application for a permit modification addressing the requirements of §§ 283.103(20) and

283.113 (relating to maps and related information; and radiation protection action plan) shall be filed by September 23, 2001.

GENERAL APPLICATION REQUIREMENTS

§ 271.122. Form of application.

(a) An application for a permit under this article shall be submitted to the Department, in writing, on forms provided by the Department.

(b) An application for a permit shall be accompanied by information, maps, plans, specifications, designs, analyses, test reports and other data as may be required by the Department to determine compliance with this article.

(c) Information in the application shall be current, presented clearly and concisely and supported by appropriate references to technical and other written material available to the Department.

(d) An application for a permit shall be prepared by or under the supervision of a Pennsylvania registered professional engineer. The design section of the application shall bear the seal of a Pennsylvania registered professional engineer. The soils, geology and groundwater sections of a permit application shall be completed by experts in the fields of soil science, soil engineering, geology and groundwater. The geology and groundwater sections of a permit application also shall be completed under the supervision of a registered professional geologist licensed in Pennsylvania.

(e) To the greatest extent feasible, a permit application shall be submitted to the Department on paper that is manufactured partly or entirely from postconsumer material.

§ 271.123. Right of entry.

(a) An application shall contain a description of the documents upon which the applicant bases the legal right to enter and operate a municipal waste processing or disposal facility within the proposed permit area. The application shall also state whether that right is the subject of pending litigation.

(b) The application shall provide one of the following for lands within the permit area:

(1) A copy of the written consent to the applicant by the current landowner to operate a municipal waste processing or disposal facility.

(2) A copy of the document of conveyance that expressly grants or reserves the applicant the right to operate a municipal waste processing or disposal facility and an abstract of title relating the documents to the current landowner.

(c) An application shall include, upon a form prepared and furnished by the Department, the irrevocable written consent of the landowner to the Commonwealth and its authorized agents to enter the proposed permit area. The consent shall be applicable prior to the initiation of operations, for the duration of operations at the facility, and for up to 10 years after final closure for the purpose of inspection and monitoring, maintenance or abatement measures deemed necessary by the Department to carry out the purposes of the act and the environmental protection acts.

(d) The forms required by subsections (b) and (c) shall be deemed to be recordable documents. Prior to the initiation of operations under the permit, the forms shall be recorded by the applicant at the office of the recorder of deeds in the county in which the proposed permit area

is situated. This subsection does not apply to agricultural utilization permits under Chapter 275 (relating to land application of sewage sludge) nor to permits issued under Subchapter J (relating to beneficial use of sewage sludge by land application).

(e) Subsequent landowners shall be deemed to have constructive knowledge if the forms required by this section have been properly filed at the office of the recorder of deeds in the county in which the proposed solid waste activity is situated.

§ 271.124. Identification of interests.

(a) An application for a municipal waste processing or disposal permit shall contain the following information on a form provided by the Department:

(1) The names, addresses and telephone numbers of:

(i) The permit applicant.

(ii) Any contractor, including a contractor for gas or energy recovery from the proposed operation, if the contractor is a person other than the applicant.

(iii) Related parties to the applicant, including the relationship to the applicant.

(2) The names and addresses of the owners of record of surface and subsurface areas within, and contiguous to, parts of the proposed permit area.

(3) The names and addresses of the holders of record to a leasehold interest of surface and subsurface areas within, and contiguous to, parts of the proposed permit area.

(b) An application shall contain a statement of whether the applicant is an individual, corporation, partnership, limited partnership, limited liability company, government agency, proprietorship, municipality, syndicate, joint venture or other association or entity. For applicants other than sole proprietorships, the application shall contain the following information, if applicable:

(1) The names and addresses of every officer, general and limited partner, director and other persons performing a function similar to a director of the applicant.

(2) For corporations, the principal shareholders.

(3) For corporations, the names, principal places of business and Internal Revenue Service tax identification numbers of United States parent corporations of the applicant, including ultimate parent corporations and United States subsidiary corporations of the applicant and the applicant's parent corporations.

(4) The names and addresses of other persons or entities having or exercising control over any aspect of the proposed facility that is regulated by the Department, including, but not limited to, associates and agents.

(c) If the applicant or an officer, principal shareholder, general or limited partner, limited liability company member or manager or other related party to the applicant, has a beneficial interest in, or otherwise manages or controls another person or municipality engaged in the business of solid waste collection, transportation, storage, processing, treatment or disposal, the application shall contain the following information:

(1) The name, address and tax identification number or employer identification number of the corporation or other person or municipality.

(2) The nature of the relationship or participation with the corporation or other person or municipality.

(d) An application shall list permits or licenses, issued by the Department under the environmental protection acts to each person or municipality identified in subsection (b) and to other related parties to the applicant, that are currently in effect or have been in effect in at least part of the previous 10 years. This list shall include the type of permit or license, number, location, issuance date and, when applicable, the expiration date.

(e) An application shall identify the solid waste processing or disposal facilities in this Commonwealth which the applicant or a person or municipality identified in subsection (b) and other related parties to the applicant currently owns or operates, or owned or operated in the previous 10 years. For each facility, the applicant shall identify the location, type of operation and State or Federal permits under which they operate or have operated. Facilities which are no longer permitted or which were never under permit shall also be listed.

§ 271.125. Compliance information.

(a) An application shall contain the following information for the 10-year period prior to the date on which the application is filed:

(1) A description of notices of violation, including the date, location, nature and disposition of the violation, that were sent by the Department to the applicant or a related party, concerning the act, the environmental protection acts, a regulation or order of the Department or a condition of a permit or license. In lieu of a description, the applicant may provide a copy of notices of violation.

(2) A description of administrative orders, civil penalty assessments and bond forfeiture actions by the Department, and civil penalty actions adjudicated by the EHB, against the applicant or a related party concerning the act, the environmental protection acts or a regulation or order of the Department or a condition of a permit or license. The description shall include the date, location, nature and disposition of the actions. In lieu of a description, the applicant may provide a copy of the orders, assessments and actions.

(3) A description of summary, misdemeanor or felony convictions, pleas of guilty or pleas of no contest that have been obtained in this Commonwealth against the applicant or a related party under the act and the environmental protection acts, or under other acts in this Commonwealth concerning the storage, collection, treatment, transportation, processing or disposal of solid waste. The description shall include the date, location, nature and disposition of the actions.

(4) A description of court proceedings concerning the act or the environmental protection acts that were not described under paragraph (3), in which the applicant or a related party has been a party. The description shall include the date, location, nature and disposition of the proceedings.

(5) A description of consent orders, consent adjudications, consent decrees or settlement agreements in this Commonwealth entered by the applicant or a related party concerning the act, the environmental protection acts or an environmental protection ordinance, in which the Department, the EPA or a county health department was a party. The description shall include the date, location, nature and disposition of the action. In lieu of a description, the applicant may provide a copy of the order, adjudication, decree or agreement.

(6) For facilities and activities identified under § 271.124 (relating to identification of interests), a state-

ment of whether the facility or activity was the subject of an administrative order, consent agreement, consent adjudication, consent order, settlement agreement, court order, civil penalty, bond forfeiture proceeding, criminal conviction, guilty or no contest plea to a criminal charge or permit or license suspension or revocation under the act or the environmental protection acts. If the facilities or activities were subject to these actions, the applicant shall state the date, location, nature and disposition of the violation. In lieu of a description, the applicant may provide a copy of the appropriate document. The application shall also state whether the Department has denied a permit application filed by the applicant or a related party, based on compliance status.

(7) When the owner or operator is a corporation, partnership or limited liability company, a list of each principal shareholder, partner or member that has also been a principal shareholder, partner or member of another corporation, partnership or limited liability company which has committed violations of the act or the environmental protection acts. The list shall include the date, location, nature and disposition of the violation, and shall explain the relationships between the principal shareholder, partner or member and both of the following:

(i) The owner or operator.

(ii) The other corporation, partnership or limited liability company.

(8) A description of misdemeanor or felony convictions, pleas of guilty and pleas of no contest, by the applicant or a related party for violations outside of this Commonwealth of the environmental protection acts. The description shall include the date of the convictions or pleas, and the date, location and nature of the offense.

(9) A description of final administrative orders, court orders, court decrees, consent decrees or adjudications, consent orders, final civil penalty adjudications, final bond forfeiture actions or settlement agreements involving the applicant or a related party for violations outside of this Commonwealth of the environmental protection acts. The description shall include the date of the action and the location and nature of the underlying violation. In lieu of a description, the applicant may provide a copy of the appropriate document.

(b) If the waste to be disposed or processed is generated outside the county in which the facility is proposed to be located, the application shall also include a description of applicable State and local laws, including State and local solid waste management plans adopted under those laws, that may affect, limit or prohibit the transportation, processing or disposal of the waste at the proposed facility. The application shall state whether or not disposal or processing of waste from each generating county may violate each applicable law or plan.

§ 271.126. Requirement for environmental assessment.

(a) Except as provided in subsection (b), an application for a municipal waste disposal or processing permit shall include an environmental assessment on a form prescribed by the Department.

(b) The following permit applications do not require an environmental assessment unless the Department determines that the facility may have a significant effect on the environment:

(1) Permit applications for the beneficial use of municipal waste.

(2) Permit applications for the processing of municipal waste under Subchapter I (relating to beneficial use).

(3) Permit modification applications that are not for major modifications under § 271.144 (relating to public notice and public hearings for permit modifications).

(c) For facilities which have previously been subject to the environmental assessment process, the Department will limit the scope of review under that process to the following:

(1) Proposed modifications to the facility.

(2) Changes in the areas covered by the assessment that have occurred since the assessment was conducted.

§ 271.127. Environmental assessment.

(a) *Impacts.* Each environmental assessment in a permit application shall include at a minimum a detailed analysis of the potential impact of the proposed facility on the environment, public health and public safety, including traffic, aesthetics, air quality, water quality, stream flow, fish and wildlife, plants, aquatic habitat, threatened or endangered species, water uses, land use and municipal waste plans. The applicant shall consider features such as scenic rivers, recreational river corridors, local parks, State and Federal forests and parks, the Appalachian Trail, historic and archaeological sites, National wildlife refuges, State natural areas, National landmarks, farmland, wetland, special protection watersheds designated under Chapter 93 (relating to water quality standards), airports, public water supplies and other features deemed appropriate by the Department or the applicant. The permit application shall also include all correspondence received by the applicant from any State or Federal agency contacted as part of the environmental assessment.

(b) *Harms.* The environmental assessment shall describe the known and potential environmental harms of the proposed project. The applicant shall provide the Department with a written mitigation plan which explains how the applicant plans to mitigate each known or potential environmental harm identified and which describes any known and potential environmental harms not mitigated. The Department will review the assessment and mitigation plans to determine whether there are additional harms and whether all known and potential environmental harms will be mitigated. In conducting its review, the Department will evaluate each mitigation measure and will collectively review mitigation measures to ensure that individually and collectively they adequately protect the environment and the public health, safety and welfare.

(c) *Municipal waste landfills, construction/demolition waste landfills and resource recovery facilities.* If the application is for the proposed operation of a municipal waste landfill, construction/demolition waste landfill or resource recovery facility, the applicant shall demonstrate that the benefits of the project to the public clearly outweigh the known and potential environmental harms. In making this demonstration, the applicant shall consider harms and mitigation measures described in subsection (b). The applicant shall describe in detail the benefits relied upon. The benefits of the project shall consist of social and economic benefits that remain after taking into consideration the known and potential social and economic harms of the project and shall also consist of the environmental benefits of the project, if any.

(d) *Other facilities.* If the application is for the proposed operation of another type of facility and the

applicant or the Department upon review determines that known or potential environmental harm remains despite the mitigation measures described in subsection (b), the applicant shall demonstrate that the benefits of the project to the public clearly outweigh the known and potential environmental harms. In making this demonstration, the applicant shall consider harms and mitigation measures described in subsection (b). The applicant shall describe in detail the benefits relied upon. The benefits of the project shall consist of social and economic benefits that remain after taking into consideration the known and potential social and economic harms of the project and shall also consist of the environmental benefits of the project, if any.

(e) *Identification of harms and benefits.* Known and potential harms and benefits of a proposed project may also be identified by the Department or any other person or municipality.

(f) *Need.* The description required by subsections (c) and (d) may include an explanation of the need for the facility, if any. Simply adding new capacity does not establish need for a facility.

(g) *Evaluation.* After consultation with other appropriate agencies and potentially affected persons, the Department will evaluate the environmental assessment in Phase I of permit review or otherwise prior to technical review.

(h) *Revision.* The Department may require submission of a revised environmental assessment if additional harms or potential harms are discovered during any phase of permit application review.

§ 271.128. Permit application fee.

(a) An application for a new permit shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for the following amount:

(1) Eighteen thousand five hundred dollars for a municipal waste landfill.

(2) Nineteen thousand two hundred fifty dollars for a construction/demolition waste landfill.

(3) One thousand two hundred dollars for the agricultural utilization of sewage sludge.

(4) Four thousand dollars for the utilization of sewage sludge for land reclamation and land disposal.

(5) Four thousand four hundred dollars for a transfer facility.

(6) For municipal waste processing facilities other than transfer facilities:

(i) One thousand nine hundred dollars for incinerators or resource recovery facilities.

(ii) Four thousand dollars for other municipal waste processing facilities.

(7) Seventeen thousand three hundred dollars for demonstration facilities.

(b) An application for a permit modification under § 271.144 (relating to public notice and public hearings for permit modifications) shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for the following amount:

(1) Three hundred dollars for the addition of types of waste not approved in the permit.

(2) Seven thousand eight hundred dollars for municipal waste landfills and construction/demolition waste landfills.

(3) Four hundred dollars for the agricultural utilization of sewage sludge.

(4) One thousand one hundred dollars for the utilization of sewage sludge for land reclamation and land disposal.

(5) Seven hundred dollars for transfer facilities.

(6) For municipal waste processing facilities other than transfer facilities:

(i) One thousand five hundred dollars for incinerators or resource recovery facilities.

(ii) Seven hundred dollars for other municipal waste processing facilities.

(7) Six thousand seven hundred dollars for demonstration facilities.

(c) An application for a minor permit modification, including a minor permit modification under § 271.222 (relating to permit modification), shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$300.

(d) An application for a permit reissuance under § 271.221 (relating to permit reissuance) shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$300.

(e) An application for a permit renewal under § 271.223 (relating to permit renewal) shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$300.

PUBLIC NOTICE AND COMMENTS

§ 271.141. Public notice by applicant.

(a) An applicant for a new permit, major permit modification, permit renewal or permit reissuance and a person or municipality submitting a closure plan shall publish once a week for 3 consecutive weeks a notice in a newspaper of general circulation in the area where the facility or proposed facility is located. The notice shall meet the following requirements:

(1) Include a brief description of the location and proposed operation or closure of the facility, and indicate where copies of the application or closure plan will be filed. If groundwater degradation exists at closure or occurs after closure, the notice shall include a list of contaminants, abatement measures taken prior to closure, if applicable, proposed remediation measures and proposed remediation standards to be met. If the permittee proposes to utilize the alternative groundwater protection standard, the notice shall include a 30-day public and municipal comment period during which the municipality can request to be involved in the development of the remediation and reuse plans for the site.

(2) State that the host municipality and county may submit comments to the Department within 60 days of receipt of the application or closure plan, recommending conditions upon, revisions to and approval or disapproval of the permit or closure plan, with the specific reasons described in the comments.

(3) State that the Department will accept comments from the public on the permit application or closure plan and state the procedure for submission of comments.

(4) If the applicant proposes a design alternative under § 271.231 (relating to equivalency review procedure), it shall so state, and briefly describe the alternative design.

(5) If the application is for a new municipal waste landfill, construction/demolition waste landfill, transfer facility or resource recovery facility, or for a major modification of a municipal waste landfill permit, it shall be in the form of a display advertisement.

(b) An applicant for a new permit, permit reissuance, permit renewal or major permit modification, and a person or municipality submitting a closure plan, shall also notify by certified mail owners and occupants of land contiguous to the site or the proposed permit area of the nature and extent of the proposed facility or closure plan. If the applicant proposes a design alternative under § 271.231, the notice shall so state and briefly describe the alternative design. The applicant shall submit proof of the notice in the form of a United States Postal Service postmarked signature card or other dated acknowledgment form of private letter carrier services.

(c) The Department may require the person or municipality to provide additional public notice if the Department determines that the proposed facility or closure plan is of significant interest to the public or may cause significant environmental impact.

(d) An applicant for a new permit, permit reissuance, permit renewal or major permit modification, and a person or municipality submitting a closure plan shall, immediately before the application or plan is filed with the Department, give written notice to each municipality in which the site or proposed permit area is located. If groundwater degradation exists at closure or occurs after closure, the notice shall include a list of contaminants, abatement measures taken prior to closure, if applicable, proposed remediation measures and proposed remediation standards to be met. If the permittee proposes to utilize the alternative groundwater protection standard, the notice shall include a 30-day public and municipal comment period during which the municipality can request to be involved in the development of the remediation and reuse plans for the site. If the applicant proposes a design alternative under § 271.231, the notice shall so state and briefly describe the alternative design. The applicant shall file with the Department a copy of the notice as part of the application or plan. The Department will not issue a permit for 60 days from the date of the notice unless each municipality to which the notice is sent submits a written statement to the Department expressly waiving the 60-day period.

(e) Proof of compliance with the applicable requirements of this section shall be submitted within 30 days of filing its permit application or closure plan with the Department.

§ 271.142. Public notice by Department.

(a) The Department will publish a notice in the *Pennsylvania Bulletin* of the following:

(1) Receipt of an application for a new permit, permit reissuance, permit renewal or major permit modification.

(2) Receipt of a closure plan and if groundwater degradation exists at closure or occurs after closure, the notice shall include a list of contaminants, abatement measures taken prior to closure, if applicable, proposed remediation measures and proposed remediation standards to be met. If the permittee proposes to utilize the alternative groundwater protection standard, the notice shall include a 30-day public and municipal comment period during

which the municipality can request to be involved in the development of the remediation and reuse plans for the site.

(3) Final action on an application for a new permit, permit reissuance, permit renewal or major permit modification.

(4) Justification for overriding county or host municipality recommendations regarding an application for a new permit, permit reissuance, permit renewal or major permit modification under section 504 of the act (35 P. S. § 6018.504).

(b) The Department will submit a copy of an application for a new permit, permit reissuance, permit renewal, major permit modification or closure plan to the host municipality and the appropriate county, county planning agency and county health department, if one exists. If groundwater degradation exists at closure or occurs after closure, the Department will include a copy of the applicant's list of contaminants, identification of abatement measures taken prior to closure, if applicable, proposed remediation measures and proposed remediation standards to be met.

(c) The Department will provide written notice of final action taken on an application for a new permit, permit reissuance, permit renewal, permit modification or closure plan to the host municipality and the appropriate county, county planning agency and county health department, if one exists.

§ 271.144. Public notice and public hearings for permit modifications.

(a) An application for a permit modification for municipal waste landfills or construction/demolition waste landfills shall be considered an application for a major permit modification under §§ 271.141—271.143 (relating to public notice by applicant; public notice by Department; and public comments) if the application involves the following:

- (1) Change in site volume—waste capacity.
- (2) Change in the average or maximum daily waste volume.
- (3) Change in excavation contours or final contours, including final elevations and slopes, if the change results in increased disposal capacity or impacts the groundwater isolation distance or groundwater quality.
- (4) Change in permitted acreage.
- (5) Change in the approved groundwater monitoring plan, except for the addition or replacement of wells or parameters.
- (6) Change in approved leachate collection and treatment method.
- (7) Change in gas monitoring or management plan, or both, except when installation of additional wells or improvements to the collection systems are proposed.
- (8) Change in the approved closure plan.
- (9) Acceptance for disposal of types of waste not approved in the permit.
- (10) Change in ownership, unless the owner is the permittee, in which case permit reissuance is required under § 271.221 (relating to permit reissuance).
- (11) Change in approved design under § 271.231 (relating to equivalency review procedure) if the design has not been previously approved through an equivalency review.
- (12) The submission of an abatement plan.

(13) The disposal of waste in areas that have reached final permitted elevations.

(14) Change in operator, unless the operator is the permittee, in which case permit reissuance is required under § 271.221.

(15) Submission of a radiation protection action plan.

(b) An application for a permit modification for a municipal waste processing facility shall be considered an application for a major permit modification under §§ 271.141—271.143, if the application involves the following:

- (1) Changes in specifications or dimensions of waste storage or residue storage areas if the change results in increased processing or storage capacity.
- (2) Change in the approved groundwater monitoring plan, except for the addition or replacement of wells or parameters.
- (3) Change in approved closure plan.
- (4) Acceptance for processing of types of waste not approved in the permit.
- (5) Change in residue disposal area, if applicable.
- (6) Change in approved design under § 271.231 if the design has not been previously approved through an equivalency review.
- (7) Change in the maximum daily waste volume.
- (8) Change in ownership, unless the owner is the permittee, in which case permit reissuance is required under § 271.221.
- (9) Change in operator, unless the operator is the permittee, in which case permit reissuance is required under § 271.221.
- (10) Submission of a radiation protection action plan.

(c) The Department may require public notice or public hearings for an application for permit modification not described in this section that the Department believes should be subject to public notice or public hearings.

(d) If the Department modifies a permit under section 503(e) of the act (35 P. S. § 6018.503(e)) without first receiving a permit application, it will subsequently publish notice of the permit modification in the *Pennsylvania Bulletin*.

Subchapter C. PERMIT REVIEW PROCEDURES AND STANDARDS

PERMIT REVIEW

§ 271.201. Criteria for permit issuance or denial.

A permit application will not be approved unless the applicant affirmatively demonstrates that the following conditions are met:

- (1) For a disposal or processing permit, each of the entities that is the permit applicant, an owner of the facility or a part thereof, an operator of the facility, or a related party to one or more of the foregoing entities, is one of the following: a natural person; a partnership; a corporation; a municipality of this Commonwealth; a municipal authority or joint municipal authority established under the laws of the Commonwealth; an agency of the Commonwealth; the Commonwealth; an agency of the Federal Government; or the Federal Government.
- (2) The permit application is complete and accurate.

(3) The requirements of the environmental protection acts, this title and PA.CONST. art. I, § 27 have been complied with.

(4) Mitigation plans required by § 271.127 (relating to environmental assessment) are implemented if required by the Department.

(5) Municipal waste management operations under the permit will not cause surface water pollution or ground-water pollution, except that the Department may approve an application for permit modification to control or abate groundwater pollution under a new or modified ground-water collection or treatment facility.

(6) When the potential for mine subsidence exists, subsidence will not endanger or lessen the ability of the proposed facility to operate in a manner that is consistent with the act, the environmental protection acts and this title, and will not cause the proposed operation to endanger the environment or public health, safety or welfare.

(7) The proposed facility will not interfere with implementation of the approved host county plan or another county, municipality or State plan approved under applicable law.

(8) The proposed facility will not interfere with municipal waste collection, storage, transportation, processing or disposal in the host county.

(9) For a new municipal waste landfill subject to 49 U.S.C.A. § 44718(d) (relating to limitation on construction of landfills), the Administrator of the Federal Aviation Administration has determined that exemption of the landfill from application of 49 U.S.C.A. § 44718(d) would have no adverse impact on aviation safety. This exemption is only available if the state aviation agency of the state in which the airport is located has requested that the Administrator exempt the landfill from the application of 49 U.S.C.A. § 44718(d).

§ 271.202. Receipt of application and completeness review.

(a) After receipt of a permit application, the Department will determine whether the application is administratively complete.

(b) For purposes of this section, "receipt of a permit application" does not occur for an application for a new facility or a permit modification that would result in an increased average or maximum daily waste volume, increased disposal capacity or expansion of the permit area, until the following requirements are met:

(1) The Department, applicant and municipal officials meet to discuss the permit application, the Department's permit application review process and the public involvement steps in that process and to hear and understand the concerns and questions of the municipal officials, as described in the Department's *Local Municipality Involvement Process Policy*, Document Number 254-2100-100. The Department may invite other persons from the local municipalities who have an interest in the application.

(2) An alternative project timeline is established for review of a permit application for a municipal waste landfill, construction/demolition waste landfill or resource recovery facility through negotiation among the Department, applicant and representatives of the host county and host municipality. If the parties are unable to reach agreement, the Department will determine an appropriate timeline, taking into consideration the level of public interest and incorporating into the timeline sufficient opportunity for meaningful public participation. Public

notice of a negotiated timeline will be made in the *Pennsylvania Bulletin* as part of the permit application receipt announcement required by § 271.142 (relating to public notice by Department).

(c) For purposes of this section, an application is administratively complete if it contains necessary information, maps, fees and other documents, regardless of whether the information, maps, fees and documents would be sufficient for issuance of the permit. If the Phase I and Phase II parts of the application for a landfill are submitted separately, the application will not be considered to be administratively complete until both parts are determined to be administratively complete.

(d) If the application is not administratively complete, the Department will, within 60 days of receipt of the application, return it to the applicant, along with a written statement of the specific information, maps, fees and documents that are required to make the application administratively complete.

(e) The Department will deny the application if the applicant fails to provide the information, maps, fees and documents within 90 days of receipt of the notice in subsection (d).

(f) The Department will not accept a permit application for an expansion that would result in an increase in capacity of a municipal waste landfill or construction/demolition waste landfill if more than 5 years of disposal capacity remains at the landfill based upon information submitted in the most recent annual report or equivalent information that includes a topographic survey map and a description of the capacity used since the last annual report.

(g) The following definitions apply in this section:

(1) *Local municipalities.* Local municipalities include the host municipality, the host county, municipalities adjacent to the host municipality or municipalities, municipalities located within 1 mile of the permitted or proposed area, other municipalities that demonstrate that they may be adversely impacted by the proposed project and municipalities located along the approach routes.

(2) *Approach routes.* Approach routes are routes from the nearest limited access (or major) highway used by vehicles traveling to and from the facility.

(3) *Municipal officials.* Representatives of local municipalities with whom the Department will coordinate pre-permit application and early permit application review.

§ 271.203. Review period.

(a) The Department will issue or deny permit applications for municipal waste landfills, construction/demolition waste landfills, and resource recovery facilities within the time period established in the alternative project timeline developed under § 271.202 (relating to receipt of application and completeness review).

(b) The time period in subsection (a) does not include a period beginning with the date that the Department in writing has requested the applicant to make substantive corrections or changes to the application and ending with the date that the applicant submits the corrections or changes to the Department's satisfaction.

GENERAL PERMIT RESTRICTIONS

§ 271.211. Term of permits.

(a) A permit will be issued for a fixed term consistent with the approved operation and design plans of the facility, and not to exceed 10 years. An operator may

apply for permit renewal prior to the expiration of the permit terms under § 271.223 (relating to permit renewal).

(b) The Department may grant a longer fixed term if:

(1) The application is complete for the longer fixed term.

(2) The applicant shows that a specified longer term is reasonably needed to allow the applicant to obtain necessary financing for the facility, and this need is confirmed, in writing, by the applicant's source of financing.

(c) No municipal waste may be disposed, processed or beneficially used under a permit after the expiration of the permit term for disposal, processing or beneficial use. Expiration of the permit term does not limit the operator's responsibility for complying with closure and postclosure requirements and all other requirements under the act, the environmental protection acts, regulations thereunder or the terms or conditions of its permit.

(d) The Department will, from time to time, but at intervals not to exceed 5 years, review a permit issued under this article. In its review, the Department will evaluate the permit to determine whether it reflects currently applicable operating requirements, as well as current technology and management practices. The Department may require modification, suspension or revocation of the permit when necessary to carry out the purposes of the act, the environmental protection acts and this title. The Department will require the operator to provide a summary of changes to the operations since the initial permit or latest major permit modification was approved.

(e) If no municipal waste is processed or disposed under a permit within 5 years of the date of issuance by the Department of a permit for the facility, the permit is void.

(f) A municipal waste management facility without a permit term that was permitted by the Department prior to April 9, 1988, shall have a permit term that expires April 9, 1993. The operator of the facility may apply for permit renewal under § 271.223.

§ 271.212. Conditions of permits.

A permit issued by the Department will, at a minimum, ensure and contain the following conditions:

(1) Except to the extent that the permit states otherwise, the permittee shall conduct solid waste management activities as described in the approved application.

(2) The permittee shall allow authorized representatives of the Commonwealth, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to areas in which operations will be, are being or have been conducted.

(3) The permittee shall affect by solid waste management activities only lands specifically approved in the permit and for which financial assurances have been filed with the Department under Subchapter D (relating to financial assurances requirements).

(4) The permittee shall notify the Department within the time stated in the permit and if no time is stated within 45 days, on a form prepared by the Department, after the transfer has occurred of a controlling interest in the owner or operator, if the transfer does not require a permit modification under § 271.144 (relating to public notice and public hearings for permit modifications) or a permit reissuance under § 271.221 (relating to permit reissuance). The notification shall contain the same information

relating to the person who obtained the controlling interest as is required of a permit applicant in a permit application under §§ 271.124 and 271.125(a) (relating to identification of interests; and compliance information). A "controlling interest" means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract or otherwise.

PERMIT REISSUANCE, MODIFICATION AND RENEWAL

§ 271.221. Permit reissuance.

(a) A transfer, assignment or sale of rights granted under a permit may not be made without obtaining permit reissuance.

(b) An application for permit reissuance shall be made on forms provided by the Department and shall contain the following:

(1) A written statement that the person assumes, upon reissuance of the permit, liability for operation, maintenance, pollution, closure, postclosure maintenance, final cover and other responsibilities under the act, the environmental protection acts, this title and the terms and conditions of the permit from the date of original issuance of the permit.

(2) A detailed explanation of the schedule and procedure for transferring control of the facility to the applicant.

(3) One of the following:

(i) An entirely new application under this article.

(ii) A written statement expressly agreeing to abide by permit conditions, and assuming responsibility for violations which have occurred, or may occur, on the area previously affected. The statement shall include the following:

(A) The identity of the applicant as required in § 271.124 (relating to identification of interests) and the compliance information required in § 271.125 (relating to compliance information).

(B) For a municipal waste disposal permit, a property map showing the extent to which disposal has been accomplished under the existing permit.

(C) The name and address of the existing permittee.

(D) Appropriate financial assurances in the amount specified by the Department under Subchapter D (relating to financial assurance requirements).

(E) Proof of public notice as required by § 271.141 (relating to public notice by applicant).

(c) Departmental approval of permit reissuance under this section does not limit the original permittee's responsibility, liability, duty or obligation under law.

§ 271.222. Permit modification.

(a) A permittee shall file with the Department an application for permit modification:

(1) Prior to making a change in the design or operational plans in the application upon which the permit is issued.

(2) Prior to making a change that would affect the terms or conditions of the existing permit.

(3) Prior to conducting solid waste processing or disposal activities that are not approved in the permit.

- (4) If otherwise required by the Department.
- (b) An application for permit modification shall be complete and contain the following information:
- (1) The permittee's name, address and permit number.
 - (2) A description of the proposed modifications, including appropriate maps, plans and applications to demonstrate that the proposed modification complies with the act, the environmental protection acts and this title.
 - (c) The Department may issue onsite, in writing, a conditional approval of a minor modification for the construction of liner systems or of erosion and sedimentation control devices if impracticable to comply with subsections (a) and (b) and the modification will improve the permitted design. Approval is conditioned upon timely submission of the information and fee required in subsection (d).
 - (d) Within 5 working days of obtaining written onsite Department conditional approval of a minor modification under subsection (c), the permittee shall file with the Department documentation to modify its permit application in accordance with the conditional approval issued under subsection (c). The permit modification documentation shall be accompanied by the fee required in § 271.128(c) (relating to permit application fee).

§ 271.223. Permit renewal.

- (a) A permittee that plans to dispose of or process municipal waste after the expiration of the term set under § 271.211 (relating to term of permits) shall file a complete application for permit renewal on forms provided by the Department. The complete application for a processing facility shall be filed at least 270 days before the expiration date of the permit term and for a disposal facility at least 1 year before the expiration date of the permit term. For a processing facility with a permit term that expires on or before 270 days, the application for permit renewal shall be filed at least 180 days prior to the expiration date of the permit term. For a disposal facility with a permit term that expires on or before the application for permit renewal, shall be filed at least 180 days prior to the expiration date of the permit term.
- (b) An application for renewal of a municipal waste disposal permit shall include a clear statement of the remaining permitted capacity of the facility, with documentation, in relation to the requested term of the permit renewal.
- (c) A permit renewal, if approved by the Department, may only continue the term of the permit on its presently permitted acreage, including the terms and conditions of the permit. An applicant that seeks to add permitted acreage or change the terms or conditions of the permit shall also file an application for a permit modification.
- (d) A permit renewal shall be for a term not to exceed the term of the original permit.

OTHER PERMITTING PROVISIONS

§ 271.231. Equivalency review procedure.

- (a) In approving a permit application under this article, the Department may authorize, in writing, alternatives to the design requirements in this article only if, and only to the extent that, specific sections in this article expressly state that alternatives may be authorized under this section.
- (b) A person requesting an alternative under this section shall submit a request to the Department, in writing. The request shall:

- (1) Identify the specific regulation for which an equivalency alternative is being sought.
- (2) Demonstrate, through supporting technical documentation, justification and quality control procedures, that the requested alternative to the design requirements in a section of the regulations will, for the life of operations at the facility, achieve the performance standards in that section, and will do so in a manner that is equivalent or superior to the design requirements in that section.
- (c) No equivalency alternative will be approved unless the application affirmatively demonstrates that the following conditions are met:
 - (1) The request is complete and accurate and the requirements of this section have been complied with.
 - (2) The proposed alternative will, for the life of operations at the facility, achieve the performance standards in the section of regulations for which the alternative to the design requirements in that section is sought, and will do so in a manner that is equivalent or superior to the design requirements in that section.
 - (3) The proposed alternative will not cause pollution to the air, water or other natural resources of this Commonwealth, and will not harm or endanger public health, safety or welfare.
 - (d) In lieu of approving an equivalency alternative for the entire facility, the Department may approve an equivalency alternative for part of a site as provided in Subchapter F (relating to demonstration facilities).
 - (e) If an alternative design is approved through a major permit modification, the Department may approve the applicability of the alternative design to another applicant through a minor permit modification.

**Subchapter D. FINANCIAL ASSURANCES
REQUIREMENTS**

GENERAL

§ 271.301. Scope.

- (a) This subchapter sets forth minimum requirements for demonstrating sufficient financial responsibility for the operation of municipal waste processing or disposal facilities by providing for bond guarantees for the operation of those facilities, and by providing for minimum standards for insurance protection for personal injury and property damage to third parties arising from the operation of the facilities.
- (b) This subchapter applies to a person or municipality that operates the facility but is not a permit applicant or permittee when the person or municipality submits a bond or provides insurance. Nothing in this subchapter excuses the applicant or permittee from complying with this subchapter.
- (c) A municipality operating a municipal waste landfill solely for the disposal of municipal waste may satisfy the requirements of this subchapter by establishing a trust fund under § 271.328 (relating to trust fund for municipally operated landfills) and this subchapter. A municipality that disposes, has disposed or proposes to dispose of residual waste at a municipal waste landfill that it operates may not satisfy the requirements of this subchapter by establishing a trust fund and shall file a bond under this subchapter.
- (d) A department or agency of the United States or the Commonwealth which owns and operates a municipal waste processing or disposal facility shall satisfy the

requirements of this subchapter. The department or agency of the United States or the Commonwealth may satisfy financial assurance requirements by using applicable forms of financial assurance under this subchapter or by other means of financial assurance approved by the Department.

(e) When an application for the land application of sewage sludge is made by a municipality of a municipal authority, the filing of a bond with the Department is not required as a condition for issuance of a permit to the municipality or municipal authority for the application of the sewage sludge for land reclamation or agricultural utilization purposes.

BOND AND TRUST REQUIREMENTS—GENERAL

§ 271.312. Existing facilities.

(a) Except as provided in § 271.301(c) (relating to scope), a person or municipality operating a municipal waste landfill or construction/demolition waste landfill on or after April 9, 1988, who has not filed a bond under the act, shall file a bond with the Department within 90 days by July 8, 1988. Nothing in this section prevents the Department from requiring a bond to be submitted as required by the act for another facility operating after April 9, 1988.

(b) A person or municipality that possesses a municipal waste landfill permit or a demolition waste landfill permit under the act, or a permit for an impoundment used for municipal waste disposal issued under The Clean Streams Law (35 P. S. §§ 691.1—691.1001), which permit was issued by the Department prior to April 9, 1988, shall submit an updated bond in an approved bond amount as required by the Department, prior to Department approval of a closure plan submitted under § 271.113 (relating to closure plan). Nothing in this section prevents the Department from requiring a bond to be an updated bond under this chapter for another facility operating after April 9, 1988.

(c) A municipality operating a municipal waste landfill solely for the disposal of municipal waste, and which received a permit from the Department under the act before September 26, 1988, shall establish a trust fund under § 271.328 (relating to trust fund for municipally operated landfills) and this subchapter or post another bond consistent with this subchapter as of November 25, 1988.

(d) The bond required by this section shall be submitted under the requirements of this subchapter, on a form prepared by the Department, shall be made payable to the Department and shall provide for continuous liability from the initiation of operations at the facility. The amount of the bond shall be determined in accordance with § 271.331 (relating to bond and trust amount determination).

(e) The trust required by this section shall be submitted under the requirements of this subchapter, on a form approved by the Department, and shall provide for continuous liability from the initiation of operations at the facility. The amount of the trust shall be determined in accordance with § 271.331.

(f) A department or agency of the United States or the Commonwealth which owns and operates a municipal waste processing or disposal facility shall satisfy the requirements of this section by filing a bond with the Department under § 271.313(a) (relating to form, terms and conditions of the bond or trust) or by another means of financial assurance approved by the Department which

satisfies the terms and conditions for bonds under § 271.313(b)—(e) and this subchapter.

BOND AND TRUST REQUIREMENTS—TYPES

§ 271.321. Special terms and conditions for surety bonds.

(a) The Department will not accept the bond of a surety company that has failed or unreasonably delayed, as determined by the Department, in making payment on a forfeited surety bond.

(b) The Department will accept only the bond of a surety licensed or authorized to do business in this Commonwealth. In addition, for facilities permitted after December 23, 2000, the Department will accept only the bond of a surety which is listed in Circular 570 of the United States Department of Treasury. If a surety is removed from Circular 570 or is no longer authorized to do business in this Commonwealth, the bond of the surety shall be replaced.

(c) The bond shall provide that full payment shall be made under the bond within 30 days of receipt of the Department's declaration of forfeiture notwithstanding judicial or administrative appeal of the forfeiture.

(d) The surety may cancel the bond by sending written notice of cancellation to the Department, the operator and the principal on the bond, only under the following conditions:

(1) The notice of cancellation shall be sent by certified mail, return receipt requested. Cancellation may not take effect until 120 days after receipt of the notice of cancellation by the Department, the operator and the principal on the bond as evidenced by return receipts.

(2) Within 60 days after receipt of a notice of cancellation, the operator shall provide the Department with a replacement bond under § 271.361 (relating to replacement of existing bond). If the operator fails to submit a replacement bond acceptable to the Department within the 60-day period, the Department will issue a notice of violation to the operator requiring that the bond be replaced within 30 days of the notice of violation. If the bond is not replaced within that 30-day period, the Department may issue a cessation order for the permits of the operator and related parties, and thereafter take action as may be appropriate.

(3) Failure of the operator to submit a replacement bond within 30 days after the notice of violation constitutes grounds for forfeiture of the bond, and other bonds submitted by the operator, under § 271.351 (relating to forfeiture determination). If the Department declares the bond forfeited before the expiration of the 120-day period, the notice of cancellation is void.

(e) Upon receipt of notice of cancellation by a surety, the Department will notify every municipality in which the facility or part of the facility is located. The Department may provide copies of notices of violation, cease orders and other relevant correspondence regarding the surety cancellation, to the governmental units.

(f) The Department will not accept surety bonds from a surety company when the total bond liability to the Department on bonds filed by the operator, the principal and related parties exceeds the surety company's single risk limit as provided by The Insurance Company Law of 1921 (40 P. S. §§ 341—991).

(g) The bond shall provide that the surety and the principal are jointly and severally liable for payment of the bond amount.

(h) The Department will provide in the bond that the amount shall be confessed to judgment and execution upon forfeiture.

(i) The Department will retain, during the term of the bond, and upon forfeiture of the bond, a property interest in the surety's guarantee of payment under the bond which may not be affected by the bankruptcy, insolvency or other financial incapacity of the operator or principal on the bond.

(j) Moneys collected on bonds posted under this subchapter or trusts established under § 271.301 (relating to scope) shall be deposited with the State Treasurer, who will hold the same in the name of the Commonwealth in trust as cash collateral until the Department determines one of the following:

(1) Bonds or trust funds would otherwise be released under § 271.341 (relating to release of bonds).

(2) There are other grounds for forfeiture under § 271.351 or collection under the terms and conditions of the bond or trust.

(3) Other bonds or collateral acceptable to the Department have been posted.

(k) If the bonds are releasable under § 271.341, the moneys shall be returned to the surety or the operator as determined by the Department.

(l) If there are other grounds for forfeiture under § 271.351, or collection under the terms and conditions of the bond or trust, the State Treasurer or the Department will deposit the collected moneys into the Solid Waste Abatement Fund for the purpose specified in § 271.352 (relating to forfeiture procedures). Funds from trusts for municipally operated landfills under § 271.301 shall only be used for closure, abatement, postclosure care, monitoring and other remedial measures necessary for that particular municipally operated landfill.

BOND AND TRUST REQUIREMENTS—AMOUNT

§ 271.332. Bond and trust amount adjustments.

(a) The operator shall submit bond documents required by the Department to increase the total bond liability, and deposit additional bond amounts, upon demand by the Department under § 271.333 (relating to failure to maintain adequate bond), or if additional bond amounts are required under this chapter, including §§ 271.326 and 271.331 (relating to phased deposit of collateral; and bond and trust amount determination).

(b) The Department will require an operator to deposit additional bond or trust corpus amounts when the existing bond or trust corpus does not meet the requirements of this subchapter, including, but not limited to, the following:

(1) Inflationary cost factors have resulted in a new cost estimate which exceeds the estimate used for the original bond amount determination.

(2) The permit is to be renewed or reissued, or is subject to a major permit modification or the bond on deposit is to be replaced.

(3) The Department otherwise determines that the existing total bond liability amount does not meet the purposes of the act, the environmental protection acts, this title, the permit or orders of the Department.

(c) Periodically after the date on which the bond was required to be submitted under this subchapter, the Department may determine the adequacy of bond amount

requirements for municipal waste processing or disposal facilities and, if necessary, require additional bond amounts.

(d) A request for reduction of the required bond will be considered a request for bond release under § 271.341 (relating to release of bonds).

BOND AND TRUST REQUIREMENTS—RELEASE

§ 271.341. Release of bonds.

(a) An operator seeking a termination of a trust for a municipally operated landfill established under § 271.301(c) (relating to scope) or release of a bond previously submitted to the Department shall file a written request with the Department for termination of the trust or for release of all or part of the bond amount posted for the facility as part of a request for bond or trust adjustment under § 271.332 (relating to bond and trust amount adjustments), or after certification of closure of the facility. Requests for trust termination or for withdrawals from trusts for municipally operated landfills established under § 271.301(c) shall comply with the requirements of § 271.343 (relating to withdrawals from municipal trust).

(b) The application for a bond release shall contain the following:

(1) The name of the operator and identification of the facility for which the bond release is sought.

(2) The total amount of bond in effect for the facility and the amount for which release is sought.

(3) A detailed explanation of why the bond release is requested, including, but not limited to, completion of a measure carried out in preparation for closure as defined in the closure plan or otherwise discernible upon inspection of the facility, closure of the facility, completion of postclosure measures, abatement measures taken and amendments to the permit or changes in the facts or assumptions made during the bond amount determination which demonstrate and would authorize a release of part or all of the bond deposited for the facility.

(4) A revised cost estimate for closure and postclosure care under § 271.331 (relating to bond and trust amount determination).

(c) Upon receipt of a written request for bond release under this section, the Department will inspect the facility to verify the accuracy of the information provided in the application for the bond release by the operator, as required by § 271.342 (relating to final closure certification).

(d) The Department will evaluate the bond release request as if it were a request for a new bond amount determination under § 271.331. If the new bond amount determination would require less bond amount for the facility than the amount already on deposit, the Department may release the portion of the bond amount which is not required for the facility, subject to the public notice and comment provisions of this chapter. If the new bond amount determination requires an additional amount of bond for the facility, the Department will require the additional amount to be deposited for the facility.

(e) A request for a bond release under this section upon final closure, or anytime after final closure, shall be, for the purpose of providing public notice and comment, considered a major permit modification and shall satisfy the public notice and comment requirements for major permit modifications under §§ 271.141—271.143 (relating to public notice by applicant; public notice by Depart-

ment; and public comments) unless waived, in writing, by the Department. The Department may waive the public notice and comment requirement for a particular bond release when a definite schedule of bond release has been set forth in an approved closure plan, a permit or an order of the Department, and the closure plan, permit or order has met the public notice and comment requirements of this chapter.

(f) Upon receipt of a written request for a bond release under this section, the Department will, within 12 months prior to the expiration of the 10-year period following final closure, conduct a final inspection of the facility. The purpose of the inspection is to determine compliance with the act, the environmental protection acts, this title, the terms and conditions of the permit, orders of the Department and the terms and conditions of the bond. Based upon this determination, the Department will either forfeit the bond prior to the expiration of the 10-year period following final closure or release the bond at the expiration of the 10-year period following final closure.

(g) The following apply with regard to bond release:

(1) The Department will not release a bond amount deposited for a facility if the release would reduce the total remaining amount of bond to an amount which would be insufficient for the Department to complete closure and postclosure care, including long term maintenance of remediation measures, and to take measures that are necessary to prevent adverse effects upon the environment or public health, safety or welfare under the act, the environmental protection acts, this title, the terms and conditions of the permits and orders of the Department.

(2) The release of a bond by the Department does not constitute a waiver or release of other liability provided in law, nor does it abridge or alter rights of action or remedies of a person or municipality presently or prospectively existing in equity or under criminal and civil common or statutory law. The release of a bond does not discharge an owner or an operator from liability to restore the groundwater to remediation standards and to maintain groundwater quality, at a minimum, at those levels.

(3) The Department may grant bond releases immediately upon final closure, for facilities other than landfills, if it is clearly demonstrated that further monitoring, restoration or maintenance is not necessary to protect the public health, safety and welfare and the environment.

§ 271.342. Final closure certification.

(a) If the operator of a municipal waste processing or disposal facility believes that closure and postclosure requirements applicable to the facility have been met, the operator may file a request for final closure certification with the Department.

(b) The Department will not issue a final closure certification unless the operator demonstrates that:

(1) The applicable operating requirements of the act, the environmental protection acts, this title, the permit, the approved closure plan and orders of the Department have been complied with.

(2) For a municipal waste landfill permitted on or after December 23, 2000, one of the following remediation standards is met and maintained at and beyond 150 meters of the perimeter of the permitted disposal area or at and beyond the property boundary, whichever is closer:

(i) For constituents for which an MCL has been promulgated under the Federal Safe Drinking Water Act or the Pennsylvania Safe Drinking Water Act (42 U.S.C.A. §§ 300f—300j-18; and 35 P.S. §§ 721.1—721.17), the MCL for that constituent.

(ii) For constituents for which MCLs have not been promulgated, the background standard for the constituent.

(iii) For constituents for which the background standard is higher than the MCL or alternative groundwater protection standard identified under subparagraph (iv), the background standard.

(iv) For constituents for which MCLs have not been established, an alternative groundwater protection standard that satisfies the following criteria:

(A) The level is derived in a manner consistent with Department guidelines for assessing the health risks of environmental pollutants.

(B) The level is based on scientifically valid studies conducted in accordance with good laboratory practice standards (40 CFR Part 792 (relating to good laboratory practice standards)) promulgated under the Toxic Substances Control Act (15 U.S.C.A. §§ 2601—2692) or other scientifically valid studies approved by the Department.

(C) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) within the 1×10^{-4} to 1×10^{-6} range.

(D) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this clause, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(3) For a municipal waste landfill that received waste between October 9, 1993, and December 23, 2000, one of the following is met and maintained:

(i) Groundwater remediation standards, including points of compliance, identified in a closure plan approved prior to December 23, 2000.

(ii) Groundwater remediation standards identified in paragraph (2), including the points of compliance.

(4) For other facilities, one of the following groundwater remediation standards is met and maintained at the identified compliance points:

(i) The Statewide health standard at and beyond the property boundary.

(ii) The background standard at each well selected to determine the extent of contamination, as identified in § 273.286(c)(1) (relating to groundwater assessment plan).

(iii) The site-specific standard at and beyond the property boundary.

(5) No further remedial action, maintenance or other activity by the operator is necessary to continue compliance with the act, the environmental protection acts, this title, the permit, the approved closure plan and orders of the Department.

(6) The facility is not causing adverse effects on the environment and it is not causing a nuisance.

(c) For facilities other than municipal waste landfills, the Department may approve a compliance point beyond

the property boundary up to a water source for measuring compliance with secondary contaminants under subsection (b)(4)(i) or (iii).

(d) Upon a request for final closure certification, the Department will inspect the facility to verify that final closure has been completed as provided in subsection (b).

(e) The date of the Department's final closure certification shall be the date of commencement of the 10-year bond liability period following final closure.

(f) The final closure certification is not a guarantee of future performance nor does it constitute a waiver or release of bond liability or other liability existing in law or equity for adverse environmental effects or conditions of noncompliance existing at the time of the notice or which might occur at a future time, for which the operator remains expressly liable. The issuance of a final closure certification does not discharge an owner or operator from liability to restore the groundwater to remediation standards and to maintain groundwater quality, at a minimum, at those levels.

(g) If after the issuance of a certification of final closure, the Department determines that additional postclosure measures are required to abate or prevent adverse effects upon the environment or the public health, safety and welfare, the Department will issue a written notice to the operator setting forth the schedule of measures to be taken to bring the facility into compliance. The measures include, but are not limited to, the applicable requirements of this article.

(h) If, after the issuance of a certification of final closure, the Department determines that the level of risk is increased beyond the acceptable range at a facility due to substantial changes in exposure conditions, such as in a change in land use from a nonresidential to a residential use, or new information is obtained about a substance associated with the facility which revises exposure assumptions beyond the acceptable range, additional remediation shall be required.

(i) For purposes of this section, "property boundary" is the delineation of the parcel of land as described in the deed existing on the date the facility ceases to accept waste.

§ 271.343. Withdrawals from municipal trust.

(a) Except for purposes of investing and reinvesting the moneys in the trust fund by the trustee, no withdrawals may be made from the trust fund prior to certification by the Department of the abandonment of the landfill under § 271.351 (relating to forfeiture determination) or prior to the certification of closure of the landfill under § 273.203(a)(10) (relating to certification). The Department will provide the trustee with a copy of the certification of abandonment.

(b) The trustee shall withdraw and pay over moneys from the trust fund only upon receipt of a written request of the municipality or municipal authority. The trustee may not honor the written request of the municipality or municipal authority unless it has been approved by the Department.

(c) Written requests to the Department to withdraw and pay over moneys from the trust fund to the operator shall include the following:

(1) The name of the operator and the identification of the facility for which withdrawal is sought.

(2) The total amount of the trust corpus for the facility, the amount of the withdrawal request and the balance remaining in the trust.

(3) A detailed explanation of why the withdrawal is requested, including, but not limited to, completion of a stage of postclosure as defined in the closure plan or otherwise discernible upon inspection of the facility, completion of postclosure remedial measures, abatement measures taken and amendments to the permit or changes in the facts or assumptions made during the trust corpus amount determination.

(4) A revised cost estimate for closure and postclosure care under § 271.331 (relating to bond and trust amount determination) based on the costs to complete final closure after the completion of the activities specified in the request as detailed in paragraph (3).

(d) Written requests made of the trustee to withdraw and pay over moneys from the trust fund shall include the following:

(1) The name of the operator and the identification of the facility for which withdrawal is sought.

(2) The total amount of the trust corpus for the facility, the amount of the withdrawal request and the balance remaining in trust.

(3) A copy of the Department's written approval.

(e) When a written request to terminate or withdraw and pay over moneys from the trust fund is received by the trustee or the Department, the recipient shall immediately provide a copy of the request to the municipality in which the landfill is located.

(f) The trustee, immediately on preparation, shall provide a copy of a document effectuating a withdrawal from the trust fund to the Department and to the municipality in which the landfill is located.

(g) The Department will notify the trustee, in writing, of the Department's certification of final closure of the landfill under § 271.342 (relating to final closure certification). Upon receipt of this notification, the trustee shall take the necessary steps to terminate the trust fund. Upon termination of the trust fund, remaining trust property, less final trust administration expenses of the trustee, shall be returned to the settlor municipality or municipal authority.

Subchapter E. CIVIL PENALTIES AND ENFORCEMENT

CIVIL PENALTIES

§ 271.413. Assessment of penalties—minimum penalties.

(a) This section sets forth minimum civil penalties for certain violations of the act and regulations thereunder. The Department will assess a civil penalty under § 271.412 (relating to assessment of penalties—general) only if a civil penalty calculated under § 271.412 is greater in amount than the civil penalty calculated under this section.

(b) If a person or municipality operates a permitted municipal waste landfill on an area for which the person or municipality was not permitted to operate the facility, or in excess of final permitted elevations, the Department will assess a minimum civil penalty of \$5,000 per half acre, or portion thereof. Intermediate acreages will be assessed at the next highest half acre.

(c) If a person or municipality operates a construction/demolition waste landfill on an area for which the person or municipality was not permitted to operate the facility, or in excess of final permitted elevations, the Department will assess a minimum civil penalty of \$500 per half acre,

or a portion thereof. Intermediate acreages will be assessed at the next highest half acre.

(d) If a person or municipality applies sewage sludge to an area for which the person or municipality was not permitted to apply the sludge, the Department will assess a minimum civil penalty of \$1,000 per acre or portion thereof.

(e) If a person or municipality applies sewage sludge under a permit, and the sewage sludge does not meet the physical, chemical or biological quality specified in the permit, the Department may assess a minimum civil penalty of \$1,000 per occurrence.

(f) If a person or municipality transporting residential septage fails to submit the notice to the Department required by § 285.225 (relating to transportation of residential septage), the Department may assess a minimum civil penalty of \$500 for the first offense and a minimum civil penalty of \$1,000 for each subsequent offense.

(g) If a person or municipality fails to provide notification on a timely basis of an incident for which a reporting requirement exists in the act, regulations thereunder, the terms or conditions of a permit or order of the Department, the Department will assess a minimum civil penalty of \$1,000.

(h) If a person or municipality refuses, hinders, obstructs, delays or threatens an agent or employe of the Department in the course of performance of a duty under the act, including, but not limited to, entry and inspection under any circumstances, the Department will assess a minimum civil penalty of \$2,000.

(i) If a person or municipality is applying sewage sludge and has not complied with the training requirements in § 271.915(j) (relating to management practices), the Department may assess a minimum civil penalty of \$1,000.

(j) If a violation is included as a basis for an administrative order requiring cessation of solid waste management operations, or for another abatement order, and if the violation has not been abated within the abatement period set in the order, a minimum civil penalty of at least \$1,000 will be assessed for each day during which the failure continues. Nothing in this subsection limits the Department's authority to assess an appropriate civil penalty for violations that formed the basis for issuing an order, and that occurred prior to the issuance of the order or prior to a date for compliance in the order.

ENFORCEMENT

§ 271.421. Administrative inspections.

(a) The Department and its agents and employes will:

(1) Have access to, and require the production of, books and papers, documents and physical evidence pertinent to a matter under investigation.

(2) Require a person or municipality engaged in the storage, transportation, processing, treatment or disposal of municipal waste to establish and maintain records and make reports and furnish information as the Department may prescribe.

(3) Enter a building, property, premises or place where municipal waste is generated, stored, processed, treated, collected, transported or disposed for the purpose of making an investigation or inspection necessary to ascertain the compliance or noncompliance by the person or municipality with the act and regulations thereunder. In connection with an inspection or investigation, samples may be taken of solid, semisolid, liquid or contained

gaseous material for analysis. If an analysis is made of the samples, a copy of the results of the analysis shall be furnished within 5 business days after receiving the analysis from the laboratory to the person having apparent authority over the building, property, premises or place.

(b) The Department, its employes and agents will conduct routine inspections as follows:

(1) For municipal waste landfills and construction/demolition waste landfills, at least 12 times per year.

(2) For resource recovery facilities, at least 12 times per year.

(3) For transfer facilities, composting facilities and other processing facilities, at least 4 times per year.

(4) For facilities for the utilization of sewage sludge for land reclamation, at least twice per year.

(c) The Department, its employes and agents intend to conduct inspections under the act of:

(1) Facilities for the agricultural utilization of sewage sludge operating under a permit issued under Chapter 275 (relating to land application of sewage sludge) or a beneficial use order issued prior to January 25, 1997, at least 2 times per year.

(2) Municipal waste processing facilities other than resource recovery facilities, which process or incinerate infectious or chemotherapeutic waste, at least 2 times per year.

(3) Municipal waste processing facilities other than resource recovery facilities, which do not process or incinerate infectious or chemotherapeutic waste, at least once per year.

(4) Hospitals where infectious or chemotherapeutic waste is generated, at least 2 times per year.

(5) Locations other than hospitals where infectious or chemotherapeutic waste is generated, at least once per year.

(6) Facilities subject to permit-by-rule under § 271.102 (relating to permit-by-rule for infectious or chemotherapeutic waste processing facilities; general requirements) at least once per year.

(7) Facilities and beneficial use areas subject to permit-by-rule under § 271.103 (relating to permit-by-rule for municipal waste processing facilities other than for infectious or chemotherapeutic waste; qualifying facilities; general requirements), a general permit for beneficial use or processing, or both, under Subchapter I (relating to beneficial use), or a permit for the land application of sewage sludge under Subchapter J (relating to beneficial use of sewage sludge by land application), at least once per year.

(d) The Department, its employes and agents may conduct additional inspections, including follow-up inspections, of municipal waste processing, treatment, disposal, storage, collection and transportation facilities to observe a practice or condition related to public health, safety, welfare or the environment, compliance with the act, the environmental protection acts, this title, the terms or conditions of a permit or a requirement of an order.

(e) The Department, its employes and agents may also conduct inspections of municipal waste processing, treatment, disposal, storage, collection or transportation facilities, if a person or municipality presents information to the Department which gives the Department reason to believe that:

(1) A person or municipality may have engaged in unlawful conduct under the act.

(2) A person or municipality may have violated an environmental protection act.

(3) A condition exists which may pose a threat to public health, safety, welfare or the environment.

Subchapter F. DEMONSTRATION FACILITIES

§ 271.501. Scope.

This subchapter applies to municipal waste processing or disposal facilities, or parts of these facilities, that are based on a new or unique technology for processing or disposing of municipal waste. For purposes of this subchapter, a technology is considered new or unique if it has not previously been demonstrated in this Commonwealth or another comparable area. The Department may approve in writing, as a permit modification, the demonstration of new or unique technology for the processing or disposal of municipal waste at permitted municipal waste processing or disposal facilities if the requirements of this subchapter are met.

§ 271.502. Relationship to other requirements.

(a) An operation that is approved under this subchapter is subject to the requirements of this article.

(b) For an operation that is approved under this subchapter, the Department may waive or modify any application and operating requirements in this article. The Department may not waive or modify Subchapter A, §§ 271.124, 271.125, 271.141 and 271.129, and Subchapter D, E or H.

§ 271.504. Operating requirements.

In addition to applicable operating requirements in this article, a person or municipality that operates a demonstration facility shall comply with the following:

(1) The facility may not be larger than the area needed to adequately test the new or unique technology.

(2) No waste may be processed or disposed at the facility after 2 years from the initial processing or disposal of waste at the facility, unless a different period is stated in the permit. The permittee may request permit renewal under § 271.223 (relating to permit renewal).

(3) The operator shall submit periodic reports to the Department concerning the effectiveness and environmental effect of the facility.

(4) The operator shall immediately cease operations and begin cleanup and removal actions if the Department determines that the facility is causing or is likely to cause harm to public health, safety or welfare or to the environment.

(5) Within 90 days from the expiration of the term of the permit, or within another period approved in the permit, the permittee shall submit to the Department an analysis of the effectiveness of the technology, taking into consideration the factors in § 271.503 (relating to application requirements).

(6) If one of Chapter 273, 275, 277, 279, 281 or 283 is not clearly applicable to the facility, the permittee shall annually submit to the Department a nonrefundable permit administration fee of an amount set forth in the approved permit, but not more than \$1,800, in the form of a check payable to the "Commonwealth of Pennsylvania."

§ 271.505. Public notice of analysis.

The Department will publish in the *Pennsylvania Bulletin* notice of the availability of the analysis submitted

under § 271.504(5) (relating to operating requirements). The notice will request public comment on the analysis and the utility of the analysis in permitting future facilities using the same or similar technology. The Department will also provide written notice of the availability of the analysis to the municipalities in which the facility is located.

Subchapter G. RESIDUAL WASTE; SPECIAL HANDLING WASTE; BENEFICIAL USE OF MUNICIPAL WASTE

ADDITIONAL APPLICATION REQUIREMENTS

§ 271.611. Chemical analysis of waste.

(a) Application form.

(1) Except as provided in subsection (f), an application for the processing or disposal of residual waste or special handling waste, an application for a general permit for the beneficial use or processing of municipal waste under Subchapter I (relating to beneficial use), or an application or registration under § 271.831 (relating to contents of general permits) for inclusion in a general permit issued under Subchapter I, shall contain the following information for each waste on a form provided by the Department:

(i) The name and location of the generator of the waste.

(ii) A detailed analysis that fully characterizes the physical properties and chemical composition of the waste. This analysis shall include available information from material safety data sheets or similar sources that may help characterize the physical properties and chemical composition of the waste.

(iii) An evaluation of the ability of the waste and the constituents in the waste to leach into the environment.

(iv) A determination of whether the waste is hazardous under Chapter 261, Subchapters A—D.

(v) If the waste will be disposed at a municipal waste landfill or construction/demolition waste landfill, a demonstration that the waste meets the requirements for disposal at the facility.

(2) More than one type of waste from a single generator may be included on a single application, if the information required by this section is separately included for each type of waste.

(3) The analysis required by this subsection shall include a waste sampling plan, including quality assurance and quality control procedures. The plan shall ensure an accurate and representative sampling of the waste.

(4) The Department may, in writing, waive or modify the evaluation required by this subsection for waste to be received at permitted facilities if the following conditions are met:

(i) The applicant has submitted a description of the process by which the waste was generated, a physical description of the waste and a certification that the waste is not hazardous.

(ii) The applicant has demonstrated to the Department's satisfaction that additional analysis is not necessary to determine that waste can be received at the facility without adversely affecting the effectiveness of waste processing operations and established emission and wastewater discharge limits.

(iii) The applicant has demonstrated to the Department's satisfaction that additional analysis is not neces-

sary to determine that waste can be received at the facility without adversely affecting the effectiveness of the liner or leachate treatment systems at a landfill, the attenuating soil base at a construction/demolition waste landfill or established emission and wastewater discharge limits.

(b) *Waste generation.* Except as provided in subsection (e), an application shall also include a description of the waste generation process, including a description of the raw materials used in the process, the primary chemical reactions which occur during the process, the sequence of events which occur during the process, the points of waste generation in the process and the manner in which each of the wastes is managed subsequent to its generation. A schematic drawing of the process shall be included.

(c) *Methodologies.* The analytical methodologies used to meet the requirements of subsection (a) shall be those in the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste" (SW-846), "Methods for Chemical Analysis of Water and Wastes" (EPA 600/4-79-020), "Standard Methods for Examination of Water and Wastewater," prepared and published jointly by the American Public Health Association, American Waterworks Association, and Water Pollution Control Federation or a comparable method subsequently approved by the EPA or the Department.

(d) *Quality control.* The person taking the samples and the laboratory performing the analysis required by subsection (a) shall employ the quality assurance/quality control procedures described in the EPA's "Handbook for Analytical Quality Control in Water and Wastewater Laboratories" (EPA 600/4-79-019) or "Test Methods for Evaluating Solid Waste" (SW-846). The laboratory's quality control procedures, as well as the documentation of the use of those procedures, shall be included in the application unless waived by the Department.

(e) *Generator information.* An applicant may submit information received from a person or municipality under § 287.54 (relating to chemical analysis of waste) to meet the corresponding requirements of this section.

(f) *Waiver.* The Department may, in writing, waive the requirements of this section for special handling waste, waive or modify the requirements of this section for general permits issued under Subchapter I and waive or modify the chemical analysis requirements under § 271.103 (relating to permit-by-rule for municipal waste processing facilities other than for infectious or chemotherapeutic waste; qualifying facilities; general requirements).

§ 271.612. Source reduction strategy.

An application for the processing or disposal of residual waste shall contain a copy of the source reduction strategy required by § 287.53 (relating to source reduction strategy) for each residual waste to be received at the facility.

§ 271.613. Waste analysis plan.

(a) The application shall include a waste analysis plan for each type of waste proposed to be received at the permitted facility. The plan shall take into account the waste analysis required by § 271.611 (relating to chemical analysis of waste). The plan shall include:

(1) The parameters for which each residual waste will be analyzed and the rationale for the selection of these parameters.

(2) The test methods that will be used to test for these parameters. The test methods shall be the same as those used under § 271.611.

(3) An explanation of the sampling methods that will be used to obtain an accurate and representative sample of the waste to be analyzed, including quality assurance and quality control procedures.

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date. The rationale for the frequency shall also be explained.

(b) The application shall also include a plan for screening and managing incoming waste to ensure that the management of the waste is consistent with the permit and this article. Except as otherwise required by the Department, the application shall include at a minimum a plan for checking each load of waste received at the facility for color, odor, texture, physical state and phases of waste.

(c) The application shall describe how rejected waste will be managed, including responsible persons or municipalities and the method by which an alternative processing or disposal facility will be selected.

Subchapter H. GENERAL PERMITS—INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

§ 271.711. (Reserved).

§ 271.712. (Reserved).

§ 271.721. (Reserved).

§ 271.722. (Reserved).

§ 271.723. (Reserved).

§ 271.724. (Reserved).

§ 271.725. (Reserved).

§ 271.731. (Reserved).

§ 271.732. (Reserved).

§ 271.741. (Reserved).

§ 271.742. (Reserved).

§ 271.743. (Reserved).

§ 271.744. (Reserved).

Subchapter I. BENEFICIAL USE SCOPE

§ 271.801. Scope.

(a) This subchapter sets forth requirements for general permits for the processing and beneficial use of municipal waste, except as follows:

(1) This subchapter does not set forth requirements for general permits for the processing or beneficial use of infectious or chemotherapeutic waste.

(2) This subchapter does not set forth requirements for general permits for the beneficial use of sewage sludge by land application, except as provided in § 271.821(b)(6) (relating to application for general permit). A general or individual permit for the beneficial use of sewage sludge not mixed with residual waste will be issued only under Subchapter J (relating to beneficial use of sewage sludge by land application).

(b) An operation that is approved under this subchapter does not require an individual processing or disposal permit under this article. The requirements of Chapter 271, Subchapters A—G, and Chapters 273, 277, 279, 281, 283 and 285 are applicable to the extent required in § 271.832 (relating to waiver and modification of requirements).

GENERAL PERMIT FOR PROCESSING OR BENEFICIAL USE, OR BOTH, OF MUNICIPAL WASTE; AUTHORIZATION AND LIMITATIONS

§ 271.811. Authorization for general permit.

(a) Under §§ 271.812 and 271.821—271.825, the Department may issue general permits on a regional or Statewide basis for a category of processing when processing is necessary to prepare the waste for beneficial use, or for a category of beneficial use, or both, of municipal waste, if the following are met:

(1) The wastes included in the category are generated by the same or substantially similar operations and have the same or substantially similar physical character and chemical composition. If wastes are not the same or substantially similar and are blended for use, the blend shall be consistently reproduced with the same physical character and chemical composition.

(2) The wastes included in the category are proposed for the same or substantially similar beneficial use or processing operations.

(3) The activities in the category can be adequately regulated utilizing standardized conditions without harming or presenting a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth. The Department will not issue a general permit if the use of the waste as an ingredient in an industrial process or as a substitute for a commercial product presents a greater harm or threat of harm than the use of the produce or ingredient which the waste is replacing.

(b) The Department may issue a general permit upon its own motion under § 271.825 (relating to Department initiated general permits) or upon an application from a person or municipality under §§ 271.821—271.824.

(c) The Department may modify, suspend, revoke, issue or reissue a general permit or coverage under a general permit under this subchapter as it deems necessary to prevent harm or the threat of harm to the health, safety or welfare of the people or environment of this Commonwealth.

(d) The Department may modify, suspend, revoke, issue or reissue a general permit or coverage under a general permit under this subchapter as it deems necessary to prevent violation of or interference with the laws or solid waste management plans of any state, county or municipality.

(e) The Department may issue a general permit for processing combinations of municipal and residual wastes when processing is necessary to prepare a waste for beneficial use, or for beneficial use of combinations of municipal and residual wastes, or both, under this article or Article IX (relating to residual waste management), whichever the Department determines is appropriate. The Department will determine which article is appropriate based on factors including whether the facility is captive or noncaptive, and the proportions of municipal and residual wastes. A general permit for processing or beneficial use of combinations of sewage sludge and residual waste will be issued only under this subchapter.

(f) The requirements in this subchapter that apply to municipal waste also apply to residual waste when residual waste is mixed with municipal waste.

(g) The Department will not issue a general permit under this subchapter for the following:

(1) A municipal waste landfill, the use of municipal waste to fill open pits from coal or noncoal mining, or the

use of municipal waste solely to level an area or bring the area to grade unless construction activity is completed on the area promptly after placement of the waste.

(2) A facility or activity which should be covered under the individual permitting process required in this article because of its size and potential to affect the environment adversely or because of its relationship to municipal waste management plans.

(3) The processing or beneficial use of infectious or chemotherapeutic waste.

(4) The beneficial use of sewage sludge by land application for sewage sludge that is not mixed with residual waste.

(5) The use of a waste for construction or operations at a resource recovery facility or disposal facility.

ISSUANCE OF GENERAL PERMITS

§ 271.821. Application for general permit.

(a) A person or municipality may apply to the Department for the issuance of a general permit for a category of beneficial use of municipal waste or for a category of processing of municipal waste when processing is necessary to prepare the waste for beneficial use.

(b) An application for the issuance of a general permit shall be submitted on a form prepared by the Department and shall contain the following:

(1) A description of the waste to be covered by the general permit, including the physical and chemical characteristics of the waste. The chemical description shall contain an analysis meeting the requirements of § 271.611 (relating to chemical analysis of waste) for a sufficient number of samples of the waste to represent accurately the range of physical properties and chemical characteristics of the waste.

(2) A description of the proposed type of beneficial use or processing activity to be covered by the general permit.

(3) For beneficial use general permits, proposed concentration limits for contaminants in the waste which is to be beneficially used, and a rationale for those limits.

(4) For general permits that involve beneficial use of a processed or unprocessed waste, a detailed demonstration of the efficacy of the waste for the proposed beneficial use, which shall include:

(i) If the waste is to be used as a substitute for a commercial product, a demonstration that the waste is capable of performing the desired functions of the commercial product, and that the waste meets or exceeds applicable ASTM, Department of Transportation or other applicable National, State, local or industry standards or specifications for the material for which the waste is being substituted.

(ii) If the waste is to be used as a raw material for a product with commercial value, a demonstration that the waste will contribute significant properties or materials to the end product, and that the waste meets or exceeds applicable ASTM, Department of Transportation or other applicable National, State, local or industry standards or specifications for the material for which the waste is being substituted.

(iii) If the waste is to be used in general roadway application or highway construction, a demonstration that approval has been granted by the Department of Transportation Product Evaluation Board, if applicable, for the use of the waste for the intended application.

(iv) If the waste is to be used as a construction material, soil substitute, soil additive or antiskid material, or is to be otherwise placed directly onto the land, an evaluation of the potential for adverse public health and environmental impacts from the proposed use of the municipal waste. The evaluation shall identify the particular constituents of the waste which present the potential for adverse public health and environmental impacts, and the potential pathways of human exposure to those constituents, including exposure through groundwater, surface water, air and the food chain. This requirement does not apply to general permits for the land application of sewage sludge. The Department may waive or modify this requirement in writing.

(v) If the waste is to be used without reclamation as a construction material, soil additive, soil substitute or antiskid material or is to be otherwise placed directly onto the land, a demonstration that the leaching analysis of the municipal waste to be beneficially used is no greater than 25 times the primary maximum contaminant level (MCL) for metals and other cations and the primary MCL for contaminants other than metals and cations.

(5) If wastes are blended for use, a demonstration that each waste results in a beneficial contribution to the use of the mixed waste and that the consistency of the blend will be maintained. The applicant shall specify the quantities and proportions of all materials included in the blended waste and the mixture shall meet appropriate standards for use.

(6) For a mixture of sewage sludge and residual waste, a demonstration that the following requirements are met in addition to the other requirements of this subchapter:

(i) The person who prepares the sewage sludge has one of the following:

(A) A permit for operation of the facility issued by the Department under the procedures and requirements of Chapter 91 or 92 (relating to general provisions; and National Pollutant Discharge Elimination System) or this chapter, as applicable.

(B) A permit for operation of the facility in which the sewage sludge is prepared, that is issued or modified by the State in which the facility is located or by the EPA, from which the Department may determine that the sewage sludge and residual waste mixture to be land applied will meet the standards in 40 CFR Part 503 (relating to standards for the use or disposal of sewage sludge).

(ii) The requirements of the following sections are met: §§ 271.902(g), 271.904—271.911, 271.913—271.919 and 271.931—271.933.

(c) Except as provided in subsection (d), an application for the issuance of a general permit under this subchapter shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$1,000.

(d) An application for issuance of a general permit that involves the mixture of residual waste and municipal waste under this subchapter shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$2,000.

(e) The Department may not waive bonding and insurance requirements in Subchapter D (relating to financial assurances requirements) for composting facilities, construction/demolition waste processing facilities, facilities that process municipal waste to produce refuse

derived fuel and for other general permit activities if the waste managed is potentially harmful or large quantities of waste are stored.

(f) An applicant for a general permit shall provide written notice to each municipality in which the applicant intends to operate under a general permit, if a location is known. Proof of this notice, including a copy of the notice and certified or registered mail returned receipt, shall be submitted to the Department.

§ 271.832. Waiver and modification of requirements.

(a) An operation that is approved under this subchapter is subject to this article.

(b) For an operation that is approved under this subchapter, the Department may waive or modify any application and operating requirements in this article, except the Department may not waive § 271.123 and may not waive or modify Subchapter A, §§ 271.124, 271.125 and 271.129, Subchapter D in accordance with § 271.821(d) or Subchapter E.

**Subchapter J. BENEFICIAL USE OF SEWAGE SLUDGE BY LAND APPLICATION
OPERATING REQUIREMENTS**

§ 271.915. Management practices.

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(h) A person that operates under an individual or general land application of sewage sludge permit issued under this subchapter shall comply with the EPA and the Department guidance documents on the land application of sewage sludge pertaining to conducting sampling and analyses, and calculating the agronomic rate and the cumulative pollutant loading rate.

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CHAPTER 272. MUNICIPAL WASTE PLANNING, RECYCLING AND WASTE REDUCTION

Subchapter A. GENERAL

§ 272.1. Scope.

This chapter sets forth rights and responsibilities for host counties which have municipal waste facilities within their boundaries, and requirements for municipalities and counties for municipal waste planning, recycling and waste reduction. The requirements in this chapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions).

Subchapter B. HOST COUNTIES

§ 272.101. County withdrawals from trust fund.

The trustee of a site-specific postclosure trust established under section 1108 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.1108) may release moneys from the trust to the county which established the trust upon written request from the county to the trustee in accordance with the Environmental Stewardship and Watershed Protection Act.

§ 272.102. Trust requirements.

(a) A trust fund established under section 1108 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.1108) shall meet the following requirements:

(1) The trustee shall be a state-chartered or National bank, or financial institution with trust powers or trust company with offices in this Commonwealth and whose

trust activities are examined or regulated by a state or Federal agency. The trustee shall have an office located in the county establishing the trust fund.

(i) The trustee may resign by sending written notice to the Department, the county and the operator of the municipal waste landfill, by certified mail, return receipt requested, of its intention to resign. The resignation may not take effect until the following conditions have been met:

(A) The expiration of a 120-day period after the trustee has provided written notice of its intention to resign.

(B) The county has appointed a successor trustee and the successor trustee accepts the appointment.

(ii) If the county fails to appoint a successor trustee or a successor trustee fails to accept the appointment at the expiration of the 120-day period, the trustee may apply to a court of competent jurisdiction for instructions.

(2) The trust shall provide that the operator of the municipal waste landfill and the Department are co-beneficiaries under the trust. The trust may not be subject to assignment, alienation, pledge, attachment, garnishment, sequestration, other legal process or to the claims of creditors.

(3) The trust shall be irrevocable.

(4) The corpus of the trust fund shall consist of moneys paid by the operator of the municipal waste landfill for waste received at the landfill until January 1, 2000, under former section 1108(c) of the Municipal Waste Planning, Recycling and Waste Reduction Act. The payments are computed on the basis of 25¢ per ton, or part thereof, of weighed waste or 25¢ per 3 cubic yards, or part thereof, of measured waste for solid waste received at the landfill for the quarter for which payment was due to be made.

(5) The trustee shall send the Department, in writing on a quarterly basis, a statement of the trust account transactions.

(b) The trustee is authorized to invest and reinvest the principal and income of the trust fund and keep the fund invested as a single fund, without distinction between principal and income. In investing, reinvesting and otherwise managing the trust fund, the trustee shall discharge its duties solely in the interest of the beneficiaries. The trustee shall manage the trust fund with that degree of judgement, skill and care under the circumstances then prevailing which persons of prudence, discretion and intelligence, who are familiar with these matters, exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the funds, considering the probable income to be derived therefrom as well as the probable safety of their capital.

* * * * *

(e) The trustee is authorized to hold cash awaiting investment or distribution for a reasonable period of time without liability for the payment of interest thereon.

(f) The trustee shall annually, at least 30 days prior to the anniversary date of the establishment of the trust fund, furnish to the operator, the county and the Department a statement confirming the value of the trust fund, and the dates and amounts of any payments into the trust from the landfill and withdrawals for administration or a purpose other than investment or reinvestment. The trustee shall value securities in the trust fund at the lesser of market or par value as of no more than 60 days prior to the anniversary date.

§ 272.103. Failure to make payment.

Under § 272.102(a)(5) (relating to trust requirements), if the trustee notifies the Department that a payment due from the operator of the municipal waste landfill has not been received by the trustee, the Department will immediately, in writing, notify the operator that it shall pay to the trustee the payment due within 15 days of the Department's notification. If the operator fails or refuses to pay to the trustee the payment at the expiration of the 15-day period, the Department will proceed or the trustee may proceed to collect the payment in a manner provided by law.

§ 272.104. Operator withdrawals from trust fund.

(a) Withdrawals by the operator may not be made from the trust fund prior to certification by the Department of the closure of the landfill under § 273.203(d) (relating to certification). The Department will provide the trustee with a copy of the certification of closure.

(b) The trustee shall withdraw and pay over moneys from the trust fund to the operator only upon receipt of a written request of the operator. The trustee may not honor the written request of an operator unless the request has been approved by the Department. A payment from the trust to the operator may only be made for remedial measures and emergency actions required by the Department for prevention or abatement of adverse effects on the environment.

(c) Written requests by the operator to the Department for approval of withdrawal of moneys from the trust shall include the following:

(1) The name of the operator and the identification of the facility for which withdrawal is sought.

(2) The date of closure of the facility.

(3) The closure plan for the facility under § 271.113 or § 273.192 (relating to closure plan; and closure plan), or the date the closure plan was previously submitted to the Department or approved by the Department.

(4) The total amount of the trust corpus, the amount of the withdrawal request and the amount that will remain in trust.

(5) A revised cost estimate for closure and postclosure care under § 271.331 (relating to bond and trust amount determination).

(6) A demonstration that the operator has inadequate financial resources to perform the remedial measures or emergency actions for which it is requesting the withdrawal and that the bond issued under the act has been exhausted.

(d) Written requests made by the operator to the trustee to withdraw and pay over moneys from the trust fund shall include the following:

(1) The amount requested to be withdrawn.

(2) The purpose of the withdrawal.

(3) A copy of the Department's written approval.

(e) When the operator makes a request to the Department for approval of a withdrawal from the trust, the operator shall immediately provide a copy of the request to the county and to the municipality in which the landfill is located. When a written request to withdraw and pay over moneys from the trust fund is received by the trustee, the trustee shall immediately provide a copy of the request to the county and to the municipality in which the landfill is located.

(f) After the trustee receives notification of certification of closure from the Department, the trustee shall release moneys from a trust for a municipal waste landfill that operated prior to April 9, 1988, and closed shortly thereafter, if the landfill has no closure bond or a closure bond of less than \$10,000 and has not been abandoned for the following postclosure activities, upon written request by the landfill operator and written approval by the Department:

- (1) Placement of wells for water quality monitoring.
- (2) Placement of gas control devices for gas monitoring.
- (3) Placement of leachate collection and treatment system.
- (4) Erosion and sedimentation control.
- (5) Revegetation and regrading including maintenance of final cover.
- (6) Access control.
- (7) Other postclosure activities.

(g) The trustee, immediately on preparation, shall provide a copy of a document effectuating a withdrawal from the trust fund by the operator to the county, the municipality in which the landfill is located and the Department.

§ 272.105. County withdrawals from the trust fund for administering the trust fund.

(a) The county may request the trustee to withdraw and pay over to the county moneys as may be necessary to reimburse the county for actual costs incurred by the county in administering the trust fund. The county shall provide documentation necessary to satisfy the trustee that the county's request accurately sets forth the actual costs incurred by the county.

(b) Payments to the county for costs incurred in administering the trust fund may not exceed the lesser of the county's actual costs, or 0.5% of the moneys in the trust fund (including the trust corpus, earnings and profits) on the date of the county's request for payment.

(c) After the trustee receives a copy of certification of closure from the Department, payments to the county for costs incurred in administering the trust may not exceed the lowest of the county's actual costs, 0.5% of the moneys in the trust fund (including the trust corpus, earnings and profits) or the earnings and profits from the trust corpus credited during the billing period.

§ 272.106. Termination of trust.

(a) The Department will notify the trustee, in writing, of the Department's certification of final closure of the landfill under § 271.342 (relating to final closure certification) and one of the following:

- (1) The release of the bond.
- (2) The termination of a trust provided for a landfill operated by a municipality solely for municipal waste not classified hazardous, if the municipality has provided the trust in lieu of a bond under § 271.301(c) (relating to scope).

(b) Upon receipt of the notification required in subsection (a), the trustee shall take the necessary steps to terminate the trust.

(c) Upon termination of the trust fund, the remaining trust property, less final trust administration expenses of the trustee, shall be given to the county that established

the trust for use in a manner consistent with the Environmental Stewardship and Watershed Protection Act.

(d) A trustee may take the necessary steps to terminate a trust at any time prior to the time stated in subsection (a) if all of the moneys have been withdrawn and paid out in accordance with this subchapter.

Subchapter C. MUNICIPAL WASTE PLANNING
PLANNING

§ 272.211. General requirement.

A county shall submit to the Department a municipal waste plan revision under this subchapter. For purposes of this subchapter, the term "county" includes cities of the first class, but does not include counties of the first class.

PLAN CONTENT

§ 272.221. Scope of plan.

(a) Except as provided in § 272.211 (relating to general requirement), a plan submitted after October 26, 1988, shall comply with this subchapter.

(b) The Department may, in writing, request information from a county not specifically identified in this subchapter that the Department deems necessary to implement the purposes and provisions of the Municipal Waste Planning, Recycling and Waste Reduction Act and this subchapter.

§ 272.223. Description of waste.

(a) The plan shall describe and explain the origin, content and weight or volume of municipal waste currently generated within the county's boundaries, and the origin, content and weight or volume of municipal waste that will be generated within the county's boundaries during the next 10 years. The plan shall also include a statement of the county or other geographical area for which the plan is prepared.

(b) In describing the content of waste, the plan shall specifically address sewage sludge (including septage), infectious and chemotherapeutic waste, ash from resource recovery facilities, construction/demolition waste other than waste from demolition of an industrial site and other municipal waste.

(c) In describing the origin of waste, the plan shall provide:

(1) An estimate of the number of residential, commercial, municipal and institutional establishments, and community activities within the county, for municipal waste other than the special handling wastes specifically addressed in this subsection.

(2) An inventory of public and private sewage treatment plants, including mobile homes, restaurants and hotels, and an inventory of septage haulers serving the county, for sewage sludge (including septage).

(3) An inventory of hospitals in the county, and a representative sampling of different medical specialists, such as clinics, doctors, dentists, funeral directors and veterinarians, for infectious and chemotherapeutic waste.

(4) An inventory of the facilities serving the county, for ash from resource recovery facilities.

(5) An estimate of the amount of construction/demolition waste currently generated within the county's boundaries and that will be generated within the county's boundaries during the next 10 years; and an estimate of

the amount of construction/demolition waste that is currently recycled and that could be recycled during the next 10 years.

(d) In describing the weight or volume of waste, the plan shall provide:

(1) A total waste generation estimate for the planning area derived from best available National studies, sampling data from similar counties or other reliable information, for municipal waste other than special handling waste described in subsection (c).

(2) Sampling or survey data for the planning area, or other reliable information, for the special handling waste described in subsection (c).

(3) A detailed analysis, for each type of waste, of the extent to which recycling currently reduces the weight or volume of waste that requires processing or disposal, and the extent to which waste reduction or recycling will reduce the weight or volume of waste that will require processing or disposal within the next 10 years. If less than 35% of the weight or volume of waste will be recycled or reduced, the plan shall contain a detailed justification.

(e) The plan may also, at the discretion of the county, specifically address one or more of the following:

- (1) Waste tires.
- (2) Household hazardous waste.
- (3) Leaf waste, yard waste and other waste suitable for composting.
- (4) Bulk items from community cleanup days.
- (5) Other components of municipal waste not described in this section.

§ 272.224. Description of facilities.

(a) The plan shall identify and describe the following:

(1) The facilities where the county's municipal waste is currently being disposed or processed.

* * * * *

(4) The recycling capabilities of the facilities.

* * * * *

(d) For purposes of this section, an "existing facility" is a municipal waste processing or disposal facility which meets either of the following conditions:

(1) The facility was designated to receive waste in the existing county plan.

(2) The facility has submitted a complete permit application as of the date of the notice of plan revision.

(e) A facility will not be considered an "existing facility" under subsection (d) if it meets one or more of the following:

(1) Its status as an existing facility depends wholly or partly on the filing of a permit application, and the application is denied by the Department.

(2) Its status as an existing facility depends wholly or partly on the holding of a permit under the act, and the permit is revoked or suspended, or the Department requires the facility to cease receiving waste, based on violations of the act, the environmental protection acts, regulations thereunder, the terms or conditions of its permit, or an order issued by the Department.

(f) In developing its plan under this subchapter, a county may consider a proposed or operating municipal waste processing or disposal facility that is not described in this section.

§ 272.225. Estimated future capacity.

(a) The plan shall estimate the processing or disposal capacity needed for the municipal waste that will be generated in the county during the next 10 years. This estimate shall be based on the analysis performed under § 272.223 (relating to description of waste), and may not include waste or source separated recyclable material that will be recycled.

(b) The plan shall describe the primary variables affecting this estimate and the extent to which they can reasonably be expected to affect the estimate, including, but not limited to, the amount of residual waste disposed or processed at municipal waste disposal or processing facilities in the county and the extent to which residual waste may be disposed or processed at these facilities during the next 10 years.

(c) The plan shall consider the impact of compliance with the regulations of the Department relating to residual waste in determining the estimate.

(d) If during the development of a plan revision, the county determines that additional processing or disposal capacity is needed by the county, the county shall give public notice of the determination and solicit proposals and recommendations regarding facilities and programs to provide the capacity. The county shall provide a copy of the notice to the Department, which will submit a copy of the notice to be published in the *Pennsylvania Bulletin*.

§ 272.226. Description of recyclable materials.

(a) The plan shall describe and evaluate:

(1) The kind and weight or volume of materials that could be recycled, giving consideration, at a minimum, to the following materials: clear glass, colored glass, aluminum, steel and bimetallic cans, high grade office paper, newsprint, corrugated paper, plastics, other marketable grades of paper and leaf waste.

(2) Potential benefits of waste reduction or recycling, including the potential solid waste reduction and the avoided cost of municipal waste processing or disposal.

(3) Existing materials recovery operations and the kind and weight or volume of materials recycled by the operations, whether public or private.

(4) The compatibility of recycling with other municipal waste processing or disposal methods, giving consideration to and describing anticipated and available markets for materials collected through municipal recycling programs.

(5) Proposed or existing collection methods for recyclable materials.

(6) Options for ensuring the collection of recyclable materials.

(7) Options for the processing, storage and sale of recyclable materials, including market commitments.

(8) Options for municipal cooperation or agreement for the collection, processing and sale of recyclable materials.

(9) A schedule for implementation of the recycling program for mandated municipalities and other parts of the county.

(10) Estimated costs of operating and maintaining a waste reduction and recycling program, estimated rev-

enue from the sale or use of materials and avoided costs of processing or disposal. This estimate shall be based on a comparison of public and private operation of some or all parts of the recycling program.

(11) What consideration for the collection, marketing and disposition of recyclable materials will be accorded to persons engaged in the business of recycling on the date that the county issued its notice of plan revision under § 272.203 (relating to notice of municipalities) whether or not the persons are operating for profit.

(12) A public information and education program that will provide comprehensive and sustained public notice of waste reduction and recycling program features and requirements.

(b) A county containing municipalities that are required by Subchapter E (relating to municipal recycling programs) to implement recycling programs shall take the provisions of that subchapter into account in preparing the recycling portion of its plan. For these counties, the plan shall:

(1) Identify the municipalities that have mandatory or voluntary recycling programs.

(2) Identify municipalities that have delegated to the county their responsibilities under Subchapter E.

(3) Explain how recycling under the plan will be coordinated with, and will not interfere with, municipal recycling under Subchapter E.

(c) Nothing in this subchapter prohibits the preparation of a county municipal waste management plan revision prior to developing and implementing a recycling program required by Subchapter E, nor does this subchapter prohibit the preparation or implementation of a municipal recycling or waste reduction plan prior to the approval of the county plan revision.

§ 272.227. Selection and justification of municipal waste management program.

(a) The selection and justification of the municipal waste management program, as required by this section, is the most important part of the plan. The plan shall explain in detail how alternatives were identified and evaluated, the advantages and disadvantages of each alternative and how each facility or program was selected. The plan shall explain in detail the role of the advisory committee in this process.

(b) The plan shall describe the type, mix, size, expected cost and proposed methods of financing the facilities, recycling programs or waste reduction programs that are proposed for the processing and disposal of the municipal waste or source separated recyclable materials that will be generated within the county's boundaries during the next 10 years.

(c) For every proposed facility, recycling program or waste reduction program, the plan shall:

(1) Explain in detail the reason for selecting the facility or program.

(2) Describe alternative facilities or programs, including, but not limited to, waste reduction, recycling or resource recovery facilities, municipal waste landfills, or other programs, that were considered. The plan shall provide reasonable assurances that the county utilized a fair, open and competitive process for selecting the facilities or programs from among alternatives which were suggested to the county. Nothing in this section requires the county to utilize a request for proposals or a bidding

process to identify or select alternatives, nor does it require a county to select the alternative with the lowest cost.

(3) Evaluate the environmental, energy, life cycle cost and costs of transportation to each facility considered, and the economic advantages and disadvantages of the proposed facility or program as well as the alternatives considered.

(4) Show that adequate provision for existing and reasonably anticipated future recycling has been made in designing the size of a proposed facility. The plan shall explain whether put-or-pay contracts will be used to guarantee waste to a particular facility. If put-or-pay contracts are proposed, the plan shall explain in detail how use of the contracts will not interfere with or inhibit recycling in the county.

(5) Set forth a time schedule and program, by month and year, for planning, design, siting, construction and operation of each proposed facility or program.

(d) A landfill or resource recovery facility selected by a county for capacity assurance shall be considered "provided for" in that county's plan under section 507 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.507).

§ 272.228. Location.

The plan shall identify the location of each municipal waste processing or disposal facility and each recycling program identified in § 272.227 (relating to selection and justification of municipal waste management program). For a site not yet chosen, the plan shall explain how the site will be chosen.

§ 272.233. Facilities developed pursuant to sub-county plans.

The plan shall explain how it will not interfere with the design, construction, operation, financing or contractual obligations of a municipal processing or disposal facility, including a reasonable expansion of an existing facility, which is part of a complete municipal waste management plan submitted to the Department by a municipality or organization of municipalities under the act prior to September 26, 1988, and approved by the Department.

PLAN REVIEW PROCEDURES

§ 272.244. Departmental review of plans.

(a) Within 30 days after receiving a complete plan revision, including a plan revision submitted under § 272.243(d) (relating to failure to ratify plan), the Department will approve, conditionally approve or disapprove it. If the Department gives written notice to the county that additional time is necessary to complete its review, the Department will have 30 additional days to render a decision. A nonsubstantial plan revision will be deemed approved within 30 days of receipt by the Department, unless the Department responds in writing.

(b) The Department will approve a county plan that demonstrates to the satisfaction of the Department that:

(1) The plan is complete and accurate and consistent with the Municipal Waste Planning, Recycling and Waste Reduction Act and regulations thereunder.

(2) The plan provides for the maximum feasible development and implementation of waste reduction and recycling programs.

(3) The plan provides for the processing and disposal of municipal waste in a manner that is consistent with the

requirements of the act, the Municipal Waste Planning, Recycling and Waste Reduction Act and regulations thereunder.

(4) The plan provides for the processing and disposal of municipal waste for at least 10 years.

(5) If the plan proposes that municipal waste generated within the county's boundaries to be required, by means other than contracts, to be processed or disposed at a designated facility under § 272.231(c) (relating to implementing documents), the plan explains the basis for doing so.

(6) If the plan proposes that the county own or operate a municipal waste processing or disposal facility, the plan explains the basis for doing so.

(c) A plan approved by the Department will, at a minimum, ensure and contain the following conditions:

(1) The county shall implement the plan that was submitted to the Department in accordance with the provisions of the plan and conditions contained in a conditional approval.

(2) The county shall adhere to the schedule in the approved plan for planning, designing, siting, construction or operation of municipal waste processing or disposal facilities, and waste reduction or recycling facilities or programs.

(3) The county may not act in a manner contrary to the approved plan or otherwise fail to act in a manner consistent with the approved plan.

(d) The Department will publish notice of plan approval under this section in the *Pennsylvania Bulletin*.

§ 272.245. Submission of implementing documents.

(a) Within 1 year following approval of a plan by the Department, the county shall submit to the Department copies of executed ordinances, contracts or other requirements to implement its approved plan and that will be used to ensure sufficient available capacity to properly dispose or process municipal waste that is expected to be generated within the county for the next 10 years.

(b) The ordinances, contracts or other requirements shall be the same in form and content as those submitted under § 272.231 (relating to implementing documents), except that the documents submitted under this section shall be executed, enacted or otherwise in full force and effect.

(c) Within 30 days after receipt, the Department will notify the county in writing if the documents do not adequately implement the approval plan. After the expiration of the 30-day review period, the Department will not issue a municipal waste landfill or resource recovery facility permit under the act unless the facility meets the requirements of § 271.201 (relating to criteria for permit issuance or denial). This subsection does not affect the Department's ability to issue or deny permits under § 271.201.

PLAN REVISIONS

§ 272.251. Submission of revisions.

(a) A county with an approved municipal waste management plan shall submit a revised plan to the Department in accordance with this subchapter at the earliest of the following events:

(1) At least 3 years prior to the expiration of the capacity assurances necessary to dispose or process the municipal waste generated in the county.

(2) At least 3 years prior to the expiration of the term of the county's approved plan.

(3) When otherwise required by the Department.

(b) A county with an approved municipal waste management plan may submit a revised plan to the Department in accordance with this subchapter at any other time.

(c) A proposed plan revision will be reviewed by the Department under the criteria in § 272.244 (relating to Departmental review of plans) to the extent that the plan is affected by the proposed revision.

§ 272.252. Development of plan revisions.

(a) A county shall provide written notice to the Department when plan revision development begins. The notice shall describe the proposed plan revisions the county intends to undertake, including a description of how capacity will be assured for the remainder of the planning period.

(b) Within 30 days after receipt of written notice submitted under subsection (a), the Department will notify the county if it determines the proposed revision is substantial.

(c) A county submitting a plan revision shall comply with:

(1) Sections 272.221—272.233 (relating to plan content), to the extent changes from the approved plan are proposed.

(2) Sections 272.201, 272.202 and 272.204 (relating to purposes; advisory committee; and format of plans).

(3) Section 272.203 (relating to notice to municipalities). At least 30 days before submitting a proposed, nonsubstantial plan revision to the Department, the county shall submit a copy of the proposed revision to the advisory committee and each municipality within the county. A summary of comments received from the advisory committee and municipalities shall be included with the submission of a nonsubstantial revision to the Department.

(d) If the plan revision is determined to be substantial, the county shall also:

(1) Comply with §§ 272.202, 272.241—272.243 and 272.245.

(2) Identify and describe the facilities where municipal waste is currently being disposed or processed, and the remaining available permitted capacity of the facilities. The plan revision shall also consider the capacity which could be made available through the reasonable expansion of the facilities.

(e) For purposes of this section, substantial plan revisions shall include, but not be limited to:

(1) The elimination of a recycling program, contained in a county plan and operating in a county resulting in reduced volume of recycling.

(2) The addition of municipal waste streams not originally included in the plan.

(f) A county may choose to use the substantial revision process even if the Department determines that a plan revision is nonsubstantial.

OTHER PLANNING PROVISIONS

§ 272.261. Annual report by county.

(a) On or before April 1 of each year, a county shall submit a report to the Department.

(b) The annual report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) If the county is developing a plan, a detailed description of its progress in developing the plan, showing which requirements of this subchapter have already been met, and which plan elements have been completed. The county shall also include a schedule for completion of the remaining tasks in accordance with the deadlines and requirements of this subchapter.

(2) If the county is implementing an approved plan, a detailed description of its progress in implementing the plan, showing the county's progress in carrying out the implementation schedule in the plan. The county shall also describe activities by a person or municipality, including the county, that are contrary to or inconsistent with the approved plan.

(3) The weight or volume of each source-separated material that was recycled by each municipal recycling program operating in the county in the preceding calendar year, and the weight or volume of each source-separated material that was recycled by the county or another recycling program operating in the county in the preceding calendar year.

(4) Documentation that the assumptions the county made in developing capacity assurance in the plan remain valid.

Suchapter D. GRANTS

GENERAL PROVISIONS FOR AWARDING GRANTS

§ 272.311. Financial management.

(a) Obligations of the Commonwealth under this subchapter are contingent upon the availability of funds for these grant programs.

(b) For a grant under this subchapter, if the Department receives grant requests for which approved costs exceed available funds for that type of grant, the Department may determine grant awards based on population of the area for which the grant is requested, the extent to which the grant is based on cooperation among several municipalities and the extent to which the grant award will further the purposes of the Municipal Waste Planning, Recycling and Waste Reduction Act and section 208 of the Small Business and Household Pollution Prevention Program Act (35 P. S. § 6029.208).

§ 272.313. General requirements for grant applications.

(a) A grant application under this subchapter shall be submitted on a form prepared and furnished by the Department. The application shall contain information the Department deems necessary to carry out the Municipal Waste Planning, Recycling and Waste Reduction Act.

(b) A grant application shall be submitted by a municipality. A municipal authority may not submit a grant application. A municipality that receives a grant may pass funds from the grant to a municipal authority.

(c) To the greatest extent feasible, grant applications shall be submitted to the Department on paper that is manufactured partly or entirely from postconsumer material.

(d) Prior to development of a grant application under § 272.321 or § 272.331 (relating to planning grants; and grants for development and implementation of municipal recycling programs), the applicant shall participate in a preapplication conference with the Department.

§ 272.314. Limits on Department's authority to award grants.

(a) The Department may not award more than 10% of the moneys available under any type of grant under this subchapter to a county. This limitation shall be based on funds available for that type of grant in the fiscal year during which the application is filed.

(b) The Department will not award a grant under this subchapter to a municipality unless the applicant demonstrates to the Department's satisfaction that:

(1) The applicant has complied with the conditions in previously awarded grants under this subchapter or conditions in previously awarded grants under the act or the Pennsylvania Solid Waste-Resource Recovery Development Act (35 P. S. §§ 755.1—755.14).

(2) The applicant has complied with the Municipal Waste Planning, Recycling and Waste Reduction Act, § 272.261 (relating to annual report by county) and this subchapter.

(3) The applicant has not previously been reimbursed under the Municipal Waste Planning, Recycling and Waste Reduction Act for the expenses requested.

(c) Activities reimbursed under one grant program under the Municipal Waste Planning, Recycling and Waste Reduction Act will not be eligible as a match under any other grant program under that act.

(d) The Department may withhold funds for grants under this subchapter if any of the following occurs:

(1) The application has failed to provide material information concerning the grant, or has provided false information concerning the grant.

(2) Equipment purchased with previous grant funds has not been utilized in compliance with program requirements.

(3) The grantee has not met the requirements of § 272.421 (relating to program elements).

(4) The grantee maintains improper or inadequate documentation to demonstrate proper grant expenditures in administering any grant under the Municipal Waste Planning, Recycling and Waste Reduction Act.

(e) A grant offering by the Department under this subchapter will lapse if the funds offered are not encumbered within 1 year of the date of offering or if the grantee or the Department determines that the grant funds will not be utilized. The funds lapsed will then be available to applicants in subsequent offerings.

(f) The Department may not award a grant under § 272.321 or § 272.331 (relating to planning grants; and grants for development and implementation of municipal recycling programs) unless a preapplication conference is held between the applicant and the Department prior to development of the grant application.

§ 272.316. Performance audit.

A grant application under this subchapter shall include provisions for an independent performance audit, which shall be completed within 6 months after reimbursable work under the grant has been completed. This audit may be performed as part of another independent audit conducted for the municipality.

PLANNING GRANTS

§ 272.321. Scope of grant.

The Department will, upon application from a county, award grants for one or more of the following:

(1) The cost of preparing municipal waste management plans in accordance with Subchapter C (relating to municipal waste planning).

(2) The cost of carrying out related studies, surveys, investigations, inquiries, research and analyses, including those related to siting.

(3) Environmental mediation.

(4) Feasibility studies and project development for municipal waste processing, disposal or composting facilities, except for facilities for the combustion of municipal waste that are not proposed to be operated for the recovery of energy.

(5) Educational programs on pollution prevention, other technical assistance to small business for pollution prevention and educational programs on household hazardous waste.

§ 272.322. Eligible costs.

(a) The grant to a county under § 272.321 (relating to scope of grant) shall be 80% of the approved cost of the plans and studies.

(b) Costs not approved for a grant under § 272.321 include, but are not limited to:

- (1) Capital costs such as equipment and construction.
- (2) Direct salaries.
- (3) Costs incurred in preparing a grant application.

(4) Indirect costs as defined in Office of Management and Budget Circular A-87, as amended, entitled "Cost Principles for State, Local and Indian Tribal Governments," 60 FR 266.484 (1995). This circular is available from the Department upon request.

§ 272.323. Grant application.

The application shall contain a detailed description of the proposed project, the proposed duration of the project, source of the fundings match for the project and an explanation of how the project will further the purposes of the Municipal Waste Planning, Recycling and Waste Reduction Act and the Small Business and Household Pollution Prevention Program Act.

GRANTS FOR DEVELOPMENT AND IMPLEMENTATION OF MUNICIPAL RECYCLING PROGRAMS

§ 272.332. Eligible costs.

(a) The grant shall be 90% of the approved cost of establishing a municipal recycling program. If the municipality is a financially distressed municipality under section 203(f) of the Financially Distressed Municipalities Act (53 P. S. § 11701.203(f)), that is required to establish a municipal recycling program under section 1501 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.1501), the grant under this section shall be 100% of the approved cost of establishing a municipal recycling program.

(b) Costs not approved for a grant include, but are not limited to:

- (1) Operating and maintenance costs for a municipal recycling program.
- (2) Costs incurred in preparing a grant application.
- (3) Direct salaries.

(c) The grant may be used to pay for transportation equipment. If the equipment will not be used full time for the program, the application shall prorate the cost of the

equipment according to the percentage of time that the equipment will be dedicated to the recycling program. If the application is approved, the equipment shall be used for the purposes outlined in the grant for the life of the equipment.

(d) Equipment purchased with funds from a grant may be owned by a municipal authority or organization of municipal governments, if requested in writing by the grantee. Equipment may be used by, or leased to, another municipality, a not-for-profit agency, an organization of municipal governments or a municipal authority.

(e) Equipment or property purchased with funds from a grant shall be used exclusively for its intended purpose for its useful life. Useful life shall be considered the period of time a particular item is able to function as intended, with the aid of proper maintenance and repairs.

(f) Equipment and property purchased with funds from a grant and with a purchase price of \$1,000 or greater shall be clearly identified by the grantee, through a sign or lettering permanently affixed to the equipment or property, as being funded by a Department of Environmental Protection Act 101 section 902 recycling grant.

(g) If equipment or property purchased with funds from a grant is no longer used for the intended purposes under the grant, the grantee shall notify the Department in writing. The Department shall be reimbursed for the value of the equipment or property in the same proportion that funding for the equipment or property was originally granted, unless the equipment or property is sold to another municipality for waste reduction or recycling purposes. The reimbursement shall be based either on the sale price of the equipment or property if applicable or its depreciated market value. Upon approval of the Department, equipment may be traded in for or toward the cost of recycling equipment. The sale price of equipment or property sold to another municipality cannot exceed the dollar amount the municipality paid as match for the original grant.

§ 272.333. Grant application.

(a) The application shall contain a detailed explanation of the structure and operation of the program, the proposed duration of the program, the source of the funding match for the program and an explanation of how the program will further the purposes of the Municipal Waste Planning, Recycling and Waste Reduction Act.

(b) The application shall describe the collection system for the program, including:

- (1) Material collected and persons affected.
- (2) Contracts for the operation of the program.

(3) Markets or uses for collected materials, giving consideration to the results of the market development study required by section 508 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.508).

(4) Ordinances or other mechanisms that will be used to ensure that materials are collected.

(5) Public information and education.

(6) Program economics, including processing or disposal cost which were avoided.

(7) Other information deemed necessary by the Department.

(c) If the municipality proposes to use some or all of the grant funds to purchase mechanical processing equipment, the application shall also contain the following:

(1) A dated copy of a public notice that was published once a week for 2 consecutive weeks in a newspaper of general circulation in the municipality. The notice shall:

(i) State that funding is being sought from the Commonwealth's recycling fund, under the Municipal Waste Planning, Recycling and Waste Reduction Act, to assist with the purchase of the mechanical processing equipment.

(ii) Describe in reasonable detail the equipment the municipality proposes to purchase or cause to be purchased.

(iii) Describe the intended uses of the equipment.

(iv) State that interested persons may submit comments to the municipality within 30 days of publication of the notice.

(v) Be in the form of a display advertisement, legal notice or public notice.

(2) A description of responses to the notice.

(3) An explanation of why the municipality has concluded the equipment is not available from the private sector.

GRANTS FOR COUNTY RECYCLING COORDINATORS

§ 272.341. Scope of grant.

The Department will award grants for authorized salary and expenses for county recycling coordinators, upon application from a county. The activities for which a grant may be used include:

(1) Assisting the county in developing and implementing the waste reduction, recycling, leaf and yard waste, and household hazardous waste components of its solid waste management plan.

(2) Identifying and encouraging opportunities for intermunicipal cooperation and cooperative efforts with other organizations to further waste reduction, recycling, leaf and yard waste composting, and household hazardous waste programs.

(3) Providing technical assistance to municipalities on developing and implementing waste reduction, recycling, leaf and yard waste composting, and household hazardous waste programs.

(4) Developing educational programs and materials on waste reduction, recycling, leaf and yard waste composting, household hazardous waste programs and litter control.

(5) Serving as a contact for waste reduction, recycling, leaf and yard waste composting, and household hazardous waste program questions from within the county.

(6) Participating in, and coordinating when appropriate, waste reduction, recycling, leaf and yard waste composting, and household hazardous waste meetings, training programs, workshops and conferences.

(7) Speaking to schools and community, business and government organizations about waste reduction, recycling, leaf and yard waste composting, and household hazardous waste programs.

(8) Assisting municipalities in identifying recyclable materials capable of being marketed and locating markets.

(9) Assisting municipalities with developing and coordinating leaf and yard waste collection and composting programs and identifying markets for compost.

(10) Assisting municipalities in preparing recycling and household hazardous waste program grant applications.

(11) Collecting data on municipal recycling programs within the county and on commercial, institutional and municipal establishment recycling, and recycling at community activities and reporting the data annually to the Department on or before April 1.

(12) Identifying sources of recyclable products and products made of recycled materials and encouraging the use of those items to support county and municipal recycling programs.

(13) Developing recycling programs for special materials such as automotive waste oil, tires, household hazardous waste, white goods, batteries, electronic equipment, computers and devices that contain cathode ray tubes such as televisions and computer monitors.

(14) Administration and management of county recycling programs.

(15) Assessing the implementation of recycling programs within the county.

§ 272.342. Eligible costs.

(a) The grant shall be 50% of the approved cost of the recycling coordinator's salary and expenses.

(b) Costs not approved for a grant include, but are not limited to:

(1) Activities and expenses incurred by the recycling coordinator that are not related to recycling.

(2) Office equipment and office maintenance.

(3) Office supplies, duplicating and postage.

(4) Permit application processing activities, including consulting fees for technical consultation on specific permits.

(5) Clothing allowances.

PERFORMANCE GRANTS FOR RECYCLING PROGRAMS

§ 272.353. Grant application.

(a) The application shall contain a description of the weight of each material recycled and marketed. The weight shall be reduced for any residue materials.

(b) The application shall be supported by documentation which includes weigh slips or receipts verifying the materials claimed as recycled and marketed and:

(1) The supporting documentation shall be retained by the applicant for 4 years from the end date of the year the materials were recycled and marketed.

(2) The supporting documentation shall be made available to the Department, the Office of Attorney General, the Office of the Treasurer or the agents of those offices.

(c) If the application involves a recycling operation that serves more than one municipality, the application shall describe the total weight and type of materials collected by the operation, and the applicant's contribution.

GRANTS FOR HOST MUNICIPALITY INSPECTORS

§ 272.362. Eligible costs.

(a) The grant shall be 50% of the approved cost of the salaries and expenses of up to two certified host municipality inspectors.

(b) Costs not approved for a grant include, but are not limited to:

(1) Activities and expenses incurred by the inspectors that are not related to inspection of resource recovery facilities or municipal waste landfills located in the municipality.

- (2) Administrative, management or clerical activities.
- (3) Office equipment and office maintenance.
- (4) Office supplies, duplicating and postage.
- (5) Clothing allowances.

(6) Costs covered under the grant provided by § 272.371 (relating to scope of grant).

(7) Costs incurred by the municipality or the inspector prior to certification or after decertification of the inspector by the Department or while the inspector is on inactive status.

§ 272.364. Maintaining certification; inactive status; decertification; recertification.

(a) *Maintaining certification.*

(1) To maintain certification, a host municipality inspector shall:

(i) Complete a Department-sponsored advanced training course once every 3 years and perform satisfactorily on the written examination.

(ii) Conduct at least one inspection per calendar year. The Department will rely on written confirmation of the inspection, by the host municipality, as evidence that the inspection occurred timely.

(2) Failure to satisfy paragraph (1)(i) or (ii) will automatically result in inactive status for the host municipality inspector, beginning July 1 of the year following the failure, unless the inspector takes the Department sponsored advance training course and performs satisfactorily on the written examination by July 1 of the year following the failure.

(3) A host municipality inspector whose status is "inactive" will be subject to the prohibitions of subsection (b).

(b) *Inactive status.*

(1) A host municipality inspector whose status is "inactive" under subsection (a) may not conduct activities of a certified host municipality inspector during the term of the inactive status. The prohibited activities include:

(i) Entering the waste facility property as a host municipality inspector.

(ii) Inspecting the waste facility records.

(iii) Taking samples at the waste facility.

(iv) Conducting inspections at the waste facility.

(v) Issuing an order at or to the waste facility under section 1102 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.1102).

(2) The Department will not pay the host municipality's cost of employing a certified host municipality inspector incurred during any period of time during which the inspector's status is "inactive," except as provided in paragraph (3).

(3) A host municipality inspector whose status is "inactive" may revert to "active" status by completing the Department sponsored advanced training course and performing satisfactorily on the written examination. The Department will reimburse the host municipality for the cost of taking the training and examination in accordance with section 1102 of the Municipal Waste Planning,

Recycling and Waste Reduction Act if the inspector performs satisfactorily on the written examination.

(c) *Decertification.* Acts of a host municipality inspector which may be grounds for decertification include:

(1) Knowingly violating a provision of the Municipal Waste Planning, Recycling and Waste Reduction Act, this title, or an order of the Department or its agent.

(2) Endangering in the course of the inspector's duties the health or safety of a resident of the host municipality, or of an owner, employee, customer or visitor of a municipal waste landfill or resource recovery facility.

(3) Knowingly distributing, to any person other than an employe of the Department, the Environmental Protection Agency, the office of Pennsylvania's Attorney General or the United States Department of Justice, business information of a municipal waste landfill or resource recovery facility deemed confidential by the Department under section 1713 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.1713) without prior written approval of the owner or chief operating manager of the facility.

(4) Knowingly submitting false information to the Department or its agent.

(5) Knowingly exceeding the scope of authority granted to a host municipality inspector under section 1102 of the Municipal Waste Planning, Recycling and Waste Reduction Act.

(d) *Notification upon decertification.* Upon decertification, the Department will notify in writing the host municipality inspector, the host municipality and the affected municipal waste landfill or resource recovery facility of the following:

(1) The name of the decertified inspector and the related host municipality.

(2) The effective date of the decertification.

(3) Whether the inspector will be eligible for recertification. In deciding whether a decertified inspector will be eligible for recertification, the Department will consider the nature and gravity of the misconduct which resulted in the decertification.

(4) The reason for the decertification.

(e) *Recertification.* A decertified host municipality inspector is not eligible to serve as a host municipality inspector for any municipality for 2 years from the date of the Department's notification of decertification. To become recertified, an eligible decertified host municipality inspector shall comply with section 1102 of the Municipal Waste Planning, Recycling and Waste Reduction Act.

Subchapter E. MUNICIPAL RECYCLING PROGRAMS

REQUIRED RECYCLING PROGRAMS

§ 272.411. Affected municipalities.

(a) By September 26, 1990, a municipality other than a county that has a population of 10,000 or more shall establish and implement a source separation and collection program for recyclable materials in accordance with this subchapter.

(b) By September 26, 1991, a municipality other than a county that has a population of more than 5,000 but less than 10,000 and which has a population density of more than 300 per square mile, shall establish and implement a source separation and collection program for recyclable materials in accordance with this subchapter.

(c) For purposes of this section, population shall be determined by the most recent decennial census by the Bureau of the Census of the United States Department of Commerce.

(d) The results of the 2000 census, or a subsequent decennial census, shall affect a municipality's obligation to establish and implement a recycling program under this subchapter only as follows:

(1) A municipality that meets requirements of subsection (a) or (b) but which was not required by the previous decennial census to conduct a recycling program, shall establish and implement a source separation and collection program in accordance with this subchapter within 2 years after the census data becomes official.

(2) A municipality that no longer meets the requirements of subsection (a) or (b) based on the most recent decennial census, but which was required by the previous decennial census to conduct a recycling program, may discontinue the program.

PROGRAM ELEMENTS

§ 272.426. Alternative to curbside program.

(a) The governing body of a municipality that is required by this subchapter to develop and implement a curbside recycling program may request the Department to approve an alternative recycling program. This alternative may include recycling services by a municipal waste landfill or resource recovery facility, or recycling facility.

(b) The Department will not approve an alternative recycling program unless the municipality demonstrates the following to the Department's satisfaction:

(1) The facility in which recycling would be performed has a municipal waste management permit from the Department under this article.

(2) The facility, or a substantially similar model of the facility, has effectively processed municipal waste in the United States for at least 2 years. To meet this requirement, a facility shall have:

(i) Operated at no less than 90% of its capacity for the 2-year period, and processed municipal waste during this period that is substantially similar to waste generated by the requesting municipality that would be processed in the future.

(ii) Recycled and marketed 25% of waste that is received and be capable of recycling 25% of waste in the future, based on contractual arrangements and other factors. Products derived from municipal waste which will be incinerated, whether for energy production or not, or products derived and then disposed, do not qualify as a contribution to the 25% recycling requirement. Materials extracted from municipal waste for recycling purposes, including compost, and marketed qualify.

(3) The materials recovered or created by the facility can be marketed as readily as materials collected through a curbside program. The operator shall show where materials are sent for recycling during the life of the demonstration period, even if it is not the same facility.

(4) The alternative program is preferable to a curbside recycling program, based on a detailed analysis of the comparative economic costs, including avoided costs, and environmental benefits of each program.

(c) Immediately upon filing the request, the municipality shall publish a written notice of its request for at least 1 week in a newspaper of general circulation in the area where the municipality is located. The notice shall in-

clude a brief description of the nature of the alternative program and the municipality's economic and environmental justification for the alternative program.

(d) A request for approval of an alternative recycling program may not be construed to allow the delay or suspension of development or implementation of a curbside recycling program pending the Department's decision on the request. An approval of an alternative recycling program may not be construed to allow the delay or suspension of development or implementation of a curbside recycling program pending the availability for use of the alternative program.

(e) The Department may revoke approval granted under this section if the alternative recycling program is not meeting the requirements of this section or is not operating in accordance with the terms of the municipality's request to the Department under this section.

Subchapter F. HOUSEHOLD HAZARDOUS WASTE COLLECTION

REGISTRATION AND APPROVAL OF PROGRAMS

§ 272.513. Contract.

The application shall include a negotiated contract between the person or municipality and the collection contractor. The contract shall meet the following requirements:

(1) The contract shall establish the responsibilities of each party for the safe collection, transportation and disposal or treatment of household hazardous waste that is deposited at the collection event in accordance with the statutes and regulations of the Commonwealth and the United States.

(2) The contract shall require that the collection contractor will provide the person or municipality with a statement that lists the names and qualifications of personnel accepting waste at the collection event.

(3) The contract shall provide for the cleanup of the collection site and certification of the cleanup of the site by both parties.

CHAPTER 273. MUNICIPAL WASTE LANDFILLS

Subchapter B. APPLICATION REQUIREMENTS

PHASE I APPLICATION REQUIREMENTS

§ 273.111. General.

The Phase I application shall:

(1) Comply with §§ 273.112—273.122 (relating to Phase I application requirements).

(2) Comply with Chapter 271 Subchapter B (relating to general requirements for permits and permit applications).

§ 273.112. Facility plan.

An application to operate a municipal waste landfill shall contain a narrative describing the following:

(1) The general operational concept for the proposed facility, including the origin, composition and weight or volume of solid waste that is proposed to be disposed of at the facility, the type of liner system, the proposed capacity of the facility, the expected life of the facility and the size, sequence and timing of solid waste disposal operations at the facility.

(2) A detailed description of the volume of soil needed to construct and operate the facility and of the method by which the soil will be delivered. The description will include the number of trucks, the access roads they will

use, delivery times and any other information relevant to assessing the impacts of the operation.

§ 273.113. Maps and related information.

(a) An application shall contain a topographic map, on a scale of 1 inch equals no more than 200 feet with 10-foot maximum contour intervals, including necessary narrative descriptions, which shows the following:

(1) The boundaries and names of present owners of record of land, both surface and subsurface, and including easements, rights-of-way and other property interests, for the proposed permit area and adjacent area; the boundaries of the land within the proposed permit area; and a description of title, deed or usage restrictions affecting the proposed permit area.

* * * * *

(c) A different scale for the topographic map required in subsection (a) may be used if approved in writing by the Department.

§ 273.114. Description of geology, soils and hydrology—general requirements.

In preparing the soils, geology and hydrology descriptions required by §§ 273.115—273.122, the applicant shall include information about the proposed permit area and the adjacent area. Plans and cross sections submitted to comply with §§ 273.115—273.119 shall be on a scale satisfactory to the Department. The map shall be on a scale of 1 inch equals no more than 200 feet, with contour intervals at a maximum of 10 feet. Maps and cross sections submitted for a particular application shall be of the same or easily compared scales.

§ 273.115. Geology and groundwater description.

(a) An application shall contain a description of the geology and groundwater in the proposed permit area and adjacent areas down to and including the lowest aquifer that may be affected by the facility, including the following:

(1) The results of a sufficient number of test borings and core borings to accurately characterize geology, soils, groundwater flow, groundwater chemistry and flow systems of the proposed permit area and adjacent area, which shall be at least three test borings. At least one test boring shall be a core boring. The applicant shall include the actual surface elevations of the drill holes.

(2) Stratigraphy, lithologic, physical characteristics and thickness of each stratum, including the location and depth of aquifers.

(3) The hydrologic characteristics of each aquifer described in paragraph (2), including field test data for hydraulic conductivity, storage coefficient and transmissivity, groundwater hydraulic gradient and velocity. The description of these characteristics shall be based on multiple well aquifer tests. Alternative techniques approved by the Department may be employed when multiple well aquifer tests are not feasible. The application shall include the procedures and calculations used to determine these characteristics.

(4) The geologic structure within the proposed permit area and adjacent area, and its relation to the regional geological structure.

(5) The uses of each aquifer.

(6) Aquifer characteristics necessary to accurately describe three dimensional groundwater flow through the proposed permit area and adjacent area, including storage and discharge characteristics.

(7) Extent of coal and noncoal mineral deposits and mines within the proposed permit area, as required by § 273.120 (relating to mineral deposits information).

(8) The well head protection areas in accordance with § 109.1 (relating to definitions) that may be impacted by the facility.

(9) A groundwater contour map based upon the highest groundwater level recorded monthly in each boring for the previous year. The Department may require more frequent measurements after significant precipitation events.

(b) A boring or coring not cased and capped or not to be used for groundwater monitoring shall be grouted shut or otherwise sealed in a manner approved by the Department.

§ 273.116. Groundwater quality description.

(a) An application shall contain a description of the chemical characteristics of each aquifer in the proposed permit area and adjacent area, based on at least two quarters of monitoring data, one of which shall include the season of the highest local groundwater levels. This description shall be based on quarterly sampling and analysis from each monitoring well for the following parameters:

(1) Ammonia-nitrogen, chloride, chemical oxygen demand, nitrate-nitrogen, pH, specific conductance, total organic carbon, total phenolics, iron, manganese and sodium.

(2) Tetrachloroethene, trichloroethene, 1,1,1-trichloroethane, 1,2-dibromoethane, 1,1-dichloroethene, 1,2-dichloroethene (cis and trans isomers), vinyl chloride, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, toluene, ethyl benzene, benzene and xylene.

(3) Groundwater elevations in monitoring wells recorded as a distance from the elevation at the well head referenced to mean sea level based on United States Geological Survey datum.

(4) Total alkalinity, fluoride and sulfate and total and dissolved concentrations of each of the following: arsenic, barium, cadmium, chromium, copper, lead, magnesium, mercury, potassium, selenium, silver and zinc.

(5) 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,3-trichloropropane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloropropane, 3-chloro-1-propene, 4-methyl-2-pentanone, bromomethane, carbon tetrachloride, chlorobenzene, chlorodibromomethane, chloroethane, chloromethane, cis-1,3-dichloropropene, trans-1,3-dichloropropene, dichlorodifluoromethane, methyl ethyl ketone, tri-bromomethane and trichlorofluoromethane.

(6) Ten volatile organic compounds not otherwise identified in this section, based on those compounds showing the greatest apparent concentration from the peaks of a mass spectra of each sample. The ten compounds shall be identified but their concentration does not require measurement.

(b) One year of data consistent with this section shall be taken prior to the disposal or storage of waste at the facility.

(c) Monitoring wells under this section shall be designed, constructed and maintained under §§ 273.281—273.283 (relating to general requirements; number, location and depth of monitoring points; and standards for wells and casing of wells). Sampling and analysis shall be

conducted in accordance with a plan approved by the Department under § 273.152(b) (relating to water quality monitoring plan).

§ 273.117. Soil description.

(a) An application shall contain:

(1) The depth to the seasonal high water table within the proposed permit area and adjacent area to demonstrate that seasonal high water table will not contact the liner system.

(2) A description of soils to be used for daily, intermediate and final cover, and facility construction, including texture, chemical description, laboratory particle size analysis and quantity. A cross section of the borrow pits within the proposed permit area shall be included.

(b) In preparing the soils description and elevations, the applicant shall:

(1) Base the description on a sufficient number of pits, excavations and samples to allow an accurate characterization of the soils in the proposed permit area and adjacent area, and each onsite or offsite borrow area.

(2) Use the following soil classification systems:

(i) For daily, intermediate and final cover, the United States Department of Agriculture Soil Classification System.

(ii) For the liner system, site construction and other noncover uses, the Unified Soil Classification System.

(3) Conduct required laboratory particle size analysis according to ASTM D 422 (Standard Method for Particle-Size Analysis of Soils) or another analytical method approved, in writing, by the Department prior to the analyses.

§ 273.120. Mineral deposits information.

(a) If the proposed permit area and adjacent area overlie existing workings of an underground mine, the applicant shall submit sufficient information to evaluate the potential for mine subsidence damage to the facility, including the following:

(1) Maps and plans showing previous mining operations underlying the proposed facility.

(2) An investigation, with supporting documentation, by a registered professional engineer with geotechnical expertise addressing the probability and potential impacts of future subsidence. The investigation shall address the potential for additional mining beneath the permit and adjacent area, the stability of the final underground workings, the maximum subsidence likely to occur in the future and the effect of that subsidence on the integrity of the facility, and any measures which have been or will be taken to stabilize the surface.

(b) If the proposed permit area or adjacent area overlies recoverable or mineable coals, the applicant shall meet one of the following requirements:

(1) The applicant shall demonstrate that the applicant owns the coal and warrants that the coal will not be mined as long as waste remains on the site.

(2) The applicant shall meet the following requirements:

(i) The applicant owned or entered into an enforceable option contract to purchase land on which the expansion would operate on or before December 23, 2000, and still

holds the option rights, still owns the land or owns the land pursuant to the option rights contract when the permit expansion is issued.

(ii) The applicant submits a written agreement executed prior to December 23, 2000, that demonstrates that coal providing support will not be mined as long as waste remains on the site.

§ 273.121. Notification of proximity to airport.

An applicant shall notify the Bureau of Aviation of the Department of Transportation, the Federal Aviation Administration and the airport if a proposed landfill or expansion is within 6 miles of an airport runway. The application shall include a copy of each notification and each response to each notification received by the applicant.

PHASE II APPLICATION REQUIREMENTS—GENERAL PROVISIONS

§ 273.132. Operation plan.

An application shall contain a description of the municipal waste landfill operations proposed during the life of the facility within the proposed permit area, including, at a minimum, the following:

(1) A narrative describing the type and method of municipal waste landfill procedures, procedures for inspection and monitoring of incoming waste, sequence of landfilling activity, type of landfilling activity, proposed engineering techniques and the major equipment to be used under § 273.215 (relating to equipment), using the maps and grids required by § 273.133 (relating to map and grid requirements) as a basis for the description.

(2) A narrative explaining the method and schedule for construction, operation, modification, use, maintenance and removal of the following components of the proposed facility, unless their retention is proposed for postclosure land use as follows:

(i) Dams, embankments, ditches and other impoundments.

(ii) Borrow pits, soil storage and handling areas and structures.

(iii) Scales and weigh station, if required.

(iv) Water and air pollution control facilities.

(v) Erosion control facilities.

(vi) Equipment storage and maintenance buildings, and other buildings.

(vii) Access roads.

(3) A construction schedule and sequence of operations tied to the grid coordinate system required by § 273.211 (relating to signs and markers), a site preparation plan and a schedule for disposing of solid waste at the site, including the maximum daily weight or volume of waste that will be received at the facility.

(4) An explanation of how the applicant intends to comply with § 273.214 (relating to measurement and inspection of waste).

(5) A plan for assuring that solid waste received at the facility is consistent with § 273.201 (relating to basic limitations).

(6) The proposed operating hours of the proposed facility. The operating hours include those hours related to construction and other activities related to operation of the facility.

§ 273.133. Map and grid requirements.

(a) An application shall contain a topographic map of the proposed permit and adjacent areas showing the following:

(1) The boundaries of lands proposed to be affected over the estimated total life of the proposed operation and the sequence of landfilling and closure.

(2) A change in a component of the facility or a feature within the proposed permit area to be caused by the proposed operation.

(3) Buildings, utility corridors and facilities which will be used in the operation.

(4) The areas of land for which a bond will be posted under Chapter 271, Subchapter D (relating to financial assurances requirements).

(5) The solid waste storage, processing or unloading areas.

(6) The water diversion, collection, conveyance, erosion and sedimentation control, treatment, storage and discharge facilities to be used.

(7) Location and elevation of the permanent physical markers for the grid coordinate system under subsection (b).

(8) The gas management, collection and control facilities.

(9) The boundaries of construction activities.

(10) The location of barriers, fences and similar structures required by § 273.212 (relating to access control).

(11) The location of each sedimentation pond, permanent water impoundment or similar facility.

(12) The location of access roads to the site, including slopes, grades and lengths of the roads.

(13) The location and identification of monitoring wells.

(14) A designated area for vehicles for use in the event of the detection of waste containing radioactive material. The designated area shall, by location or shielding, protect the environment, facility staff and public from radiation originating in the vehicle. The Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

(b) The applicant shall also submit a grid coordinate system for the entire proposed permit area. The horizontal control system shall consist of a grid not to exceed 200-foot square sections. A permanent benchmark for horizontal and vertical control shall be shown. The grid system shall be tied to the benchmark and the baseline.

§ 273.134. Plan for access roads.

The application shall contain designs, cross sections and specifications for access roads, including load limits, under § 273.213 (relating to access roads).

§ 273.136. Nuisance minimization and control plan.

(a) The application shall contain a plan in accordance with § 273.218 (relating to nuisance minimization and control) to minimize and control hazards or nuisances from vectors, odors, noise, dust and other nuisances not otherwise provided for in the permit application.

(b) The plan shall include the following:

(1) Provisions for the routine assessment and control of vector infestation.

(2) Methods to minimize and control nuisances from odors, dustfall and noise off the property boundary from the facility.

(3) For odors, the determination of normal and adverse weather conditions based on site-specific meteorological data. Prior to the installation of equipment and collection of meteorological data, a protocol for the installation and data collection shall be approved by the Department.

(c) The plan required in subsection (a) may include a contractual arrangement for services of an exterminator or an air quality, noise, dust control or other professional.

§ 273.139. Relationship to county plans.

(a) This section requires the submission of certain information in the permit application when the Department has given final approval to a municipal waste management plan for the county in which the proposed facility, or proposed additional capacity for a facility, would be located, and the county has submitted to the Department legal documents necessary to implement the plan under § 272.245 (relating to submission of implementing documents).

(b) An application shall contain the following:

(1) An explanation of whether the proposed facility is provided for in the approved plan for the host county. A facility is "provided for" if it is designated by the host county to provide capacity assurance in the approved host county plan. A facility analyzed as part of a planning process, but not designated, will not be considered "provided for."

(2) If the proposed facility is not provided for in the approved host county plan:

(i) A detailed explanation of whether the proposed facility will interfere with implementation of the approved plan.

(ii) A detailed explanation of whether the proposed facility will interfere with municipal waste collection, storage, transportation, processing or disposal in the host county.

(iii) A detailed response to objection, if any, filed by the governing body of the host county within 60 days of the written notice under section 504 of the act (35 P. S. § 6018.504).

§ 273.140. Daily volume.

(a) The application shall contain proposed average and maximum daily volumes for the facility, and a detailed justification for these volumes, based on §§ 271.126 and 271.127 (relating to requirement for environmental assessment; and environmental assessment), as well as section 1112 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.1112).

(b) The application for a permit modification to increase daily volumes shall include calculations demonstrating that increased daily volumes will not reduce the remaining lifetime of a landfill based on its remaining permitted capacity to less than 3 years from the date of issuance of the permit modifications.

(c) The average daily volume is a limit on the volume of solid waste that is permitted to be received at the facility, and shall be computed quarterly by averaging the total volume received over the quarter.

§ 273.140a. Radiation protection action plan.

(a) An application shall contain an action plan specifying procedures for monitoring for and responding to

radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting.

(b) The action plan shall be prepared in accordance with the Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

(c) The action plan shall be incorporated into the landfill's approved waste analysis plan, under § 271.613 (relating to waste analysis plan).

PHASE II APPLICATION REQUIREMENTS—COVER AND REVEGETATION

§ 273.141. Compaction and cover plan.

An application shall contain a plan for compaction and cover at the proposed facility under § 273.216 (relating to unloading and compaction) and §§ 273.232—273.234 (relating to daily cover; intermediate cover and slopes; and final cover and grading), including, at a minimum, the following information:

- (1) The procedures for placement and compaction of solid waste and the degree of compaction of waste.
- (2) The number and thickness of lifts.
- (3) The materials and procedures for application of daily, intermediate and final cover material, that meet the standards of §§ 273.232—273.234.
- (4) The procedures to establish intermediate and final elevations for the landfill.

PHASE II APPLICATION REQUIREMENTS—WATER QUALITY PROTECTION MONITORING

§ 273.152. Water quality monitoring plan.

(a) An application shall contain a water quality monitoring plan showing how the operator intends to comply with §§ 273.281—273.288 (relating to water quality monitoring). The plan shall include, at a minimum, the following:

- (1) The number, location and depth of proposed monitoring points.
- (2) Preoperational data showing existing groundwater quality, as required by § 273.116 (relating to groundwater quality description), and a procedure to establish this groundwater quality.
- (b) The application shall contain a groundwater sampling and analysis plan. The plan shall include:
 - (1) Procedures and techniques designed to accurately measure groundwater quality upgradient, beneath and downgradient of the proposed waste disposal area.
 - (2) Department-approved sampling and analytical methods that are specific to the proposed facility and that will accurately measure solid waste, solid waste constituent, leachate or constituent of decomposition in the groundwater.
 - (3) Procedures and techniques for sample collection, sample preservation and shipment, analytical procedures, chain of custody control and field and laboratory quality assurance and quality control.

(c) The Department may approve the use of an alternate groundwater monitoring system for facilities located in the anthracite coal region if the applicant demon-

strates the following to the Department's satisfaction with a detailed hydrogeologic study:

- (1) The nature and extent of underground coal mining beneath the proposed facility makes impracticable the installation of the groundwater monitoring system required by this subchapter.
- (2) The proposed alternate system is capable of completely and accurately identifying groundwater degradation and pollution from the proposed facility.

PHASE II APPLICATION REQUIREMENTS—LINERS AND LEACHATE MANAGEMENT

§ 273.161. Liner system and leachate control plan.

(a) The application shall contain plans, drawings, cross sections and specifications for a liner system to demonstrate compliance with §§ 273.251—273.260 (relating to liner system), including the following:

- (1) Design of the liner system, including thickness and characteristics of the subbase, the thickness and characteristics of the leachate detection zone, the design for the leachate monitoring system in the leachate detection zone, the nature and thickness of the liner material, the thickness and characteristics of the protective cover and leachate collection zone and the design for the leachate collection system in the collection zone.
- (2) A plan for installing the liner system.

(b) The application shall include a quality assurance and quality control plan for the construction and installation of the liner system. The plan shall include, at a minimum, the following:

- (1) A description of the testing procedures and construction methods proposed to be implemented during construction of the liner system.
- (2) A description of the manner in which the protective cover and liner system will be maintained and protected in unfilled portions of the disposal area prior to and during placement of the initial life of solid waste.
- (3) A description of the manner in which the protective cover and liner system will be protected from weather prior to and during placement of the initial life of solid waste.
- (4) A description of the qualifications of the quality assurance and quality control personnel, presented in terms of experience and training necessary to implement the plan.

(5) A sampling plan for every component of the liner system, including sample size, methods for determining sample locations, sampling frequency, acceptance and rejection criteria and methods for ensuring that corrective measures are implemented as soon as possible.

(6) A plan for documenting compliance with the quality assurance and quality control plan.

(c) The application shall demonstrate that leachate will not adversely affect the physical or chemical characteristics of the proposed liner system, or inhibit the liner's ability to restrict the flow of solid waste, solid waste constituents or leachate, based on the most recent edition of EPA or ASTM guidelines approved by the Department.

(d) The application shall include a complete description of the physical, chemical, mechanical and thermal properties for the proposed primary and secondary liners, based on ASTM methods when appropriate. Except to the extent that the Department waives in writing any of the follow-

ing for nonsynthetic secondary liners, these properties shall include, at a minimum:

- (1) Thickness.
- (2) Tensile strength at yield.
- (3) Elongation at yield.
- (4) Elongation at break.
- (5) Density.
- (6) Tear resistance.
- (7) Carbon black content.
- (8) Puncture resistance.
- (9) Seam strength—(percentage of liner strength).
- (10) Ultraviolet light resistance.
- (11) Carbon black dispersion.
- (12) Permeability.
- (13) Liner friction angle in degrees.
- (14) Stress crack resistance.
- (15) Oxative induction time.
- (16) Chemical compatibility.
- (17) Percent recycled materials.

§ 273.163. Modifications of leachate treatment plan.

(a) If a problem identified in § 273.277 (relating to Departmental notice and remedial action) occurs, the operator shall submit to the Department, within 60 days, a permit modification application under § 271.222 (relating to permit modification), with plans, designs and cross sections to modify its leachate treatment plan.

(b) The Department may approve permit modification applications under § 271.222 to extend, by 1 year at a time, the 3-year limitation for leachate transportation in § 273.273(a) (relating to leachate transportation), if the following apply:

- (1) The applicant complies with § 273.162(b) (relating to leachate treatment plan).
- (2) The applicant has obtained the necessary permits to construct and operate a leachate treatment system under § 273.272 (relating to basic treatment methods).
- (3) Leachate transportation from the facility has not caused or contributed to surface water or groundwater pollution.
- (4) The applicant has a valid contract for the treatment of leachate at an offsite treatment facility for the 1 year term of the proposed permit modification.
- (5) The offsite treatment facility to which leachate would be transported is operating in compliance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and regulations promulgated thereunder, and is otherwise capable of accepting and treating leachate from the landfill.

(6) The landfill has a remaining permitted life, based on permitted capacity, of at least 3 years.

**PHASE II APPLICATION
REQUIREMENTS—CLOSURE PROVISIONS**

§ 273.192. Closure plan.

(a) The application shall contain a plan describing the activities that are proposed to occur in preparation for closure and after closure to ensure compliance with this chapter.

(b) The closure plan shall include:

(1) A plan for the decontamination and removal of equipment, structures and related material from the facility.

(2) An estimate of the year in which final closure will occur, including an explanation of the basis for the estimate.

(3) A description of the steps necessary for closure if the facility closes prematurely.

(4) A narrative description, including a schedule, of measures that are proposed to be carried out in preparation for closure and after closure at the facility, including measures relating to:

- (i) Water quality monitoring.
- (ii) Gas control and monitoring.
- (iii) Leachate collection and treatment.
- (iv) Erosion and sedimentation control.

(v) Revegetation and regrading, including maintenance of the final cover.

(vi) Access control, including maintenance of access control.

(5) A description of the means by which funds will be made available to cover the cost of postclosure operations, which shall include an assessment of projected postclosure maintenance costs, a description of how the necessary funds will be raised, a description of where the funds will be deposited, copies of relevant legal documents and a description of how the funds will be managed prior to closure.

(6) The name, address and telephone number at which the operator can be reached during the postclosure period.

§ 273.196. Recycling plan.

An application shall contain a plan for salvaging and recycling waste materials received at the facility for which recycling is cost effective, including proposed salvage areas, salvaging methods and anticipated markets for salvaged materials under § 273.331 (relating to salvaging of materials).

§ 273.197. Plan for recycled materials collection center.

An application shall include a plan consistent with § 273.332 (relating to recycled materials collection center).

**Subchapter C. OPERATING REQUIREMENTS
GENERAL PROVISIONS**

§ 273.201. Basic limitations.

(a) Except as provided in subsection (b), a person or municipality may not own or operate a municipal waste landfill unless the Department has first issued a permit to the person or municipality for the facility under this chapter.

(b) A person or municipality may conduct monitoring under § 273.116 (relating to groundwater quality description) without a permit from the Department if the Department has given written approval for the monitoring based on written plans that are consistent with this chapter. The monitoring information may be used for a permit application for the proposed facility.

(c) A person or municipality that operates a municipal waste landfill shall comply with the following:

(1) The act, this article and other applicable regulations promulgated under the act.

(2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.

(d) A person or municipality may not allow special handling waste or residual waste to be disposed at the facility unless the Department has specifically approved the disposal of the waste at the facility, in the permit, under Subchapter D (relating to additional application requirements for special handling and residual wastes).

(e) The operator may not allow explosive waste to be disposed at the facility.

(f) Hazardous waste subject to Article VII (relating to hazardous waste management), may not be disposed, processed or stored where a municipal waste landfill is operated.

(g) Except to the extent that leachate recirculation is allowed in the permit under § 273.162 (relating to leachate treatment plan), bulk or noncontainerized liquid waste may not be disposed at a municipal waste landfill. Containers holding free liquids may not be disposed unless the container is less than 1 gallon in size, except as otherwise provided in the permit.

(h) Lead acid batteries may not be disposed at the facility.

(i) A person or municipality may not allow solid waste to be received, disposed or otherwise managed at the facility if the transportation to, or processing or management at, the facility would violate applicable laws in effect in the county or state in which the waste was generated, or state or local solid waste management plans in effect where the waste was generated.

(j) Loads composed primarily of leaf waste may not be disposed at the facility.

(k) The approved mitigation measures identified in the permit application shall be completed before a facility may accept waste unless a later date is authorized in writing by the Department for technical reasons.

(l) The following radioactive material controlled under specific or general license or order authorized by any Federal, State or other government agency may not be disposed at the facility, unless specifically exempted from disposal restrictions by an applicable State or Federal statute or regulation:

- (1) Naturally occurring and accelerator produced radioactive material.
- (2) Byproduct material.
- (3) Source material.
- (4) Special nuclear material.
- (5) Transuranic radioactive material.
- (6) Low-level radioactive waste.

(m) The following radioactive material may not be disposed at the facility, unless approved in writing by the Department, and the disposal does not endanger the environment, facility staff or public health and safety:

- (1) Short-lived radioactive material from a patient having undergone a medical procedure.
- (2) TENORM.
- (3) Consumer products containing radioactive material.

(n) The limitations in subsections (l) and (m) do not apply to radioactive material as found in the undisturbed natural environment of this Commonwealth.

§ 273.202. Areas where municipal waste landfills are prohibited.

(a) Except as provided in subsections (b) and (c), a municipal waste landfill may not be operated as follows:

(1) *Floodplain.* In the 100-year floodplain of waters of this Commonwealth.

(2) *Wetland.*

(i) In or within 300 feet of an exceptional value wetland as defined in § 105.17 (relating to wetlands).

(ii) For a new municipal waste landfill permitted on or after December 23, 2000, in or within 100 feet of a wetland other than an exceptional value wetland, unless storage, processing and disposal will not occur within that distance and one of the following applies:

(A) If the operation is in or along the wetland, the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).

(B) If the operation is not in or along the wetland, no adverse hydrologic or water quality impacts will result.

(3) *Coal—existing facility.* For an area permitted as a municipal waste landfill between April 9, 1988, and December 23, 2000, in coal bearing areas underlain by recoverable or mineable coals, unless the operator of the facility demonstrates and the Department finds, in writing, that the operator owns the underlying coal, or has entered an agreement with the owner of the coal to provide support.

(4) *Coal—expansion.* For an expansion of a municipal waste landfill permitted between April 9, 1988, and December 23, 2000, in coal bearing areas underlain by recoverable or mineable coals, unless one of the following is met:

- (i) The applicant owns the underlying coal.
- (ii) The following requirements are met:

(A) The applicant owned or entered into an enforceable option contract to purchase the land on which the expansion would operate on or before December 23, 2000, and still holds the option rights, still owns the land or owns the land pursuant to the option rights contract when the permit expansion is issued.

(B) Coal providing support for the expansion area will not be mined as long as waste remains on the site, as demonstrated under § 273.120 (relating to mineral deposits information).

(5) *Coal—new landfill.* For a new municipal waste landfill permitted on or after December 23, 2000, in coal bearing areas underlain by recoverable or mineable coal, unless the permittee owns the underlying coal.

(6) *Valley, ravine or head of hollow.* In a valley, ravine or head of hollow where the operation would result in the elimination, pollution or destruction of a portion of a perennial stream, except that rechanneling may be allowed as provided in Chapter 105 (relating to dam safety and waterway management).

(7) *Limestone or carbonate formation.* In areas underlain by limestone or carbonate formations where the formations are greater than 5 feet thick and present at the topmost geologic unit. These areas include areas mapped by the Pennsylvania Geological Survey as under-

lain by these formations, unless competent geologic studies demonstrate the absence of limestone and carbonate formations under the site.

(8) *Occupied dwelling—existing facility.* Except as provided in paragraphs (9) and (10), a municipal waste landfill or a permitted noncaptive (Class I) residual waste landfill that was operating and not closed as of December 23, 2000, that converts to a municipal waste landfill may not be operated within 300 feet measured horizontally from an occupied dwelling, unless the current owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet. Except as provided in paragraphs (9) and (10), the disposal area of the landfill may not be within 500 feet measured horizontally from an occupied dwelling unless the current owner of the dwelling has provided a written waiver consenting to the disposal area being closer than 500 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

(9) *Occupied dwelling—expansion.* For a permitted municipal waste landfill that was operating and not closed as of December 23, 2000, or a permitted noncaptive (Class I) residual waste landfill that was operating and not closed as of December 23, 2000, that converts to a municipal waste landfill, an expansion permitted on or after December 23, 2000, may not be operated within 900 feet measured horizontally from an occupied dwelling, unless one or both of the following conditions are met:

(i) The owner of the dwelling has provided a written waiver consenting to the facility or disposal area being closer than 900 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(ii) The applicant owned or entered into an enforceable option contract to purchase the land on which the expansion would operate on or before December 23, 2000, and still holds the option rights, still owns the land or owns the land pursuant to the option rights contract when the permit expansion is issued. Even if the requirement of this subparagraph is met, the expansion may not be operated within 300 feet measured horizontally from an occupied dwelling and the disposal area may not be within 500 feet measured horizontally from an occupied dwelling.

(10) *Occupied dwelling—new landfill.* A new municipal waste landfill permitted on or after December 23, 2000, may not be operated within 900 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 900 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner. A closed landfill that submits an application to reopen and expand shall also be subject to this paragraph.

(11) *Occupied dwelling—access road.* Notwithstanding the prohibitions in paragraphs (9) and (10), an access road to a municipal waste landfill may not be operated within 300 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the access road being closer than 300 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(12) *Perennial stream.* Within 100 feet of a perennial stream unless storage, processing and disposal will not

occur within that distance and no adverse hydrologic or water quality impacts will result.

(13) *Property line.* Within 100 feet of a property line, unless one of the following applies:

(i) Actual disposal will not occur within 100 feet of a property line.

(ii) The current owner has provided a written consent to the facility being closer than 100 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

(14) *Airport—FAA certified.* For areas permitted on or after April 9, 1988, and before January 25, 1997:

(i) Within 10,000 feet—or 3,048 meters—of a runway that is or will be used by turbine-powered aircraft at a Federal Aviation Administration (FAA) certified airport during the term of the permit.

(ii) Within 5,000 feet—or 1,524 meters—of a runway that is or will be used by piston-type aircraft at an FAA-certified airport during the life of disposal operations under the permit.

(15) *Airport.* Except for areas that were permitted prior to January 25, 1997, a municipal waste landfill may not be operated as follows:

(i) Within 10,000 feet—or 3,048 meters—of an airport runway that is or will be used by turbine-powered aircraft during the life of disposal operations under the permit.

(ii) Within 5,000 feet—or 1,524 meters—of an airport runway that is or will be used by piston-type aircraft during the life of disposal operations under the permit.

(16) *Airport—navigable airspace.* The following relate to airports:

(i) *Conical area.* For areas permitted prior to December 23, 2000, within the conical area at 14 CFR Part 77 (relating to objects affecting navigable airspace) for runway flight paths that are or will be used by turbine-powered or piston-type aircraft during the life of disposal operations under the permit.

(ii) *Obstruction.* For areas permitted on or after December 23, 2000, in a manner in which any portion of the landfill would be an obstruction to air navigation under 14 CFR § 77.23(a)(5) (relating to standards for determining obstructions).

(17) *Water source.* Within 1/4-mile upgradient, and within 300 feet or 91.4 meters downgradient, of a private or public water source for disposal, processing and storage areas, except that the Department may waive or modify these isolation distances if the operator demonstrates and the Department finds, in writing, that the following conditions have been met:

(i) The owners of the public and private water sources in the isolation area have consented, in writing, to the location of the proposed facility.

(ii) The operator and each water source owner have agreed, in writing, that the applicant will construct and maintain at the operator's expense a permanent alternative water supply of like quantity and quality at no additional cost to the water source owner if the existing source is adversely affected by the facility.

(iii) The applicant has demonstrated that a replacement water source is technically and economically feasible and readily available for every public or private water source in the isolation area.

(18) *School, park or playground.*

(i) For a municipal waste landfill permit issued on or after September 26, 1988, except an expansion of a municipal waste landfill permitted prior to September 26, 1988, within 300 yards of the following:

(A) A building which is owned by a school district or school and used for instructional purposes.

(B) A park.

(C) A playground.

(ii) The current property owner of a school building, park or playground may waive the 300-yard prohibition by signing a written waiver. Upon receipt of the waiver, the Department will waive the 300-yard prohibition and will not use the prohibition as the basis for the denial of a new permit.

(b) The isolation distances identified in subsection (a)(2), (3), (6)—(8), (11)—(14), (16)(i) and (17) do not apply to areas that were permitted as a municipal waste landfill prior to April 9, 1988, and included in a municipal waste landfill permit issued between April 9, 1988, and December 23, 2000, as long as the permit did not become void under § 271.211(e) (relating to term of permits).

(c) The isolation distances identified in subsection (a) do not apply for purposes of conducting postclosure activities for areas permitted as a municipal waste landfill prior to December 23, 2000.

(d) Except as provided in subsection (e), this section does not apply to features that may come into existence after the date of the first newspaper notice of the filing of a permit application under § 271.141 (relating to public notice by applicant).

(e) This section does not apply to features that may come into existence after the date of the first newspaper notice under this subsection if the following apply:

(1) The person or municipality publishes a notice of intent to file an application for a municipal waste landfill permit. The notice, which is separate from the newspaper notice required by § 271.141, shall be published once a week for 3 consecutive weeks in a newspaper of general circulation in the area where the facility is proposed to be located. The notice shall include a brief description of the location and proposed operation of the facility.

(2) The person or municipality files an administratively complete application under § 271.202 (relating to receipt of application and completeness review) with the Department within 1 year from the date of the first newspaper notice under this subsection.

§ 273.203. Certification.

(a) The operator shall submit a certification by a registered professional engineer on forms provided by the Department upon completion of each major construction activity identified in the permit for each phase or sequence of construction at the facility. Major construction activities include:

- (1) Construction of the groundwater monitoring system.
- (2) Construction of the subbase.
- (3) Construction of the secondary liner.
- (4) Construction of the leachate detection zone.
- (5) Construction of the primary liner.
- (6) Construction of the protective cover and the collection system within the protective cover.

(7) Construction of a leachate treatment facility.

(8) Construction of sedimentation pond.

(9) Construction of the landfill gas extraction system.

(10) Closure.

(11) Final closure.

(b) The certification shall describe construction activity and the phase or sequence of construction being certified, using drawings and plans where appropriate. The certification shall state that the actual construction was observed by the engineer or persons under his direct supervision, and that the supervision was carried out in a manner that is consistent with the approved permit.

(c) Upon completion of each construction activity described in subsection (a) other than construction of a leachate treatment facility, the operator shall notify the Department that the construction activity is ready for inspection. No waste may be disposed in the area subject to the inspection until the Department has conducted an inspection and has transmitted its written approval to the permittee indicating that construction was done according to the permit.

(d) The closure and final closure activities will not be deemed complete until the Department has certified completion of closure and final closure activities.

DAILY OPERATIONS

§ 273.211. Signs and markers.

(a) A person or municipality that operates a municipal waste landfill shall identify the facility and the recycling drop-off center required under § 273.332 (relating to recycled materials collection center) for the duration of operations by posting and maintaining a sign which is clearly visible and can be easily seen and read at the junction of each access road and public road. The sign shall be constructed of a durable, weather-resistant material. The sign shall show the name, business address and telephone number of the person or municipality that operates the facility, the operating hours of the facility and the number of the current permit authorizing operation of the facility.

(b) Permanent physical markers for the grid coordinate system and permit area markers shall be:

- (1) Posted and maintained for the duration of the operations to which they pertain.
- (2) Clearly visible, readable and uniform throughout the operation.
- (3) Permanently fixed and made of a durable material.

(c) The perimeter of the site shall be clearly marked before the beginning of operations. The perimeter of a disposal area shall be clearly marked before the beginning of municipal waste disposal within that area.

(d) The permanent physical markers for the grid coordinate system shall be installed at the locations set forth in the permit, prior to the beginning of operations. The base line of the grid system shall be marked with two permanent monuments that show elevation.

§ 273.212. Access control.

(a) A gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when an attendant is not on duty.

(b) The operator shall maintain a fence or other suitable barrier around the site, including impoundments,

leachate collection and treatment systems and gas processing facilities, sufficient to prevent unauthorized access.

(c) Access to the site shall be limited to those times when an attendant is on duty.

§ 273.213. Access roads.

(a) An access road shall be designed, constructed and maintained to prevent erosion to the maximum extent possible and to prevent contributions of sediment to streams or runoff outside the site.

(b) A crossing of a perennial or intermittent stream or a wetland shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) An access road shall have a drainage system that is compatible with the natural drainage system, structurally stable and which will pass safely the peak flow from a 25-year, 24-hour precipitation event. For roads that are used or in existence for more than 30 days, the drainage system shall include sloped or crowned road surfaces, cross drains or culverts, stabilized ditches, erosion resistant surfacing, sediment traps and other appropriate measures as required by § 273.242 (relating to soil erosion and sedimentation control).

(d) An access road shall be paved or surfaced with asphalt, gravel, cinders or other equivalent material approved by the Department in the permit. An access road shall be capable of withstanding the load limits projected by the applicant under § 273.134 (relating to plan for access roads). The maximum sustained grade of an access road may not exceed 12%.

(e) For roads leading to the waste disposal area, a landfill shall maintain a minimum cartway width of one of the following:

- (1) Twenty-two feet for two-way traffic.
- (2) Twelve feet for one-way traffic with pull-off intervals every 100 yards or a greater distance where there is a clear view of approaching vehicles.

(f) An access road negotiable by loaded collection vehicles shall be provided from the entrance gate of the facility to each unloading area. An access road shall also be provided to each treatment facility, impoundment and groundwater monitoring point. Other monitoring points shall be readily accessible.

(g) Disturbed areas adjacent to a road shall be vegetated or otherwise stabilized to prevent erosion.

(h) An access road shall be maintained to control dust and to prevent or control the tracking of mud on and off the site.

(i) An access road shall be designed, constructed and maintained to allow the orderly egress and ingress of vehicular traffic when the facility is in operation, including during inclement weather.

§ 273.214. Measurement and inspection of waste.

(a) An operator of a municipal waste landfill that has received, is receiving or will receive 30,000 or more cubic yards of solid waste in a calendar year shall weigh solid waste when it is received. The scale used to weigh solid waste shall conform to 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act) and 70 Pa. Code Part I (relating to general provisions). The

operator of the scale shall be a licensed public weighmaster under 3 Pa.C.S. Chapter 41 and 70 Pa. Code Part I.

(b) The operator of a facility that is not required by subsection (a) to weigh waste when it is received shall accurately measure waste by volume or weight prior to unloading.

(c) The operator of a facility shall inspect and monitor incoming waste to insure that the receipt of waste is consistent with this article.

§ 273.215. Equipment.

(a) The operator shall maintain on the site equipment necessary for the operation of the facility in accordance with the permit. The equipment shall be maintained in an operable condition.

(b) If a breakdown of the operator's equipment occurs, the operator shall utilize standby equipment as necessary to comply with the act, the environmental protection acts, this subchapter and permit conditions.

§ 273.216. Unloading and compaction.

(a) An attendant or clearly marked signs shall direct vehicles to the unloading area.

(b) The operator shall ensure that collection vehicles unload waste promptly in unloading areas.

(c) Solid waste shall be spread and compacted as approved by the Department as part of the permit.

§ 273.217. Air resources protection.

(a) The operator shall implement fugitive air contaminant control measures and otherwise prevent and control air pollution in accordance with the Air Pollution Control Act (35 P. S. §§ 4001—4014), Article III (relating to air resources) and § 273.218 (relating to nuisance minimization and control). Minimization and control measures shall include the following:

- (1) Ensuring that operation of the facility will not cause or contribute to exceeding ambient air quality standards under § 131.3 (relating to ambient air quality standards).
- (2) Ensuring that no open burning occurs at the facility.
- (3) Minimizing the generation of fugitive dust emissions from the facility.

(b) The operator shall comply with the terms and conditions of an air quality plan approval and air quality operating permit issued to the facility under Chapter 127 (relating to construction, modification, reactivation and operation of sources).

§ 273.218. Nuisance minimization and control.

(a) *Vectors.* An operator may not cause or allow the attraction, harborage or breeding of vectors.

(b) *Odors.*

(1) An operator shall implement the plan approved under § 273.136 (relating to nuisance minimization and control plan) to minimize and control public nuisances from odors. If the Department determines during operation of the facility that the plan is inadequate to minimize or control public nuisances, the Department may modify the plan or require the operator to modify the plan and obtain Department approval.

(2) An operator shall perform regular, frequent and comprehensive site inspections to evaluate the effectiveness of cover, capping, gas collection and destruction,

waste acceptance and all other waste management practices in reducing the potential for offsite odor creation.

(3) An operator shall promptly address and correct problems and deficiencies discovered in the course of inspections performed under paragraph (2).

(c) *Other.* An operator shall implement the plan approved under § 273.136 to minimize and control other conditions that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

§ 273.221. Daily volume.

(a) A person or municipality operating a municipal waste landfill may not receive solid waste at the landfill in excess of the maximum or average daily volume approved in the permit.

(b) The average daily volume is a limit on the volume of solid waste that is permitted to be received at the facility, and shall be computed quarterly by averaging the total volume received over the quarter.

§ 273.223. Radiation monitoring and response.

(a) An operator shall implement the action plan approved under § 273.140a (relating to radiation protection action plan).

(b) An operator shall monitor incoming waste in accordance with the Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001 or in a manner at least as protective of the environment, facility staff and public health and safety. Monitoring shall meet the requirements of this section and the facility's approved radiation protection action plan.

(c) Radiation detector elements shall be as close as practical to the waste load and in an appropriate geometry to monitor the waste. The radiation monitoring system shall be set to alarm at a level no higher than 10 microrentgen per hour ($\mu\text{R/hr}$) above the average background at the facility when any of the radiation detector elements is exposed to a cesium-137 gamma radiation field. Radiation detector elements shall be shielded to maintain the average background below 10 $\mu\text{R/hr}$. If capable of energy discrimination, the radiation monitoring system shall be set to detect gamma rays of a 50 kiloelectron volt (keV) energy and higher.

(d) An operator shall have portable radiation monitors capable of determining the radiation dose rate and presence of contamination on a vehicle that has caused an alarm. Upon a confirmed exceedance of the alarm level in subsection (c), a radiological survey of the vehicle shall be performed.

(e) An operator shall notify the Department immediately and isolate the vehicle when radiation dose rates of 20 $\mu\text{Sv}^{\text{h}^{-1}}$ (2 mrem^{h-1}) or greater are detected in the cab of a vehicle, 500 $\mu\text{Sv}^{\text{h}^{-1}}$ (50 mrem^{h-1}) or greater are detected from any other surface, or contamination is detected on the outside of the vehicle.

(f) Monitoring equipment shall be calibrated at a frequency specified by the manufacturer, but not less than once a year.

(g) If radioactive material is detected, the vehicle containing the radioactive material may not leave the facility without written Department approval and an authorized United States Department of Transportation exemption form.

COVER AND REVEGETATION

§ 273.231. (Reserved).

§ 273.232. Daily cover.

(a) Except as provided in subsection (b), a uniform cover of the approved daily cover material shall be placed on exposed solid waste at the end of each working day or at the end of every 24 hours, whichever interval is less.

(b) The composition of the daily cover material shall meet the following performance standards. The daily cover shall:

- (1) Prevent vectors, odors, blowing litter and other nuisances.
- (2) Cover solid waste after it is placed without change in its properties and without regard to weather.
- (3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.
- (4) Be capable of controlling fires.
- (5) Be consistent with the waste acceptance plan for the facility.

(c) A 5-day supply of cover material shall be maintained on the site.

(d) Intermediate slopes constructed during daily landfilling activities may not exceed 50%.

§ 273.233. Intermediate cover and slopes.

(a) A uniform and compacted intermediate cover shall be placed within 7 days of waste disposal on the following:

- (1) Each partial lift for which the operator intends to place no additional waste for 6 months.
- (2) Each partial or completed lift that represents final permitted elevations for that part of the facility.

(b) The composition of the intermediate cover material shall meet the following performance standards. The intermediate cover shall:

- (1) Prevent vectors, odors, blowing litter and other nuisances.
- (2) Cover solid waste after it is placed without change in its properties and without regard to weather.
- (3) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.
- (4) Be capable of controlling fires.
- (5) Control infiltration of precipitation and erosion and sedimentation.
- (6) Support the germination and propagation of vegetative cover as required by §§ 273.235 and 273.236 (relating to revegetation; and standards for successful revegetation) unless vegetative cover is not necessary to control infiltration of precipitation and erosion and sedimentation.
- (7) Be consistent with the waste acceptance plan for the facility.

(c) Unless alternative design requirements to meet the performance standards in subsection (b) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), intermediate cover shall meet the following design requirements:

- (1) If soil or soil-like material is used, the layer shall be at least 12 inches in thickness.

(2) If soil or soil-like material is used, the layer shall be uniformly graded.

(d) A 5-day supply of cover material shall be maintained on the site.

(e) If intermediate cover requires vegetation it shall be established within 30 days.

(f) Slopes constructed during daily landfilling and intermediate cover activities may not exceed 50%.

§ 273.234. Final cover and grading.

(a) The operator shall provide final cover in the following manner:

(1) A cap shall be placed over the entire surface of each final lift. The following performance standards for the cap shall be met:

(i) The cap shall have a permeability less than or equal to the permeability of the primary liner or a permeability no greater than 1×10^{-7} cm/sec, whichever is less.

(ii) The cap shall be resistant to physical and chemical failure.

(iii) The cap shall cover all areas where waste is disposed.

(2) A drainage layer capable of transmitting flow and preventing erosion of the soil layer shall be placed over the cap.

(3) A uniform and compacted layer of soil at least 2 feet in thickness shall be placed over the drainage layer.

(b) The operator shall place final cover within 1 year after disposal in the final lift ceases or as soon thereafter as weather permits, unless the Department, in the permit, allows a later period based on a demonstration that a later period is necessary to protect the final cover from differential settlement of waste at the facility. The Department will not allow a later period unless, at a minimum, delayed installation will not cause or allow violations of this article, the act or the environmental protection acts.

(c) Unless alternative design requirements to meet the performance standards in subsection (a)(1)(i)–(iii) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the cap shall meet the design requirements set forth for caps in Table 1 in § 273.256(e) (relating to primary liner) which will not result in a permeability greater than that of the primary liner.

(d) The layer of material described in subsection (a)(3) shall meet the following performance standards. The layer shall:

(1) Prevent vectors, odors, blowing litter and other nuisances.

(2) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

(3) Be capable of controlling fires.

(4) Be capable of supporting the germination and propagation of vegetative cover as required by §§ 273.235 and 273.236 (relating to revegetation; and standards for successful revegetation).

(5) Ensure slope stability.

(e) Unless alternative design requirements to meet the performance standards in subsection (d) are approved as part of the permit under § 271.231 (relating to equivalency

review procedure), the layer of material described in subsection (a)(3) shall meet the following design requirements:

(1) The cover soil shall fall within the United States Department of Agriculture textural classes of sandy loam, loam, sandy clay loam, silty clay loam, loamy sand and silt loam as defined in the *Soil Survey Manual* published by the United States Department of Agriculture, Soil Conservation Service (available from the Department or the Northeast National Technical Center of the Soil Conservation Service, 160 E. 7th Street, Chester, Pennsylvania 19103-6092).

(2) At least 40% by weight of the cover soil shall be capable of passing through a 2 millimeter, no. 10 mesh sieve.

(f) The grade of final slopes shall be designed, installed and maintained to:

(1) Ensure permanent slope stability.

(2) Control erosion due to rapid water velocity and other factors.

(3) Allow compaction, seeding and revegetation of cover material placed on the slopes.

(4) Ensure minimal percolation of precipitation and surface runoff into the disposal area.

(g) Unless the Department authorizes a different slope design in the permit based on a demonstration that the different design can meet the requirements of subsection (f), slopes shall be designed, installed and maintained as follows:

(1) The grade of the final surface of the facility may not be less than 3%.

(2) If the Department approves final grades of more than 15%:

(i) The operator shall construct a horizontal terrace at least 15 feet wide on the slope for every 25 feet maximum rise in elevations on the slope. The terrace width shall be measured as the horizontal distance between slope segments.

(ii) The gradient of the terrace shall be 5% into the landfill.

(iii) Drainage ditches shall be constructed on each horizontal terrace to convey flows.

(3) An operator may not leave final slopes that have a grade exceeding 33%, including slopes between benched terraces.

WATER QUALITY PROTECTION

§ 273.241. General requirements.

(a) The operator may not cause or allow a point or nonpoint source discharge of pollution from or on the facility to surface waters of this Commonwealth.

(b) A municipal waste landfill shall be operated to prevent and control surface and groundwater pollution. An operator shall operate and maintain necessary surface and groundwater treatment facilities until surface or groundwater pollution from the facility has been permanently abated.

(c) The operator may not cause or allow water pollution within or outside the site from operation of the facility.

§ 273.245. Water supply replacement.

(a) A person or municipality operating a municipal waste landfill which adversely affects a water supply by

degradation, pollution or other means shall restore or replace the affected water supply with an alternate source that is of like quantity and quality to the original supply at no additional cost to the owner. For purposes of this section, the term "water supply" includes existing or currently designated or currently planned sources of water or facilities or systems for the supply of water for human consumption or for agricultural, commercial, industrial or other legitimate use, including the uses protected by Chapter 93 (relating to water quality standards).

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(c) A permanent water supply shall be provided as soon as practicable but not later than 90 days after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply, or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

LINER SYSTEM

§ 273.251. Scope and requirements.

(a) A person or municipality shall design, construct, operate and maintain a liner system for disposal areas of a municipal waste landfill or components of it under this section and §§ 273.252—273.260 (relating to liner system) if one of the following applies:

(1) The person or municipality receives a permit to operate a municipal waste landfill after April 9, 1988 including a permit that results in an expansion of a facility permitted prior to April 9, 1988.

(2) The person or municipality disposes of waste on a permitted or unpermitted component thereof where waste was not disposed prior to April 9, 1988.

(b) A liner system shall consist of the following elements:

(1) Subbase, which is the prepared layer of soil or earthen materials upon which the remainder of the liner system is constructed.

(2) Secondary liner, which is a continuous layer of synthetic materials or remolded clay placed on the subbase.

(3) Leachate detection zone, which is the prepared layer placed on top of the secondary liner and upon which the primary liner is placed, and in which a leachate detection system is located.

(4) Primary liner, which is a continuous layer of synthetic materials placed on the leachate detection zone.

(5) Protective cover and leachate collection zone, which is a prepared layer placed over the primary liner in which a leachate collection system is located.

(c) Either the primary or the secondary liner shall be constructed as a composite liner. For a permit issued under this article prior to December 23, 2000, this requirement does not apply until December 24, 2001.

§ 273.252. General limitations.

(a) The bottom of the subbase of the liner system cannot be in contact with the seasonal high water table or perched water table without the use of groundwater pumping systems.

(1) Soil mottling may indicate the presence of a seasonal high water table.

(2) Drainage systems may be utilized to prevent contact between the bottom of the subbase of the liner system and the seasonal high water table or perched water table. The operator may not use a drainage system if the system is likely to adversely affect the quality or quantity of water provided by a public or private water supply, even if a replacement supply is available under § 273.245 (relating to water supply replacement). The drainage system shall be limited to drain tile, piping, french drains or equivalent methods.

(b) At least 8 feet shall be maintained between the bottom of the subbase of the liner system and the regional groundwater table in an unconfined aquifer. The regional groundwater table may not be artificially lowered.

(c) In a confined aquifer, at least 8 feet shall be maintained between the bottom of the subbase of the liner system and the top of the confining layer or the shallowest level below the bottom of the subbase where groundwater occurs as a result of upward leakage from natural or preexisting causes. The integrity of the confining layer may not be compromised by excavation.

(d) If the approved design plans provide for the placement of additional adjacent liner:

(1) Waste may not be placed within 25 feet of an edge of the liner.

(2) The edge of the liner shall be protected by soil cover, or another material approved in the permit, until additional liner is added.

(3) A lined berm at least 4 feet high shall be constructed and maintained to prevent the lateral escape of leachate.

(4) Adequate spacing shall be maintained on the inside of the berm to collect stormwater and sediment.

(e) If the approved design plans do not provide for the placement of additional adjacent liner, waste may not be placed within 15 feet of the inside top of the lined perimeter berm.

(f) A lined perimeter berm at least 4 feet high shall be constructed and maintained along the edge of the lined disposal area to prevent the lateral escape of leachate.

(g) The edge of the liner shall be clearly marked.

§ 273.253. Subbase.

(a) The subbase shall meet the following performance standards. The subbase shall:

(1) Bear the weight of the liner system, waste, waste cover material and equipment operating on the facility without causing or allowing a failure of the liner system.

(2) Accommodate potential settlement without damage to the liner system.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the subbase shall meet the following design requirements. The subbase shall:

(1) Be at least 6 inches thick and compacted to a standard proctor density of at least 95%.

(2) Be no more permeable than 1×10^{-5} cm./sec., based on laboratory and field testing unless the clay component of a composite liner is designed and constructed directly above the subbase.

(3) Be hard, uniform, smooth and free of debris, rock, plant materials and other foreign material.

(4) Have a postsettlement slope of at least 2% and no more than 33%.

§ 273.254. Secondary liner.

(a) *Performance standards.* The secondary liner shall meet the following requirements:

(1) It shall prevent the migration of leachate through the liner to the greatest degree that is technologically possible.

(2) The effectiveness of it in preventing the migration of leachate may not be adversely affected by the physical or chemical characteristics of solid waste, solid waste constituents or leachate from the facility.

(3) It shall be resistant to physical failure, chemical failure and other failure from the sources identified under § 273.161(d) (relating to liner system and leachate control plan).

(b) *Alternative design requirements.* Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the secondary liner shall meet, at a minimum, the requirements of the table in § 273.256(e) (relating to primary liner).

(c) *Requirements.* A secondary liner shall:

(1) Be no more permeable than 1×10^{-7} cm./sec. based on laboratory and field testing.

(2) Be installed according to manufacturer's specifications under the supervision of an authorized representative of the manufacturer if the liner is synthetic. An approved quality assurance and quality control plan shall be implemented in the field during the installation of the liner.

(3) Be designed, installed and maintained according to a quality assurance and quality control plan approved by the Department if the liner is remolded clay.

(4) Be inspected for uniformity, damage and imperfections during construction and installation.

(d) *Compacted lifts.* Secondary liners made of clay, bentonite and bentonite-like materials shall be constructed in compacted lifts not exceeding 6 inches in depth unless the operator submits data from a field demonstration validating the suitability of compacted lifts greater than 6 inches. A lift shall be scarified before placement of the next lift.

(e) *Composite secondary liner.*

(1) If the operator does not design, construct, operate and maintain a composite primary liner, the operator

shall design, construct, operate and maintain a composite secondary liner which has the following components:

(i) An upper component made of a manufactured geosynthetic liner that meets the requirements of this section independently of the composite component.

(ii) A composite component made of earthen material that meets the requirements of this section independently of the upper component, except that the composite component may be no more permeable than 1.0×10^{-7} cm./sec. based on laboratory and field testing and, at a minimum, meets the requirements of the table in § 273.256(e) (relating to primary liner).

(2) The two components of the composite liner shall be designed, constructed and maintained to provide a compression connection, or direct, continuous, and uniform contact, between them.

(3) The use of a composite secondary liner does not relieve the operator of responsibility for a separate primary liner under § 273.256.

(f) *Natural attenuation of leachate prohibited.* A facility or a component thereof that is subject to this chapter may not have a secondary liner based upon natural attenuation of leachate.

§ 273.255. Leachate detection zone.

(a) The leachate detection zone shall meet the following performance standards. The leachate detection zone shall:

(1) Rapidly detect and collect liquid entering the leachate detection zone, and rapidly transmit the liquid to the leachate treatment system.

(2) Withstand chemical attack from waste or leachate.

(3) Withstand anticipated loads, stresses and disturbances from overlying waste, waste cover materials and equipment operation.

(4) Function without clogging.

(5) Prevent the liner from cracking, tearing, stretching or otherwise losing its physical integrity.

(6) Cover the bottom and sidewalls of the facility.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the leachate detection zone of a liner system shall meet the following design requirements:

(1) Be at least 12 inches thick.

(2) Contain no material exceeding 0.5 inches in particle size.

(3) Create a flow zone between the secondary liner and the primary liner equal to or more permeable than 1×10^{-2} cm./sec. based on a laboratory testing and, when required by the Department, field testing.

(4) Contain a perforated piping system capable of detecting and intercepting liquid within the leachate detection zone and conveying the liquid to a collection sump for storage, processing or disposal. The sump shall be separate from the leachate collection sump, and shall be of a sufficient size to transmit leachate that is generated.

(5) The piping system shall also meet the following:

(i) The slope, size and spacing of the piping system shall assure that liquids drain from the leachate detection zone.

(ii) The pipes shall be installed primarily perpendicular to the flow and shall have a minimum postsettlement grade of at least 2%.

(iii) The minimum diameter of the perforated pipe shall be 4 inches with a wall thickness of Schedule-80 or greater, as specified by ASTM, or equivalent.

(iv) The pipes shall be cleaned and maintained as necessary.

(6) The leachate detection zone shall have a minimum bottom slope of 2%.

(7) Contain stone or aggregates without sharp edges.

(c) The operator shall monitor the leachate detection zone weekly to determine whether liquid is flowing from the zone.

(d) If liquid is flowing from the leachate detection zone, the operator shall:

(1) Immediately notify the Department in writing.

(2) Estimate, on a weekly basis, the volume of liquid flowing from the zone.

(3) Sample and analyze the liquid, on a quarterly basis, for pH, specific conductivity, total organic carbon, chloride, total alkalinity, ammonia-nitrogen and chemical oxygen demand. The Department may also require sampling and analysis for other constituents expected to be found in the waste.

(4) Provide written copies of flow and analysis data to the Department.

(e) If leachate flow is greater than 100 gallons per acre of liner collection area per day or more than 10% of leachate generation, the operator shall:

(1) Submit to the Department within 30 days a plan for locating the source of leachate in the leachate detection zone, and for determining the severity and cause of leachate penetration.

(2) Implement the plan upon Department approval, and complete the plan in a reasonable time not to exceed 6 months.

(3) Submit to the Department within 45 days after completion of the plan a report containing the new data collected, analysis of the data and recommendations concerning a remedial plan.

(4) Conduct quarterly sampling and analysis for the parameters in § 273.284 (relating to sampling and analysis), and submit copies of the results of the analysis to the Department.

(f) If sampling results indicate the presence of constituents at concentrations that could result in degradation of groundwater, the operator shall:

(1) Submit to the Department a remedial plan for controlling the source of leachate in the leachate detection zone, and implement the plan upon Department approval.

(2) Submit to the Department a permit modification application under § 271.222 (relating to permit modification) for increased groundwater monitoring, giving consideration to monitoring frequency, number of wells and

other factors, and conduct increased groundwater monitoring upon Department approval of the application.

§ 273.256. Primary liner.

(a) *General.* The primary liner shall meet the following requirements:

(1) The primary liner shall prevent the migration of leachate through the liner to the greatest degree that is technologically possible.

(2) The effectiveness of the primary liner in preventing the migration of leachate may not be adversely affected by the physical or chemical characteristics of solid waste, solid waste constituents or leachate from the facility.

(3) The primary liner shall be resistant to physical failure, chemical failure and other failure from the properties identified in § 273.161(d) (relating to liner system and leachate control plan).

(b) *Alternative design standards.* Unless alternative design standards to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the primary liner shall meet, at a minimum, the requirements of the table in subsection (e).

(c) *Requirements.* A primary liner shall:

(1) Be no more permeable than 1×10^{-7} cm./sec. based on laboratory and field testing.

(2) Be installed according to the manufacturer's specifications under the supervision of an authorized representative of the manufacturer. The approved quality control program shall be implemented in the field during the installation of the liner.

(3) Be inspected for uniformity, damage and imperfections during construction or installation.

(d) *Composite primary liner.*

(1) If the operator does not design, construct, operate and maintain a composite secondary liner, the operator shall design, construct, operate and maintain a composite primary liner which has the following components:

(i) An upper component made of a manufactured geosynthetic liner that meets the requirements of this section independently of the composite component.

(ii) A composite component made of earthen material that meets the requirements of this section independently of the upper component, except that the composite component shall be no more permeable than 1.0×10^{-7} cm./sec. based on laboratory and field testing and, at a minimum, meets the requirements of the table in subsection (e).

(2) The two components of the composite liner shall be designed, constructed and maintained to provide a compression connection, or direct, continuous, and uniform contact between them.

(3) Use of a composite primary liner does not relieve the operator of responsibility for a separate secondary liner under § 273.254.

(e) *Natural attenuation of leachate prohibited.* A facility or component thereof that is subject to this chapter may not have a primary liner based upon natural attenuation of leachate.

TABLE I
MINIMUM LINER DESIGN STANDARDS

<i>LINER MATERIAL</i>	<i>FUNCTION</i>	<i>MINIMUM FIELD THICKNESS (UNITS AS SPECIFIED)</i>	<i>LINER DENSITY (TESTS AS SPECIFIED)</i>	<i>REMARKS</i>
Geosynthetic	Primary or secondary liner	30 mil	NA	1. A greater thickness may be required depending upon the recommendations of the manufacturer. 2. HDPE liners shall be at least 60 mil.
Geosynthetic	Cap	30 mil	NA	1. A greater thickness may be required depending upon the recommendations of the manufacturer.
Natural & Remolded Clay	Secondary Liner, Composite component	2 feet 2 feet	$\geq 90\%^*$ $\geq 90\%^*$	1. Minimum of 30% fines by weight less than 0.074 mm particle size (# 200 sieve). 2. Plasticity index 10. 3. No coarse fragments greater than 3/4 inch in diameter.
Sodium Bentonite & Bentonite-like materials	Secondary Liner, Composite component	1 foot 1 foot	$\geq 90\%^*$ $\geq 90\%$	1. Minimum of 8% powdered sodium bentonite or manufacturer's recommendations, whichever is greater. 2. No coarse fragments greater than 3/4 inch in diameter. 3. No organic matter.
Geosynthetic clay liner (GCL)	Composite component	N/A	N/A	Minimum of 3/4 pound of powdered or granular sodium bentonite per square foot.

* Percentage is of maximum theoretical density when using Marshall method of design, and percentage of maximum when using Standard Proctor method of design (Pa. PTM No. 106, Method B).

§ 273.257. Protective cover.

(a) The protective cover shall meet the following performance standards. The protective cover shall:

(1) Protect the primary liner from physical damage from stresses and disturbances from overlying wastes, waste cover materials and equipment operation.

(2) Protect the leachate collection system within the protective cover from stresses and disturbances from overlying wastes, waste cover materials and equipment operation.

(3) Allow the continuous and free flow of leachate into the leachate collection system within the protective cover.

(4) Cover the bottom and sidewalls of the disposal area.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the protective cover shall meet the following design requirements. The protective cover shall be:

(1) Comprised of clean earth material that contains no aggregate, rocks, debris, plant material or other solid material larger than 1/2 inch in diameter, and no material with sharp edges.

(2) As permeable as or more permeable than, 1×10^{-2} cm./sec. based on field testing, and shall allow the free flow of liquids and leachate passing through or generated by solid waste.

(3) At least 18 inches in thickness.

§ 273.258. Leachate collection system within protective cover.

(a) The leachate collection system within the protective cover shall meet the following performance standards. The leachate collection system shall:

(1) Ensure that free flowing liquids and leachate will drain continuously from the protective cover to the leachate treatment system without ponding or accumulating on the liner.

(2) Ensure that the depth of leachate on or above the primary liner does not exceed 1 foot.

(3) Withstand chemical attack from leachate.

(4) Withstand anticipated loads, stresses and disturbances from overlying waste, waste cover materials and equipment operation.

(5) Function without clogging.

(6) Cover the bottom and sidewalls of the facility.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the leachate collection system within the protective cover shall comply with the following design requirements:

(1) The leachate collection system shall include a perforated piping system which is capable of intercepting free flowing liquids and leachate within the protective cover and conveying them to a collection sump for storage, processing or disposal. The collection sump shall be of sufficient size to transmit leachate that is generated and shall be capable of automatic and continuous functioning.

(2) The perforated piping system shall be sloped, sized and spaced to assure that free flowing liquids and leachate will drain continuously from the protective cover to the collection sump or point.

(3) The minimum diameter of the perforated pipes shall be 6 inches with a wall thickness of Schedule 80 or greater as specified by ASTM, or equivalent.

(4) The leachate collection system shall contain stones or aggregates.

(5) The pipes shall be installed primarily perpendicular to the flow and shall have a postsettlement grade of at least 2%.

(6) The leachate collection system shall be cleaned and maintained as necessary.

(7) The leachate collection system shall have a minimum bottom slope of 2%.

LEACHATE TREATMENT

§ 273.272. Basic treatment methods.

(a) Except as otherwise provided in this section, leachate shall be collected and handled by direct discharge into a permitted publicly-owned treatment works, following pretreatment, if pretreatment is required by Federal, State or local law or by discharge into another permitted treatment facility.

(b) Leachate may be collected and handled by onsite treatment and discharge into a receiving stream under a permit issued by the Department under The Clean Streams Law (35 P.S. §§ 691.1—691.1001) and regulations thereunder, if the Department approves this method in a municipal waste landfill permit. This method will not be allowed unless, at a minimum, direct discharge into a publicly-owned treatment works or other permitted facility is not practicable.

(c) Leachate may be collected and handled by spray irrigation following treatment. This method will not be allowed unless, at a minimum:

(1) Discharge into a publicly-owned treatment works or other permitted treatment facility is not practicable.

(2) Discharge of treated leachate into a receiving stream in a manner consistent with The Clean Streams Law and regulations thereunder is not attainable.

(3) Spray irrigation will not cause groundwater pollution.

§ 273.274. Leachate recirculation.

(a) In conjunction with the treatment methods in §§ 273.272 and 273.273 (relating to basic treatment methods; and leachate transportation), recirculation of leachate may be utilized if the following exist:

(1) The area subject to leachate recirculation previously has been filled with solid waste.

(2) There is sufficient municipal waste capacity to absorb the leachate.

(3) The area subject to leachate recirculation is underlain by a leachate collection system.

(4) The leachate recirculation is conducted with an approved piping system located under the intermediate cover, and causes no odors, runoff or ponding.

(5) The leachate is not a hazardous waste.

(b) An alternate leachate recirculation method may be used if approved by the Department, if one of the liner systems installed at the facility is a composite liner.

§ 273.275. Leachate collection and storage.

(a) Impoundments or tanks for storing leachate before or during treatment shall be constructed under §§ 285.122—285.124 (relating to storage tanks; impoundments—general; and impoundments—failure).

(b) An onsite leachate storage system shall be part of each leachate treatment method used by the operator. The storage system shall contain impoundments or tanks for storage of leachate. The tanks or impoundments shall have sufficient storage capacity at least equal to the maximum expected production of leachate for any 30-day period for the life of the facility estimated under § 273.162 (relating to leachate treatment plan), or 250,000 gallons, whichever is greater. No more than 25% of the total leachate storage capacity may be used for flow equalization on a regular basis.

(c) The impoundments or tanks shall be aerated as necessary to prevent and control odors. Impoundments or tanks shall each have a capacity of at least 250,000 gallons, unless otherwise approved by the Department.

(d) The storage capacity of impoundments and tanks at a site shall be increased if additional storage is required prior to each major phase of construction and as otherwise necessary.

(e) Leachate storage capacity may not be considered to include leachate that may have collected in or on the liner system.

(f) Necessary collection and containment systems shall be installed prior to the deposition of solid waste at the site. The leachate treatment or handling system approved by the Department under § 273.162 shall be installed or ready for use prior to the storage or disposal of solid waste at the site.

(g) For a facility permitted after December 23, 2000, underground pipes used for the transport of leachate from the liner system to the leachate storage impoundments or tanks shall be equipped with secondary containment or comply with § 245.445 (relating to methods for release detection for piping). Secondary containment shall be designed, constructed and installed to direct any release to an area that can be inspected for leaks.

§ 273.276. Leachate analysis and sludge handling.

(a) Upon commencement of leachate flow from the facility, the operator shall sample and analyze the following:

(1) On a daily basis, the average flow rate and volume of leachate flowing from the landfill into the leachate storage and treatment system.

(2) On a quarterly basis, the chemical composition of leachate flowing into the leachate treatment system, including total alkalinity, specific conductance, chlorides, sulfates, total dissolved solids, chemical oxygen demand, metals and volatile organic analysis. The analysis shall be sufficient to determine the impact of leachate on the liner system, the effectiveness of the leachate treatment system, the need for modification of the groundwater monitoring system or the effluent limitations in an NPDES permit and the actual characteristics of leachate from the waste disposed at the facility. For the purpose of this quarterly analysis, the leachate sample shall be collected from the influent storage tank or impoundment and shall be representative of the average mixed influent leachate quality.

(b) Sludges resulting from the treatment of leachate may be disposed at the facility if the sludges are not hazardous under Article VII (relating to hazardous waste management).

§ 273.277. Departmental notice and remedial action.

The operator shall immediately notify the Department and describe remedial steps to be taken if:

(1) Operation of the treatment facilities in accordance with the approved plan cannot prevent violation of the terms of its permits, The Clean Streams Law (35 P. S. §§ 691.1—691.1001) or regulations thereunder.

(2) The facility is generating a quality or quantity of leachate that exceeds the design capacity of the onsite pretreatment system.

(3) The contractual agreement for leachate treatment by an offsite treatment system is breached or expired.

(4) The quality or quantity of solid waste being disposed at the site changes from that set forth in the permit.

WATER QUALITY MONITORING

§ 273.281. General requirements.

(a) A person or municipality that operates a municipal waste landfill shall install, operate and maintain a monitoring system that can detect the entry of solid waste, solid waste constituents, leachate, contaminants or constituents of decomposition into the groundwater or surface water. The monitoring system shall comply with this section and §§ 273.282—273.288.

(b) A person may not construct, install or use a monitoring system for a municipal waste landfill until that system has first been approved by the Department in writing.

§ 273.282. Number, location and depth of monitoring points.

(a) The water quality monitoring system shall accurately characterize groundwater flow, groundwater chemistry and flow systems on the site and adjacent area. The system shall consist, at a minimum, of the following:

(1) At least one monitoring well at a point hydraulically upgradient from the disposal area in the direction of increasing static head that is capable of providing representative data of groundwater not affected by the facility, except when the facility occupies the most upgradient position in the flow system. In that case, sufficient downgradient monitoring wells shall be placed to determine the extent of adverse effects on groundwater from the facility.

(2) At least three monitoring wells at points hydraulically downgradient in the direction of decreasing static head from the area in which solid waste has been or will be disposed. In addition to three downgradient wells, the Department may allow one or more springs for monitoring points if the springs are hydraulically downgradient from the area in which solid waste has been or will be disposed, if the springs are developed and protected in a manner approved by the Department, and if the springs otherwise meet the requirements of this subchapter.

(3) A leachate detection system for the disposal area, as required by §§ 273.251 and 273.255 (relating to scope and requirements; and leachate detection zone).

(4) A leachate collection system for the permitted disposal area, as required by § 273.251 and § 273.258 (relating to leachate collection system within protective cover).

(5) Surface water monitoring points approved by the Department.

(b) The upgradient and downgradient monitoring wells shall be:

(1) Sufficient in number, location and depth to be representative of water quality.

(2) Located so that it does not interfere with routine facility operations.

(3) Located within 200 feet of the permitted disposal area and located at the points of compliance.

(c) In addition to the requirements of subsection (b), upgradient monitoring wells shall be located so that they will not be affected by adverse effects on groundwater from the disposal area.

(d) In addition to the requirements of subsection (b), downgradient monitoring wells shall be located so that they will provide early detection of adverse effects on groundwater from the disposal area.

(e) A well drilled under this section shall be drilled by drillers licensed under the Water Well Drillers License Act (32 P. S. §§ 645.1—645.13).

(f) The well materials shall be decontaminated prior to installation.

§ 273.283. Standards for wells and casing of wells.

(a) A monitoring well shall be constructed with a screen that meets the following requirements:

(1) The screen shall be factory made.

(2) The screen may not react with the groundwater being monitored.

(3) The screen shall maximize open area to minimize entrance velocities and allow rapid sample recovery.

(b) A monitoring well shall be filter-packed with chemically inert clean quartz sand, silica or glass beads. The material shall be well-rounded and dimensionally stable.

(c) A monitoring well shall be cased as follows:

(1) The casing shall maintain the integrity of the monitoring well borehole and shall be constructed of material that will not react with the groundwater being monitored.

(2) The minimum casing diameter shall be 4 inches unless otherwise approved by the Department in writing.

(3) The casing shall protrude at least 1 foot aboveground, unless otherwise approved by the Department, and shall be clearly visible.

(4) The casing shall be designed and constructed to prevent cross contamination between surface water and groundwater.

(5) The annular space above the sampling depth shall be sealed to prevent contamination of samples and the groundwater.

(6) If plastic casing is used, it shall be threaded and gasket sealed to preclude potential sample contamination from solvent welded joints, unless otherwise provided by the Department in the permit.

(7) Alternative casing designs for wells in stable formations may be approved by the Department.

(d) A monitoring well casing shall be enclosed in a protective casing that shall:

(1) Be of sufficient strength to protect the well from damage by heavy equipment and vandalism.

(2) Be installed for at least the upper 10 feet of the monitoring well, as measured from the well cap, with a maximum stick up of 3 feet, unless otherwise approved by the Department in writing.

(3) Be grouted and placed with a cement collar at least 3 feet deep to hold it firmly in position.

(4) Be numbered for identification with a label capable of withstanding field conditions and painted in a highly visible color.

(5) Protrude above the monitoring well casing.

(6) Have a locked cap.

(7) Be made of steel or any other material of equivalent strength.

§ 273.284. Sampling and analysis.

A person or municipality operating a municipal waste landfill shall conduct sampling and analysis from each monitoring point for the following parameters at the following frequencies:

(1) Quarterly, for ammonia-nitrogen, bicarbonate, calcium, chloride, fluoride, chemical oxygen demand, nitrate-nitrogen, pH, specific conductance, sulfate, total alkalinity, total organic carbon, total phenolics, total dissolved solids, iron, magnesium, manganese, potassium and sodium.

(2) Quarterly, for the following volatile organic compounds: tetrachloroethene, trichloroethene, 1,1,1-trichloroethane, 1,2-dibromoethane, 1,1-dichloroethene, 1,2-dichloroethene (cis and trans isomers), vinyl chloride, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, toluene, ethyl benzene, benzene and xylene.

(3) Quarterly, for groundwater elevations in monitoring wells recorded as a distance from the elevation at the well head referenced to mean sea level based on United States Geological Survey datum.

(4) Annually, for total and dissolved concentrations of the following: arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc.

(5) Annually, for the following volatile organic compounds: 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,3-trichloropropane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2-dichloropropane, 3-chloro-1-propene, 4-methyl-2-pentanone, bromomethane, carbon tetrachloride, chlorobenzene, chlorodibromomethane, chloroethane, chloromethane, cis-1,3-dichloropropene, trans-1,3-dichloropropene, dichlorodifluoromethane, methyl ethyl ketone, tribromomethane and trichlorofluoromethane.

(6) Annually, for ten volatile organic compounds not otherwise identified in this section, based on those compounds showing the greatest apparent concentration from the peaks of a mass spectra of each sample. These ten compounds shall be identified but their concentration does not require measurement.

§ 273.286. Groundwater assessment plan.

(a) *Requirement.* A person or municipality operating a municipal waste landfill shall prepare and submit to the Department a groundwater assessment plan within 60 days after one of the following occurs:

(1) Data obtained from monitoring by the Department or the operator indicates groundwater degradation at any monitoring point for parameters other than chemical

oxygen demand, pH, specific conductance, total organic carbon, turbidity, total alkalinity, calcium, magnesium and iron.

(2) Laboratory analysis of one or more public or private water supplies shows the presence of degradation that could reasonably be attributed to the facility.

(b) *Exceptions.* The operator is not required to conduct an assessment under this section if one of the following applies:

(1) Within 10 working days after receipt of sample results showing groundwater degradation the operator resamples the affected wells and analysis from resampling shows, to the Department's satisfaction, that groundwater degradation has not occurred.

(2) Within 20 working days after receipt of sample results indicating groundwater degradation, the operator demonstrates that the degradation was caused entirely by earth moving and other activities related to facility construction, or by seasonal variations.

(c) The groundwater assessment plan shall specify the manner in which the operator will determine the existence, quality, quantity, areal extent and depth of groundwater degradation, and the rate and direction of migration of contaminants in the groundwater. A groundwater assessment plan shall be prepared by an expert in the field of hydrogeology. The plan shall contain, at a minimum, the following information:

(1) The number, location, size, casing type and depth of wells, lysimeters, borings, pits, piezometers and other assessment structures or devices to be used. If the operator establishes compliance points as part of the assessment, the points shall be wells constructed in accordance with §§ 273.282 and 273.283 (relating to number, location and depth of monitoring points; and standards for wells and casing of wells).

(2) Sampling and analytical methods for the parameters to be evaluated.

(3) Evaluation procedures, including the use of previously gathered groundwater quality information, to determine the concentration, rate and extent of groundwater degradation from the facility.

(4) An implementation schedule.

(5) Identification of the abatement standard that will be met.

(d) The groundwater assessment plan shall be implemented upon approval by the Department in accordance with the approved implementation schedule, and shall be completed in a reasonable time not to exceed 6 months unless otherwise approved by the Department. If the Department determines that the proposed plan is inadequate, it may modify the plan and approve the plan as modified. The operator shall notify, in writing, each owner of a private or public water supply located within 1/2-mile downgradient of the disposal area that an assessment has been initiated.

(e) Within 45 days after the completion of the groundwater assessment plan, the operator shall submit a report containing the new data collected, analysis of the data and recommendations on the necessity for abatement.

(f) If the Department determines after review of the groundwater assessment report that implementation of an abatement plan is not required by § 273.287 (relating to abatement plan), the operator shall submit a permit modification application under § 271.222 (relating to permit modification) for necessary changes to the ground-

water monitoring plan. The operator shall implement the modifications within 30 days of the Department's approval.

(g) This section does not prevent the Department from requiring, or the operator from conducting, groundwater abatement or water supply replacement concurrently with or prior to implementation of the assessment.

§ 273.287. Abatement plan.

(a) The operator of a municipal waste landfill shall prepare and submit to the Department an abatement plan whenever one of the following occurs:

(1) The groundwater assessment plan prepared and implemented under § 273.286 (relating to groundwater assessment plan) shows the presence of groundwater degradation at one or more monitoring wells and the analysis under § 273.286(c) indicates that an abatement standard under subsection (d) will not be met.

(2) Monitoring by the Department or operator shows the presence of an abatement standard exceedance from one or more compliance points as indicated in subsection (d), even if a groundwater assessment plan has not been completed. The operator is not required to implement an abatement plan under this paragraph if the following conditions are met:

(i) Within 10 days after receipt of sample results showing an exceedance of an abatement standard at a point of compliance described in subsection (d), the operator resamples the affected wells.

(ii) Analysis from resampling shows to the Department's satisfaction that an exceedance of an abatement standard has not occurred.

(b) An abatement plan shall be prepared by an expert hydrogeologist and submitted to the Department. The plan shall contain the following information:

(1) The specific methods or techniques to be used to abate groundwater pollution from the facility.

(2) The specific methods or techniques to be used to prevent further groundwater pollution from the facility.

(3) A schedule for implementation.

(c) The abatement plan shall be completed and submitted to the Department for approval within 90 days of the time the obligation arises under this section unless the date is otherwise modified, in writing, by the Department.

(d) If abatement is required in accordance with subsection (a), the operator shall demonstrate compliance with one or more of the following abatement standards at and beyond 150 meters of the perimeter of the permitted disposal area or at and beyond the property boundary, whichever is closer:

(1) For constituents for which an MCL has been promulgated under the Federal Safe Drinking Water Act or the Pennsylvania Safe Drinking Water Act (42 U.S.C.A. §§ 300f—300j-18; and 35 P.S. §§ 721.1—721.17), the MCL for that constituent.

(2) For constituents for which MCLs have not been promulgated, the background standard for the constituent.

(3) For constituents for which the background standard is higher than the MCL or risk-based standard identified under paragraph (4), the background standard.

(4) For constituents for which no MCLs have been established, the risk-based standard if the following conditions are met:

(i) The risk assessment used to establish the standard assumes that human receptors exist at the property boundary.

(ii) The level is derived in a manner consistent with Department guidelines for assessing the health risks of environmental pollutants.

(iii) The level is based on scientifically valid studies conducted in accordance with good laboratory practice standards (40 CFR Part 792 (relating to good laboratory practice standards)) promulgated under the Toxic Substances Control Act (15 U.S.C.A. §§ 2601—2692), or other scientifically valid studies approved by the Department.

(iv) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level of 1.0×10^{-5} at the property boundary.

(v) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subparagraph, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(e) The abatement plan shall be implemented within 60 days of approval by the Department in accordance with the approved implementation schedule. If the Department determines that the proposed plan is inadequate, it may modify the plan and approve the plan as modified.

(f) The abatement plan shall be continued until the Department states, in writing, based on monitoring by the Department and the operator, that groundwater pollution from the facility has been permanently abated.

MINERALS AND GAS

§ 273.291. Mineral resources.

(a) The operator shall isolate coal seams, coal outcrops and coal refuse from waste deposits in a manner that prevents combustion of the waste and that prevents damage to the liner system.

(b) Mine openings within the site shall be sealed in a manner approved by the Department.

(c) The operator shall implement a plan for controlling potential for damage from subsidence that was submitted and approved under § 273.120 (relating to mineral deposits information).

§ 273.292. Gas control and monitoring.

(a) The operator shall implement the gas control and monitoring plan approved under § 273.171 (relating to gas monitoring and control plan).

(b) The operator shall control decomposition gases generated within the site to prevent danger to workers, structures and to occupants of adjacent property.

(c) Gas venting and monitoring systems shall be installed during construction at facilities.

(d) Gas monitoring shall be conducted in accordance with the approved plan. Gas monitoring shall be conducted quarterly by the operator during active operations and after closure until the Department determines in writing that gas monitoring is not necessary to ensure compliance with the act, the environmental protection acts, regulations promulgated thereunder and the terms and conditions of the permit.

(e) Combustible gas levels may not equal or exceed:

(1) Twenty-five percent of the lower explosive limit in a structure within the site.

(2) The lower explosive limit at the boundaries of the site.

(f) The operator shall conduct active forced ventilation of the facility, using vents located at least 3 feet above the landfill surface if one of the following applies:

(1) Passive venting has caused or may cause violations of subsection (e).

(2) Induced positive gas flows will prevent or control offsite odors.

§ 273.293. Gas recovery.

(a) Gas recovery shall be conducted:

(1) In a manner that does not interfere or conflict with activities on the site or required control measures.

(2) Without creating or causing danger to persons or property.

(3) According to the plan approved by the Department under § 273.171 (relating to gas monitoring and control plan).

(b) The operator shall, on an annual basis, physically and chemically characterize recovered gas, condensates or other residues which are generated. Users of the recovered gas shall be informed of the chemical quality of the gas. If condensates or other residues are hazardous, they shall be managed under Chapters 260—265 and 270.

EMERGENCY PROCEDURES

§ 273.301. Hazard prevention.

Municipal waste landfills shall be designed, constructed, maintained and operated to prevent and minimize the potential for fire, explosion or release of solid waste constituents to the air, water or soil of this Commonwealth that could threaten public health or safety, public welfare or the environment.

§ 273.302. Emergency equipment.

(a) Except as provided in subsection (b), the operator shall have available in proper working condition the following equipment at the immediate operating area of the facility:

(1) An internal communications or alarm system capable of providing immediate emergency instruction by voice or signal to facility personnel.

(2) A communications system capable of summoning emergency assistance from local police, fire departments, emergency medical services and from State and local emergency response agencies.

(3) Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment. For fire control equipment requiring water, the facility shall have a water supply of adequate quantity and pressure to supply the equipment.

(4) Portable gas explosimeters and gas monitoring equipment.

(b) The Department may waive or modify one or more of the requirements of subsection (a) in the permit if the operator demonstrates to the Department's satisfaction that the requirements are not necessary to protect public health and safety, public welfare and the environment.

(c) Equipment and material required by this section shall be tested and maintained so that it is operable in time of emergency.

(d) Adequate space shall be maintained to allow the unobstructed movement of emergency personnel and equipment to operating areas of the facility.

§ 273.303. Implementation of contingency plan.

(a) The operator of the facility shall immediately implement the applicable provisions of the approved contingency plan if there is an emergency. For the purposes of this section, the term "emergency" includes a fire, spill or other event that threatens public health and safety, public welfare or the environment and personal injury.

(b) During an emergency, the operator shall:

(1) Assess actual or potential hazards to public health and safety, public welfare and the environment that are occurring or may occur.

(2) Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

(3) Immediately telephone the Department and county emergency management agency and report the following information:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and permit number of the facility.

(iii) The date, time and location of the emergency.

(iv) A brief description of the nature of the emergency, the type and quantity of the solid waste involved, and what dangers to public health and safety, public welfare and the environment exist or may occur.

(v) The nature of injuries.

(vi) The parts of the contingency plan being implemented to alleviate the emergency.

(c) After an emergency, the operator of the facility shall do the following:

(1) Clean up the area affected by the emergency and treat, store or dispose of recovered solid waste, contaminated soil, contaminated water or other material in a manner approved by the Department.

(2) Prevent disposal, processing, storage or treatment of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has inspected and approved the resumption of operation after the cleanup.

RECORDKEEPING AND REPORTING

§ 273.311. Daily operational records.

(a) The operator of a facility shall make and maintain an operational record for each day that municipal waste is received, processed or disposed, and each day that construction, monitoring or postclosure activity occurs.

(b) The daily operational record shall include the following:

(1) The type and weight or volume of the solid waste received.

(2) The county in which the solid waste originated, or if the waste originated outside this Commonwealth, the state.

(3) The transporters of the solid waste.

(4) The particular grid location of the area currently being used for disposal of solid waste.

(5) A description of waste handling problems or emergency disposal activities.

(6) A record of deviations from the approved design or operational plans.

(7) A record of activities for which entries are needed in order to comply with the annual operation report required in § 273.313 (relating to annual operation report).

(8) A record of actions taken to correct violations of the act, the environmental protection acts and this title.

(9) A record of rejected waste loads and the reasons for rejecting the loads.

(10) A record of each incident in which radioactive material is detected in waste loads. The record shall include:

- (i) The date, time and location of the occurrence.
- (ii) A brief narrative description of the occurrence.
- (iii) Specific information on the origin of the material, if known.
- (iv) A description of the radioactive material involved, if known.
- (v) The name, address and telephone numbers of the supplier or handler of the radioactive material and the name of the driver.
- (vi) The final disposition of the material.

(11) A record of each vehicle, other than a combination, that exceeds 73,280 pounds gross weight and of each combination that exceeds 80,000 pounds gross weight.

- (i) The record shall include:
 - (A) The gross weight of the vehicle when weighed at the facility.
 - (B) The registration plate number and home or base state registration of the vehicle.
 - (C) The name, business address and telephone number of the owner of the vehicle.
 - (D) The date and time when the vehicle was weighed at the facility.
 - (E) The date that the weight scale was last tested in accordance with 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act).

(ii) For purposes of this paragraph, the following terms have the following meanings unless the context clearly indicates otherwise:

Combination—Two or more vehicles physically interconnected in tandem. An example of a combination is a truck tractor attached to a semi-trailer.

Gross weight—The combined weight of a vehicle or combination of vehicles and its load, excluding the driver's weight.

Registration—The authority for a vehicle to operate on a highway as evidenced by the issuance of an identifying card and plate or plates.

(c) The operator shall maintain accurate operational records sufficient to determine whether municipal waste is being stored under Chapter 285, Subchapter A (relating to storage of municipal waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the

environmental protection acts, but in no case less than 5 years. These records shall be made available to the Department upon request.

§ 273.313. Annual operation report.

(a) An operator shall submit to the Department an annual operation report on or before June 30 of each year.

(b) The annual operation report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) A topographic survey map of the same scale, contour interval and grid system as the original site plans showing the following:

- (i) The contours at the beginning and the end of the year.
- (ii) The completed areas of the site as well as areas partially filled but not active during the previous year.

(2) A description of capacity used in the previous year and remaining permitted capacity.

(3) A description of the acreage used for disposal, the acreage seeded, the acreage that has been vegetated, the acreage where vegetation is permanently established and a narrative of the operator's progress in implementing its closure plan.

(4) A current certificate of insurance as specified in § 271.374(a) (relating to proof of insurance coverage), evidencing continuous coverage for public liability insurance as required by § 271.371 (relating to insurance requirement).

(5) Changes in the previous year concerning the information required by §§ 271.124 and 271.125 (relating to identification of interests; and compliance information). The report shall state if no changes have occurred.

(6) A change in the ownership of the land upon which the facility is located or a change in a lease agreement for the use of the land that may affect or alter the operator's rights upon the land.

(7) A written update of the total bond liability for the facility under § 271.331 (relating to bond and trust amount determination). If additional bond is determined to be necessary, it shall be submitted to the Department within 90 days after the annual report is due.

(8) Certification that the operator has received the analysis or certification required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility, and that the residual waste or special handling waste that is received at the facility meets the conditions in the facility's permit.

(9) A record of detected radioactive materials.

(c) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee of \$2,800 in the form of a check payable to the "Commonwealth of Pennsylvania."

(d) The report shall include an evaluation of whether the monitoring plan implemented under this subchapter needs to be revised to comply with § 273.282 (relating to number, location and depth of monitoring points) because of changes in groundwater elevation or other reasons. If this evaluation determines that changes in the approved groundwater monitoring plan are necessary, the operator shall immediately notify the Department and submit an

application for permit modification under § 271.222 (relating to permit modification) for necessary changes in the monitoring plan.

§ 273.315. Recycling fee.

(a) On and after October 26, 1988, the operator of a municipal waste landfill shall pay a recycling fee in the form of a check payable to the "Commonwealth of Pennsylvania, Recycling Fund," in accordance with Chapter 7 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4000.701—4000.706). This fee shall terminate in accordance with law.

(1) The recycling fee shall be paid on a quarterly basis, on or before the 20th day of April, July, October and January for the 3 months ending the last day of March, June, September and December respectively.

(2) A recycling fee payment shall be accompanied by a form provided by the Department and completed according to its instructions and hand-signed by the operator.

(b) The fee shall be paid for all solid waste, except process residue and nonprocessable waste from a resource recovery facility, that is received at the facility on and after October 26, 1988, including, but not limited to, residual waste, special handling wastes, waste tires and other solid wastes received at the landfill. The recycling fee does not apply to recyclable or reusable materials that are received or separated from other waste at a transfer, composting or processing facility associated with the landfill, and which are marketed in accordance with subsection (d).

(c) The fee shall be \$2 per ton of weighed waste which is received at the landfill. If the facility is not required to weigh waste, the operator shall pay \$2 per 3 cubic yards of volume-measured solid waste for solid waste received at a landfill or facility.

(d) The operator shall maintain complete and accurate records of the weight or volume of materials which are salvaged and recycled from mixed waste after it has been received at the landfill, the market where the materials were sent for recycling or reuse, the date the materials were sent to a market and the weight of materials actually marketed for recycling. The operator may deduct the weight of materials salvaged and recycled from the landfill from the weight of waste for which the fee payment is made, but only for the quarter in which the materials were actually marketed for recycling. These records shall be kept by the operator for 5 years for audit purposes, and shall be made available to the Department or its auditors, or both, on request.

§ 273.316. Environmental stewardship fee.

(a) *Environmental stewardship fee.* The operator of a municipal waste landfill shall pay an environmental stewardship fee in the form of a check payable to the "Environmental Stewardship Fund" in accordance with 27 Pa.C.S. § 6112(b) (relating to extension of fees).

(1) The environmental stewardship fee shall be paid on a quarterly basis, on or before the 20th day of April, July, October and January for the 3 months ending the last day of March, June, September and December, respectively.

(2) An environmental stewardship fee payment shall be accompanied by a form provided by the Department and completed according to its instructions and signed by the operator.

(b) *Fee applies to solid waste.* The fee shall be paid for solid waste received at the facility on and after January

1, 2000, including, but not limited to, residual waste, special handling wastes, waste tires, nonprocessable residue from resource recovery facilities and waste materials which are received at the facility. The fee does not apply to recyclable or reusable materials received or separated from other waste at a collection, transfer, composting or processing facility associated with the landfill.

(c) *Amount.* The fee shall be 25¢ per ton of weighed waste which is received at the landfill. If the facility is not required to weigh waste, the operator shall pay 25¢ per 3 cubic yards of volume-measured solid waste for solid waste received at the facility.

(d) *Records required.* The operator shall maintain complete and accurate records of the weight or volume of materials which are salvaged and recycled from mixed waste after it has been received at the landfill, the market where the materials were sent for recycling or reuse, the date the materials were marketed and the weight of materials actually marketed for recycling. The operator may deduct the weight of materials salvaged and recycled from the landfill from the weight of waste for which the fee payment is made, but only for the quarter in which the materials were actually marketed for recycling. These records shall be maintained by the operator for 5 years for audit purposes and shall be made available to the Department or its auditors, or both, upon request.

(e) *Timeliness of payment.* The operator shall be deemed to have made a timely payment of the environmental stewardship fee if the operator complies with the following:

(1) The enclosed payment is for the full amount owed pursuant to this section and no further Departmental action is required for collection.

(2) The payment is accompanied by the required form and the form is complete and accurate.

(3) The letter transmitting the payment that is received by the Department is postmarked by the United States Postal Service on or prior to the final day on which the payment is to be received.

(f) *Refunds.* An operator that believes he has overpaid the environmental stewardship fee may file a petition for refund to the Department. If the Department determines that the operator has overpaid the fee, the Department will credit or refund the operator the amount due him. No credit or refund of the environmental stewardship fee will be made unless the petition for the refund is filed with the Department within 6 months of the date of the overpayment.

(g) *Assessment notices.*

(1) If the Department determines that an operator has not made a timely payment of the environmental stewardship fee, it will send the operator a written notice of the amount of the deficiency within 30 days of determining such deficiency. When the operator has not provided a complete and accurate statement of the weight or volume of solid waste received at the facility for the payment period, the Department may estimate the weight or volume in its notice.

(2) If any amount due hereunder remains unpaid 30 days after receipt of notice thereof, the Department may order the operator of the facility to cease receiving any solid waste until the amount of the deficiency is paid in full.

(h) *Constructive trust.* Environmental stewardship fees collected by an operator and held by the operator prior to

payment to the Department shall constitute a trust fund for the Commonwealth. The trust shall be enforceable against the operator, its representatives and any person receiving any part of the fund without consideration or with knowledge that the operator is committing a breach of the trust. A person receiving payment of lawful obligation of the operator from the fund shall be presumed to have received it in good faith and without knowledge of the breach of trust.

CLOSURE PROVISIONS

§ 273.322. Closure.

(a) The operator shall implement the closure plan approved by the Department under § 273.192 (relating to closure plan).

(b) At least 180 days before implementation of a closure plan, the operator shall review its approved closure plan to determine whether the plan requires modification, and shall submit proposed changes to the Department for approval under § 271.222 (relating to permit modification).

(c) If groundwater degradation exists at closure or occurs after closure, a person shall meet one of the following:

(1) Continue to implement an approved abatement plan.

(2) Submit an application for a closure plan modification in accordance with the procedures for a major permit modification. The operator shall select one or more remediation standards that will be met in accordance with the final closure certification requirements in § 271.342 (relating to final closure certification).

(d) An application for a closure plan modification shall include the following:

(1) Technical information and supporting documentation identifying the remediation activities that will be conducted to meet and maintain the remediation standards.

(2) If a remedy relies on access to or use of properties owned by third parties, for remediation or monitoring, documentation of cooperation or agreement.

(e) After closure, the Department may modify, in accordance with § 271.144 (relating to public notice and public hearings for permit modifications), the frequency of monitoring for a parameter for which quarterly monitoring is required under § 273.284 (relating to sampling and analysis) to a semi-annual frequency if the operator demonstrates the following:

(1) The parameter has not caused or contributed to groundwater degradation.

(2) Based upon the characteristics of the waste at the facility and the performance of the liner system, the parameter is unlikely to cause or contribute to groundwater degradation in the future.

(f) The Department may modify the frequency of monitoring for a parameter for which semi-annual monitoring was approved under subsection (e) to an annual basis if the results of semi-annual monitoring continue to demonstrate the following:

(1) The parameter has not caused or contributed to groundwater degradation.

(2) Based upon the characteristics of the waste at the facility and the performance of the liner system, the

parameter is unlikely to cause or contribute to groundwater degradation in the future.

(g) The Department may reinstate the requirement of quarterly monitoring for any parameter monitored under subsection (e) or (f) if the Department has reason to believe that the parameter may cause or contribute to groundwater degradation.

Subchapter E. ADDITIONAL OPERATING REQUIREMENTS FOR SPECIAL HANDLING AND RESIDUAL WASTES

GENERAL

§ 273.501. Scope.

(a) A person or municipality that operates a municipal waste landfill shall comply with the applicable requirements of this subchapter if the person or municipality receives special handling or residual waste at the facility.

(b) The requirements of this subchapter are in addition to the operating requirements in Subchapter C (relating to operating requirements).

(c) Special handling and residual waste may not be received at a municipal waste landfill unless:

(1) The Department has expressly approved an application for the disposal of the specific waste submitted under Subchapter D (relating to additional application requirements for special handling and residual wastes).

(2) The waste is received in accordance with the terms and conditions of the permit, the requirements of this chapter, the act and the environmental protection acts.

(3) The waste is compatible with the liner system.

(4) The waste is compatible with other wastes disposed at the facility.

(5) The leachate generated by the disposed waste can be adequately treated by the leachate treatment facility.

(6) The physical characteristics of the waste will not cause or contribute to structural instability or other operation problems at the site.

SPECIFIC WASTES

§ 273.511. Processed infectious waste disposal.

(a) Infectious waste may not be disposed at a municipal waste landfill unless:

(1) The waste has been disinfected in accordance with § 284.321 (relating to infectious waste monitoring requirements).

(2) Prior to initial disposal the landfill operator has obtained the necessary approval for disposal from the Department based on the application provided under § 273.411 (relating to processed infectious and chemotherapeutic waste disposal).

(3) The waste being received has been disinfected by a permitted processing facility.

(b) Waste consisting of human anatomical remains, including human fetal remains, may not be disposed at municipal waste landfills unless the waste has first been incinerated at a permitted waste processing facility.

(c) Body fluids and animal body fluids may be disposed by discharge into a permitted sewage treatment system that provides a minimum of secondary treatment in accordance with local, Federal and State requirements, including The Clean Stream Law (35 P.S. §§ 691.1—691.1001).

(d) Sharps shall be rendered unusable prior to disposal.

§ 273.513. Sewage sludge.

Prior to receipt at a landfill, sewage sludge shall meet one of the processes to significantly reduce pathogens or one of the processes to further reduce pathogens set forth in Chapter 271, Subchapter J, Appendix A (relating to pathogen treatment processes) and one of the vector attraction reduction standards in § 271.933(b) (relating to vector attraction reduction). The Department may approve as part of a permit another method if the operator demonstrates that the method will control pathogens, vectors and odors.

CHAPTER 277. CONSTRUCTION/DEMOLITION WASTE LANDFILLS

Subchapter B. APPLICATION REQUIREMENTS

PHASE I APPLICATION REQUIREMENTS

§ 277.111. General.

The Phase I application shall:

(1) Comply with the requirements of this section and §§ 277.112—277.122 (relating to Phase I application requirements).

(2) Comply with the applicable requirements of Chapter 271, Subchapter B (relating to general requirements for permits and permit applications).

§ 277.112. Facility plan.

An application to operate a construction/demolition waste landfill shall contain a narrative describing the following:

(1) The general operational concept for the proposed facility, including the origin, composition and weight or volume of solid waste that is proposed to be disposed of at the facility, type of liner system, the proposed capacity of the facility, the expected life of the facility and the size, sequence and timing of solid waste disposal operations at the facility.

(2) A detailed description of the volume of soil needed to construct and operate the facility and of the method by which the soil will be delivered. The description will include the number of trucks, the access roads they will use, delivery times and any other information relevant to assessing the impacts of the operation.

§ 277.113. Maps and related information.

(a) An application shall contain a topographic map on a scale in which 1 inch equals no more than 200 feet with 10-foot maximum contour intervals, including necessary narrative descriptions, which shows the following:

(1) The boundaries and names of present owners of record of land, both surface and subsurface, and including easements, rights-of-way and other property interests, for the proposed permit area and adjacent area; the boundaries of the land within the proposed permit area; and a description of title, deed or usage restrictions affecting the proposed permit area.

(2) The boundaries of the land to be affected during the estimated total life of the proposed operation, including the boundaries of areas that will be affected in each sequence of landfilling activity and boundaries of areas that will be used for impoundments.

(3) The location of areas on and off the permit area which are proposed to be excavated to obtain earthen material for the construction of the facility, for cover material and for other construction purposes.

(4) The location and name of public and private water sources within 1/2 mile of the proposed facility. If more than 50 wells are located within the 1/2 mile radius, the applicant may identify only the closest wells in each direction and generally describe the location and number of wells further away.

(5) The location, name and elevation of surface water bodies, such as springs, streams, lakes, ponds, wetlands, constructed or natural drains, and irrigation ditches within 1/4 mile of the proposed facility.

(6) The location of gas and oil wells (active and inactive) surface and underground coal and noncoal mines (active and inactive) coal seams to a depth of 500 feet, mine spoil piles, dumps, dams, embankments and mine pool discharge points within 1/4 mile of the proposed facility.

(7) The location of rights-of-way for high-tension power lines, pipelines, railroads and public and private roads within 1/4 mile of the proposed facility.

(8) The location of buildings currently in use within 1/4 mile of the proposed facility.

(9) If solid waste disposal or processing has previously taken place within 1/4 mile of the proposed facility, the names of the owners or operators, or both, of the facility, the type of solid waste processed or disposed, and when applicable, cross sections indicating the interface details between areas previously filled and areas to be filled.

(10) The anticipated location of water quality monitoring points.

(11) The boundaries of land within the proposed permit area or adjacent area identified in § 277.202 (relating to areas where construction/demolition waste landfills are prohibited).

(12) The elevation and location of test borings and core samplings taken under § 277.115 (relating to geology and groundwater description), and the location of test pits or excavations taken under § 277.117 (relating to soils description).

(13) The municipalities in which the permit area is proposed to be located.

(14) The location of 100-year floodplain boundaries in the proposed permit area and adjacent area.

(15) The location of sinkholes, fractures, fracture traces, outcrops, lineaments and mine pools in the proposed area and adjacent area.

(16) The location of water discharges into a surface body of water in the proposed permit area and adjacent area.

(b) A different scale for the topographic map required in subsection (a) may be used if approved in writing by the Department.

(c) An application shall contain a topographic map showing the location and name of public water sources within 3 miles downstream or downgradient from the proposed facility. The map shall be on a scale of 1 inch equals no more than 500 feet with 10-foot maximum contour intervals including necessary narrative descriptions.

§ 277.114. Description of geology, soils and hydrology—general requirements.

In preparing the soils, geology and hydrology descriptions required by §§ 277.115—277.120 the applicant shall include information about the proposed permit area and

the adjacent area. Plans and cross sections submitted to comply with §§ 277.115—277.122 shall be on a scale in which 1 inch equals no more than 200 feet, with contour intervals at a maximum of 10 feet. Maps and cross sections submitted for a particular application shall be of the same or easily compared scales.

§ 277.115. Geology and groundwater description.

(a) An application shall contain a description of the geology and groundwater in the proposed permit area and adjacent area down to and including the lowest aquifer that may be affected by the facility, including the following:

(1) The results of a sufficient number of test borings and core borings to accurately characterize geology, soils, groundwater flow, groundwater chemistry and flow systems of the proposed permit area and adjacent area, which shall be at least three test borings. At least one test boring shall be a core boring. The applicant shall include the actual surface elevations of the drill holes.

(2) Stratigraphy, lithologic, physical characteristics and thickness of each stratum, including the location and depth of aquifers.

(3) The hydrologic characteristics of each aquifer described in paragraph (2), including field test data for hydraulic conductivity, storage coefficient and transmissivity, groundwater hydraulic gradient and velocity. The description of these characteristics shall be based on multiple well aquifer tests. Alternative techniques approved by the Department may be employed when multiple well aquifer tests are not feasible. The application shall include the procedures and calculations used to determine these characteristics.

(4) The geologic structure within the proposed permit area and adjacent area, and its relation to the regional geological structure.

(5) The uses of each aquifer.

(6) Aquifer characteristics necessary to accurately describe three dimensional groundwater flow through the proposed permit area and adjacent area, including storage and discharge characteristics.

(7) Extent of coal and noncoal mineral deposits and mines within the proposed permit area, as required by § 277.120 (relating to mineral deposits information).

(8) The well head protection areas in accordance with § 109.1 (relating to definitions) that may be impacted by the facility.

(9) A groundwater contour map based upon the highest groundwater level recorded monthly in each boring for the previous year. The Department may require more frequent measurements after significant precipitation events.

(b) A boring or coring not cased and capped or not to be used for groundwater monitoring shall be grouted shut or otherwise sealed in a manner approved by the Department.

§ 277.116. Groundwater quality description.

(a) An application shall contain a description of the chemical characteristics of each aquifer in the proposed permit area and adjacent area, based on at least 6 consecutive months of monitoring data. This description shall be based on quarterly sampling and analysis from each monitoring well for the following parameters and elevations:

(1) Chloride, sulfate, chemical oxygen demand, pH, specific conductance, total organic carbon, total organic halogen, iron, lead and sodium.

(2) Groundwater elevations in monitoring wells recorded as a distance from the elevation at the well head referenced to mean sea level based on United States Geological Survey datum.

(b) For construction/demolition waste landfills permitted by the Department after April 9, 1988, the 6 months of data required by this section shall be taken prior to the disposal or storage of waste at the facility.

(c) For construction/demolition waste landfills permitted by the Department before April 9, 1988, the 6 months of data required by this section shall be taken beginning with the first anniversary date of the issuance of the permit after April 9, 1988.

(d) Monitoring wells under this section shall be designed, constructed and maintained under §§ 277.281—277.283 (relating to general requirements; number, location and depth of monitoring points; and standards for wells for casing of wells).

§ 277.117. Soils description.

(a) An application shall contain the following:

(1) A description of the depth to the seasonal high water table within the proposed permit area and adjacent area to demonstrate that the seasonal high water table will not contact the liner system.

(2) A description of the soils to be used for intermediate cover, final cover and facility construction, including, texture, chemical description, laboratory particle size analysis and quantity. A cross-section of the borrow pits within the proposed permit area shall be included.

(3) For an expansion of a facility under § 277.110 (relating to modification to expand existing landfill), a description of the soils within the proposed permit area and adjacent area down to the bedrock, including, for each soil horizon, depth, matrix, color, texture, structure, consistency, degree of mottling, mottling colors and laboratory particle size analysis.

(b) In preparing the soils description, the applicant shall:

(1) Base the description on a sufficient number of pits, excavations and samples to allow an accurate characterization of the soils in the proposed permit area and adjacent area, and each borrow area, whether onsite or offsite.

(2) Use the following soil classification systems:

(i) For intermediate and final cover, the United States Department of Agriculture Soil Classification System.

(ii) For the liner system, site construction and other noncover uses, the Unified Soil Classification System.

(3) Conduct required laboratory particle size analyses according to ASTM D 422 (Standard Method for Particle Size Analysis of Soils) or another analytical method approved, in writing, by the Department prior to the analyses.

(c) For an expansion of a facility under § 277.110, the application shall contain an explanation, based on the soils described in this section, of how the facility would comply with § 277.246 (relating to attenuating soil base).

§ 277.120. Mineral deposits information.

(a) If the proposed permit area and adjacent area overlies existing workings of an underground mine, the

applicant shall submit sufficient information to evaluate the potential for mine subsidence damage to the facility, including the following:

(1) Maps and plans showing previous mining operations underlying the proposed facility.

(2) An investigation, with supporting documentation, by a registered professional engineer with geotechnical expertise addressing the probability and potential impacts of future subsidence. The investigation shall address the potential for additional mining beneath the permit and adjacent area, the stability of the final underground workings, the maximum subsidence likely to occur in the future and the effect of that subsidence on the integrity of the facility, and any measures which have been or will be taken to stabilize the surface.

(b) If the proposed permit area or adjacent area overlies recoverable or mineable coals, the applicant shall meet one of the following requirements:

(1) The applicant shall demonstrate that the applicant owns the coal and warrants that the coal will not be mined as long as construction/demolition waste remains on the site.

(2) The applicant shall meet the following requirements:

(i) The applicant owned or entered into an enforceable option contract to purchase land on which the expansion would operate on or before December 23, 2000, and still holds the option rights, still owns the land or owns the land pursuant to the option rights contract when the permit expansion is issued.

(ii) The applicant submits a written agreement executed prior to December 23, 2000, that demonstrates that coal providing support will not be mined as long as waste remains on the site.

§ 277.121. Notification of proximity to airport.

An applicant shall notify the Bureau of Aviation of the Department of Transportation, the Federal Aviation Administration and the airport if a proposed landfill or expansion is within 6 miles of an airport runway. The application shall include a copy of each notification and each response to each notification received by the applicant.

§ 277.122. Modification to expand existing landfill.

For a construction/demolition waste landfill constructed with attenuating soil and permitted by the Department prior to December 23, 2000, the Department may waive or modify the liner system and leachate treatment requirements in this chapter in the approval of a complete application for permit modification for expansion of the landfill if the operator demonstrates the following:

(1) No groundwater degradation has occurred from the existing operation.

(2) The physical properties and chemical composition of the waste that will be received under the permit modification will not change from that approved under the existing permit.

**PHASE II APPLICATION REQUIREMENTS—
GENERAL PROVISIONS**

§ 277.131. Basic requirements.

(a) The Phase II permit application shall:

(1) Comply with this section and §§ 277.132—277.137, 277.141, 277.142, 277.151, 277.152, 277.161—277.164, 277.171, 277.181, 277.191 and 277.192.

(2) Comply with Chapter 271, Subchapter D (relating to financial assurances requirements).

(b) Applications, plans, cross sections, modules and narratives shall demonstrate how the construction and operating requirements of Subchapter C (relating to operating requirements) will be implemented, and shall include quality control measures necessary to ensure proper implementation.

(c) The plans, designs, cross sections and maps required by this section and §§ 277.132—277.137, 277.141, 277.142, 277.151, 277.152, 277.161—277.163, 277.171, 277.181, 277.191 and 277.192 shall be on a scale in which 1 inch equals no more than 200 feet with 10-foot maximum contour intervals.

§ 277.132. Operation plan.

An application shall contain a description of the construction/demolition waste landfill operations proposed during the life of the facility within the proposed permit area, including, at a minimum, the following:

(1) A narrative describing the type and method of construction/demolition waste landfill procedures, procedures for inspection and monitoring of incoming waste, sequence of landfilling activity, type of landfilling activity, proposed engineering techniques and the major equipment to be used under § 277.215 (relating to equipment), using the maps and grids required by § 277.133 (relating to map and grid requirements) as a basis for description.

(2) A narrative explaining the method and schedule for construction, operation, modification, use, maintenance and removal of the following components of the proposed facility, unless their retention is proposed for postclosure land use:

(i) Dams, embankments, ditches and other impoundments.

(ii) Borrow pits, soil storage and handling areas and structures.

(iii) Water and air pollution control facilities.

(iv) Erosion control facilities.

(v) Equipment storage and maintenance buildings, and other buildings.

(vi) Access roads.

(3) A construction schedule tied to the grid coordinate system required by § 277.133, a site preparation plan and a schedule for disposing of solid waste at the site, including the maximum daily volume or weight of waste that will be received at the facility.

(4) An explanation of how the applicant intends to comply with § 277.214 (relating to measurement and inspection of waste).

(5) A plan for assuring that solid waste received at the facility is consistent with § 277.201 (relating to basic limitations).

(6) The proposed operating hours of the proposed facility. The operating hours include those hours related to construction and other activities related to operation of the facility.

§ 277.133. Map and grid requirements.

(a) An application shall contain a topographic map of the proposed permit area and adjacent area, including necessary narrative descriptions, showing the following:

(1) The boundaries of lands proposed to be affected over the estimated total life of the proposed operation and the sequence of landfilling and closure.

(2) Changes in a component of the facility or a feature within the proposed permit area to be caused by the proposed operation.

(3) Buildings, utility corridors and facilities which will be used in the operation.

(4) The areas of land for which a bond will be posted under Chapter 271, Subchapter D (relating to financial assurances requirements).

(5) Solid waste storage, processing or unloading areas.

(6) The water diversion, collection, conveyance, erosion and sedimentation control, treatment, storage and discharge facilities to be used.

(7) Location and elevation of the permanent physical marker for the grid coordinate system required by subsection (b).

(8) The gas management, collection and control facilities, if required or proposed.

(9) The boundaries of construction activities.

(10) The location of barriers, fences and similar structures required by § 277.212 (relating to access control).

(11) The location of each sedimentation pond, permanent water impoundment or similar facility.

(12) The location of access roads to the site, including slopes, grades and lengths of the roads.

(13) The location and identification of monitoring wells.

(14) A designated area for vehicles for use in the event of the detection of waste containing radioactive material. The designated area shall, by location or shielding, protect the environment, facility staff and public from radiation originating in the vehicle. The Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities* Document Number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

(b) The applicant shall also submit a grid coordinate system for the entire proposed permit area. The horizontal control system shall consist of a grid not to exceed 200-foot-square sections. A permanent benchmark for horizontal and vertical control shall be shown. The grid system shall be tied to the benchmark and baseline.

§ 277.134. Plan for access roads.

The application shall contain designs, cross sections and specifications for access roads, including load limits, under § 277.213 (relating to access roads).

§ 277.136. Nuisance minimization and control plan.

(a) The application shall contain a plan in accordance with § 277.218 (relating to nuisance minimization and control) to minimize and control hazards or nuisances from vectors, odors, noise, dust and other nuisances not otherwise provided for in the permit application.

(b) The plan shall include the following:

(1) Provisions for the routine assessment and control of vector infestation.

(2) Methods to minimize and control nuisances from odors, dustfall and noise off the property boundary from the facility.

(3) For odors, the determination of normal and adverse weather conditions based on site-specific meteorological

data. Prior to the installation of equipment and collection of meteorological data, a protocol for the installation and data collection shall be approved by the Department.

(c) The plan required in subsection (a) may include a contractual arrangement for services of an exterminator or an air quality, noise, dust control or other professional.

§ 277.138. Recycling plan.

The application shall contain a plan for salvaging and recycling waste materials received at the facility for which recycling is cost effective, including proposed salvage areas, salvaging methods and anticipated markets for salvaged materials, in accordance with § 277.219 (relating to recycling).

§ 277.139. Daily volume.

(a) The application shall contain proposed average and maximum daily volumes for the facility, and a detailed justification for these volumes, based on §§ 271.126 and 271.127 (relating to requirement for environmental assessment; and environmental assessment).

(b) The average daily volume is a limit on the volume of solid waste that is permitted to be received at the facility, and shall be computed quarterly by averaging the total volume received over the quarter.

§ 277.140. Radiation protection action plan.

(a) An application shall contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting.

(b) The action plan shall be prepared in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

(c) The action plan shall be incorporated into the landfill's approved waste analysis plan, under § 271.613 (relating to waste analysis plan).

PHASE II APPLICATION REQUIREMENTS— COVER AND REVEGETATION

§ 277.141. Compaction and cover plan.

An application shall contain a plan for compaction and cover at the proposed landfill under §§ 277.216, 277.232 and 277.233 (relating to unloading and compaction; intermediate cover and slopes; and final cover and grading), including, at a minimum, the following information:

(1) The procedures for, and degree of, compaction of solid waste.

(2) The number and thickness of lifts.

(3) The materials and procedures for application of intermediate cover and final cover material that meet the standards in §§ 277.232 and 277.233.

(4) The procedures to establish intermediate and final elevations for the landfill.

PHASE II APPLICATION REQUIREMENTS— WATER QUALITY PROTECTION AND MONITORING

§ 277.152. Water quality monitoring plan.

(a) An application shall contain a water quality monitoring plan showing how the operator intends to comply

with §§ 277.281—277.288 (relating to water quality monitoring). The plan shall include, at a minimum, the following:

(1) The number, location and depth of proposed monitoring points.

(2) Preoperational data showing existing groundwater quality as required by § 277.116 (relating to groundwater quality description), and a procedure to establish this groundwater quality.

(b) The application shall contain a groundwater sampling and analysis plan. The plan shall include:

(1) Procedures and techniques designed to accurately measure groundwater quality upgradient, beneath and downgradient of the proposed waste disposal area.

(2) Department approved sampling and analytical methods that are specific to the proposed facility and that will accurately measure solid waste constituents, leachate or constituents of decomposition in the groundwater.

(3) Procedures and techniques for sample collection, sample preservation and shipment, analytical procedures, chain of custody control and field and laboratory quality assurance and quality control.

(c) The Department may approve the use of an alternate groundwater monitoring system for facilities located in the anthracite coal region if the applicant demonstrates to the Department's satisfaction with a detailed hydrogeologic study that the following exist:

(1) The nature and extent of underground coal mining beneath the facility make impracticable the installation of the groundwater monitoring system required by this subchapter.

(2) The proposed alternate system is capable of completely and accurately identifying groundwater degradation and pollution from the proposed facility.

**PHASE II APPLICATION REQUIREMENTS—
LINERS AND LEACHATE MANAGEMENT**

§ 277.161. Liner system and leachate control plan.

(a) The application shall contain plans, drawings, cross sections and specifications for a liner system to demonstrate compliance with §§ 277.251—277.260 (relating to liner system) including:

(1) Design of the liner system, including the thickness and characteristics of the subbase, the thickness and characteristics of the leachate detection zone, the design for the leachate monitoring system in the leachate detection zone, the nature and thickness of the liner material, the thickness and characteristics of the protective cover and leachate collection zone and the design for the leachate collection system in the leachate collection zone.

(2) A plan for installing the liner system.

(b) The application shall include a quality assurance and quality control plan for the construction and installation of the liner system. The plan shall include at a minimum:

(1) A description of the testing procedures and construction methods proposed to be implemented during construction of the liner system.

(2) A description of the manner in which the protective cover and liner system will be maintained and protected in unfilled portions of the disposal area during and prior to placement of the initial lift of solid waste.

(3) A description of the manner in which the protective cover and liner system will be protected from weather during placement of the initial lift of solid waste.

(4) A description of the qualifications of the quality assurance and quality control personnel, presented in terms of the experience and training necessary to implement the plan.

(5) A sampling plan for every component of the liner system, including sample size, methods for determining sample locations, sampling frequency acceptance and rejection criteria and methods for ensuring that corrective measures are implemented as soon as possible.

(6) A plan for documenting compliance with the quality assurance and quality control plan.

(c) The application shall demonstrate that leachate will not adversely affect the physical or chemical characteristics of the proposed liner, or inhibit the liner's ability to restrict the flow of solid waste, solid waste constituents or leachate, based on EPA or ASTM guidelines approved by the Department.

(d) The application shall include a complete description of the physical, chemical, mechanical and thermal properties for the proposed primary and secondary liners, based on ASTM methods when appropriate. Except to the extent that the Department waives in writing any of the following for nonsynthetic secondary liners, these properties shall include, at a minimum:

- (1) Thickness.
- (2) Tensile strength at yield.
- (3) Elongation at yield.
- (4) Elongation at break.
- (5) Density.
- (6) Tear resistance.
- (7) Carbon black content.
- (8) Puncture resistance.
- (9) Seam strength (percentage of liner strength).
- (10) Ultraviolet light resistance.
- (11) Carbon black dispersion.
- (12) Permeability.
- (13) Liner friction angle in degrees.
- (14) Stress crack resistance.
- (15) Oxidative induction time.
- (16) Chemical compatibility.
- (17) Percent recycled materials.

§ 277.162. Leachate treatment plan.

(a) The application shall contain a plan for treating leachate from the proposed facility in a manner that complies with §§ 277.271—277.276. The plan shall include:

(1) An estimate of the quality and quantity of leachate that is estimated to be produced annually by the facility, based on the water balance method set forth in "Use of Water Balance Method for Predicting Leachate Generation from Solid Waste Disposal Sites" U. S. EPA SW-168 (1975), or another method of accurately projecting leachate flows that is approved by the Department, in writing. The estimate shall include the 30-day leachate volume and average flow rate for each month of the year. A separate estimate shall be submitted for anticipated

leachate generation at the end of 5-year increments of operation for 20 years, or until closure, whichever date is earlier. For existing facilities, current leachate generation shall be included with this separate estimate.

(2) Plans, designs and cross sections for the proposed collection and handling system.

(3) Plans, designs and cross sections for onsite treatment or disposal systems, including tanks and impoundments that are proposed to be used or constructed for storage, pretreatment or treatment of leachate from the facility.

(4) If a treatment system already in operation is proposed to treat leachate from the facility, a description of the system, including its NPDES permit number, its capability to treat leachate from the facility, and its compliance status under The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and regulations thereunder.

(b) If interim vehicular transportation to an offsite treatment facility is proposed, the applicant shall:

(1) Provide a copy of a signed contractual agreement with the operator of a primary offsite facility that provides for treatment of leachate at the facility, and which covers the period of time that offsite treatment will be provided; or provide a signed letter of intent from the operator of the offsite facility to enter a contractual agreement for leachate treatment if the permit application is approved by the Department.

(2) Provide a copy of a signed contractual agreement with the operator of a second offsite treatment facility that provides for backup treatment of leachate at the second treatment facility if, for any reason, leachate cannot be treated by the primary treatment facility operator; or provide a signed letter of intent from the operator of the second offsite facility to enter the contractual agreement if the permit application is approved by the Department.

(3) Submit additional bond to the Department in an amount sufficient to pay for the cost of vehicular transportation and offsite leachate treatment until final closure if the landfill operator fails to provide offsite treatment in a manner consistent with the permit, the act and this chapter.

(4) Submit plans, designs and cross sections for an onsite pretreatment facility as required by § 277.273(b)(1) (relating to leachate transportation).

(c) If leachate recirculation of raw or pretreated leachate is proposed in conjunction with another treatment method, the application shall describe the following:

(1) The proposed leachate distribution method over the filled area, including designs and cross sections.

(2) Methods that will be used to prevent leachate seeps and breakouts.

(3) Methods that will be used to prevent odors, runoff and ponding.

(d) The application shall also contain a schedule and method for cleaning sludges from the leachate storage and treatment system, and a plan for disposing of the sludges.

§ 277.163. Modifications in leachate treatment plan.

(a) If a problem identified in § 277.277 (relating to Department notice and remedial action) occurs, the operator shall submit to the Department, within 60 days, a permit modification application under § 271.222 (relating

to permit modification), with plans, designs and cross sections to modify its leachate treatment plan.

(b) The Department may approve permit modification applications under § 271.222 to extend, by 1 year at a time, the 3-year limitation for leachate transportation in § 277.273(a) (relating to leachate transportation) if the following apply:

(1) The applicant complies with § 273.162(b) (relating to leachate treatment plan).

(2) The applicant has obtained the necessary permits to construct and operate a leachate treatment system under § 277.272 (relating to basic treatment methods).

(3) Leachate transportation from the facility has not caused or contributed to surface water or groundwater pollution.

(4) The applicant has a valid contract for the treatment of leachate at an offsite treatment facility for the 1-year term of the proposed permit modification.

(5) The offsite treatment facility to which leachate would be transported is operating in compliance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and regulations thereunder, and is otherwise capable of accepting and treating leachate from the landfill.

(6) The landfill has a remaining permitted life, based on permitted capacity, of at least 3 years.

§ 277.164. Application requirements for noncoal mine disposal.

(a) In addition to the other requirements of this subchapter, a person or municipality that applies for an expansion of a construction/demolition waste landfill permit in a noncoal mine permitted prior to December 23, 2000, shall submit a plan, including necessary drawings, designs and specifications, to show how the applicant will comply with § 277.259 (relating to noncoal mine disposal).

(b) The application shall:

(1) Quantify the rate of surface and groundwater flow into the noncoal mine, including a minimum of 15 years historical pumping data with particular emphasis on seasonal maximums.

(2) Include a detailed hydrogeological evaluation of the structure, permeability, transmissivity and stability of the rock in the noncoal mine.

(3) Include a plan for lining the bottom and walls of the noncoal mine as set forth in §§ 277.251—277.260 (relating to liner system), or a detailed justification for not providing the liner system to protect surface and groundwater.

(4) Include a plan for ensuring that funds are available to maintain and operate the pumping system until the leachate and the facility are no longer capable of causing surface water or groundwater pollution.

(5) Quantify leachate generation based upon a 100 year, 24-hour precipitation event using methods that are required by § 277.162(a)(1) (relating to leachate treatment plan).

PHASE II APPLICATION REQUIREMENTS— CLOSURE PROVISIONS

§ 277.192. Closure plan.

(a) The application shall contain a plan describing the activities that are proposed to occur in preparation for closure and after closure to ensure compliance with this chapter.

(b) The closure plan shall include:

(1) A plan for the decontamination and removal of equipment, structures and related material from the facility.

(2) An estimate of the year in which final closure will occur, including an explanation of the basis for the estimate.

(3) A description of the steps necessary for closure if the facility closes prematurely.

(4) A narrative description, including a schedule, of measures that are proposed to be carried out in preparation for closure and after closure at the facility, including measures relating to:

(i) Water quality monitoring.

(ii) Gas control and monitoring.

(iii) Leachate collection and treatment.

(iv) Erosion and sedimentation control.

(v) Revegetation and regrading, including maintenance of the final cover.

(vi) Access control, including maintenance of access control.

(5) A description of the means by which funds will be made available to cover the cost of postclosure operations, which shall include an assessment of projected postclosure maintenance costs, a description of how the necessary funds will be raised, a description of where the funds will be deposited, copies of relevant legal documents and a description of how the funds will be managed prior to closure.

(6) The name, address and telephone number at which the operator can be reached during the postclosure period.

Subchapter C. OPERATING REQUIREMENTS

GENERAL PROVISIONS

§ 277.201. Basic limitations.

(a) Except as provided in subsection (b), a person or municipality may not own or operate a construction/demolition waste landfill unless the Department has first issued a permit to the person or municipality for the facility under this chapter.

(b) A person or municipality may conduct monitoring under § 277.116 (relating to groundwater quality description) without a permit if the Department has given written approval for the monitoring based on written plans that are consistent with this chapter. The monitoring information may be used for a permit application for the proposed facility.

(c) A person who operates a construction/demolition waste landfill shall comply with the following:

(1) The act, this article and other applicable regulations promulgated under the act.

(2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.

(d) Except for sewage sludge used to assist revegetation after final cover has been applied under the approved permit, municipal waste other than construction/demolition waste may not be disposed at a construction/demolition waste landfill.

(e) A person or municipality may not allow residual waste to be disposed at the facility unless the Department has specifically approved the disposal of the waste at the facility in the permit.

(f) The operator may not allow explosive waste to be disposed at the facility.

(g) Hazardous waste subject to Article VII (relating to hazardous waste management) may not be disposed, processed or stored where a construction/demolition waste landfill is operated.

(h) Except to the extent that leachate recirculation is allowed in the permit under § 277.162 (relating to leachate treatment plan), bulk or noncontainerized liquid waste may not be disposed or processed at a construction/demolition waste landfill. Containers holding free liquids may not be accepted unless the container is less than 1 gallon in size, except as otherwise provided in the permit.

(i) Lead acid batteries may not be disposed at the facility.

(j) Loads composed mostly of leaf waste may not be disposed at the facility.

(k) A person or municipality may not allow solid waste to be received, disposed or otherwise managed at the facility if the transportation to, or processing or management at, the facility would violate applicable laws in effect in the county or state in which the waste was generated, or State or local solid waste management plans in effect where the waste was generated.

(l) The approved mitigation measures identified in the permit application shall be completed before a facility may accept waste unless a later date is authorized in writing by the Department for technical reasons.

(m) The following radioactive material controlled under specific or general license or order authorized by any Federal, State or other government agency may not be disposed at the facility, unless specifically exempted from disposal restrictions by an applicable State or Federal statute or regulation:

(1) Naturally occurring and accelerator produced radioactive material.

(2) Byproduct material.

(3) Source material.

(4) Special nuclear material.

(5) Transuranic radioactive material.

(6) Low-level radioactive waste.

(n) The following radioactive material may not be disposed at the facility, unless approved in writing by the Department and the disposal does not endanger the environment, facility staff or public health and safety:

(1) Short-lived radioactive material from a patient having undergone a medical procedure.

(2) TENORM.

(3) Consumer products containing radioactive material.

(o) The limitations in subsections (m) and (n) do not apply to radioactive material as found in the undisturbed natural environment of this Commonwealth.

(p) The operator may not accept construction/demolition waste that has been processed to the point that individual components cannot be identified, unless approved by the Department in the permit.

§ 277.202. Areas where construction/demolition waste landfills are prohibited.

(a) Except for areas that were permitted as a construction/demolition waste landfill prior to April 9, 1988, a construction/demolition waste landfill may not be operated as follows:

(1) *Floodplain.* In the 100-year floodplain of waters of this Commonwealth, unless the Department approves in a permit an equivalent method of protecting the facility from a 100-year flood consistent with the Flood Plain Management Act (32 P. S. §§ 679.101—679.601) and the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27).

(2) *Wetland.*

(i) In or within 300 feet of an exceptional value wetland, as defined in § 105.17 (relating to wetlands).

(ii) For a construction/demolition waste landfill permitted on or after December 23, 2000, other than an expansion of a construction/demolition waste landfill that was permitted prior to December 23, 2000, in or within 100 feet of a wetland other than an exceptional value wetland, unless storage, processing and disposal will not occur within that distance and one of the following applies:

(A) If the operation is in or along the wetland, the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).

(B) If the operation is not in or along the wetland, no adverse hydrologic or water quality impacts will result.

(3) *Coal-existing facility.* For a construction/demolition waste landfill permit issued prior to December 23, 2000, in coal bearing areas underlain by recoverable or mineable coals, unless the operator of the facility demonstrates and the Department finds, in writing, that the operator owns the underlying coal, or has entered an agreement with the owner of the coal to provide support.

(4) *Coal—expansion.* For an expansion of a construction/demolition waste landfill permitted between April 9, 1988, and December 23, 2000, in coal bearing areas underlain by recoverable or mineable coals, unless one of the following is met:

(i) The applicant owns the underlying coal.

(ii) The following requirements are met:

(A) The applicant owned or entered into an enforceable option contract to purchase the land on which the expansion would operate on or before December 23, 2000, and still holds the option rights, still owns the land or owns the land pursuant to the option rights contract when the permit expansion is issued.

(B) Coal providing support for the expansion area will not be mined as long as waste remains on the site, as demonstrated under § 277.120 (relating to mineral deposits information).

(5) *Coal—new landfill.* For a new construction/demolition waste landfill permitted on or after December 23, 2000, in coal bearing areas underlain by recoverable or mineable coal, unless the permittee owns the underlying coal.

(6) *Valley, ravine or head of hollow.* In a valley, ravine or head of hollow where the operation would result in the elimination, pollution or destruction of a portion of a perennial stream, except that rechanneling may be al-

lowed as provided in Chapter 105 (relating to dam safety and waterway management).

(7) *Limestone or carbonate formation.* In areas underlain by limestone or carbonate formations where the formations are greater than 5 feet in thickness and present at the topmost geological unit. The areas include an area mapped by the Pennsylvania Geological Survey as underlain by these formations, unless competent geologic studies demonstrate the absence of limestone and carbonate formations under the site.

(8) *Occupied dwelling—existing facility.* Except as provided in paragraphs (9) and (10), a construction/demolition waste landfill may not be operated within 300 feet measured horizontally from an occupied dwelling, unless the current owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet. Except as provided in paragraphs (9) and (10), the disposal area of a construction/demolition waste landfill may not be within 500 feet measured horizontally from an occupied dwelling, unless the current owner has provided a written waiver consenting to the disposal area being closer than 500 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

(9) *Occupied dwelling—expansion.* For a permitted construction/demolition waste landfill that was operating and not closed as of December 23, 2000, an expansion permitted on or after December 23, 2000, may not be operated within 900 feet measured horizontally from an occupied dwelling, unless one or both of the following conditions are met:

(i) The owner of the dwelling has provided a written waiver consenting to the facility or disposal area being closer than 900 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(ii) The applicant owned or entered into an enforceable option contract to purchase the land on which the expansion would operate on or before December 23, 2000, and still holds the option rights, still owns the land or owns the land pursuant to the option rights contract when the permit expansion is issued. Even if the requirement of this subparagraph is met, the expansion may not be operated within 300 feet measured horizontally from an occupied dwelling and the disposal area may not be within 500 feet measured horizontally from an occupied dwelling.

(10) *Occupied dwelling—new landfill.* A new construction/demolition waste landfill permitted on or after December 23, 2000, may not be operated within 900 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 900 feet. A waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner. A closed landfill that submits an application to reopen and expand shall also be subject to this paragraph.

(11) *Occupied dwelling—access road.* Notwithstanding the prohibitions in paragraphs (9) and (10), an access road to a construction/demolition waste landfill may not be operated within 300 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the access road being closer than 300 feet. A waiver shall be

knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(12) *Perennial stream.* Within 100 feet of a perennial stream, unless storage, processing and disposal will not occur within that distance and no adverse hydrologic or water quality impacts will result.

(13) *Property line.* Within 100 feet of a property line, unless one of the following applies:

(i) Actual disposal of waste will not occur within that distance.

(ii) The current owner has provided a written waiver consenting to the facility being closer than 100 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

(14) *Water source.* Within 1/4 mile upgradient, and within 300 feet downgradient, of a public or private water source for disposal, processing and storage areas, except that the Department may waive or modify these isolation distances if the operator demonstrates and the Department finds, in writing, that the following conditions have been met:

(i) The owners of the public and private water sources in the isolation area have consented, in writing, to the location of the proposed facility.

(ii) The operator and each water source owner have agreed, in writing, that the applicant will construct and maintain at the operator's expense a permanent alternative water supply of like quantity and quality at no additional cost to the water source owner if the existing source is adversely affected by the facility.

(iii) The applicant has demonstrated that a replacement water source is technically and economically feasible and readily available for every public or private water source in the isolation area.

(15) *School, park or playground.*

(i) For a construction/demolition waste landfill permit issued on or after December 23, 2000, other than an expansion of a construction/demolition waste landfill that was permitted prior to December 23, 2000, within 300 yards of:

(A) A building which is owned by a school district or school and used for instructional purposes.

(B) A park.

(C) A playground.

(ii) The current property owner of a school, park or playground may waive the 300-yard prohibition by signing a written waiver. Upon receipt of the waiver, the Department will waive the 300-yard prohibition and will not use the prohibition as the basis for the denial of a new permit.

(16) *Obstruction.* For areas permitted on or after December 23, 2000, in a manner in which any portion of the landfill would be an obstruction to air navigation under 14 CFR 77.23(a)(5) (relating to standards for determining obstructions).

(b) Except as provided in subsection (c), this section does not apply to features that may come into existence after the date of the first newspaper notice of the filing of a permit application under § 271.141 (relating to public notice by applicant).

(c) This section does not apply to features that may come into existence after the date of the first newspaper notice under this subsection if the following apply:

(1) The person or municipality publishes a notice of intent to file an application for a construction/demolition waste landfill permit. The notice, which is separate from the newspaper notice required by § 271.141, shall be published once a week for 3 consecutive weeks in a newspaper of general circulation in the area where the facility is proposed to be located. The notice shall include a brief description of the location and proposed operation of the facility.

(2) The person or municipality files an administratively complete application under § 271.202 (relating to receipt of application and completeness review) with the Department within 1 year from the date of the first newspaper notice under this subsection.

§ 277.203. Certification.

(a) The operator shall submit a certification by a registered professional engineer on forms provided by the Department upon completion of each major construction activity identified in the permit for each phase or sequence of construction at the facility. Major construction activities include:

- (1) Construction of groundwater monitoring system.
- (2) Construction of the subbase.
- (3) Construction of the leachate detection zone.
- (4) Construction of the liner.
- (5) Construction of the protective cover and the collection system within the protective cover.
- (6) Placement of attenuating soil at an expansion of a construction/demolition waste landfill permitted prior to December 23, 2000.
- (7) Construction of a leachate treatment facility.
- (8) Construction of a sedimentation pond.
- (9) Closure.
- (10) Final closure.
- (11) Construction of the landfill gas extraction system.

(b) The certification shall describe the construction activity and the phase or sequence of construction being certificated, using drawings and plans if appropriate. The certification shall state that the actual construction was observed by the engineer or persons under his direct supervision, and that the supervision was carried out in a manner consistent with the approved permit.

(c) Upon completion of each construction activity described in subsection (a) other than construction of any leachate treatment facility, the operator shall notify the Department that the construction activity is ready for inspection. No waste may be disposed in the area subject to the inspection until the Department has conducted an inspection and has transmitted its written approval to the permittee indicating that construction was done according to the permit.

(d) The closure and final closure activities will not be deemed complete until the Department has certified completion of closure and final closure activities.

DAILY OPERATIONS

§ 277.211. Signs and markers.

(a) A person or municipality that operates a construction/demolition waste landfill shall identify the

facility for the duration of operations by posting and maintaining a sign which is clearly visible and can be easily seen and read at the junction of each access road and public road. The sign shall be constructed of a durable, weather-resistant material. The sign shall show the name, business address and telephone number of the person who operates the facility, the operating hours of the facility and the number of the current permit authorizing operation of the facility.

(b) Permanent physical markers for the grid coordinate system and permit area markers shall:

(1) Be posted and maintained for the duration of the operations to which they pertain.

(2) Be clearly visible, readable and uniform throughout the operation.

(3) Be permanently fixed and made of a durable material.

(c) The perimeter of the site shall be clearly marked before the beginning of operations. The perimeter of a disposal area shall be clearly marked before the beginning of construction/demolition waste disposal within that area.

(d) The permanent physical markers for the grid coordinate system shall be installed at the locations set forth in the permit, prior to the beginning of operations. The base line of the grid system shall be marked with two permanent monuments that show elevation.

§ 277.212. Access control.

(a) A gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when an attendant is not on duty.

(b) The operator shall maintain a fence or other suitable barrier around the site, including impoundments, and leachate collection and treatment systems, sufficient to prevent unauthorized access.

(c) Access to the site shall be limited to times when an attendant is on duty.

§ 277.213. Access roads.

(a) An access road shall be designed, constructed and maintained to prevent erosion to the maximum extent possible and to prevent contributions of sediment to streams or runoff outside the site.

(b) A crossing of a perennial or intermittent stream or a wetland shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) An access road shall have a drainage system that is compatible with the natural drainage system, structurally stable and which will pass safely the peak flow from a 25-year, 24-hour precipitation event. For roads that are used or in existence for more than 30 days, the drainage system shall include sloped or crowned road surfaces, cross drains or culverts, stabilized ditches, erosion resistant surfacing, sediment traps and other appropriate measures as required by § 277.242 (relating to soil erosion and sedimentation control).

(d) An access road shall be paved or surfaced with asphalt, gravel, cinders or other equivalent material approved by the Department in the permit. An access road shall be capable of withstanding the load limits projected by the applicant under § 277.134 (relating to

plan for access roads). The maximum sustained grade of an access road may not exceed 12%.

(e) For roads leading to the waste disposal area, a landfill shall maintain a minimum cartway width of one of the following:

(1) Twenty-two feet for two-way traffic.

(2) Twelve feet for one-way traffic with pull-off intervals every 100 yards or a greater distance where there is a clear view of approaching vehicles.

(f) An access road shall be designed, constructed and maintained to allow the orderly egress and ingress of vehicular traffic when the facility is in operation, including during inclement weather.

(g) An access road negotiable by loaded collection vehicles shall be provided from the entrance gate of the facility to unloading areas. An access road shall be provided to each treatment facility impoundment and groundwater monitoring point. Other monitoring points shall be readily accessible.

(h) Disturbed areas adjacent to a road shall be vegetated or otherwise stabilized to prevent erosion.

(i) An access road shall be maintained to control dust and to prevent or control the tracking of mud on and off the site.

§ 277.214. Measurement and inspection of waste.

(a) An operator of a construction/demolition waste landfill that has received, is receiving or will receive 30,000 or more cubic yards of solid waste in a calendar year shall weigh solid waste when it is received. The scale used to weigh solid waste shall conform to 3 Pa.C.S. Chapter 41 (relating to Consolidated Weights and Measures Act) and 70 Pa. Code Part I (relating to general provisions). The operator of the scale shall be a licensed public weighmaster under 3 Pa.C.S. Chapter 41 and 70 Pa. Code Part I.

(b) The operator shall accurately measure waste by volume or weight prior to unloading.

§ 277.215. Equipment.

(a) The operator shall maintain on the site equipment necessary for the operation of the facility in accordance with the permit. The equipment shall be maintained in operable condition.

(b) If a breakdown of the operator's equipment occurs, the operator shall utilize standby equipment as necessary to comply with the act, the environmental protection acts, this subchapter and its permit conditions.

§ 277.216. Unloading and compaction.

(a) An attendant or clearly marked signs shall direct vehicles to the unloading area.

(b) The operator shall ensure that collection vehicles unload waste promptly in unloading areas. Construction/demolition waste shall be unloaded only in unloading areas designated in the approved permit.

(c) Construction/demolition waste shall be spread and compacted in shallow layers sufficient to minimize void spaces during placement of lifts.

(d) The working face shall be kept to a size which can be easily compacted.

§ 277.217. Air resources protection.

(a) The operator shall implement fugitive air contaminant control measures and otherwise prevent and control air pollution under the Air Pollution Control Act (35 P. S.

§§ 4001—4014), Article III (relating to air resources) and § 277.218 (relating to nuisance minimization and control). Minimization and control measures shall include the following:

(1) Ensuring that operation of the facility will not cause or contribute to the exceeding of ambient air quality standards under § 131.3 (relating to ambient air quality standards).

(2) Ensuring that no open burning occurs at the facility.

(3) Minimizing the generation of fugitive dust emissions from the facility.

(b) The operator shall comply with the terms and conditions of an air quality plan approval and air quality operating permit issued to the facility under Chapter 127 (relating to construction, modification, reactivation and operation of sources).

§ 277.218. Nuisance minimization and control.

(a) *Vectors.* An operator may not cause or allow the attraction, harborage or breeding of vectors.

(b) *Odors.*

(1) An operator shall implement the plan approved under § 277.136 (relating to nuisance minimization and control plan) to minimize and control public nuisances from odors. If the Department determines during operation of the facility that the plan is inadequate to minimize or control public nuisances, the Department may modify the plan or require the operator to modify the plan and obtain Department approval.

(2) An operator shall perform regular, frequent and comprehensive site inspections to evaluate the effectiveness of cover, capping, gas collection and destruction, waste acceptance and all other waste management practices in reducing the potential for offsite odor creation.

(3) An operator shall promptly address and correct problems and deficiencies discovered in the course of inspections performed under paragraph (2).

(c) *Other.* An operator shall implement the plan approved under § 277.136 to minimize and control other conditions that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

§ 277.221. Daily volume.

(a) A person or municipality operating a construction/demolition waste landfill may not receive solid waste at the landfill in excess of the maximum or average daily volume approved in the permit.

(b) The average daily volume is a limit on the volume of solid waste that is permitted to be received at the facility, and shall be computed quarterly by averaging the total volume received over the quarter.

§ 277.222. Radiation monitoring and response.

(a) An operator shall implement the action plan approved under § 277.140 (relating to radiation protection action plan).

(b) An operator shall monitor incoming waste in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001 or in a manner at least as protective of the environment, facility staff and public health and safety. Monitoring

shall meet the requirements of this section and the facility's approved radiation protection action plan.

(c) Radiation detector elements shall be as close as practical to the waste load and in an appropriate geometry to monitor the waste. The radiation monitoring system shall be set to alarm at a level no higher than 10 microrentgen per hour ($\mu\text{R/hr}$) above the average background at the facility when any of the radiation detector elements is exposed to a cesium-137 gamma radiation field. Radiation detector elements shall be shielded to maintain the average background below 10 $\mu\text{R/hr}$. If capable of energy discrimination, the radiation monitoring system shall be set to detect gamma rays of a 50 kiloelectron volt (keV) energy and higher.

(d) An operator shall have portable radiation monitors capable of determining the radiation dose rate and presence of contamination on a vehicle that has caused an alarm. Upon a confirmed exceedance of the alarm level in subsection (c), a radiological survey of the vehicle shall be performed.

(e) An operator shall notify the Department immediately and isolate the vehicle when radiation dose rates of 20 $\mu\text{Sv}^{\text{h}^{-1}}$ (2 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected in the cab of a vehicle, 500 $\mu\text{Sv}^{\text{h}^{-1}}$ (50 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected from any other surface, or contamination is detected on the outside of the vehicle.

(f) Monitoring equipment shall be calibrated at a frequency specified by the manufacturer, but not less than once a year.

(g) If radioactive material is detected, the vehicle containing the radioactive material may not leave the facility without written Department approval and an authorized United States Department of Transportation exemption form.

COVER AND REVEGETATION

§ 277.231. (Reserved).

§ 277.232. Intermediate cover and slopes.

(a) The operator shall provide intermediate cover on lifts every 50 feet horizontally or at the end of each working week, whichever comes first, by placing a compact and uniform cover on the working face and on the side slopes. Nonfriable asbestos containing waste shall be covered within 24 hours after depositing with at least 6 inches of nonasbestos containing cover material.

(b) The composition of the intermediate cover material shall meet the following performance standards. The intermediate cover shall:

(1) Cover solid waste after it is placed without change in its properties and without regard to weather.

(2) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

(3) Be capable of controlling fires.

(4) Be consistent with the waste acceptance plan for the facility.

(5) Stabilize the filled area.

(6) Control infiltration of precipitation and erosion and sedimentation.

(7) Be capable of supporting the germination and propagation of vegetative cover as required by §§ 277.234 and 277.235 (relating to vegetation; and standards for successful revegetation) unless vegetative cover is not necessary to control infiltration of precipitation and erosion and sedimentation.

(c) Unless alternative design requirements to meet the performance standards in subsection (b) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), intermediate cover shall meet the following design requirements:

(1) If soil or soil-like, be at least 12 inches in thickness.

(2) If soil or soil-like material is used, the layer shall be uniformly graded.

(d) A 2-week supply of cover material shall be maintained onsite.

(e) If intermediate cover requires vegetation to meet the performance standards in subsection (b), the vegetation shall be established within 30 days.

(f) Slopes constructed during daily landfilling activities may not exceed 50%.

§ 277.233. Final cover and grading.

(a) The operator shall provide final cover in the following manner:

(1) A cap shall be placed and graded over the entire surface of each final lift. The following performance standards for the cap shall be met:

(i) The cap shall have a permeability less than or equal to the permeability of the primary liner or a permeability no greater than 1×10^{-7} cm/sec, whichever is less.

(ii) The cap shall be resistant to physical and chemical failure.

(iii) The cap shall cover all areas where waste is disposed.

(2) A drainage layer capable of transmitting flow and preventing erosion of the soil layer shall be placed over the cap.

(3) A uniform and compacted layer of soil at least 2 feet in thickness shall be placed over the drainage layer.

(4) For a construction/demolition waste landfill permitted prior to December 23, 2000, that does not have a liner, the Department may waive or modify the cap and drainage layer.

(b) The operator shall place final cover within 1 year after disposal in the final lift ceases or as soon thereafter as weather permits, unless the Department, in the permit, allows a later period based on a demonstration that a later period is necessary to protect the final cover from differential settlement of waste at the facility. The Department will not allow a later period unless, at a minimum, delayed installation will not cause or allow a violation of this article, the act or the environmental protection acts. For a construction/demolition waste landfill constructed with attenuating soil and permitted prior to December 23, 2000, or for an expansion of a landfill under § 277.110 (relating to modification to expand existing landfill), the Department may waive the final cover requirements in subsection (a) when the approved postclosure land use makes a cap and drainage layer unnecessary.

(c) Unless alternative design requirements to meet the performance standards in subsection (a)(1)(i)—(iii) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the cap shall meet the design requirements set forth for caps in Table I in § 277.255 (relating to liners) which will not result in a permeability greater than that of the primary liner.

(d) The layer of material described in subsection (a)(3) shall meet the following performance standards. The layer shall:

(1) Be capable of allowing loaded vehicles to successfully maneuver over it after placement.

(2) Be capable of controlling fires.

(3) Be capable of supporting the germination and propagation of vegetative cover as required by §§ 277.234 and 277.235 (relating to revegetation; and standards for successful revegetation).

(4) Ensure slope stability.

(e) Unless alternative design requirements to meet performance standards in subsection (d) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the layer of material described in subsection (a)(3) shall meet the following design requirements:

(1) The cover soil shall fall within the United States Department of Agriculture textural classes of sandy loam, loam, sandy clay loam, silty clay loam, loamy sand and silt loam as defined in the *Soil Survey Manual* published by the United States Department of Agriculture, Soil Conservation Service (available from the Department or the Northeast National Technical Center of the Soil Conservation Service, 160 E. 7th Street, Chester, Pennsylvania 19103-6092).

(2) At least 40% by weight of the cover soil shall be capable of passing through a 2 millimeter, no. 10 mesh sieve.

(f) The grade of final slopes shall be designed, installed and maintained to:

(1) Ensure permanent slope stability.

(2) Control erosion due to rapid water velocity and other factors.

(3) Allow compaction, seeding and revegetation of cover material placed on the slopes.

(4) Ensure minimal percolation of precipitation and surface runoff into the disposal area.

(g) Unless the Department authorizes a different slope design in the permit based on a demonstration that the different design can meet the requirements of subsection (f), slopes shall be designed, installed and maintained as follows:

(1) The grade of the final surface of the facility may not be less than 3%.

(2) If the Department approves final grades of more than 15%:

(i) The operator shall construct a horizontal terrace at least 15 feet wide on the slope for every 25 feet maximum rise in elevations of the slope. The terrace width shall be measured as the horizontal distance between slope segments.

(ii) The gradient of the terrace shall be 5% into the landfill.

(iii) Drainage ditches shall be constructed in each horizontal terrace to convey flows.

(3) An operator may not leave final slopes that have a grade exceeding 33%, including slopes between benched terraces.

WATER QUALITY PROTECTION

§ 277.241. General requirements.

(a) The operator may not cause or allow a point or nonpoint source discharge of pollution from or on the facility to surface waters of this Commonwealth.

(b) A construction/demolition waste landfill shall be operated to prevent and control surface and groundwater water pollution. An operator shall operate and maintain necessary surface and groundwater treatment facilities until surface or groundwater pollution from or on the facility has been permanently abated.

(c) The operator may not cause or allow water pollution within or outside of the site from operation of the facility.

§ 277.245. Water supply replacement.

(a) A person or municipality operating a construction/demolition waste landfill which adversely affects a water supply by degradation, pollution or other means shall restore or replace the affected water supply with an alternate source that is of like quantity and quality to the original supply at no additional cost to the owner. For purposes of this section, the term "water supply" includes existing, currently designated or currently planned sources of water or facilities or systems for the supply of water for human consumption or for agricultural, commercial, industrial or other legitimate use, including the uses protected by the applicable provisions of Chapter 93 (relating to water quality standards).

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(c) A permanent water supply shall be provided as soon as practicable but not later than 90 days after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

LINER SYSTEM

§ 277.251. Scope and requirements.

(a) A person or municipality operating a construction/demolition waste landfill, other than a construction/demolition waste landfill constructed with attenuating soil and permitted prior to December 23, 2000, or for an expansion of a landfill under § 277.122 (relating to modification to expand existing landfill), shall design, construct, operate and maintain a liner system for disposal areas of the facility or components thereof under this section and §§ 277.252—277.260 (relating to liner system).

(b) The liner system shall consist of the following elements:

(1) Subbase, which is the prepared layer of soil or earthen material upon which the remainder of the liner system is constructed.

(2) Leachate detection zone, which is the prepared layer placed on top of the subbase and upon which the liner is placed, and in which a leachate detection system is located.

(3) Liner, which is a continuous layer of remolded clay or synthetic material placed on the leachate detection zone.

(4) Protective cover and leachate collection zone, which is a prepared layer placed over the liner in which a leachate collection system is located.

§ 277.252. General limitations.

(a) The bottom of the subbase of the liner system cannot be in contact with the seasonal high water table or perched water table without the use of groundwater pumping systems.

(1) Soil mottling may indicate the presence of a seasonal high groundwater table.

(2) Drainage systems may be utilized to prevent contact between the bottom of the subbase of the liner system and the seasonal high water table or perched water table. The operator may not use a drainage system if the system is likely to adversely affect the quality or quantity of water provided by public or private water supply, even if a replacement supply is available under § 277.245 (relating to water supply replacement). The drainage system shall be limited to drain tile, piping and french drains.

(b) At least 8 feet shall be maintained between the bottom of the subbase of the liner system and the regional groundwater table in an unconfined aquifer. The regional groundwater table may not be artificially lowered.

(c) In a confined aquifer, at least 8 feet shall be maintained between the bottom of the subbase of the liner system and the top of the confining layer or the shallowest level below the bottom of the subbase where groundwater occurs as a result of upward leakage from natural or preexisting causes. The integrity of the confining layer may not be compromised by excavation.

(d) If the approved design plans provide for the placement of additional adjacent liner:

(1) Waste may not be placed within 25 feet of an edge of the liner.

(2) The edge of the liner shall be protected by soil cover, or another material approved in the permit, until additional liner is added.

(3) A lined berm at least 4 feet high shall be constructed and maintained to prevent the lateral escape of leachate.

(4) Adequate spacing shall be maintained on the inside of the berm to collect stormwater and sediment.

(e) If the approved design plans do not provide for the placement of additional adjacent liner, waste may not be placed within 15 feet of the inside top of the lined perimeter berm.

(f) A lined perimeter berm at least 4 feet high shall be constructed and maintained along the edge of the lined disposal area to prevent the lateral escape of leachate.

(g) The edge of the liner shall be clearly marked.

§ 277.253. Subbase.

(a) The subbase shall meet the following performance standards. The subbase shall:

(1) Bear the weight of the liner system, waste, waste cover material and equipment operating on the facility without causing or allowing a failure of the liner system.

(2) Accommodate potential settlement without damage to the liner system.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the subbase shall meet the following design requirements. The subbase shall:

(1) Be at least 6 inches thick and compacted to a standard proctor density of at least 95%.

(2) Be no more permeable than 1×10^{-5} cm./sec., based on laboratory and field testing unless the clay component of a composite liner is designed and constructed directly above the subbase.

(3) Be hard, uniform, smooth and free of debris, rock, plant materials and other foreign material.

(4) Have a postsettlement slope of at least 2% and no more than 33%.

§ 277.254. Leachate detection zone.

(a) The leachate detection zone shall meet the following performance standards. The leachate detection zone shall:

(1) Rapidly detect and collect liquid entering the leachate detection zone, and rapidly transmit the liquid to the leachate treatment system.

(2) Withstand chemical attack from waste or leachate.

(3) Withstand anticipated loads, stresses and disturbances from overlying waste, waste cover materials and equipment operation.

(4) Function without clogging.

(5) Prevent the liner from cracking, tearing, stretching or otherwise losing its physical integrity.

(6) Cover the bottom and sidewalls of the facility.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the leachate detection zone of a liner system shall meet the following design requirements:

(1) Be at least 12 inches thick.

(2) Contain no material exceeding 0.5 inches in particle size.

(3) Create a flow zone between the subbase and the liner more permeable than 1×10^{-2} cm./sec. based on laboratory testing and, when required by the Department, field testing.

(4) Contain a perforated piping system capable of detecting and intercepting liquid within the leachate detection zone and conveying the liquid to a collection sump for storage, processing or disposal. The sump shall be separate from the leachate collection sump and shall be of a sufficient size to transmit leachate that is generated. The piping system shall also meet the following:

(i) The slope, size and spacing of the piping system shall assure that liquids drain from the leachate detection zone.

(ii) The pipes shall be installed primarily perpendicular to the flow and shall have a minimum postsettlement grade of at least 2%.

(iii) The minimum diameter of the perforated pipe shall be 4 inches with a wall thickness of Schedule-80 or greater as specified by ASTM or equivalent.

(iv) The pipes shall be cleaned and maintained as necessary.

(5) The leachate detection zone shall have a minimum bottom slope of 2%.

(6) Contain stone or aggregates without sharp edges.

(c) The operator shall monitor the leachate detection zone weekly to determine whether liquid is flowing from the zone.

(d) If liquid is flowing from the leachate detection zone the operator shall:

(1) Immediately notify the Department in writing.

(2) Estimate, on a weekly basis, the volume of liquid flowing from the zone.

(3) Sample and analyze the liquid, on a quarterly basis, for pH, specific conductivity, total organic carbon and chlorides. The Department may also require sampling and analyses for other constituents expected to be found in the waste.

(4) Provide written copies of the flow and analysis data to the Department.

(e) If leachate flow is greater than 100 gallons per acre of lined collection area per day or more than 10% of leachate generation, the operator shall:

(1) Submit to the Department a plan within 30 days for locating the source of leachate in the leachate detection zone, and for determining the severity and cause of leachate penetration.

(2) Implement the plan upon Department approval, and complete the plan in a reasonable time not to exceed 6 months.

(3) Submit to the Department, within 45 days after completion of the plan, a report containing the new data collected, analysis of the data and recommendations concerning a remedial plan.

(4) Conduct quarterly sampling and analysis for the parameters in § 277.284(1) (relating to sampling and analysis), and submit copies of the results of the analysis to the Department.

(f) If sampling results indicate the presence of constituents at concentrations that could result in degradation of groundwater, the operator shall:

(1) Submit to the Department a remedial plan for controlling the source of leachate in the leachate detection zone, and implement the plan upon Department approval.

(2) Submit to the Department a permit modification application under § 271.222 (relating to permit modification) for increased groundwater monitoring, giving consideration to monitoring frequency, number of wells and other factors, and conduct increased groundwater monitoring upon Department approval of the application.

§ 277.255. Liner.

(a) The liner shall meet the following standards of performance:

(1) The liner shall prevent the migration of leachate through the liner to the greatest degree that is technologically possible.

(2) The effectiveness of the liner in preventing the migration of leachate may not be adversely affected by the physical or chemical characteristics of solid waste, solid waste constituents or leachate from the facility.

(3) The liner shall be resistant to physical failure, chemical failure and other failure from the sources identified under § 277.161(d) (relating to liner system and leachate control plan).

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the liner shall meet, at a minimum, the requirements of the table in subsection (f).

(c) A liner shall:

(1) Be no more permeable than 1×10^{-7} cm./sec. based on laboratory and field testing.

(2) For synthetic liners, be installed according to manufacturer's specifications under the supervision of an authorized representative of the manufacturer. An approved assurance and quality control program shall be implemented in the field during the installation of the liner.

(3) For remolded clay liners, be designed, installed and maintained according to a quality assurance and quality control plan approved by the Department.

(4) Be inspected for uniformity, damage and imperfections during construction and installation.

(d) Liners made of clay, bentonite and bentonite-like materials shall be constructed in compacted lifts not exceeding 6 inches in depth unless the operator submits data from a field demonstration validating the suitability of compacted lifts greater than 6 inches. A lift shall be scarified before placement of the next lift.

(e) The operator may design, construct, operate and maintain a composite liner.

(1) The liner shall have the following components:

(i) An upper component made of a manufactured geosynthetic liner that meets the requirements of this section independently of the composite component.

(ii) A lower component made of earthen material that meets the requirements of this section independently of the upper component.

(2) The two components of the composite liner shall be designed, constructed and maintained to provide a compression connection, or direct continuous contact, between them.

(f) A facility or a component thereof that is subject to this chapter may not have a liner based upon natural attenuation of leachate.

TABLE I

MINIMUM LINER DESIGN STANDARDS
Minimum Field

<i>Liner Material</i>	<i>Function</i>	<i>Thickness (Units as Specified)</i>	<i>Liner Density (Tests as Specified)</i>	<i>Remarks</i>
Geosynthetic	Liner, Cap	30 mil 30 mil	NA	1. A greater thickness may be required depending upon the recommendations of the manufacturer. 2. HDPE liners shall be at least 60 mil.
Natural & Remolded Clay	Liner, Cap Composite Component	2 feet 1 foot 2 feet	90%* 90%* ≥90%*	1. Minimum of 30% fines by weight less than 0.074 mm particle size (#200 sieve). 2. Plasticity index. 3. No coarse fragments greater than 3/4 inch in diameter.
Sodium Bentonite & Bentonite- like materials	Liner, Cap Composite Component	1 foot 1 foot 1 foot	≥90%* ≥90%* ≥90%*	1. Minimum of 8% powdered sodium bentonite or manufacturer's recommendations, whichever is greater. 2. No coarse fragments greater than 3/4 inch in diameter. 3. No organic matter.
Geosynthetic Clay liner (GCL)	Composite Component	N/A	N/A	Minimum of 3/4 pound of powdered or granular sodium bentonite per square foot.

*Percentage is of maximum theoretical density when using Marshall method of design, and percentage of maximum when using Standard Proctor method of design (Pa. PTM No. 106, Method B).

§ 277.256. Protective cover.

(a) The protective cover shall meet the following performance standards. The protective cover shall:

(1) Protect the primary liner from physical damage from stresses and disturbances from overlying wastes, waste cover materials and equipment operation.

(2) Protect the leachate collection system within the protective cover from stresses and disturbances from overlying wastes, waste cover materials and equipment operation.

(3) Allow the continuous and free flow of leachate into the leachate collection system within the protective cover.

(b) Unless alternative design requirements to meet the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the protective cover shall meet the following design requirements. The protective cover shall be:

(1) Comprised of clean earth material that contains no aggregate, rocks, debris, plant material or other solid material larger than 1/2 inch in diameter, and no material with sharp edges.

(2) As permeable as, or more permeable than, 1×10^{-2} cm./sec., based on field testing, and shall allow the free flow of liquids and leachate passing through or generated by solid waste.

(3) At least 18 inches in thickness.

§ 277.257. Leachate collection system within protective cover.

(a) The leachate collection system within the protective cover shall meet the following performance standards. The leachate collection system shall:

(1) Ensure that free flowing liquids and leachate will drain continuously from the protective cover to the leachate treatment system without ponding or accumulating on the liner.

(2) Ensure that the depth of leachate on or above the primary liner does not exceed 1 foot.

(3) Withstand chemical attack from leachate.

(4) Withstand anticipated loads, stresses and disturbances from overlying waste, waste cover materials and equipment operation.

(5) Function without clogging.

(6) Cover the bottom and sidewalls of the facility.

(b) Unless alternative design requirements to the performance standards in subsection (a) are approved as part of the permit under § 271.231 (relating to equivalency review procedure), the leachate collection system within the protective cover shall comply with the following design requirements:

(1) The leachate collection system shall include a perforated piping system which is capable of intercepting free flowing liquids and leachate within the protective cover and conveying them to a collection sump for storage, processing or disposal. The collection sump shall be of sufficient size to transmit leachate that is generated and shall be capable of automatic and continuous functioning.

(2) The perforated piping system shall be sloped, sized and spaced to assure that free flowing liquids and leachate will drain continuously from the protective cover to the collection sump point.

(3) The minimum diameter of the perforated pipes shall be 6 inches with a wall thickness of Schedule 80 or greater as specified by ASTM, or equivalent.

(4) The leachate collection system shall contain stones or aggregates.

(5) The pipes shall be installed primarily perpendicular to the flow and shall have a postsettlement grade of at least 2%.

(6) The leachate collection system shall be cleaned and maintained as necessary.

(7) The leachate collection system shall have a minimum bottom slope of 2%.

§ 277.259. Noncoal mine disposal.

(a) Notwithstanding the provisions of § 277.252 (relating to general limitations) relating to disposal above the seasonal highwater table, perched water table and regional groundwater table, the Department may issue a permit for an expansion of a construction/demolition waste landfill in an abandoned noncoal mine permitted prior to December 23, 2000.

(b) In addition to other applicable requirements, a person or municipality that operates a construction/demolition waste landfill in an abandoned noncoal mine shall:

(1) Pump and treat leachate and groundwater from the facility, and treat the leachate and groundwater to the extent required by The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and regulations thereunder, until the leachate and the facility are no longer capable of causing surface water or groundwater pollution.

(2) Minimize the inflow of surface water and groundwater to the facility, including measures such as grouting of fractures or fault zones.

(3) Use and maintain collection piping, wetwell and pumps that have a safety factor of 2, and provide redundant piping and pumping systems.

(4) Use daily cover materials that will preclude the perching of leachate and lateral channeling within the landfill.

(5) Restore the site of its approximate original contour.

(6) Not operate the landfill in a limestone or carbonate rock quarry.

(7) Comply with the applicable provisions of the Noncoal Surface Mining and Conservation Act (52 P. S. §§ 3301—3326).

LEACHATE TREATMENT**§ 277.272. Basic treatment methods.**

(a) Except as otherwise provided in this section, leachate shall be collected and handled by direct discharge into a permitted publicly owned treatment works, following pretreatment, if pretreatment is required by Federal, State or local law or by discharge into another permitted treatment facility.

(b) Leachate may be collected and handled by onsite treatment and discharge into a receiving stream under a permit issued by the Department under The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and regulations thereunder, if the Department approves this method in a construction/demolition waste landfill permit. This method will not be allowed unless, at a minimum, direct discharge into a publicly-owned treatment works or other permitted treatment facility is not practicable.

(c) Leachate may be collected and handled by spray irrigation following treatment. This method will not be allowed unless, at a minimum:

(1) Discharge into a publicly-owned treatment works or other permitted treatment facility is not practicable.

(2) Discharge of treated leachate into a receiving stream in a manner consistent with The Clean Streams Law and regulations thereunder is not attainable.

(3) Spray irrigation will not cause groundwater pollution.

§ 277.274. Leachate recirculation.

In conjunction with the treatment methods in §§ 277.272 and 277.273 (relating to basic treatment methods; and leachate transportation) recirculation of leachate may be utilized if the following conditions exist:

(1) The area subject to leachate recirculation previously has been filled with solid waste.

(2) There is sufficient municipal waste capacity to absorb the leachate.

(3) The area subject to leachate recirculation is underlain by a leachate collection system.

(4) The leachate recirculation is conducted with an approved piping system located under the intermediate cover, and causes no odors, runoff or ponding.

(5) The leachate is not a hazardous waste.

§ 277.275. Leachate collection and storage.

(a) Impoundments or tanks for storing leachate before or during treatment shall be constructed under §§ 285.122—285.124 (relating to storage tanks; impoundments—general; and impoundments—failure).

(b) An onsite leachate storage system shall be part of each leachate treatment method used by the operator. The storage system shall contain impoundments or tanks for storage of leachate. The tanks or impoundments shall have sufficient storage capacity at least equal to the maximum expected production of leachate for any 30-day period for the life of the facility estimated under § 277.162 (relating to leachate treatment plan) or 250,000 gallons, whichever is greater. No more than 25% of the total leachate storage capacity may be used for flow equalization on a regular basis.

(c) The impoundments or tanks shall be aerated as necessary to prevent and control odors. Impoundments or tanks shall each have a capacity of at least 250,000 gallons, unless otherwise approved by the Department.

(d) The storage capacity of impoundments and tanks at a site shall be increased if additional storage is required prior to each major phase of construction and as otherwise necessary.

(e) Leachate storage capacity may not be considered to include leachate that may have collected in or on the liner system.

(f) Necessary collection and containment systems shall be installed prior to the deposition of solid waste at the site. A leachate treatment or handling system approved by the Department under § 277.162 shall be installed or ready for use prior to the storage or disposal of solid waste at the site.

(g) For a facility permitted after December 23, 2000, underground pipes used for the transport of leachate from the liner system to the leachate storage impoundments or tanks shall be equipped with secondary containment or

comply with § 245.445 (relating to methods for release detection for piping). Secondary containment shall be designed, constructed and installed to direct any release to an area that can be inspected for leaks.

§ 277.276. Leachate analysis and sludge handling.

(a) Upon commencement of leachate flow from the facility, the operator shall sample and analyze the following:

(1) On a daily basis, the average flow rate and volume of leachate flowing from the landfill into the leachate storage and treatment system.

(2) On a quarterly basis, the chemical composition of leachate flowing into the leachate treatment system. The analysis shall be sufficient to determine the impact of leachate on the liner system, the effectiveness of the leachate treatment system, the need for modification of the groundwater monitoring system or the effluent limitations in an NPDES permit and the actual characteristics of leachate from the waste disposed at the facility. For the purpose of this quarterly analysis, the leachate sample shall be collected from the influent storage tank or impoundment and shall be representative of the average mixed influent quality.

(b) Sludges resulting from the treatment of leachate may be disposed at the facility if the sludges are not hazardous under Article VII (relating to hazardous waste management).

§ 277.277. Departmental notice and remedial action.

The operator shall immediately notify the Department and describe remedial steps to be taken whenever:

(1) Operation of the treatment facility in accordance with the approved plan cannot prevent violation of the terms of its permits, The Clean Streams Law (35 P. S. §§ 691.1—691.1001) or the regulations thereunder.

(2) The facility is generating a quality or quantity of leachate that exceeds the design capacity of the onsite pretreatment or treatment system.

(3) The contractual agreement for leachate treatment by an offsite treatment system is breached or expired.

(4) The quality or quantity of waste being disposed at the site changes from that set forth in the permit.

WATER QUALITY MONITORING

§ 277.281. General requirements.

(a) A person or municipality that operates a construction/demolition waste landfill shall install, operate and maintain a monitoring system that can detect the entry of solid waste, solid waste constituents, leachate, contaminants or constituents of decomposition into the groundwater or surface water. The monitoring system shall comply with this section and §§ 277.282—277.288.

(b) A person or municipality may not construct, install or use a monitoring system for a construction/demolition waste landfill until that system has first been approved by the Department, in writing.

§ 277.282. Number, location and depth of monitoring points.

(a) The water quality monitoring system shall accurately characterize groundwater flows, groundwater chemistry and flow systems on the site and adjacent area. The system shall consist, at a minimum, of the following:

(1) At least one monitoring well at a point hydraulically upgradient from the disposal area in the direction of increasing static head that is capable of providing representative data of groundwater not affected by the facility, except when the facility occupies the most upgradient position in the flow system. In that case, sufficient downgradient monitoring wells shall be placed to determine the extent of adverse effects on groundwater from the facility.

(2) At least three monitoring wells at points hydraulically downgradient in the direction of decreasing static head from the area in which solid waste has been or will be disposed. In addition to three downgradient wells, the Department may allow one or more springs for monitoring points if the springs are hydraulically downgradient from the area in which solid waste has been or will be disposed, if the springs are developed and protected in a manner approved by the Department, and if the springs otherwise meet the requirements of this subchapter.

(3) A leachate detection system for the disposal area, when it is required by §§ 277.251 and 277.254 (relating to scope and requirements; and leachate detection zone).

(4) A leachate collection system for the disposal area, when it is required by § 277.251 and § 277.257 (relating to leachate collection system within protective cover).

(5) Surface water monitoring points approved by the Department.

(b) The upgradient and downgradient monitoring wells shall be:

(1) Sufficient in number, location and depth to be representative of water quality.

(2) Located so as not to interfere with routine facility operations.

(3) Located within 200 feet of the permitted disposal area and located at the points of compliance.

(c) In addition to the requirements of subsection (b), upgradient monitoring wells shall be located so that they will not be affected by adverse effect on groundwater from the disposal area.

(d) In addition to the requirements of subsection (b), downgradient monitoring wells shall be located so that they will provide early detection of adverse effect on groundwater from the disposal area.

(e) Wells drilled under this section shall be drilled by drillers licensed under the Water Well Drillers License Act (32 P. S. §§ 645.1—645.13).

(f) The well materials shall be decontaminated prior to installation.

§ 277.283. Standards for wells and casing of wells.

(a) A monitoring well shall be constructed with a screen that meets the following requirements:

(1) The screen shall be factory-made.

(2) The screen may not react with the groundwater being monitored.

(3) The screen shall maximize open area to minimize entrance velocities and allow rapid sample recovery.

(b) A monitoring well shall be filter-packed with chemically inert clean quartz sand, silica or glass beads. The material shall be well-rounded and dimensionally stable.

(c) A monitoring well shall be cased as follows:

(1) The casing shall maintain the integrity of the monitoring well borehole and shall be constructed of material that will not react with the groundwater being monitored.

(2) The minimum casing diameter shall be 4 inches unless otherwise approved by the Department in writing.

(3) The casing shall protrude at least 1 foot aboveground, unless otherwise approved by the Department, and shall be clearly visible.

(4) The casing shall be designed and constructed in a manner that prevents cross contamination between surface water and groundwater.

(5) The annular space above the sampling depth shall be sealed to prevent contamination of samples and the groundwater.

(6) If plastic casing is used, it shall be threaded and gasket sealed to preclude potential sample contamination from solvent welded joints, unless otherwise provided by the Department in the permit.

(7) Alternative casing designs for wells in stable formations may be approved by the Department.

(d) A monitoring well casing shall be enclosed in a protective casing that shall:

(1) Be of sufficient strength to protect the well from damage by heavy equipment and vandalism.

(2) Be installed for at least the upper 10 feet of the monitoring well, as measured from the well cap with a maximum stick up of 3 feet, unless otherwise approved by the Department in writing.

(3) Be grouted and placed with a cement collar at least 3 feet deep to hold it firmly in position.

(4) Be numbered for identification with a label capable of withstanding field conditions and painted in a highly visible color.

(5) Protrude above the monitoring well casing.

(6) Have a locked cap.

(7) Be made of steel or other material of equivalent strength.

§ 277.284. Sampling and analysis.

A person or municipality operating a construction/demolition waste landfill shall conduct sampling and analysis from each monitoring point for the following parameters at the following frequencies:

(1) Quarterly, for chloride, sulfate, chemical oxygen demand, pH, specific conductance, total organic carbon, total organic halogen, iron and sodium, and, if required by the Department, for other constituents found in the waste received at the facility.

(2) Quarterly, for groundwater elevations in monitoring wells recorded as a distance from the elevation at the well head referenced to mean sea level based on United States Geological Survey datum.

§ 277.286. Groundwater assessment plan.

(a) *Requirement.* A person or municipality operating a construction/demolition waste landfill shall prepare and submit to the Department a groundwater assessment plan within 60 days after one of the following occurs:

(1) Data obtained from monitoring by the Department or the operator indicates groundwater degradation at a monitoring point.

(2) Laboratory analysis of one or more public or private water supplies shows the presence of degradation that could reasonably be attributed to the facility.

(b) *Exceptions.* The operator is not required to conduct an assessment under this section if one of the following applies:

(1) Within 10 working days after receipt of sample results showing groundwater degradation the operator resamples the affected wells and analysis from resampling shows to the Department's satisfaction that groundwater degradation has not occurred.

(2) Within 20 working days after receipt of sample results indicating groundwater degradation, the operator demonstrates that the degradation was caused entirely by earthmoving and other activities related to facility construction, or by seasonal variations.

(c) The groundwater assessment plan shall specify the manner in which the operator will determine the existence, quality, quantity, aerial extent and depth of groundwater degradation, and the rate and direction of migration of contaminants in the groundwater. A groundwater assessment plan shall be prepared by an expert in the field of hydrogeology. The plan shall contain, at a minimum, the following information:

(1) The number, location, size, casing type and depth of wells, lysimeters, borings, pits, piezometers and other assessment structures or devices to be used. If the operator establishes compliance points as part of the assessment, the points shall be wells constructed in accordance with §§ 277.282 and 277.283 (relating to number, location and depth of monitoring points; and standards for wells and casing of wells).

(2) Sampling and analytical methods for the parameters to be evaluated.

(3) Evaluation procedures, including the use of previously gathered groundwater quality information, to determine the concentration, rate and extent of groundwater degradation from the facility.

(4) An implementation schedule.

(5) Identification of the abatement standard that will be met.

(d) The groundwater assessment plan shall be implemented upon approval by the Department under the approved implementation schedule, and shall be completed in a reasonable time not to exceed 6 months unless otherwise approved by the Department. If the Department determines that the proposed plan is inadequate, it may modify the plan and approve the plan as modified. The operator shall notify, in writing, each owner of a private or public water supply located within 1/2-mile downgradient of the disposal area that an assessment has been initiated.

(e) Within 45 days after the completion of the groundwater assessment plan, the operator shall submit a report containing the new data collected, analysis of the data and recommendations on the necessity for abatement.

(f) If the Department determines after review of the groundwater assessment report that implementation of an abatement plan is not required by § 277.287 (relating to abatement plan), the operator shall submit a permit modification application under § 271.222 (relating to permit modification) for necessary changes to the groundwater monitoring plan. The operator shall implement the modifications within 30 days of the Department's approval.

(g) This section does not prevent the Department from requiring, or the operator from conducting, groundwater abatement or water supply replacement concurrently with, or prior to, implementation of the assessment.

§ 277.287. Abatement plan.

(a) The operator of a construction/demolition waste landfill shall prepare and submit to the Department an abatement plan whenever one of the following occurs:

(1) The groundwater assessment plan prepared and implemented under § 277.286 (relating to groundwater assessment plan) shows the presence of groundwater degradation at one or more monitoring wells and the analysis under § 277.286(c) indicates that an abatement standard under subsection (d) will not be met.

(2) Monitoring by the Department or operator shows the presence of an abatement standard exceedance from one or more compliance points as indicated in subsection (d), even if a groundwater assessment plan has not been completed. The operator is not required to implement an abatement plan under this paragraph if the following are met:

(i) Within 10 days after receipt of sample results showing an exceedance of an abatement standard, at a point of compliance described in subsection (d), the operator resamples the affected wells.

(ii) Analysis from resampling shows to the Department's satisfaction that an exceedance of an abatement standard has not occurred.

(b) An abatement plan shall be prepared by an expert hydrogeologist and submitted to the Department. The plan shall contain the following information:

(1) The specific methods or techniques to be used to abate groundwater pollution from the facility.

(2) The specific methods or techniques to be used to prevent further groundwater pollution from the facility.

(c) The abatement plan shall be completed and submitted to the Department for approval within 90 days of the time the obligation arises under this section unless the date is otherwise modified, in writing, by the Department.

(d) If abatement is required in accordance with subsection (a), the operator shall demonstrate compliance with one of the following abatement standards at and beyond 150 meters of the perimeter of the permitted disposal area or at and beyond the property boundary, whichever is closer:

(1) For constituents for which an MCL has been promulgated under the Federal Safe Drinking Water Act or the Pennsylvania Safe Drinking Water Act (42 U.S.C.A. §§ 300f—300j-18; and 35 P.S. §§ 721.1—721.17), the MCL for that constituent.

(2) For constituents for which MCLs have not been promulgated, the background standard for the constituent.

(3) For constituents for which the background standard is higher than the MCL or risk-based standard identified under paragraph (4), the background standard.

(4) For constituents for which no MCLs have been established, the risk-based standard if the following conditions are met:

(i) The risk assessment used to establish the standard assumes that human receptors exist at the property boundary.

(ii) The level is derived in a manner consistent with Department guidelines for assessing the health risks of environmental pollutants.

(iii) The level is based on scientifically valid studies conducted in accordance with good laboratory practice standards (40 CFR Part 792 (relating to good laboratory practice standards)) promulgated under the Toxic Substances Control Act (15 U.S.C.A. §§ 2601—2692) or other scientifically valid studies approved by the Department.

(iv) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level of 1.0×10^{-5} at the property boundary.

(v) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subparagraph, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(e) Within 60 days of approval by the Department, the operator shall commence implementation of the plan, under the approved implementation schedule. If the Department determines that the proposed plan is inadequate, it may modify the plan and approve the plan as modified.

(f) The abatement plan shall be continued until the Department states in writing, based on monitoring by the Department and the operator, that groundwater pollution from the facility has been permanently abated.

MINERALS AND GAS

§ 277.291. Mineral resources.

(a) The operator shall isolate coal seams, coal outcrops and coal refuse from waste deposits in a manner that prevents the combustion of the waste and that prevents damage to the liner system.

(b) Mine openings within the site shall be sealed in a manner approved by the Department.

(c) The operator shall implement a plan for controlling potential for damage from subsidence that was submitted and approved under § 277.120 (relating to mineral deposits information).

§ 277.292. Gas control and monitoring.

If the waste disposed at the facility generates or is likely to generate gas, the operator shall establish and implement a gas control and monitoring program approved under § 277.171 (relating to gas monitoring and recovery plan).

EMERGENCY PROCEDURES

§ 277.301. Hazard prevention.

Construction/demolition waste landfills shall be designed, constructed, maintained and operated to prevent and minimize the potential for fire, explosion or release of solid waste constituents to the air, water or soil of this Commonwealth that could threaten public health or safety, public welfare or the environment.

§ 277.302. Emergency equipment.

(a) Except as provided in subsection (b), the operator shall have available in proper working condition, the following equipment at the immediate operating area of the facility:

(1) An internal communications or alarm system capable of providing immediate emergency instruction by voice or signal to facility personnel.

(2) A communications system capable of summoning emergency assistance from local police, fire departments, emergency medical services and from State and local emergency response agencies.

(3) Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment. For fire control equipment requiring water, the facility shall have a water supply of adequate quantity and pressure to supply the equipment.

(4) Portable gas explosimeters and gas monitoring equipment.

(b) The Department may waive or modify one or more of the requirements of subsection (a) in the permit if the operator demonstrates to the Department's satisfaction in the permit application that the requirements are not necessary to protect public health and safety, public welfare and the environment.

(c) Equipment and material required by this section shall be tested and maintained so that it is operable in time of emergency.

(d) Adequate space shall be maintained to allow the unobstructed movement of emergency personnel and equipment to operating areas of the facility.

§ 277.303. Implementation of contingency plan.

(a) The operator of the facility shall immediately implement the applicable provisions of the approved contingency plan whenever there is an emergency. For purposes of this section, the term "emergency" includes a fire or spill or other event that threatens public health and safety, public welfare or the environment and personal injury.

(b) During an emergency, the operator shall:

(1) Assess actual or potential hazards to public health and safety, public welfare and the environment that are occurring or may occur.

(2) Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

(3) Immediately telephone the Department and county emergency management agency, and report the following information:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and permit number of the facility.

(iii) The date, time and location of the emergency.

(iv) A brief description of the nature of the emergency, the type and quantity of the solid waste involved and what dangers to public health and safety, public welfare and the environment exist or may occur.

(v) The nature of injuries.

(vi) The parts of the contingency plan being implemented to alleviate the emergency.

(c) After an emergency, the operator of the facility shall do the following:

(1) Clean up the area affected by the emergency and treat, store or dispose of recovered solid waste, contaminated soil, contaminated water or other material in a manner approved by the Department.

(2) Prevent disposal, processing, storage or treatment of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has inspected and approved the resumption of operation after the cleanup.

RECORDKEEPING AND REPORTING

§ 277.311. Daily operational records.

(a) The operator of a facility shall make and maintain an operational record for each day that construction/demolition waste is received, processed or disposed, and for each day that construction, monitoring or postclosure activity occurs.

(b) The daily operational record shall include the following:

(1) The type and weight or volume of the solid waste received.

(2) The county in which the solid waste originated, or if the waste originated outside of this Commonwealth, the state.

(3) The transporters of the solid waste.

(4) The particular grid location of the area currently being used for disposal of solid waste.

(5) A description of waste handling problems or emergency disposal activities.

(6) A record of deviations from the approved design or operational plans.

(7) A record of activities for which entries are needed in order to comply with the annual operation report required in § 277.312 (relating to annual operation report).

(8) A record of actions taken to correct violations of the act, the environmental protection acts and this title.

(9) A record of the rejected waste loads and the reasons for rejecting the loads.

(10) A record of each incident in which radioactive material is detected in waste loads. The record shall include:

(i) The date, time and location of the occurrence.

(ii) A brief narrative description of the occurrence.

(iii) Specific information on the origin of the material, if known.

(iv) A description of the radioactive material involved, if known.

(v) The name, address and telephone numbers of the supplier or handler of the radioactive material and the name of the driver.

(vi) The final disposition of the material.

(11) A record of each vehicle, other than a combination, that exceeds 73,280 pounds gross weight and of each combination that exceeds 80,000 pounds gross weight.

(i) The record shall include:

(A) The gross weight of the vehicle when weighed at the facility.

(B) The registration plate number and home or base state registration of the vehicle.

(C) The name, business address and telephone number of the owner of the vehicle.

(D) The date and time when the vehicle was weighed at the facility.

(E) The date that the weight scale was last tested in accordance with 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act).

(ii) For purposes of this paragraph, the following words and terms have the following meanings unless the content clearly indicates otherwise:

Combination—Two or more vehicles physically interconnected in tandem. An example of a combination is a truck tractor attached to a semi-trailer.

Gross weight—The combined weight of a vehicle or combination of vehicles and its load, excluding the driver's weight.

Registration—The authority for a vehicle to operate on a highway as evidenced by the issuance of an identifying card and plate or plates.

(c) The operator shall maintain accurate operational records sufficient to determine whether construction/demolition waste is being stored under Chapter 285, Subchapter A (relating to storage of municipal waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the environmental protection acts. These records shall be made available to the Department upon request.

§ 277.312. Annual operation report.

(a) An operator shall submit to the Department an annual operation report on or before June 30 of each year.

(b) The annual operation report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) A topographic survey map of the same scale, contour interval and grid system as the original site plans showing the following:

(i) Contours at the beginning and the end of the year.

(ii) The completed areas of the site as well as areas partially filled but not active during the previous year.

(2) A description of capacity used in the previous year and remaining permitted capacity.

(3) A description of the acreage used for disposal, the acreage seeded, the acreage that has been vegetated, the acreage where vegetation is permanently established and a narrative of the operator's progress in implementing the closure plan.

(4) A current certificate of insurance as specified in § 271.374(a) (relating to proof of insurance coverage), evidencing continuous coverage for public liability insurance as required by § 271.371 (relating to insurance requirement).

(5) Changes in the previous year concerning the information required by §§ 271.124 and 271.125 (relating to identification of interests; and compliance information). The report shall state if no changes have occurred.

(6) A change in the ownership of the land upon which the facility is located or a change in a lease agreement for the use of the land that may affect or alter the operator's rights upon the lands.

(7) A written update of the total bond liability for the facility under § 271.331 (relating to bond and trust amount determination). If additional bond is determined to be necessary, it shall be submitted to the Department within 90 days after the annual report is due.

(8) Certification that the operator has received all analyses required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility during the calendar year.

(9) A record of detected radioactive materials.

(c) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee of \$2,800 in the form of a check payable to the "Commonwealth of Pennsylvania."

(d) The report shall include an evaluation of whether the monitoring plan implemented under this subchapter needs to be revised to comply with § 277.282 (relating to number, location and depth of monitoring points) because of changes in groundwater elevation or other reasons. If this evaluation determines that changes in the approved groundwater monitoring plan are necessary, the operator shall immediately notify the Department and submit an application for permit modification under § 271.222 (relating to permit modification) for necessary changes in the monitoring plan.

CLOSURE PROVISIONS

§ 277.322. Closure.

(a) The operator shall implement the closure plan approved by the Department under § 277.192 (relating to closure plan).

(b) At least 180 days before implementation of a closure plan the operator shall review its approved closure plan to determine whether the plan requires modification, and shall submit proposed changes to the Department for approval under § 271.222 (relating to permit modification).

(c) If groundwater degradation exists at closure or occurs after closure, a person shall meet one of the following:

(1) Continue to implement an approved abatement plan.

(2) Submit an application for a closure plan modification in accordance with the procedures for a major permit modification. The operator shall select one or more remediation standards that will be met in accordance with the final closure certification requirements in § 271.342 (relating to final closure certification).

(d) An application for a closure plan modification shall include the following:

(1) Technical information and supporting documentation identifying the remediation activities that will be conducted to meet and maintain the remediation standards.

(2) If a remedy relies on access to or use of properties owned by third parties, for remediation or monitoring, documentation of cooperation or agreement.

(e) After closure, the Department may modify, in accordance with § 271.144 (relating to public notice and public hearings for permit modifications), the frequency of monitoring for a parameter for which quarterly monitoring is required under § 277.284 (relating to sampling and analysis) to a semiannual frequency if the operator demonstrates the following:

(1) The parameter has not caused or contributed to groundwater degradation.

(2) Based upon the characteristics of the waste at the facility and the performance of the liner system, the

parameter is unlikely to cause or contribute to groundwater degradation in the future.

(f) The Department may modify the frequency of monitoring for a parameter for which semiannual monitoring was approved under subsection (e) to an annual basis if the results of semiannual monitoring continue to demonstrate the following:

(1) The parameter has not caused or contributed to groundwater degradation.

(2) Based upon the characteristics of the waste at the facility and the performance of the liner system, the parameter is unlikely to cause or contribute to groundwater degradation in the future.

(g) The Department may reinstate the requirement of quarterly monitoring for any parameter monitored under subsection (e) or (f) if the Department has reason to believe that the parameter may cause or contribute to groundwater degradation.

CHAPTER 279. TRANSFER FACILITIES

Subchapter A. General

§ 279.1. Scope.

(a) This chapter sets forth application and operating requirements for a person or municipality that operates a transfer facility. The requirements in this chapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions).

(b) The Department may waive or modify a requirement of this chapter for permitted transfer facilities at which no actual loading, unloading or transferring of municipal waste occurs, if the absence of loading, unloading or transferring activity renders the requirement unnecessary.

Subchapter B. APPLICATION REQUIREMENTS FOR TRANSFER FACILITIES

GENERAL

§ 279.101. General requirements.

(a) An application to operate a transfer facility shall:

(1) Comply with the requirements of this subchapter.

(2) Comply with the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(b) Maps, plans and cross sections submitted to comply with this subchapter shall be on a scale in which 1 inch equals no more than 50 feet with 2-foot maximum contour intervals unless otherwise approved by the Department.

§ 279.102. Operating plan.

(a) An application to operate a transfer facility shall contain a narrative description of the general operating plan for the proposed facility, including the origin, composition and weight or volume of solid waste that is proposed to be received at the facility, the process to be used at the facility, the daily operational methodology of the proposed process, the loading rate, the proposed capacity of the facility and the expected life of the facility.

(b) An application shall contain a plan for an alternative waste handling or disposal system during periods when the proposed facility is not in operation, including procedures to be followed in case of equipment breakdown. Procedures may include the use of standby equipment, extension of operating hours and contractual agreements for diversion of municipal waste to other facilities.

(c) An application shall contain a plan for training equipment operators and other personnel concerning the

operation and approved design of the facility, including safety measures to prevent injuries.

(d) An application shall contain a plan for assuring that solid waste received at the facility is consistent with § 279.201 (relating to basic limitations).

(e) An application shall contain the proposed operating hours of the proposed facility.

(f) An application shall contain a narrative describing the procedures for inspection and monitoring of incoming waste.

§ 279.103. Maps and related information.

(a) An application shall contain a topographic map of the proposed permit area and adjacent area, including necessary narrative descriptions, which shows the following:

(1) The boundaries and names of present owners of record of land, both surface and subsurface, and including easements, rights-of-way and other property interests, for the proposed permit area and adjacent area; the boundaries of the land within the proposed permit area; and a description of title, deed or usage restrictions affecting the proposed permit area.

(2) The boundaries of the land to be affected over the estimated total life of the proposed facility.

(3) The location and name of surface water bodies, such as springs, streams, lakes, ponds, wetlands, constructed or natural drains and irrigation ditches that are located on the proposed permit area and adjacent area.

(4) The location and name of public and private water sources that are located on or within 1/4 mile of the proposed facility. If more than 50 wells are located within the 1/4-mile radius, the applicant may identify only the closest wells in each direction and generally describe the location and number of wells within the 1/4-mile radius.

(5) The location of rights-of-way for high-tension power lines, pipelines, railroads and public and private roads within 300 feet of the proposed facility.

(6) The location of buildings currently in use by a person within 300 feet of the proposed facility.

(7) The anticipated location of water quality monitoring points if monitoring is required by the Department.

(8) The boundaries of land within the proposed permit area or adjacent area identified in § 279.202 (relating to areas where transfer facilities are prohibited).

(9) The municipalities in which the permit area is proposed to be located.

(10) The location of the 100-year floodplain boundaries.

(11) The location of access roads to and within the proposed permit area, including slopes, grades and lengths of the roads.

(12) The location of barriers, fences and similar facilities required by § 279.212 (relating to access control).

(13) The water diversion, collection, conveyance, erosion and sedimentation control, treatment, storage and discharge facilities to be used.

(14) The solid waste storage or loading/unloading areas.

(15) The areas of land for which a bond will be posted under Chapter 271, Subchapter D (relating to financial assurances requirements).

(16) The location and use of buildings and related facilities which will be used in the operation, including their horizontal and vertical dimensions.

(17) The location of scales and weigh stations to be used in the operation.

(18) A designated area for vehicles for use in the event of the detection of waste containing radioactive material. The designated area shall, by location or shielding, protect the environment, facility staff and public from radiation originating in the vehicle. The Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

(b) The applicant shall also show the location of a permanent benchmark for horizontal and vertical control.

§ 279.104. Plan for access roads.

The application shall contain designs, cross sections and specifications for access roads, including load limits, under § 279.213 (relating to access roads).

§ 279.105. Soil erosion and sedimentation control plan.

(a) The applicant shall submit a plan to manage surface water and control erosion during the phases of construction and operation on the permit area. The plan shall be based on the requirements of Chapter 102 (relating to erosion and sediment control), § 279.232 (relating to soil erosion and sedimentation control) and other applicable State and Federal requirements. Calculations indicating water quantities shall be based on the 24-hour precipitation event in inches to be expected once in 25 years.

(b) The plan shall include fully dimensioned diversion ditches, indicating length, gradient and cross section for configuration by reach and capacities for ditch volume by reach. Calculations which are necessary to support design and siting shall be included in the plan.

§ 279.106. Soil and groundwater monitoring plan.

(a) If required by the Department, the applicant shall submit a groundwater monitoring plan to detect groundwater degradation from the facility.

(b) If required by the Department, the applicant shall submit a soil monitoring plan, capable of detecting soil contamination from the facility.

§ 279.109. Contingency plan.

An application shall contain a contingency plan consistent with §§ 279.241—279.243 (relating to emergency procedures). The plan shall include a Preparedness, Prevention and Contingency (PPC) Plan that is consistent with the Department's most recent guidelines for the development and implementation of PPC plans.

§ 279.110. Radiation protection action plan.

(a) An application shall contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting.

(b) The action plan shall be prepared in accordance with the Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001, or in a manner at least as protective of the environment, facility

staff and public health and safety and which meets all statutory and regulatory requirements.

(c) The action plan shall be incorporated into the facility's approved waste analysis plan, under § 271.613 (relating to waste analysis plan).

§ 279.111. Daily volume.

The application shall contain a proposed maximum daily volume for the facility, and a detailed justification for the volume, based on §§ 271.126 and 271.127 (relating to requirement for environmental assessment; and environmental assessment).

RECYCLING

§ 279.121. Recycling plan.

An application shall contain a plan for salvaging and recycling waste materials received at the facility for which recycling is cost effective, including proposed salvage areas, salvaging methods and anticipated markets for salvaged materials, under § 279.271 (relating to salvaging of materials).

**Subchapter C. OPERATING REQUIREMENTS
FOR TRANSFER FACILITIES
GENERAL PROVISIONS**

§ 279.201. Basic limitations.

(a) A person or municipality may not own or operate a transfer facility unless the Department has first issued a permit to the person or municipality for the facility under this chapter.

(b) A person or municipality that operates a transfer station facility shall comply with the following:

(1) The operating requirements of the act, this subchapter and the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.

(c) A person or municipality that operates a transfer facility may not allow residual waste or special handling waste to be received or handled at the facility unless the Department has specifically approved handling that waste in the permit.

(d) A person or municipality that operates a transfer facility may not:

(1) Mix solid waste with, or store solid waste in such close proximity to other solid waste to create a risk of fire or explosion, or a risk to the accumulation of poisonous or otherwise harmful vapors or gases.

(2) Allow explosive waste to be stored or processed at the facility.

(e) Hazardous waste subject to Article VII (relating to hazardous waste management) may not be disposed, processed or stored at transfer facilities.

(f) A person or municipality may not allow solid waste to be received, disposed or otherwise managed at the facility if the transportation to, or processing or management at, the facility would violate applicable laws in effect in the county or state in which the waste was generated, or state or local solid waste management plans in effect where the waste was generated.

(g) The Department may waive or modify a requirement of this chapter for permitted transfer facilities at

which no actual loading, unloading or transferring of municipal waste occurs, if the absence of loading, unloading and transferring activity renders the requirement unnecessary.

(h) The approved mitigation measures identified in the permit application shall be completed before a facility may accept waste unless a later date is authorized in writing by the Department for technical reasons.

(i) The following radioactive material controlled under specific or general license or order authorized by any Federal, State or other government agency may not be processed at the facility, unless specifically exempted from disposal restrictions by an applicable State or Federal statute or regulation:

- (1) Naturally occurring and accelerator produced radioactive material.
- (2) Byproduct material.
- (3) Source material.
- (4) Special nuclear material.
- (5) Transuranic radioactive material.
- (6) Low-level radioactive waste.

(j) The following radioactive material may not be processed at the facility, unless approved in writing by the Department and the processing does not endanger the environment, facility staff or public health and safety:

(1) Short lived radioactive material from a patient having undergone a medical procedure.

(2) TENORM.

(3) Consumer products containing radioactive material.

(k) The limitations in subsections (i) and (j) do not apply to radioactive material as found in the undisturbed natural environment of the Commonwealth.

§ 279.202. Areas where transfer facilities are prohibited.

(a) Except for areas that were permitted prior to April 9, 1988, a transfer facility may not be operated as follows:

(1) *Floodplain.* In the 100-year floodplain of waters in this Commonwealth, unless the Department approves in the permit a method of protecting the facility from a 100-year flood consistent with the Flood Plain Management Act (32 P. S. §§ 679.101—679.601) and the Dam Safety and Encroachments Act (32 P. S. §§ 693.1—693.27).

(2) *Wetland.*

(i) In or within 300 feet of an exceptional value wetland, as defined in § 105.17 (relating to wetlands).

(ii) For a transfer facility permitted on or after December 23, 2000, other than an expansion of a transfer facility that was permitted prior to December 23, 2000, in or within 100 feet of a wetland other than an exceptional value wetland, unless storage and processing will not occur within that distance or storage and processing take place in an enclosed facility and one of the following applies:

(A) If the operation is in or along the wetland, the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).

(B) If the operation is not in or along the wetland, no adverse hydrologic or water quality impacts will result.

(3) *Occupied dwelling.* Within 300 feet measured horizontally from an occupied dwelling, unless the owner has provided a written waiver consenting to the facility being closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(4) *Perennial stream.* Within 100 feet of a perennial stream, unless one of the following applies:

(i) Storage and processing will not occur within 100 feet of a perennial stream and no adverse hydrologic or water quality impacts will result.

(ii) Storage and processing take place in an enclosed facility and no adverse impacts to the perennial stream will result.

(iii) The facility transfers containerized waste to barges at the transfer facility location.

(5) *Property line.* Within 50 feet of a property line unless the operator demonstrates one of the following:

(i) That actual processing of waste is not occurring within 50 feet of a property line.

(ii) That storage and processing occurring within 50 feet of a property line take place in an enclosed facility.

(iii) That the owner of the adjacent property has provided a written waiver consenting to the facility being closer than 50 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(6) *School, park or playground.*

(i) For a municipal waste transfer facility permit issued on or after December 23, 2000, except an expansion of a municipal waste transfer facility permitted prior to December 23, 2000, within 300 yards of the following:

(A) A building which is owned by a school district or school and used for instructional purposes.

(B) A park.

(C) A playground.

(ii) The current property owner of a school building, park or playground may waive the 300-yard prohibition by signing a written waiver. Upon receipt of the waiver, the Department will waive the 300-yard prohibition and will not use the prohibition as the basis for the denial of a new permit.

(b) Except as provided in subsection (c), this section does not apply to a feature that may come into existence after the date of the first newspaper notice under § 271.141 (relating to public notice by applicant).

(c) This section does not apply to a feature that may come into existence after the date of the first newspaper notice under this subsection if the following apply:

(1) The person or municipality publishes a notice of intent to file an application for a transfer facility permit. The notice, which is separate from the newspaper notice required by § 271.141 shall be published once a week for 3 consecutive weeks in a newspaper of general circulation in the area where the facility is proposed to be located. The notice shall include a brief description of the location and proposed operation of the facility.

(2) The person or municipality files an administratively complete application under § 271.202 (relating to receipt of application and completeness review) with the Department within 1 year from the date of the first newspaper notice under this subsection.

DAILY OPERATIONS

§ 279.211. Signs and markers.

(a) A person or municipality that operates a transfer facility shall identify the facility and the recycling drop-off center required under § 279.272 (relating to recycled materials collection center) for the duration of operations by posting and maintaining a sign which will be clearly visible and can be easily seen and read at the junction of each access road and public road unless otherwise approved by the Department. The sign shall be constructed of a durable, weather-resistant material. The sign shall show the name, business address and telephone number of the person or municipality that operates the facility, the operating hours of the facility and the number of the current permit authorizing operations at the facility.

(b) Permit area markers and the benchmark for horizontal and vertical control shall be:

(1) Posted and maintained for the duration of the operation to which they pertain.

(2) Clearly visible, readable and uniform throughout the operation.

(3) Permanently fixed and made of a durable material.

§ 279.212. Access control.

(a) A gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when an attendant is not on duty.

(b) The operator shall maintain a fence or other suitable barrier around the site sufficient to prevent unauthorized access.

(c) Access to the site shall be limited to times when an attendant is on duty.

§ 279.213. Access roads.

(a) An access road shall be designed, constructed and maintained to prevent erosion to the maximum extent possible and to prevent contributions of sediment to streams or runoff outside the site.

(b) A crossing of a perennial or intermittent stream or a wetland shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) An access road shall have a drainage system that is compatible with the natural drainage system, structurally stable and which will pass safely the peak flow from a 25-year, 24-hour precipitation event. The drainage system shall also comply with Chapter 102 (relating to erosion control).

(d) An access road shall be paved or surfaced with asphalt, gravel, cinders or other equivalent material approved by the Department in the permit. An access road shall be capable of withstanding the load limits projected by the applicant under § 279.104 (relating to plan for access roads). The maximum sustained grade of an access road may not exceed 12%.

(e) An access road negotiable by loaded collection vehicles shall be provided from the entrance gate of the area to unloading areas, treatment facilities or impoundments.

(f) A road shall be constructed on a base that is capable of withstanding anticipated loads.

(g) Disturbed areas adjacent to a road shall be vegetated or otherwise stabilized to prevent erosion.

(h) An access road shall be maintained to control dust and to prevent and control the tracking of mud on and off the site.

§ 279.214. Measurement and inspection of waste.

(a) Solid waste delivered to the facility shall be accurately weighed or otherwise accurately measured prior to unloading.

(b) The operator of a transfer facility shall inspect and monitor incoming waste to ensure that the receipt of waste is consistent with this article.

(c) An operator of a transfer facility that has received, is receiving or will receive 30,000 or more cubic yards of solid waste in a calendar year shall weigh solid waste when it is received. The scale used to weigh solid waste shall conform to 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act) and 70 Pa. Code Part I (relating to general provisions). The operator of the scale shall be a licensed public weighmaster under 3 Pa.C.S. Chapter 41 and 70 Pa. Code Part I.

§ 279.215. Operations and equipment.

(a) Loading, unloading, storage, compaction and related activities shall be conducted in an enclosed building, unless otherwise approved by the Department in the permit.

(b) The operator shall maintain on the site equipment necessary for operation of the facility under the permit. The equipment shall be maintained in an operable condition.

(c) If a breakdown of the operator's equipment occurs, the operator shall utilize standby equipment as necessary to comply with the act, the environmental protection acts, this subchapter and its permit conditions.

(d) Equipment shall be operated and maintained to prevent solid waste from being unintentionally removed from the storage area.

(e) Equipment shall be cleaned at frequencies specified in the permit based on scheduled or emergency maintenance periods.

§ 279.216. Unloading area.

(a) The approach and unloading area shall be adequate in size and design to facilitate the rapid unloading of solid waste from the collection vehicles and the unobstructed maneuvering of the vehicles and other equipment.

(b) The loading areas and unloading areas shall be constructed of impervious material which is capable of being cleaned by high pressure water spray and shall be equipped with drains or sumps connected to a sanitary sewer system or treatment facility to facilitate the removal of water. Drains or treatment systems may be connected to a sanitary sewer system if a waste characterization is submitted to the sewage treatment plant operator and the operator finds that the treatment plant can fully treat the waste stream. Leachate may be collected in holding tanks prior to its transport to the sewage treatment plant.

(c) If the facility has an unloading pit, the facility shall have in place truck wheel curbs and tie downs that are sufficient to prevent trucks from backing into the pit or falling into the pit while unloading.

(d) An attendant or clearly marked signs shall direct vehicles to the unloading area.

(e) The operator shall ensure that collection vehicles unload waste promptly in unloading areas.

(f) Solid waste shall be confined to the unloading area and the approved storage areas.

§ 279.217. Cleaning and maintenance.

(a) Areas within the building shall be kept clean.

(b) The operator may not allow putrescible waste to remain at the transfer facility at the end of the day or for more than 24 hours, except that putrescible waste may remain at a transfer facility for any period of time up to 72 hours over a weekend of 3-day weekend if the transfer facility permit so provides.

(c) Plumbing shall be properly maintained, and the floors shall be well drained.

(d) Macerators, hammer mills and grinders shall be cleanable and shall be equipped with drains that connect to a sanitary sewer system or treatment facility. Drains or treatment systems may be connected to a sanitary sewer system if a waste characterization is submitted to the sewage treatment plant operator and the operator finds that the treatment plant can fully treat the waste stream.

(e) Provision shall be made for routine maintenance of the facility.

§ 279.218. Air resources protection.

(a) The operator shall implement fugitive air contaminant control measures, and shall otherwise prevent and control air pollution in accordance with the Air Pollution Control Act (35 P. S. §§ 4001—4014), Article III (relating to air resources) and § 279.219 (relating to nuisance control).

(b) A person or municipality may not cause or allow open burning at the facility.

§ 279.219. Nuisance minimization and control.

(a) The operator shall control and minimize the attraction, harborage or breeding of vectors.

(b) The operator shall control and minimize conditions not otherwise prohibited by this subchapter that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

§ 279.221. Litter.

(a) The operator may not allow litter to be blown or otherwise deposited offsite.

(b) Fences or other barriers sufficient to control blowing litter shall be located in the area immediately downwind from the unloading area, unless operations are conducted within an enclosed building or the solid waste being transferred cannot create blowing litter.

(c) Litter shall be collected at least weekly from fences, roadways, tree line barriers and other barriers and disposed or stored in accordance with the act and regulations thereunder, unless a greater frequency is set forth in the permit.

§ 279.222. Radiation monitoring and response.

(a) An operator shall implement the action plan approved under § 279.110 (relating to radiation protection action plan).

(b) An operator shall monitor incoming waste in accordance with the Department's "Guidance Document on

Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities,” Document Number 250-3100-001 or in a manner at least as protective of the environment, facility staff and public health and safety. Monitoring shall meet the requirements of this section and the facility’s approved radiation protection action plan.

(c) Radiation detector elements shall be as close as practical to the waste load and in an appropriate geometry to monitor the waste. The radiation monitoring system shall be set to alarm at a level no higher than 10 microroentgen per hour ($\mu\text{R/hr}$) above the average background at the facility when any of the radiation detector elements is exposed to a cesium-137 gamma radiation field. Radiation detector elements shall be shielded to maintain the average background below 10 $\mu\text{R/hr}$. If capable of energy discrimination, the radiation monitoring system shall be set to detect gamma rays of a 50 kiloelectron volt (keV) energy and higher.

(d) An operator shall have portable radiation monitors capable of determining the radiation dose rate and presence of contamination on a vehicle that has caused an alarm. Upon a confirmed exceedance of the alarm level in subsection (c), a radiological survey of the vehicle shall be performed.

(e) An operator shall notify the Department immediately and isolate the vehicle when radiation dose rates of 20 $\mu\text{Sv}^{\text{h}^{-1}}$ (2 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected in the cab of a vehicle, 500 $\mu\text{Sv}^{\text{h}^{-1}}$ (50 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected from any other surface, or contamination is detected on the outside of the vehicle.

(f) Monitoring equipment shall be calibrated at a frequency specified by the manufacturer, but not less than once a year.

(g) If radioactive material is detected, the vehicle containing the radioactive material may not leave the facility without written Department approval and an authorized United States Department of Transportation exemption form.

§ 279.223. Daily volume.

A person or municipality operating a transfer facility may not receive solid waste at the facility in excess of the maximum daily volume approved in the permit.

SOIL AND WATER PROTECTION

§ 279.231. General requirements.

(a) The operator may not cause or allow a point or nonpoint source discharge in violation of The Clean Streams Law (35 P. S. §§ 691.1—691.1001) from or on the facility to surface waters of this Commonwealth.

(b) A transfer facility shall be operated to prevent and control water pollution. An operator shall operate and maintain necessary water pollution treatment facilities until water pollution from or on the facility has been permanently abated.

(c) The operator may not cause water pollution on or off the site.

(d) The operator may not cause contamination of soil on or off the site.

§ 279.232. Soil erosion and sedimentation control.

The operator shall manage surface water and control erosion and sedimentation to:

(1) Divert surface water away from the storage area with measures and structures necessary to handle surface water flows based on a 25-year, 24-hour precipitation

event, supported by written calculations and also comply with Chapter 102 (relating to erosion control).

(2) Meet the requirements of Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management).

(3) Prevent erosion to the maximum extent possible, including where possible, using revegetation.

§ 279.233. Soil and groundwater monitoring.

(a) If required by the Department as part of the permit, the operator shall conduct soil or groundwater monitoring, or both. The monitoring shall be in accordance with §§ 273.282—273.288 as required by the Department, and the terms and conditions of the permit, and shall continue for the period specified in § 279.262 (relating to cessation of operations).

(b) For purposes of interfacing with §§ 273.282—273.288, the following terms apply:

(1) The term “disposal area” shall be substituted with “area where storage and processing occur.”

(2) The term “municipal waste landfill” shall be substituted with “transfer facility.”

(3) The term “disposed” shall be substituted with “stored or processed.”

§ 279.234. Water supply replacement.

(a) A person or municipality operating a transfer facility which adversely affects a water supply by degradation, pollution or other means shall restore or replace the affected water supply with an alternate source that is of like quantity and quality to the original supply at no additional cost to the owner.

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(c) A permanent water supply shall be provided as soon as practicable but no later than 90 days after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply, or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

EMERGENCY PROCEDURES

§ 279.242. Emergency equipment.

(a) Except as provided in subsection (b), a person or municipality operating a transfer facility shall have available in proper working condition the following equipment at the immediate operating area of the facility:

(1) An internal communications or alarm system capable of providing immediate emergency instruction by voice or signal to facility personnel.

(2) A communications system capable of summoning emergency assistance from local police, fire departments, emergency medical services and from State and local emergency response agencies.

(3) Portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment. For fire control equipment requiring water, the facility shall have a water supply of adequate quantity and pressure to supply the equipment.

(b) The Department may waive or modify the requirements in subsection (a) if the operator demonstrates to the Department's satisfaction that the requirements are not necessary to protect public health and safety, public welfare and the environment.

(c) Equipment and material required by this section shall be tested and maintained so that it is operable in time of emergency.

(d) Adequate space shall be maintained to allow the unobstructed movement of emergency personnel and equipment to operating areas of the facility.

§ 279.243. Implementation of contingency plan.

(a) The operator of a transfer facility shall immediately implement the applicable provisions of the approved contingency plan whenever there is an emergency. For the purposes of this section, the term "emergency" includes a fire, spill or other hazard that threatens public health and safety, public welfare or the environment and personal injury.

(b) During an emergency, the operator shall:

(1) Assess actual or potential hazards to public health and safety, public welfare and the environment that are occurring, or may occur.

(2) Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

(3) Immediately telephone the Department and county emergency management agency, and report the following information:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and permit number of the facility.

(iii) The date, time and location of the emergency.

(vi) The parts of the contingency plan being implemented to alleviate the emergency.

(c) After an emergency, the operator of the facility shall do the following:

(1) Clean up the area affected by the emergency and treat, store or dispose of recovered solid waste, contaminated soil, contaminated water or other material in a manner approved by the Department.

(2) Prevent processing or storage of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has approved the resumption of operation after the cleanup.

RECORDKEEPING AND REPORTING

§ 279.251. Daily operational records.

(a) A person or municipality that operates a transfer facility shall make and maintain an operational record for each day that municipal waste is received, processed or transported offsite.

(b) The daily operational record shall include the following:

(1) The type and weight or volume of the solid waste received.

(2) The county in which the solid waste originated, or if the waste originated outside of this Commonwealth, the state.

(3) The transporters of the solid waste.

(4) The destination of the solid waste, including the facility name, the county and state in which it is located, and the type and weight or volume of waste transported.

(5) The type and weight or volume of materials which are recycled.

(6) A description of waste handling problems or emergency disposal activities.

(7) A record of deviations from the approved design or operational plans.

(8) A record of activities for which entries are needed to comply with the annual operation report required in § 279.252 (relating to annual operation report).

(9) A report of actions taken to correct violations of the act, the environmental protection acts and this title.

(10) A record of rejected waste loads and the reasons for rejecting the loads.

(11) A record of each incident in which radioactive material is detected in waste loads. The record shall include:

(i) The date, time and location of the occurrence.

(ii) A brief narrative description of the occurrence.

(iii) Specific information on the origin of the material, if known.

(iv) A description of the radioactive material involved, if known.

(v) The name, address and telephone numbers of the supplier or handler of the radioactive material and the name of the driver.

(vi) The final disposition of the material.

(c) The operator shall maintain accurate operational records sufficient to determine whether municipal waste is being stored in accordance with Chapter 285, Subchapter A (relating to storage of municipal waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the environmental protection acts. These records shall be made available to the Department upon request.

§ 279.252. Annual operation report.

(a) A person or municipality that operates a transfer facility shall submit to the Department an annual operation report on or before June 30 of each year.

(b) The annual operating report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) A current certificate of insurance as specified in § 271.374(a) (relating to proof of insurance coverage), evidencing continuous coverage for public liability insurance as required by § 271.371 (relating to insurance requirement).

(2) Changes in the previous year concerning the information required by §§ 271.124 and 271.125 (relating to

identification of interests; and compliance information). The report shall state if no changes have occurred.

(3) A change in the ownership of the land upon which the facility is located or a change in a lease agreement for the use of the land that may affect or alter the operator's rights upon the lands.

(4) A written update of the total bond liability for the facility under § 271.331 (relating to bond and trust amount determination). If additional bond is determined to be necessary, it shall be submitted to the Department within 90 days after the annual report is due.

(5) Certification that the operator has received the analysis or certification required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility, and that the residual waste or special handling waste that is received at the facility meets the conditions in the facility's permit.

(6) A record of detected radioactive materials.

(c) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee of \$700 in the form of a check payable to the "Commonwealth of Pennsylvania."

CESSATION AND CLOSURE

§ 279.262. Cessation of operations.

(a) Upon cessation of processing operations at the facility, the operator shall immediately remove solid waste and structures or other materials which contain or are contaminated with solid waste, and shall provide for the processing or disposal of the waste or material in accordance with the act, the environmental protection acts and this title.

(b) An operator required under § 279.233 (relating to soil and groundwater monitoring) to conduct soil monitoring may discontinue soil monitoring upon cessation of processing operations with the Department's approval. In deciding whether to allow discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that soil contamination will manifest itself in the future and other factors.

(c) An operator required under § 279.233 to conduct groundwater monitoring may discontinue groundwater monitoring after cessation of processing operations and cleanup only upon written approval by the Department. In deciding whether to allow discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that groundwater contamination will manifest itself in the future, whether the remediation standards in § 271.342(b)(4) (relating to final closure certification) are met and maintained and other relevant factors.

CHAPTER 281. COMPOSTING FACILITIES

Subchapter B. APPLICATION REQUIREMENTS FOR GENERAL COMPOSTING FACILITIES

GENERAL PROVISIONS

§ 281.101. General requirements.

(a) An application to operate a general composting facility shall:

(1) Comply with this subchapter.

(2) Comply with the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(b) Maps, plans and cross sections submitted to comply with this subchapter shall be on a scale in which 1 inch equals no more than 50 feet with 2-foot maximum contour intervals, unless otherwise approved by the Department.

PLANS

§ 281.111. Operating plan.

An application to operate a general composting facility shall contain the following:

(1) A narrative description of the general operating plan for the proposed facility, including the origin, composition and weight or volume of solid waste that is proposed to be composted at the facility, the suitability of the waste for composting, the composting process to be used at the facility, the daily operational methodology of the proposed process, the proposed processing and storage capacity of the facility and the expected life of the facility.

(2) A plan for an alternative waste handling or disposal system during periods when the proposed facility is not in operation, including procedures to be followed in case of equipment breakdown. Procedures may include the use of standby equipment, extension of operating hours or contractual agreements for diversion of municipal waste to other facilities.

(3) A plan for sampling and analyzing the compost.

(4) A description of the anticipated quality of the compost.

(5) A plan for the anticipated recovery rate of compost from the process, and plans for the reuse, sale or marketing of the compost.

(6) A plan for managing compost should markets for the sale or reuse of compost become unavailable.

(7) A plan for the proposed location and method for disposal or processing of residue produced by operation of the facility.

(8) A plan for assuring that solid waste received at the facility is consistent with § 281.201 (relating to basic limitations).

(9) A plan for training equipment operators and other personnel concerning the operation and approved design of the facility.

(10) The proposed operating hours of the proposed facility.

(11) A narrative describing the procedures for inspection and monitoring of incoming waste.

§ 281.112. Maps and related information.

(a) An application shall contain a topographic map, including necessary narrative descriptions, which shows the following:

(1) The boundaries and names of present owners of record of land, both surface and subsurface, and including easements, rights-of-way and other property interests, for the proposed permit area and adjacent area; the boundaries of the land within the proposed permit area; and a description of title, deed or usage restrictions affecting the proposed permit area.

(2) The boundaries of land to be affected over the estimated total life of the proposed operation.

(3) The location and name of surface water bodies, such as springs, streams, lakes, ponds, wetlands, constructed or natural drains and irrigation ditches located on the proposed permit area and adjacent area.

(4) The location and name of public and private water sources that are located on the proposed permit area and adjacent area.

(5) The location of rights-of-way for high-tension power lines, pipelines, railroads and public and private roads within 300 feet of the proposed facility.

(6) The location of buildings currently in use within 300 feet of the proposed facility.

(7) The anticipated location of water quality monitoring points.

(8) The boundaries of land within the proposed permit area or adjacent area identified in § 281.202 (relating to areas where general composting facilities are prohibited).

(9) The location of underground mine shafts on the proposed permit area and adjacent areas.

(10) The municipalities in which the permit area is proposed to be located.

(11) The location of the 100-year floodplain boundaries in the permit area and adjacent area.

(12) The location of barriers, fences and similar structures required by § 281.213 (relating to access control).

(13) The water diversion, collection, conveyance, sedimentation and erosion control, treatment, storage and discharge facilities to be used.

(14) The composting pads, tipping areas, storage areas, windrows and loading/unloading areas.

(15) The areas of land for which a bond will be posted under Chapter 271, Subchapter D (relating to financial assurances requirements).

(16) The location, size and use of buildings and related facilities which will be used in the operation, including the horizontal and vertical dimensions.

(17) The location of scales and weigh stations to be used in the operation.

(18) The utilities to be installed at the facility.

(19) The location of access loads to the site, including slopes, grades and lengths of the roads.

(20) For a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, a designated area for vehicles for use in the event of the detection of waste containing radioactive material. The designated area shall, by location or shielding, protect the environment, facility staff and public from radiation originating in the vehicle. The Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

(b) The applicant shall also submit a grid coordinate system for the entire proposed permit area. The horizontal control system shall consist of a grid not to exceed 200-foot-square sections. A permanent benchmark for horizontal and vertical control shall be shown. The grid system shall be tied to the benchmark and the baseline.

§ 281.119. Radiation protection action plan.

(a) An application for a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, shall contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting.

(b) The action plan shall be prepared in accordance with the Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

(c) The action plan shall be incorporated into the facility's approved waste analysis plan under § 271.613 (relating to waste analysis plan).

COMPOSTING

§ 281.121. Composting pad and vessel design.

(a) An application shall contain plans and specifications for the design, construction and maintenance of composting pads and vessels that will be required for the proposed facility.

(b) The application shall also contain a plan for inspection of composting pads and vessels to ensure their integrity.

(c) Composting pad and vessel plans and designs shall be consistent with § 281.231 (relating to composting pad or vessel).

§ 281.123. Daily volume.

The application shall contain a proposed maximum daily volume for the facility, and a detailed justification for volume, under §§ 271.126 and 271.127 (relating to requirement for environmental assessment; and environmental assessment).

SOIL AND WATER

§ 281.132. Soil erosion and sedimentation control plan.

(a) The applicant shall submit a plan to manage surface water and control erosion during all phases of construction and operation at the facility. The plan shall be based on the requirements of Chapter 102 (relating to erosion control), § 281.252 (relating to soil erosion and sedimentation control) and other applicable State and Federal requirements. Calculations indicating water quantities shall be based on the 24-hour precipitation event in inches to be expected once in 25 years. More stringent design standards may be required by the Department based on the most recent edition of the United States Department of Agriculture Soil Conservation Services' *Engineering Field Manual for Conservation Practices*.

(b) The plan shall include fully dimensioned diversion ditches, indicating length, gradient and cross section for configuration by reach, and capacities for ditch volume by reach. Calculations which are necessary to support design and siting shall be included in the plan.

§ 281.134. Soil and groundwater monitoring plan.

(a) If required by the Department, the applicant shall submit a groundwater monitoring plan to detect groundwater degradation from the facility.

(b) If required by the Department, the applicant shall submit a soil monitoring plan capable of detecting the contamination from the facility.

**Subchapter C. OPERATING REQUIREMENTS FOR
GENERAL COMPOSTING FACILITIES**

GENERAL PROVISIONS

§ 281.201. Basic limitations.

(a) A person or municipality may not own or operate a general composting facility unless the Department has first issued a permit to the person or municipality for the facility under this chapter.

(b) A person or municipality that operates a general composting facility shall comply with the following:

(1) The operating requirements of the act, this subchapter and the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.

(c) A person or municipality that operates a general composting facility may not allow residual waste or special handling waste to be handled at the facility unless the Department has specifically approved special measures for managing the waste as part of the permit.

(d) A person or municipality that operates a general composting facility may not:

(1) Mix solid waste with, or store solid waste in close proximity to, other solid waste to create a risk of fire or explosion, or a risk of the accumulation of poisonous or otherwise harmful vapors or gases.

(2) Allow explosive waste to be processed at the facility.

(e) Hazardous waste subject to Article VII (relating to hazardous waste management) may not be disposed, processed or stored where general composting facilities are operated.

(f) The approved mitigation measures identified in the permit application shall be completed before a facility may accept waste, unless a later date is authorized in writing by the Department for technical reasons.

(g) The following radioactive material controlled under specific or general license or order authorized by any Federal, State or other government agency may not be processed at the facility, unless specifically exempted from disposal restrictions by an applicable State or Federal statute or regulation:

(1) Naturally-occurring and accelerator-produced radioactive material.

(2) Byproduct material.

(3) Source material.

(4) Special nuclear material.

(5) Transuranic radioactive material.

(6) Low-level radioactive waste.

(h) The following radioactive material may not be processed at the facility, unless approved in writing by the Department and the processing does not endanger the environment, facility staff or public health and safety:

(1) Short-lived radioactive material from a patient having undergone a medical procedure.

(2) TENORM.

(3) Consumer products containing radioactive material.

(i) The limitations in subsections (g) and (h) do not apply to radioactive material as found in the undisturbed natural environment of this Commonwealth.

§ 281.202. Areas where general composting facilities are prohibited.

(a) Except for areas that were permitted prior to April 9, 1988, a general composting facility may not be operated as follows:

(1) *Floodplain.* In the 100-year floodplain of waters of this Commonwealth unless demonstrated that the composting facility can be protected during flooding.

(2) *Wetland.*

(i) In or within 300 feet of an exceptional value wetland, as defined in § 105.17 (relating to wetlands).

(ii) For a general composting facility permitted on or after December 23, 2000, other than an expansion of a general composting facility that was permitted prior to December 23, 2000, in or within 100 feet of a wetland other than an exceptional value wetland, unless storage and processing will not occur within that distance or storage and processing take place in an enclosed facility and one of the following is true:

(A) If the operation is in or along the wetland, the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).

(B) If the operation is not in or along the wetland, no adverse hydrologic or water quality impacts will result.

(3) *Occupied dwelling.* Within 300 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(4) *Perennial stream.* Within 100 feet of a perennial stream, unless one of the following applies:

(i) Storage and processing will not occur within 100 feet of a perennial stream and no adverse impacts to the perennial stream will result.

(ii) Storage and processing take place in an enclosed facility and no adverse hydrologic or water quality impacts will result.

(5) *Property line.* Within 50 feet of a property line unless the operator demonstrates one of the following:

(i) That actual processing of waste is not occurring within 50 feet of a property line.

(ii) That storage and processing occurring within 50 feet of a property line take place in an enclosed facility.

(iii) That the owner of the adjacent property has provided a written waiver consenting to the facility being closer than 50 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(6) *Water source.* Within 1/4 mile upgradient and within 300 feet downgradient of a private or public water source.

(7) *Water table.* In an area where the pad or vessel will be in contact with the seasonal high water table or perched water table.

(8) *School, park or playground.*

(i) For a municipal waste transfer facility permit issued on or after December 23, 2000, except an expansion of a municipal waste transfer facility permitted prior to December 23, 2000, within 300 yards of the following:

(A) A building which is owned by a school district or school and used for instructional purposes.

(B) A park.

(C) A playground.

(ii) The current property owner of a school building, park or playground may waive the 300-yard prohibition by signing a written waiver. Upon receipt of the waiver, the Department will waive the 300-yard prohibition and will not use the prohibition as the basis for the denial of a new permit.

(b) Except as provided in subsection (c), this section does not apply to a feature that may come into existence after the date of the first newspaper notice under § 271.141 (relating to public notice by applicant).

(c) This section does not apply to a feature that may come into existence after the date of the first newspaper notice under this subsection if the following apply:

(1) The person or municipality publishes a notice of intent to file an application for a general composting facility permit. The notice, which is separate from the newspaper notice required by § 271.141, shall be published once a week for 3 consecutive weeks in a newspaper of general circulation in the area where the facility is proposed to be located. The notice shall include a brief description of the location and proposed operation of the facility.

(2) The person or municipality files an administratively complete application with the Department within 1 year from the date of the first newspaper notice under this subsection.

DAILY OPERATIONS

§ 281.211. Signs and markers.

(a) A person or municipality that operates a general composting facility shall identify the facility for the duration of operations by posting and maintaining a sign which will be clearly visible and can be easily seen and read at the junction of each access road and public road unless otherwise approved by the Department. The sign shall be constructed of a durable, weather resistant material. The sign shall show the name, business address and telephone number of the person or municipality operating the facility, the operating hours of the facility and the number of the current permit authorizing operations at the facility.

(b) Permanent physical markers for the grid coordinate system and permit area markers shall be:

(1) Posted and maintained during the duration of the operations to which they pertain.

(2) Clearly visible, readable and uniform throughout the operation.

(3) Permanently fixed and made of a durable material.

(c) The perimeter of the site shall be clearly marked before the beginning of operations.

(d) The permanent physical markers for the grid coordinate system shall be installed at the locations set forth in the permit, prior to the beginning of operations. The base line of the grid system shall be marked with two permanent monuments that show elevation.

§ 281.212. Access roads.

(a) An access road shall be designed, constructed and maintained to prevent erosion to the maximum extent possible and to prevent contributions of sediment to streams or runoff outside the permit area.

(b) A crossing of a perennial or intermittent stream or a wetland shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) An access road shall have a drainage system that is compatible with the natural drainage system, structurally stable and which will pass safely the peak flow from a 25-year, 24-hour precipitation event. The drainage system shall comply with Chapter 102 (relating to erosion control).

(d) An access road shall be paved or surfaced with asphalt, gravel, cinders or other equivalent material approved by the Department in the permit. An access road shall be capable of withstanding the load limits projected by the applicant under § 281.115 (relating to plan for access roads). The maximum sustained grade of an access road may not exceed 12%.

(e) An access road negotiable by loaded collection vehicles shall be provided from the entrance gate of the area to each unloading area, treatment facility or impoundment. An access road shall also be provided to surface and groundwater monitoring points approved by the Department under § 281.254 (relating to soil and groundwater monitoring).

(f) Roads shall be constructed on a base that is capable of withstanding anticipated loads.

(g) Prior to the construction of a road, topsoil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the road.

(h) The disturbed areas adjacent to a road shall be vegetated or otherwise stabilized to prevent erosion.

(i) Access roads shall be designed, constructed and maintained to allow the orderly egress and ingress of vehicular traffic when the facility is in operation, including during inclement weather.

§ 281.214. Measurement and inspection of waste.

(a) An operator of a general composting facility that has received, is receiving or will receive 30,000 or more cubic yards of solid waste in a calendar year shall weigh solid waste when it is received. The scale used to weigh solid waste shall conform to 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act) and 70 Pa. Code Part I (relating to general provisions). The operator of the scale shall be a licensed public weighmaster under 3 Pa.C.S. Chapter 41 and 70 Pa. Code Part I.

(b) The operator of a facility that is not required by subsection (a) to weigh waste when it is received shall accurately measure waste by volume or weight prior to unloading.

(c) The operator of a general composting facility shall inspect and monitor incoming waste to ensure that the receipt of waste is consistent with this article and the permit.

§ 281.215. Equipment.

(a) The operator shall maintain on the site equipment necessary for operation of the facility in accordance with the permit. The equipment shall be maintained in an operable condition.

(b) If a breakdown of the operator's equipment occurs, the operator shall utilize standby equipment as necessary to comply with the act, the environmental protection acts, this subchapter and its permit conditions.

(c) Equipment shall be operated and maintained to prevent solid waste from being unintentionally removed from the site.

(d) Equipment shall be cleaned at frequencies specified in the permit based on scheduled or emergency maintenance periods.

(e) Provision shall be made for the routine operational maintenance of the facility.

§ 281.217. Air resources protection.

(a) The operator shall control fugitive air contaminants and otherwise prevent and control air pollution under the Air Pollution Control Act (35 P. S. §§ 4001—4014), Article III (relating to air resources) and § 281.218 (relating to nuisance minimization and control).

(b) A person or municipality may not cause or allow open burning at the facility.

§ 281.218. Nuisance minimization and control.

(a) The operator shall control and minimize the attraction, harborage or breeding of vectors.

(b) The operator shall control and minimize conditions not otherwise prohibited by this subchapter that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

§ 281.220. Litter.

(a) The operator may not allow solid waste, compost or other materials to be blown or otherwise deposited offsite.

(b) Fences or other barriers sufficient to control blowing litter shall be located in the area immediately downwind from the composting and storage areas unless operations are conducted within an enclosed building or the solid waste or compost being stored cannot create blowing litter.

(c) At least weekly, blown off and intercepted litter shall be collected from fences, roadways, tree-lined barriers and other barriers, and disposed or stored in accordance with the act and regulations thereunder, unless a greater frequency is set forth in the permit.

§ 281.221. Radiation monitoring and response.

(a) An operator of a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, shall implement the action plan approved under § 281.119 (relating to radiation protection action plan).

(b) An operator of a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, shall monitor incoming waste in accordance with the Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities," Document Number 250-3100-001 or in a manner at least as protective of the environment, facility staff and public health and safety. Monitoring

shall meet the requirements of this section and the facility's approved radiation protection action plan.

(c) Radiation detector elements shall be as close as practical to the waste load and in an appropriate geometry to monitor the waste. The radiation monitoring system shall be set to alarm at a level no higher than 10 microrentgen per hour ($\mu\text{R/hr}$) above the average background at the facility when any of the radiation detector elements is exposed to a Cesium-137 gamma radiation field. Radiation detector elements shall be shielded to maintain the average background below 10 $\mu\text{R/hr}$. If capable of energy discrimination, the radiation monitoring system shall be set to detect gamma rays of a 50 kiloelectron volt (keV) energy and higher.

(d) An operator shall have portable radiation monitors capable of determining the radiation dose rate and presence of contamination on a vehicle that has caused an alarm. Upon a confirmed exceedance of the alarm level in subsection (c), a radiological survey of the vehicle shall be performed.

(e) An operator shall notify the Department immediately and isolate the vehicle when radiation dose rates of 20 $\mu\text{Sv}^{\text{h}^{-1}}$ (2 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected in the cab of a vehicle, 500 $\mu\text{Sv}^{\text{h}^{-1}}$ (50 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected from any other surface, or contamination is detected on the outside of the vehicle.

(f) Monitoring equipment shall be calibrated at a frequency specified by the manufacturer, but not less than once a year.

(g) If radioactive material is detected at a composting facility, the vehicle containing the radioactive material may not leave the facility without written Department approval and an authorized United States Department of Transportation exemption form.

§ 281.222. Daily volume.

A person or municipality operating a composting facility may not receive solid waste at the facility in excess of the maximum daily volume approved in the permit.

COMPOSTING PROVISIONS

§ 281.231. Composting pad or vessel.

(a) Solid waste may not be composted, loaded, unloaded or stored, except on a composting pad or vessel that meets the requirements of this section.

(b) The composting pad or vessel shall be adequate in size and capacity to manage the projected solid waste, compost and residue volumes.

(c) A composting pad or vessel shall be:

(1) For a pad, capable of preventing the migration of waste and leachate generated from the composting process through the pad.

(2) Designed, constructed and maintained to protect the integrity of the pad or vessel during the projected life of the facility.

(3) Designed to collect leachate.

(4) For a pad, constructed of nonearthen material.

(5) Inspected for uniformity, damage and imperfections during construction and installation.

(6) Designed and operated so that the physical and chemical characteristics of the composting pad or vessel and its ability to restrict the flow of solid waste, solid waste constituents or leachate is not adversely affected by the leachate.

(d) The operator shall inspect the composting pad or vessel in a manner and frequency approved by the Department in the permit.

(e) Upon completion of the construction of a composting pad or vessel, the operator shall:

(1) Submit a certification by a registered professional engineer on forms provided by the Department. The certification shall describe the composting pad or vessel being certified, using drawings and plans if appropriate and shall state that the actual construction was observed by the engineer or persons under his direct supervision, and that the construction was carried out in a manner that is consistent with the permit.

(2) Notify the Department that the facility is ready for inspection. Solid waste may not be composted, and no solid waste or compost may be stored, loaded or unloaded on the composting pad or in the composting vessel, until the Department has conducted an inspection and has transmitted its written approval to the permittee indicating that the construction was done according to the permit.

§ 281.234. Sale or utilization of compost.

Prior to sale or utilization of compost, the operator shall obtain a general permit from the Department under Chapter 271, Subchapters I or J (relating to beneficial use of municipal waste; and beneficial use of sewage sludge by land application).

SOIL AND WATER PROTECTION

§ 281.251. General requirements.

(a) The operator may not cause or allow a point or nonpoint source discharge of pollution from or on the facility to surface waters of this Commonwealth.

(b) A general composting facility shall be operated to prevent and control water pollution. An operator shall operate and maintain necessary surface and groundwater treatment facilities until surface or groundwater pollution from or on the facility has been permanently abated.

(c) Neither compost nor municipal waste may be stored where continuous or intermittent contact could occur between the compost or waste and groundwater.

(d) The operator may not cause or allow water pollution within or outside of the site.

§ 281.253. Sedimentation ponds.

(a) Surface drainage from the disturbed area shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the site. The Department may waive the required use of sedimentation ponds when a person demonstrates to the Department that sedimentation ponds are not necessary to meet the requirements of § 281.251 (relating to general requirements).

(b) Sedimentation ponds shall be constructed, operated and maintained under this section, Chapters 102 and 105 (relating to erosion control; and dam safety and waterway management) and the minimum design criteria contained in the United States Soil Conservation Service's Engineering Standard 378, 'Pond' Pa., as amended.

(c) Sedimentation ponds and other treatment facilities shall be maintained until removal of the ponds and facilities is approved by the Department.

(d) A pond shall include a nonclogging, dewatering device approved by the Department that will allow the draining of the water from the inflow. The dewatering

device may not be located at a lower elevation than the maximum elevation of the sedimentation storage volume.

(e) The ponds shall be designed, constructed and maintained to prevent short circuiting to the maximum extent possible.

(f) The design, construction and maintenance of a sediment pond under this section does not relieve the operator of the responsibility for complying with the applicable treatment requirements and effluent limitations established under § 281.251.

(g) At a minimum, sedimentation ponds shall be capable of treating the runoff resulting from a 25-year, 24-hour precipitation event.

(h) A sedimentation pond shall be designed and inspected during construction under the supervision of a registered professional engineer, who shall certify to the Department upon completion of construction that the pond was constructed as approved in the permit.

§ 281.254. Soil and groundwater monitoring.

(a) If required by the Department as part of the permit, the operator shall conduct soil or groundwater monitoring, or both. The monitoring shall be in accordance with §§ 273.282—273.288 (relating to water quality monitoring), as required by the Department, and the terms and conditions of the permit, and shall continue for the period specified in Section 281.282 (relating to cessation of operations).

(b) For purposes of interfacing with §§ 273.282—273.288, the following terms apply:

(1) The term "disposal area" shall be substituted with "area where storage and processing occur."

(2) The term "municipal waste landfill" shall be substituted with "composting facility."

(3) The term "disposed" shall be substituted with "stored or processed."

§ 281.255. Water supply replacement.

(a) A person or municipality operating a composting facility which adversely affects a water supply by degradation, pollution or other means shall restore or replace the affected water supply with an alternative source that is of like quantity and quality to the original supply at no additional cost to the owner.

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after receipt of one of the following:

(1) Information showing that the operator is responsible for adversely affecting the water supply.

(2) Notice from the Department that the operator is responsible for adversely affecting the water supply.

(c) A permanent water supply shall be provided as soon as practicable but not later than 90 days after the receipt of one of the following:

(1) Information showing that the operator is responsible for adversely affecting the water supply.

(2) Notice from the Department that the operator is responsible for adversely affecting the water supply.

(d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

EMERGENCY PROCEDURES

§ 281.263. Implementation of contingency plan.

(a) The operator of the facility shall immediately implement the applicable provisions of the approved contingency plan when there is an emergency. For purposes of this section, an emergency shall include a fire, spill or other hazard, that threatens public health and safety, public welfare or the environment and personal injury.

(b) During an emergency, the operator shall:

(1) Assess actual or potential hazards to public health and safety, public welfare and the environment that are occurring or may occur.

(2) Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

(3) Immediately telephone the Department and county emergency management agency, and report the following information:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and permit number of the facility.

(iii) The date, time and location of the emergency.

(iv) A brief description of the nature of the emergency, the type and quantity of the solid waste involved and what dangers to public health and safety, public welfare and the environment exist or may occur.

(v) The nature of injuries.

(vi) The parts of the emergency plan being implemented to alleviate the emergency.

(c) After an emergency, the operator of the facility shall do the following:

(1) Clean up the area affected by the emergency and treat, store or dispose of recovered solid waste, contaminated soil, contaminated water or other material in a manner approved by the Department.

(2) Prevent processing or storage of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has inspected and approved the cleanup.

RECORDKEEPING AND REPORTING

§ 281.271. Daily operational records.

(a) A person or municipality that operates a general composting facility shall make and maintain an operational record for each day that municipal waste is received, processed or transported offsite.

(b) The daily operational record shall include the following:

(1) The type and weight or volume of the solid waste received.

(2) The county in which the solid waste originated, or if the waste originated outside of this Commonwealth, the state.

(3) The transporters of the solid waste.

(4) The weight or volume of each material recycled, marketed or disposed of as a result of the process.

(5) A record of deviations from the approved design or operational plans.

(6) A record of activities for which entries are needed to comply with the annual operation report required in § 281.272 (relating to annual operation report).

(7) A record of actions taken to correct violations of the act, the environmental protection acts and this title.

(8) A description of waste handling problems or emergency disposal activities.

(9) A record of each incident in which radioactive material is detected in waste loads. The record shall include:

(i) The date, time and location of the occurrence.

(ii) A brief narrative description of the occurrence.

(iii) Specific information on the origin of the material, if known.

(iv) A description of the radioactive material involved, if known.

(v) The name, address and telephone numbers of the supplier or handler of the radioactive material and the name of the driver.

(vi) The final disposition of the material.

(c) The operator shall maintain accurate operational records sufficient to determine whether municipal waste is being stored in compliance with Chapter 285, Subchapter A (relating to storage of municipal waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the environmental protection acts. These records shall be made available to the Department upon request.

§ 281.272. Annual operation report.

(a) A person or municipality that operates a general composting facility shall submit to the Department an annual operation report on or before June 30 of each year.

(b) The annual operation report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) The county in which the waste originated, or if the waste originated outside of this Commonwealth, the state.

(2) The weight or volume of each type of waste received.

(3) The weight or volume of each material recycled, marketed or disposed of as a result of the process.

(4) A current certificate of insurance, as specified in § 271.374(a) (relating to proof of insurance coverage), evidencing continuous coverage for public liability insurance as required by § 271.371 (relating to insurance requirement).

(5) Changes in the previous year concerning the information required by §§ 271.124 and 271.125 (relating to identification of interests; and compliance information). The report shall state if no changes have occurred.

(6) A change in the ownership of the land upon which the facility is located or a change in a lease agreement for the use of the land that may affect or alter the operator's rights upon the lands.

(7) A written update of the total bond liability for the facility under § 271.331 (relating to bond and trust amount determination). If additional bond is determined to be necessary, it shall be submitted to the Department within 90 days after the annual report is due.

(8) Certification that the operator has received all analyses required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility during the calendar year.

(9) A record of detected radioactive materials.

(c) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee of \$700 in the form of a check payable to the "Commonwealth of Pennsylvania."

CESSATION AND CLOSURE

§ 281.282. Cessation of operations.

(a) Upon cessation of composting operations at the facility, the operator shall remove solid waste and structures or other materials which contain or are contaminated with solid waste, and shall provide for the processing or disposal of the waste or material under the act, the environmental protection acts and this title.

(b) Areas requiring vegetation shall be revegetated under §§ 281.241 and 281.242 (relating to general requirements; and standards for successful revegetation).

(c) An operator required under § 281.254 (relating to soil and groundwater monitoring) to conduct soil monitoring may discontinue soil monitoring upon cessation of composting operations with the Department's approval. In deciding whether to allow the discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that groundwater degradation will manifest itself in the future and other relevant factors.

(d) An operator required under § 281.254 to conduct groundwater monitoring may discontinue groundwater monitoring after cessation of composting operations and cleanup only upon written approval by the Department. In deciding whether to allow discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that groundwater contamination will manifest itself in the future, whether the remediation standards in § 271.342(b)(4) (relating to final closure recertification) are met and maintained and other relevant factors.

CHAPTER 283. RESOURCE RECOVERY AND OTHER PROCESSING FACILITIES

Subchapter B. APPLICATION REQUIREMENTS GENERAL PROVISIONS

§ 283.102. Operating plan.

An application shall contain:

(1) A narrative description of the general operating plan for the proposed facility, including the origin, composition and weight or volume of solid waste that is proposed to be processed at the facility, the process to be used at the facility, the daily operational methodology of the proposed process, the loading rate, the proposed capacity of the facility and the expected life of the facility.

(2) A plan for an alternative waste handling or disposal system during periods when the proposed facility is not in operation, including procedures to be followed in case of equipment breakdown. Procedures may include the use of standby equipment, extension of operating hours and contractual agreements for diversion of municipal waste to other facilities.

(3) An operational safety, fire prevention and emergency response plan that will adequately protect workers

and patrons of the facility, prepared by an expert in the field of industrial hygiene and safety.

(4) A plan for assuring that solid waste received at the facility is consistent with § 283.201 (relating to basic limitations).

(5) A plan for training equipment operators and other personnel concerning the operation and approved design of the facility.

(6) The proposed operating hours of the proposed facility.

(7) A study that documents the short-term and long-term effects that the facility will have on the public and private water supply. The study shall include, but not be limited to, effects of pollution, contamination, diminution and alternative sources of water adequate in quantity and quality for the purposes served by the public and private water supply.

(8) An explanation of how the applicant intends to comply with § 283.214 (relating to measuring and inspection of waste).

§ 283.103. Maps and related information.

An application shall contain a topographic map of the proposed permit area and adjacent area, including necessary narrative descriptions, which show the following:

(1) The boundaries and names of present owners of record of land, both surface and subsurface, and including easements, rights-of-way and other property interests, for the proposed permit area and adjacent area; the boundaries of the land within the proposed permit area; and a description of title, deed or usage restrictions affecting the proposed permit area.

(2) The boundaries of the land to be affected over the estimated total life of the proposed operation.

(3) The location and name of surface water bodies, such as springs, streams, lakes, ponds, wetlands, constructed or natural drains and irrigation ditches that are located on the proposed permit area and adjacent area.

(4) The location and name of public and private water sources that are located on or within 1/4-mile of the proposed facility. If more than 50 wells are located within the 1/4-mile radius, the applicant may identify only the closest wells in each direction and generally describe the location and number of wells within 1/4-mile of the proposed facility.

(5) The location of rights-of-way for high-tension power lines, pipelines, railroads and public and private roads within 300 feet of the proposed facility.

(6) The location of buildings currently in use within 300 feet of the proposed facility.

(7) The anticipated location of water quality monitoring points, if monitoring is required by the Department.

(8) The boundaries of land within the proposed permit area or adjacent area identified in § 283.202 (relating to areas where resource recovery facilities and other processing facilities are prohibited).

(9) The location of underground mine shafts on the permit area and the adjacent area.

(10) The municipalities in which the permit area is proposed to be located.

(11) The location of the 100-year floodplain boundaries.

(12) The location of access roads to and within the proposed permit area, including slopes, grades and lengths of the roads.

(13) The location of barriers, fences and similar structures required by § 283.212 (relating to access control).

(14) The water diversion, collection, conveyance, erosion and sedimentation control, treatment, storage and discharge facilities to be used.

(15) The solid waste storage or loading/unloading areas.

(16) The areas of land for which a bond will be posted under Chapter 271, Subchapter D (relating to financial assurances requirements).

(17) The location, size and use of buildings and related facilities which will be used in the operation, including their horizontal and vertical dimensions.

(18) The location of scales and weigh stations to be used in the operation.

(19) Utilities to be installed at the facility.

(20) A designated area for vehicles for use in the event of the detection of waste containing radioactive material. The designated area shall, by location or shielding, protect the environment, facility staff and public from radiation originating in the vehicle. The Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

§ 283.107. Soil and groundwater monitoring plan.

(a) If required by the Department, the applicant shall submit a groundwater monitoring plan to detect groundwater degradation from the facility.

(b) If required by the Department, the applicant shall submit a soil monitoring plan to detect soil contamination from the facility.

§ 283.112. Relationship to county plans.

(a) This section requires the submission of certain information in the permit application when the Department has given final approval to a municipal waste management plan for the county in which the proposed facility, or proposed additional capacity for a facility, would be located, and the county has submitted to the Department legal documents necessary to implement the plan under § 272.245 (relating to submission of implementing documents).

(b) An application shall contain the following:

(1) An explanation of whether the proposed facility is provided for in the approved plan for the host county. A facility is "provided for" if it is designated by the host county to provide capacity assurance in the approved host county plan. A facility analyzed as part of a planning process, but not designated, will not be considered "provided for."

(2) If the proposed facility is not provided for in the approved host county plan:

(i) A detailed explanation of whether the proposed facility will interfere with implementation of the approved host county plan.

(ii) A detailed explanation of whether the proposed facility will interfere with municipal waste collection, storage, transportation, processing or disposal in the host county.

(iii) A detailed response to objection, if any, filed by the governing body of the host county within 60 days of the written notice under section 504 of the act (35 P.S. § 6018.504).

§ 283.113. Radiation protection action plan.

(a) An application shall contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting.

(b) The action plan shall be prepared in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

(c) The action plan shall be incorporated into the facility's approved waste analysis plan under § 271.613 (relating to waste analysis plan).

§ 283.114. Daily volume.

The application shall contain a proposed maximum daily volume for the facility, and a detailed justification for the volume, based on §§ 271.126 and 271.127 (relating to requirement for environmental assessment; and environmental assessment).

RECYCLING

§ 283.121. Recycling plan.

An application shall contain a plan for salvaging and recycling waste materials received at the facility for which recycling is cost effective, including proposed salvage areas, salvaging methods and anticipated markets for salvaged materials under § 283.281 (relating to salvaging of materials).

**Subchapter C. OPERATING REQUIREMENTS
GENERAL PROVISIONS**

§ 283.201. Basic limitations.

(a) A person or municipality may not own or operate a municipal waste processing facility other than a transfer facility or composting facility, unless the Department has first issued a permit to the person or municipality for the facility under this chapter.

(b) A person or municipality that operates a municipal waste processing facility other than a transfer or composting facility shall comply with the following:

(1) The operating requirements of the act, this subchapter and the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.

(c) A person or municipality that operates a facility subject to this chapter may not allow residual waste or special handling waste to be handled at the facility unless the Department has specifically approved the processing of the waste as part of the permit.

(d) A person or municipality that operates a facility subject to this subchapter may not:

(1) Mix solid waste with, or store solid waste in close proximity to, other solid waste so as to create a risk of

fire or explosion, or a risk of the accumulation of poisonous or otherwise harmful vapors or gases.

(2) Allow explosive waste to be stored, processed or disposed at the facility.

(e) Hazardous waste subject to Article VII (relating to hazardous waste management) may not be disposed, processed or stored at municipal waste processing facilities subject to this subchapter.

(f) Lead acid batteries may not be processed at the facility except for purposes of removal for recycling or disposal.

(g) On and after September 26, 1990, loads composed primarily of leaf waste may not be processed at the facility except for purposes of composting.

(h) A person or municipality may not allow solid waste generated outside the host county for a facility to be received, disposed or otherwise managed at the facility if the transportation to, or disposal or management at, the facility would violate applicable laws in effect in the county or state in which the waste was generated, or state or local solid waste management plans in effect where the waste was generated.

(i) Sections 283.121—283.123 (relating to recycling) also apply.

(j) The approved mitigation measures identified in the permit application shall be completed before a facility may accept waste unless otherwise authorized in writing by the Department for technical reasons.

(k) The following radioactive material controlled under specific or general license or order authorized by any Federal, State or other government agency may not be processed at the facility, unless specifically exempted from disposal restrictions by an applicable State or Federal statute or regulation:

(1) Naturally-occurring and accelerator-produced radioactive material.

(2) Byproduct material.

(3) Source material.

(4) Special nuclear material.

(5) Transuranic radioactive material.

(6) Low-level radioactive waste.

(l) The following radioactive material may not be processed at the facility, unless approved in writing by the Department and the processing does not endanger the environment, facility staff or public health and safety.

(1) Short lived radioactive material from a patient having undergone a medical procedure.

(2) TENORM.

(3) Consumer products containing radioactive material.

(m) The limitations in subsections (k) and (l) do not apply to radioactive material as found in the undisturbed natural environment of this Commonwealth.

§ 283.202. Areas where resource recovery facilities and other processing facilities are prohibited.

(a) Except for areas that were permitted prior to April 9, 1988, a municipal waste processing facility subject to this chapter may not be operated as follows:

(1) *Floodplain.* In the 100-year floodplain of waters of this Commonwealth, unless the Department approves in the permit a method of protecting the facility from a 100-year flood consistent with the Flood Plain Manage-

ment Act (32 P. S. §§ 679.101—679.601) and the Dam Safety and Encroachment Act (32 P. S. §§ 693.1—693.27).

(2) *Wetlands.*

(i) In or within 300 feet of an exceptional value wetland as defined in § 105.17 (relating to wetlands).

(ii) For a processing facility permit issued on or after December 23, 2000, other than an expansion of a processing facility that was permitted prior to December 23, 2000, in or within 100 feet of a wetland other than an exceptional value wetland, unless for a processing facility other than a resource recovery facility storage and processing will not occur within that distance or storage and processing take place in an enclosed facility and one of the following is true:

(A) If the operation is in or along the wetland, the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).

(B) If the operation is not in or along the wetland, no adverse hydrologic or water quality impacts will result.

(3) *Occupied dwelling.*

(i) For a processing facility permit issued prior to December 23, 2000, or for an expansion of a resource recovery facility or other processing facility that was permitted prior to December 23, 2000, within 300 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner. This siting limitation does not apply to onsite infectious and chemotherapeutic waste incineration facilities which are not commercial facilities.

(ii) For a processing facility permit issued on or after December 23, 2000, within 300 yards measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 yards. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(4) *Perennial stream.* Within 100 feet of a perennial stream unless the storage and processing will not occur within that distance and no adverse hydrologic or water quality impacts will result.

(5) *Property line.* Within 50 feet of a property line unless the operator demonstrates one of the following:

(i) That actual processing of waste is not occurring within 50 feet of a property line.

(ii) That storage and processing take place in an enclosed facility.

(iii) That the owner of the adjacent property has provided a written waiver consenting to the facility being closer than 50 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(6) *School, park or playground.*

(i) For a resource recovery facility permit issued on or after September 26, 1988, except an expansion of a resource recovery facility permitted prior to September 26, 1988, within 300 yards of the following:

(A) A building which is owned by a school district or school and used for instructional purposes.

- (B) A park.
- (C) A playground.

(ii) The current property owner of a school building, park or playground may waive the 300-yard prohibition by signing a written waiver. Upon receipt of the waiver, the Department will waive the 300-yard prohibition and will not use the prohibition as the basis for the denial of a new permit.

(b) Except as provided in subsection (c), this section does not apply to a feature that may come into existence after the date of the first newspaper notice under § 271.141 (relating to public notice by applicant).

(c) This section does not apply to a feature that may come into existence after the date of the first newspaper notice under this subsection if the following apply:

(1) The person or municipality publishes a notice of intent to file an application for a municipal waste processing permit. The notice, which is separate from the newspaper notice required by § 271.141, shall be published once a week for 3 consecutive weeks in a newspaper of general circulation in the area where the facility is proposed to be located. The notice shall include a brief description of the location and proposed operation of the facility.

(2) The person or municipality files an administratively complete application under § 271.202 (relating to receipt of application and completeness review) with the Department within 1 year from the date of the first newspaper notice under this subsection.

DAILY OPERATIONS

§ 283.211. Signs and markers.

(a) A person or municipality that operates a facility subject to this subchapter shall identify the facility and the recycling drop-off center required under § 283.282 (relating to recycled materials collection center) for the duration of municipal waste processing operations by posting and maintaining a sign which is clearly visible and can be easily seen and read at the junction of each access road and public road. The sign shall be constructed of a durable, weather-resistant material. The sign shall show the name, business address and telephone number of the person or municipality operating the facility, the operating hours of the facility and the number of the current permit authorizing operations at the facility.

(b) Permit area markers and the permanent physical markers for the grid coordinate system shall be:

- (1) Posted and maintained for the duration of the operation to which they pertain.
 - (2) Clearly visible, readable and uniform throughout the operation.
 - (3) Permanently fixed and made of a durable material.
- (c) The perimeter of the site shall be clearly marked before the beginning of operations.

§ 283.212. Access control.

(a) A gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when an attendant is not on duty.

(b) The operator shall maintain a fence or other suitable barrier around the site sufficient to prevent unauthorized access.

(c) Access to the site shall be limited to when an attendant is on duty.

§ 283.213. Access roads.

(a) An access road shall be designed, constructed and maintained to prevent erosion to the maximum extent possible and to prevent contributions of sediment to streams or runoff outside the site.

(b) A crossing of a perennial or intermittent stream or a wetland shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) An access road shall have a drainage system that is compatible with the natural drainage system, structurally stable and which will pass safely the peak flow from a 24-hour, 25-year precipitation event. The drainage system shall comply with Chapter 102 (relating to erosion control).

(d) An access road shall be paved or surfaced with asphalt, gravel, cinders or other equivalent material approved by the Department in the permit. An access road shall be capable of withstanding the load limits projected by the applicant under § 283.105 (relating to plan for access roads). The maximum sustained grade of an access road may not exceed 12%.

(e) An access road negotiable by loaded collection vehicles shall be provided from the entrance gate of the area to each unloading area, treatment facility or impoundment.

(f) A road shall be constructed on a base that is capable of withstanding anticipated loads.

(g) Disturbed areas adjacent to a road shall be vegetated or otherwise stabilized to prevent erosion.

(h) An access road shall be maintained to control dust and to prevent or control the tracking of mud on or off site.

(i) An access road shall be designed, constructed and maintained to allow the orderly egress and ingress of vehicular traffic when the facility is in operation, including during inclement weather.

§ 283.214. Measurement and inspection of waste.

(a) An operator of a municipal waste processing facility that has received, is receiving or will receive 30,000 or more cubic yards of solid waste in a calendar year shall weigh solid waste when it is received. The scale used to weigh solid waste shall conform to 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act) and 70 Pa. Code Part I (relating to general provisions). The operator of the scale shall be a licensed public weighmaster under 3 Pa.C.S. Chapter 41 and 70 Pa. Code Part I.

(b) The operator of a facility that is not required by subsection (a) to weigh waste when it is received, shall accurately measure waste by volume or weight prior to unloading.

(c) The operator of a facility shall inspect and monitor incoming waste to insure that the receipt of waste is consistent with this article.

§ 283.215. Equipment.

(a) The operator shall maintain on the site equipment necessary for operation of the facility in accordance with the permit. The equipment shall be maintained in an operable condition.

(b) If a breakdown of the operator's equipment occurs, the operator shall utilize standby equipment as necessary to comply with the act, the environmental protection acts, this subchapter and its permit conditions.

(c) Equipment shall be operated and maintained to prevent solid waste from being unintentionally removed from the facility.

(d) Equipment used to handle putrescible solid waste with which operations personnel are in direct contact shall be cleaned at the end of each working day or every 24 hours. Other equipment shall be cleaned at frequencies specified in the permit based on scheduled or emergency maintenance periods.

§ 283.216. Unloading area.

(a) The approach and unloading area shall be adequate in size and design to facilitate the rapid unloading of municipal waste from collection vehicles and the unobstructed maneuvering of the vehicles and other equipment.

(b) The loading areas and unloading areas shall be constructed of impervious material which is capable of being cleaned by high-pressure water spray and shall be equipped with drains or sumps connected to a sanitary sewer system or treatment facility to facilitate the removal of water. Drains or treatment systems may be connected to a sanitary sewer system if a waste characterization is submitted to the sewage sludge treatment plant operator and the operator finds that the treatment plant can fully treat the waste stream. Leachate may be collected in holding tanks prior to its transport to the sewage treatment facility.

(c) If the facility has an unloading pit, the facility shall have in place truck wheel curbs or tie downs that are sufficient to prevent trucks from backing into the pit or falling into the pit while unloading.

(d) An attendant or clearly marked signs shall direct vehicles to the unloading area.

(e) The operator shall ensure that collection vehicles unload waste promptly in unloading areas.

(f) Solid waste shall be confined to the unloading area or a storage area approved as part of the operator's permit.

(g) If bulky waste is handled or processed at the facility, the operator shall remove the waste daily or take other action sufficient to prevent nuisances or unsightliness.

(h) The facility shall have a storage capacity for the scheduled or emergency shutdown of processing operations that is equivalent to the waste that can be processed at the facility in 3 days, unless otherwise specified by the Department in the permit.

§ 283.217. Cleaning and maintenance.

(a) Areas within the building shall be kept clean.

(b) The operator may not allow putrescible waste to remain at the facility at the end of the day or for more than 24 hours except that putrescible waste may remain at the facility for any time period up to 72 hours over a weekend or 3-day weekend if provided for in the permit.

(c) Plumbing shall be properly maintained, and the floors shall be well drained.

(d) Processing equipment and areas that have contact with solid waste shall be capable of being cleaned by high-pressure water spray or other methods, and shall be

located near drains that connect to a sanitary sewer system or treatment facility. Drains or treatment systems may be connected in a sanitary sewer system if a waste characterization is submitted to the sewage sludge treatment plant operator and the operator finds that the treatment plant can fully treat the waste stream. Leachate may be collected in holding tanks prior to its transport to the sewage treatment facility.

(e) Provision shall be made for the routine operational maintenance of the facility.

(f) The operator shall inspect the facility daily to detect hot spots in the storage area, dust accumulation, vectors, litter and other problems, and promptly take necessary corrective actions.

§ 283.218. Air resources protection.

(a) Emissions from a facility subject to this chapter shall meet the requirements of the Air Pollution Control Act (35 P. S. §§ 4001—4014), Article III (relating to air resources), the terms or conditions of its permit and other applicable Department guidelines.

(b) The operator may not cause or contribute to an exceedance of any ambient air quality standards under § 131.3 (relating to ambient air quality standards).

(c) A person or municipality may not cause or allow open burning at the facility.

(d) In addition to the requirements of subsections (a)—(c) emissions from a facility subject to this chapter shall be, at a minimum, subject to the following:

(1) For new infectious or chemotherapeutic waste incinerators, best available technology standards for air quality control for the facilities, defined at §§ 121.1 and 127.12(a)(5) (relating to definitions; and content of applications).

(2) For existing infectious or chemotherapeutic waste incinerators, reasonably available technology control standards for the facilities, as required by section 2(b) of the act of July 13, 1988 (P. L. 525, No. 93) (35 P. S. § 6019.2(b)), known as the Infectious and Chemotherapeutic Waste Law and Department regulations.

(3) For new incinerators for waste other than infectious or chemotherapeutic waste, best available technology standards for the facilities defined at §§ 121.1 and 127.12(a)(5).

(4) For existing incinerators for waste other than infectious or chemotherapeutic waste, reasonably available technology control standards for the facilities, as required by Department regulations.

§ 283.219. Nuisance minimization and control.

(a) The operator shall control and minimize the attraction, harborage or breeding of vectors.

(b) The operator shall control and minimize conditions not otherwise prohibited by this subchapter that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

§ 283.220. Radiation monitoring and response.

(a) An operator shall implement the action plan approved under § 283.113 (relating to radiation protection action plan).

(b) An operator shall monitor incoming waste in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Document Number 250-3100-001, or

in a manner at least as protective of the environment, facility staff and public health and safety. Monitoring shall meet the requirements of this section and the facility's approved radiation protection action plan.

(c) Radiation detector elements shall be as close as practical to the waste load and in an appropriate geometry to monitor the waste. The radiation monitoring system shall be set to alarm at a level no higher than 10 microrentgen per hour ($\mu\text{R/hr}$) above the average background at the facility when any of the radiation detector elements is exposed to a cesium-137 gamma radiation field. Radiation detector elements shall be shielded to maintain the average background below 10 $\mu\text{R/hr}$. If capable of energy discrimination, the radiation monitoring system shall be set to detect gamma rays of a 50 kiloelectron volt (keV) energy and higher.

(d) An operator shall have portable radiation monitors capable of determining the radiation dose rate and presence of contamination on a vehicle that has caused an alarm. Upon a confirmed exceedance of the alarm level in subsection (c), a radiological survey of the vehicle shall be performed.

(e) An operator shall notify the Department immediately and isolate the vehicle when radiation dose rates of 20 $\mu\text{Sv}^{\text{h}^{-1}}$ (2 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected in the cab of a vehicle, 500 $\mu\text{Sv}^{\text{h}^{-1}}$ (50 $\text{mrem}^{\text{h}^{-1}}$) or greater are detected from any other surface, or contamination is detected on the outside of the vehicle.

(f) Monitoring equipment shall be calibrated at a frequency specified by the manufacturer, but not less than once a year.

(g) If radioactive material is detected, the vehicle containing the radioactive material may not leave the facility without written Department approval and an authorized United States Department of Transportation exemption form.

§ 283.223. Daily volume.

A person or municipality operating a resource recovery or other processing facility may not receive solid waste at the facility in excess of the maximum daily volume approved in the permit.

SOIL AND WATER PROTECTION

§ 283.231. General requirements.

(a) The operator may not cause or allow a point or nonpoint source discharge in violation of The Clean Streams Law (35 P. S. §§ 691.1—691.1001) from or on the facility to surface waters of this Commonwealth.

(b) A municipal waste processing facility shall be operated to prevent and control water pollution. An operator shall operate and maintain necessary water pollution treatment facilities until water pollution from or on the facility has been permanently abated.

(c) A facility shall be operated to prevent or minimize contact by surface or groundwater with solid waste or processed material.

(d) The operator may not cause or allow water pollution on or off the site.

(e) The operator may not cause contamination of the soil on or off the site.

§ 283.232. Soil erosion and sedimentation control.

The operator shall manage surface water and control erosion and sedimentation to:

(1) Divert surface water away from the storage area with measures and structures necessary to handle surface water flows, based on a 25-year, 24-hour precipitation event, supported by written calculations and also in compliance with Chapter 102 (relating to erosion control).

(2) Meet the requirements of Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management).

(3) Prevent erosion to the maximum extent possible, including if possible, using revegetation.

§ 283.233. Soil and groundwater monitoring.

(a) If required by the Department as part of the permit, the operator shall conduct soil or groundwater monitoring, or both. The monitoring shall be in accordance with §§ 273.282—273.288 (relating to water quality monitoring), as required by the Department, and the terms and conditions of the permit, and shall continue for the period specified in § 283.272 (relating to cessation of operations).

(b) For purposes of interfacing with §§ 273.282—273.288, the following terms apply:

(1) The term “disposal area” shall be substituted with “area where storage and processing occur.”

(2) The term “municipal waste landfill” shall be substituted with “resource recovery facility or other processing facility.”

(3) The term “disposed” shall be substituted with “stored or processed.”

§ 283.234. Water supply replacement.

(a) A person or municipality operating a municipal waste processing facility subject to this Chapter which adversely affects a water supply by degradation, pollution or other means shall restore or replace the affected water supply with an alternate source that is of like quantity and quality to the original supply at no additional cost to the owner.

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(c) A permanent water supply shall be provided as soon as practicable but not later than 90 days after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

(2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.

(d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply, or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

EMERGENCY PROCEDURES

§ 283.253. Implementation of contingency plan.

(a) The operator of the facility shall immediately implement the applicable provisions of the approved contin-

gency plan whenever there is an emergency. For purposes of this section, an emergency shall include a fire, spill or other hazard that threatens public health and safety, public welfare or the environment and personal injury.

(b) During an emergency, the operator shall:

(1) Assess actual or potential hazards to public health and safety, public welfare and the environment that are occurring or may occur.

(2) Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

(3) Immediately telephone the Department and county emergency management agency, and report the following information:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and permit number of the facility.

(iii) The date, time and location of the emergency.

(iv) A brief description of the nature of the emergency, the type and quantity of the solid waste involved and what dangers to public health and safety, public welfare and the environment exist.

(v) The nature of injuries.

(vi) The parts of the contingency plan being implemented to alleviate the emergency.

(c) After an emergency, the operator of the facility shall do the following:

(1) Clean up the area affected by the emergency and treat, store or dispose of recovered solid waste, contaminated soil, contaminated water or other material in a manner approved by the Department.

(2) Prevent processing, storage or disposal of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has approved the resumption of operation after the cleanup.

RECORDKEEPING AND REPORTING

§ 283.261. Daily operational records.

(a) The operator of a facility subject to this chapter shall make and maintain an operational record for each day that municipal waste is received, processed or transported offsite.

(b) The daily operational record shall include the following:

(1) The type and weight or volume of the solid waste received.

(2) The county in which the solid waste originated, or if the waste originated outside of this Commonwealth, the state.

(3) The transporters of the solid waste.

(4) The weight or volume of each material recycled or marketed as a result of the process.

(5) For bypassed wastes and waste products, the name and county or state of the facility where the solid waste is ultimately disposed and the weight or volume of waste disposed.

(6) A description of waste handling problems or emergency disposal activities.

(7) A record of deviations from the approved design or operational plans.

(8) A record of activities for which entries are needed in order to comply with the annual operation report required in § 283.262 (relating to annual operation report).

(9) A record of actions taken to correct violations of the act, the environmental protection acts and this title.

(10) A record of rejected waste loads and the reasons for rejecting the loads.

(11) A record of each incident in which radioactive material is detected in waste loads. The record shall include:

(i) The date, time and location of the occurrence.

(ii) A brief narrative description of the occurrence.

(iii) Specific information on the origin of the material, if known.

(iv) A description of the radioactive material involved, if known.

(v) The name, address and telephone numbers of the supplier or handler of the radioactive material and the name of the driver.

(vi) The final disposition of the material.

(12) For resource recovery facilities, a record of each vehicle, other than a combination, that exceeds 73,280 pounds gross weight and of each combination that exceeds 80,000 pounds gross weight.

(i) The record shall include:

(A) The gross weight of the vehicle when weighed at the facility.

(B) The registration plate number and home or base state registration of the vehicle.

(C) The name, business address and telephone number of the owner of the vehicle.

(D) The date and time when the vehicle was weighed at the facility.

(E) The date that the weight scale was last tested in accordance with 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act).

(ii) For purposes of this paragraph, the following terms have the following meanings, unless the content clearly indicates otherwise:

(A) *Combination*. Two or more vehicles physically interconnected in tandem. An example of a combination is a truck tractor attached to a semi-trailer.

(B) *Gross weight*. The combined weight of a vehicle or combination of vehicles and its load, excluding the driver's weight.

(C) *Registration*. The authority for a vehicle to operate on a highway as evidenced by the issuance of an identifying card and plate or plates.

(c) The operator shall maintain accurate operational records sufficient to determine whether municipal waste is being stored under Chapter 285, Subchapter A (relating to storage of municipal waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the

environmental protection acts, but in no case less than 5 years. These records shall be made available to the Department upon request.

§ 283.262. Annual operation report.

(a) An operator of a facility subject to this chapter shall submit to the Department an annual operation report on or before June 30 of each year.

(b) The annual operation report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) A current certificate of insurance, as specified in § 271.374(a) (relating to proof of insurance coverage), evidencing continuous coverage for public liability insurance as required by § 271.371 (relating to insurance requirement).

(2) Changes in the previous year concerning the information required by §§ 271.124 and 271.125 (relating to identification of interests; and compliance information). The report shall state if no changes have occurred.

(3) A change in the ownership of the land upon which the facility is located or a change in a lease agreement for the use of the land that may affect or alter the operator's rights upon the land.

(4) A written update of the total bond liability for the facility under § 271.331 (relating to bond and trust amount determination). If additional bond is determined to be necessary, it shall be submitted to the Department within 90 days after the annual report is due.

(5) Certification that the operator has received all analyses required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility during the calendar year.

(6) A record of detected radioactive materials.

(c) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee in the form of a check payable to the "Commonwealth of Pennsylvania" for the following amounts:

(1) Seven hundred dollars for facilities that incinerate municipal waste.

(2) Seven hundred dollars for other municipal waste processing facilities subject to this chapter.

§ 283.264. Recycling fee.

(a) On and after October 26, 1988, the operator of a resource recovery facility shall pay the recycling fee, in the form of a check payable to the "Commonwealth of Pennsylvania, Recycling Fund," in accordance with Chapter 7 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4000.701—4000.706). This fee shall terminate in accordance with law.

(1) The recycling fee shall be paid on a quarterly basis, on or before the 20th day of April, July, October and January for the 3 months ending the last day of March, June, September and December respectively.

(2) A recycling fee payment shall be accompanied by a form provided by the Department and completed according to its instructions and hand signed by the operator.

(b) The fee shall be paid for solid waste received and processed at the facility on and after October 26, 1988, including, but not limited to, residual waste, special handling wastes, waste tires and other solid waste received at the facility. The fee does not apply to the following:

(1) Recyclable or reusable material received and separated from other waste at a collection, transfer, composting or processing facility associated with the facility, and which are marketed in accordance with subsection (d).

(2) Nonprocessable waste received at the facility and disposed at a landfill.

(c) The fee shall be \$2 per ton of weighed waste which is received and processed at the facility.

(d) The operator shall maintain complete and accurate records of the weight of materials which are salvaged and recycled from mixed waste after it has been received at the facility, the market where the materials were sent for recycling or reuse, the date that the materials were marketed and the weight of materials actually marketed for recycling. The operator may deduct the weight of materials salvaged and recycled from the facility from the weight of waste for which the fee payment is made, but only for the quarter in which the materials were actually marketed for recycling. These records shall be kept by the operator for 5 years for audit purposes, and shall be made available to the Department or its auditors, or both, on request.

CESSATION AND CLOSURE

§ 283.272. Cessation of operations.

(a) Upon cessation of processing operations at the facility, the operator shall immediately remove solid waste and structures or other materials which contain or are contaminated with solid waste, and shall provide for the processing or disposal of the waste or material in accordance with the environmental protection acts and this title.

(b) An operator required under § 283.233 (relating to soil and groundwater monitoring) to conduct soil monitoring may discontinue soil monitoring upon cessation of processing operations only upon written approval of the Department. In deciding whether to allow discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that soil contamination will manifest itself in the future and other factors.

(c) An operator required under § 283.233 to conduct groundwater monitoring may discontinue groundwater monitoring after cessation of operations and cleanup only upon written approval by the Department. In deciding whether to allow discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that groundwater contamination will manifest itself in the future, whether the remediation standards in § 271.342(b)(4) (relating to final closure certification) are met and maintained and other relevant factors.

RECYCLING AND WASTE REMOVAL

§ 283.281. Salvaging of materials.

(a) A person or municipality may not operate a resource recovery facility unless the operator has developed and is implementing a program to recycle waste materials received at the facility for which recycling is cost effective, in accordance with the plan approval under § 283.121 (relating to recycling plan).

(b) Salvaging and recycling of materials may not be allowed or conducted unless salvaging and recycling is controlled by the operator to prevent interference with prompt and sanitary operations and is conducted to prevent a health hazard or nuisance.

(c) Salvaged materials shall be promptly moved from the unloading area and stored in an approved area under Chapter 285 (relating to storage, collection and transportation of municipal waste) or transported offsite.

Subchapter D. ADDITIONAL APPLICATION REQUIREMENTS FOR SPECIAL HANDLING WASTES

§ 283.302. (Reserved).

Subchapter E. ADDITIONAL OPERATING REQUIREMENTS FOR SPECIAL HANDLING WASTES

§ 283.402. (Reserved).

CHAPTER 284. INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

Subch.

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Subchapter A. GENERAL PROVISIONS

GENERAL PROVISIONS

Sec.

284.1.	Scope.
284.2.	Permit by rule for infectious or chemotherapeutic waste processing facilities; qualifying facilities; general requirements.

GENERAL PROVISIONS

§ 284.1. **Scope.**

This chapter sets forth application and operating requirements for a person or municipality that operates an infectious or chemotherapeutic waste facility. The requirements in this chapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions).

§ 284.2. **Permit by rule for infectious or chemotherapeutic waste processing facilities; qualifying facilities; general requirements.**

(a) If the requirements of this section are met, the following onsite processing facilities for infectious and chemotherapeutic waste shall be deemed to have a municipal waste processing permit under this article:

(1) An onsite autoclave facility, including one which renders waste unrecognizable, which processes at least 50% of its own infectious waste generated onsite and accepts offsite waste for disinfection only from small quantity generators that generate less than 220 pounds per month of infectious waste if the following conditions are met:

(i) Processing of pathological waste is prohibited.

(ii) The retention time for processing bulk fluids (greater than 500 ml) allows for the complete vaporization of fluids.

(2) An onsite incineration facility that burns at least 50% of its own infectious or chemotherapeutic waste generated onsite and accepts offsite infectious or chemotherapeutic waste for incineration only from small quantity generators that generate less than 220 pounds per month of infectious or chemotherapeutic waste. This onsite incineration facility may process municipal waste generated onsite as long as the resulting ash is managed as processed infectious and chemotherapeutic waste.

(3) An onsite steam and superheated water disinfection facility which processes infectious waste, including one which renders waste unrecognizable, which processes at least 50% of its own infectious waste generated onsite and accepts offsite waste for disinfection only from small quantity generators that generate less than 220 pounds per month of infectious waste. Processing of pathological waste is prohibited.

(b) Generators that process and disinfect less than 220 pounds per month of infectious waste onsite and render the waste unrecognizable will be deemed to have municipal waste processing permits under this article if the requirements under subsections (c)—(g) are met. Generators that process and disinfect less than 220 pounds per month of infectious waste onsite without rendering the waste unrecognizable will be deemed to have municipal waste processing permits under this article if the requirements under subsections (c)—(g) are met and if the following requirements are met:

(1) The generator may dispose of the processed waste in a landfill or have the waste incinerated in a facility that has obtained written approval from the Department to accept the waste.

(2) The generator shall comply with the manifest requirements in § 284.701(b)(5) (relating to scope).

(c) The following requirements shall be met by facilities identified in subsections (a) and (b) to operate under a permit-by-rule:

(1) The facility complies with Chapter 285 and Subchapters E and F (relating to storage, collection and transportation of municipal waste; and infectious and chemotherapeutic waste).

(2) The facility has necessary permits under the environmental protection acts, and is operating in accordance with the environmental protection acts and the regulations promulgated thereunder, the terms and conditions of permits and orders of the Department.

(3) The operator maintains at the facility in a readily accessible place the following information:

(i) For a processing facility identified in subsection (a), a written plan for managing infectious waste generated at the facility, including waste handling, equipment operation and maintenance, processing method, disinfection monitoring procedures including quality assurance procedures, and a description of how noninfectious waste is managed to prevent commingling.

(ii) For processing facilities subject to a permit-by-rule, daily records of the weight or volume of the waste that is processed, the method and location of disposal facilities for wastes from the processing facility, and waste handling problems and emergencies.

(4) Processing does not have an adverse effect on public health, safety, welfare or the environment.

(5) The waste is disinfected in accordance with § 284.321 (relating to infectious waste monitoring requirements).

(6) Disinfection occurs before or during processing of the waste.

(7) A log is maintained for each disinfection unit and is made available to the Department upon request. The log shall record the following:

(i) The date, time and operator for each use.

(ii) The dates and results of calibration.

(iii) The postdisinfection color reading of temperature sensitive tape and the results of biological indicator spore testing, in accordance with § 284.321 for steam disinfection facilities.

(iv) Results of ash testing which utilizes a methodology approved by the Department, for incineration facilities.

(8) Remaining waste is managed in accordance with the act and the regulations promulgated thereunder. For onsite autoclave facilities which do not render the waste unrecognizable, the processing residue shall be manifested in accordance with Subchapter H (relating to manifesting).

(9) For incineration facilities, an air quality permit shall be obtained under the Air Pollution Control Act (35 P. S. §§ 4001—4015).

(10) For facilities identified in subsection (a), notice is provided to the Department by the operator of a facility which indicates an intention to operate under permit-by-rule and which includes the following information:

- (i) The name and address of the facility.
- (ii) A description of the processing activity.
- (iii) The names and telephone numbers of the individuals responsible for operation of the processing facility.

(11) For facilities identified in subsection (a), the processed waste is disposed of in a landfill or processed in an incinerator that has obtained written approval from the Department to dispose or process the waste.

(d) Chapter 271, Subchapter E (relating to civil penalties and enforcement) is applicable to facilities subject to permit-by-rule.

(e) Notwithstanding a provision in this section to the contrary, a facility will not be deemed to have a permit-by-rule if it causes or allows violations of the environmental protection acts, the regulations promulgated thereunder, the terms or conditions of a permit issued by the Department, or an order issued by the Department, or causes a public nuisance. A facility that is subject to permit-by-rule is not required to apply for a permit under this article, if that facility operates in accordance with this section.

(f) Generators who qualify for a permit-by-rule may render the waste unrecognizable by processes such as thermal treatment, melting, encapsulation, shredding, grinding, tearing or breaking.

(g) The requirements under Chapter 271, Subchapter D (relating to financial assurances requirements) which relate to bonding and insurance are waived for facilities which are deemed to have a permit under this section.

Subchapter B. GENERAL PERMITS

Sec.

GENERAL

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GENERAL

§ 284.101. Authorization for general permits.

(a) In accordance with this subchapter, the Department may issue general permits on a regional or Statewide basis for a category of mobile or stationary infectious waste processing facilities or stationary chemotherapeutic waste processing facilities if the Department determines the following:

- (1) The processing facilities and the waste to be processed in the category are substantially similar.
- (2) The processing facilities in the category can be adequately regulated utilizing standard conditions without harming or presenting a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth.

(3) The processing facilities in the category will comply with the requirements established in the permit and with the standards and requirements for design, construction, operation, maintenance and monitoring in Chapter 283 (relating to resource recovery and other processing facilities), and Subchapter D (relating to processing facilities).

(b) The Department may issue a general permit upon its own motion under § 284.115 (relating to Department initiated general permits) or upon an application from a person or municipality under §§ 284.111—284.114 (relating to issuance of a general permit).

(c) The Department may issue a general permit for the mixing of disinfection products with infectious waste to perform processing.

(d) The Department may issue a general permit for the processing of mixtures of the same types of waste that are infectious or residual wastes.

(e) The Department may modify, suspend, revoke or reissue general permits under this subchapter as it deems necessary to prevent harm or the threat of harm to the health, safety or welfare of the people or environment of this Commonwealth.

(f) The Department will not issue a general permit for a commercial infectious or chemotherapeutic waste processing facility, including commercial incinerators.

§ 284.102. Nature of a general permit; substitution for individual applications and permits.

(a) When the Department issues a general permit for an infectious or chemotherapeutic waste processing facility on either a regional or Statewide basis, persons or municipalities who intend to process infectious or chemotherapeutic waste in accordance with the terms and conditions of the general permit may do so without filing an individual application for, and first obtaining, an individual permit.

(b) The use of an applicable general permit shall satisfy the requirement to obtain a permit in § 271.101 (relating to permit requirement) if the following are met:

- (1) The processing activities are conducted in accordance with the terms and conditions of the applicable general permit.
- (2) The person or municipality conducting the processing activities is authorized to operate under the general permit at the time that the Department issued the

general permit or under the applicable general permit in accordance with § 284.132 or § 284.133 (relating to determination of applicability; and registration).

(c) Notwithstanding subsections (a) and (b), the Department may require a person or municipality authorized by a general permit to apply for, and obtain, an individual permit when the person or municipality is not in compliance with the conditions of the general permit or is conducting an activity that harms or presents a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth.

ISSUANCE OF A GENERAL PERMIT

§ 284.111. Application for general permit.

(a) A person or municipality may apply to the Department for the issuance of a general permit for a specific category of processing of infectious or chemotherapeutic waste.

(b) An application for the issuance of a general permit for processing infectious or chemotherapeutic waste shall be submitted on a form prepared by the Department and shall contain the following:

- (1) A description of the waste.
- (2) A characterization of the waste as either infectious or chemotherapeutic.
- (3) An operation plan which contains the following:
 - (i) A description of the proposed processing activity and equipment.
 - (ii) A description of the method proposed to receive infectious or chemotherapeutic waste which ensures the waste is handled separately from other solid waste until processing and disposal, and that prevents unauthorized persons from having access to or contact with the waste.
 - (iii) A description of the procedure for managing containers which arrive in a leaking condition, which includes whether the waste is processed immediately, repacked or rejected.
 - (iv) A description of the method proposed to unload and process infectious or chemotherapeutic waste, limiting the number of persons handling the waste and minimizing the possibility of exposure of that waste to employees and the public using or visiting the facility.
 - (v) A description of the method proposed for disinfecting emptied, reusable infectious waste containers, transport vehicles and facility equipment which are known or suspected to be contaminated with infectious waste.
 - (vi) A description of the method proposed for handling and disposal of infectious or chemotherapeutic waste containers which cannot be reused.
 - (vii) A description of reuse of containers if the surfaces of the containers have been protected from direct contact with chemotherapeutic waste.
 - (viii) A description of the means by which provisions will be made to require the use of clean gloves and clean uniforms along with other protective clothing to provide protection of employees against exposure to infectious or chemotherapeutic waste.
 - (ix) A description of the means by which provisions will be made to require decontamination of a person having had bodily contact with infectious or chemotherapeutic waste while handling that waste at the facility.

(x) A description of the method proposed to quantify, on a weight basis, the maximum amount of infectious or chemotherapeutic waste to be stored and processed each month.

(xi) A schedule of the operating hours of the facility.

(xii) A description of the method proposed to assure that infectious or chemotherapeutic waste received at the facility is consistent with § 283.201 (relating to basic limitations).

(xiii) A description of periodic testing using biological indicators which demonstrate effective disinfection of the waste, in accordance with § 284.321 (relating to infectious waste monitoring requirements).

(xiv) A description of closure activities which are proposed to be carried out upon cessation of operations, in accordance with § 283.272 (relating to cessation of operations).

(xv) A description of how the processing residue will be managed.

(xvi) A description of how aerosols will be minimized and controlled during processing activities.

(4) A contingency plan which provides procedures to be used for emergency situations including, at a minimum, spills of infectious or chemotherapeutic waste and ruptures of containers containing the waste. The plan shall include procedures for cleanup and disinfection of spill area, protection of personnel, disposal of spill residue and repackaging of the waste. The plan shall also include a description of an alternative waste handling system during periods when the proposed facility is not in operation, including procedures to be followed in the case of equipment breakdown. Alternate waste handling procedures may include use of standby equipment, extension of operating hours and contractual agreements for diversion of infectious or chemotherapeutic waste to other facilities.

(5) A personnel training plan which describes the hiring of equipment operators and the training of personnel involved in the handling and processing of infectious or chemotherapeutic waste. The plan shall include a detailed explanation of the operation and contingency plans.

(c) A nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$1,000 shall accompany the application.

(d) The application requirements in subsection (b) may be waived or modified for the mixing of disinfection products with infectious waste to perform processing.

§ 284.112. Completeness review.

(a) After receipt of an application for the issuance of a general permit, or an application for a determination of applicability under § 284.132 (relating to determination of applicability), the Department will determine whether the application is administratively complete. For purposes of this subchapter, an application is administratively complete if it contains the necessary analyses, fees, documents and information, regardless of whether the analyses, fees, documents and information would be sufficient for the issuance of the permit or the determination of applicability.

(b) If the application is not administratively complete, the Department will return it to the applicant, within 60 days of receipt of the application. A written statement of the specific analyses, fees, documents or information that are required to make the application administratively complete will accompany an application which is returned.

(c) The Department will deny the application if the applicant fails to provide the analyses, fees, documents and information within 90 days of receipt of the notice in subsection (b).

§ 284.113. Public notice and review period.

(a) The Department will publish notice of receipt of an application for a general permit in the *Pennsylvania Bulletin* when the Department determines that the application is administratively complete.

(b) The notice shall include:

(1) A brief description of the waste and the category of processing of infectious or chemotherapeutic waste which is identified in the application as a candidate for a general permit.

(2) The Department's address and telephone number at which interested persons or municipalities may obtain further information and review a copy of the application for the general permit.

(3) A brief description of the procedures for public comment on the general permit application.

(4) A statement that interested persons or municipalities may submit comments to the Department within 60 days of the publication of the notice, and may recommend conditions upon, revisions to, approval or disapproval of the general permit application.

(c) The Department may hold a public meeting or public hearing on the application for a general permit.

(d) Upon issuance of a general permit, the Department will place a notice in the *Pennsylvania Bulletin* of the availability of the general permit. If a county has made recommendations to the Department concerning conditions, revisions or disapproval of the permit during the 60-day comment period, and the Department has overridden the recommendations, the Department will publish its justification for overriding the recommendations in the *Pennsylvania Bulletin*.

(e) Each applicant for coverage under the general permit shall provide written notice to each municipality in which the applicant intends to operate under a general permit.

§ 284.114. Approval or denial of an application.

The Department may not issue a general permit for a category of processing of infectious or chemotherapeutic waste unless the applicant has affirmatively demonstrated the following:

(1) The application for the general permit is accurate and complete.

(2) The applicant has complied with the requirements of §§ 284.101, 284.102 and 284.111—284.113.

(3) The proposed processing activities will be conducted in a manner that will not harm or present a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth through exposure to constituents of the waste during the processing activities and afterwards.

§ 284.115. Department-initiated general permits.

(a) The Department may issue or modify a general permit for a category of processing of infectious or chemotherapeutic waste upon its own motion in accordance with this section.

(b) At least 60 days prior to the issuance or modification of a general permit under this section, the Department

will publish a notice in the *Pennsylvania Bulletin* of intent to issue or modify a general permit under this section.

(c) The notice required by subsection (b) shall include the following:

(1) A clear and specific description of the category of processing of infectious or chemotherapeutic waste eligible for coverage under the proposed general permit.

(2) The standards in § 284.101(a) (relating to authorization for general permits), and a brief description of the reasons for the Department's determination that the category of processing is eligible for coverage under a general permit in accordance with these standards.

(3) A brief description of the terms and conditions of the proposed general permit.

(4) A brief description of the procedures for public comment on the general permit in accordance with this subchapter.

(5) The Departmental address and telephone number at which interested persons or municipalities may obtain further information and review a copy of the proposed general permit.

(6) A statement that interested persons or municipalities may submit comments to the Department within 60 days of the publication of the notice and may recommend conditions upon, revisions to, and approval or disapproval of the proposed general permit.

(d) The Department may hold a public meeting or public hearing on the proposed general permit or proposed modification to the general permit.

(e) Upon issuance or modification of a general permit, the Department will place a notice in the *Pennsylvania Bulletin* of the availability of the new or modified general permit.

CONTENT OF GENERAL PERMITS AND WAIVERS

§ 284.121. Contents of general permits.

Each general permit issued by the Department will include, at a minimum:

(1) A clear and specific description of the category of processing of infectious or chemotherapeutic waste eligible for coverage under the general permit.

(2) The standards in § 284.101(a) (relating to authorization for general permits) and a brief explanation of the reasons for the Department's determination that the category of processing is eligible for coverage under the general permit in accordance with the standards in § 284.101(a).

(3) A specification of registration or determination of applicability requirements established in accordance with § 284.131 (relating to authorization for persons or municipalities to be included in a general permit) and the fee imposed on registrants or applicants for coverage under the general permit.

(4) An effective date, and a fixed permit term, which may not exceed 10 years from the effective date. If the Department renews a general permit, the term may not exceed the term of the original permit.

(5) A set of terms and conditions governing the construction, operation, maintenance, inspection and monitoring of the processing activities covered by the general permit as are necessary to assure compliance with this act, this article and the environmental protection acts.

(6) A requirement that persons or municipalities who conduct activities authorized by the general permit shall allow authorized representatives of the Commonwealth, without advance notice or a search warrant, upon the presentation of appropriate credentials, and without delay, to have access to areas in which the activities covered by the general permit will be, are being or have been conducted to ensure compliance with the act and the act of July 13, 1988 (P. L. 525, No. 93) (35 P. S. §§ 6019.1—6019.6), known as the Infectious and Chemotherapeutic Waste Law, regulations promulgated thereunder and a permit, license or order issued by the Department under the act.

(7) A requirement that the activities authorized by the general permit will not harm or present a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth.

(8) A requirement that waste be accompanied by a properly completed manifest, in accordance with Subchapter H (relating to manifesting), when appropriate.

(9) A requirement that waste be delivered by a licensed transporter in accordance with Subchapter G (relating to transporter licensing), when appropriate.

(10) A requirement that the processing facility operate in accordance with local, State and Federal requirements.

(11) A requirement that the processing residue be disposed of in a landfill that has obtained written approval by the Department to dispose of the waste.

(12) A requirement that an up-to-date list of names, addresses and telephone numbers of employees that have been designated by the permittee to respond to emergencies at the processing facility be maintained at the facility.

(13) A requirement that individual employee training records be maintained at the processing facility.

(14) A requirement for use of additional indicators selected by the Department to monitor the disinfection process.

(15) A requirement that daily records of the weight or volume of the waste processed, the method and location of disposal facilities for wastes from the processing facility and waste handling problems and emergencies be maintained for 3 years.

(16) A requirement that a log be maintained for each disinfection unit for 3 years that records the following:

- (i) The date, time and operator for each use.
- (ii) The dates and results of calibration.
- (iii) The results of biological indicator spore testing.
- (iv) Other information that the Department may require relating to the disinfection process.

(17) Requirements for closure.

(18) A requirement that autoclaves meet the following:

- (i) Processing of pathological waste is prohibited.
- (ii) The retention time for processing bulk fluids (greater than 500 ml) allows for the complete vaporization of fluids.

§ 284.122. Waiver or modification of certain requirements.

(a) An operation that is approved under this subchapter does not require an individual processing or disposal permit under this article.

(b) For an operation that is approved under this subchapter, the Department may waive or modify any application and operating requirements in this article, except the Department may not waive § 271.123 and may not waive or modify Chapter 271, Subchapter A, §§ 271.124, 271.125, 271.129 and Subchapter E.

REGISTRATION AND DETERMINATION OF APPLICABILITY

§ 284.131. Authorization for persons or municipalities to be included in a general permit.

(a) A person or municipality is authorized to operate under a general permit if one of the following occurs:

(1) If the applicable general permit requires persons or municipalities to register with the Department prior to operating under the general permit, the person or municipality has registered in accordance with the terms of the general permit and the requirements of this subchapter.

(2) If the applicable general permit requires persons or municipalities to apply for and obtain a determination of applicability from the Department prior to operating under the general permit, and the Department has made this determination.

(b) Registration or application requirements and time limits, if any, shall be set forth in the general permit governing each category of processing infectious or chemotherapeutic waste. The general permit shall also set forth the area or region within which each category of processing is allowed.

(c) At a minimum, the registration or application for determination of applicability shall include:

(1) The name, address and location of the person or municipality conducting the activity covered under the general permit.

(2) A description of the waste, including a characterization of the waste as either infectious or chemotherapeutic, that will be processed in accordance with the general permit.

(3) A description of the proposed method of processing of the waste.

(4) The name or number of the general permit being utilized for the activity.

(5) A demonstration that the activities which the person or municipality intends to conduct are authorized by the general permit.

(6) A signed and notarized statement by the person or municipality conducting the activity authorized by the general permit, on a form prepared by the Department, which states that the person or municipality agrees to accept the conditions imposed by the general permit for processing of infectious or chemotherapeutic waste under the general permit.

(d) A person or municipality that registers for coverage under a general permit or applies to the Department for a determination of applicability of a general permit shall submit a copy of the registration or application to each municipality in which the processing activity will be located. The submission shall occur at the same time that the person or municipality files the registration or application with the Department.

§ 284.132. Determination of applicability.

If a general permit specifies that potential users of the permit shall obtain a determination of applicability from the Department prior to conducting the activity autho-

rized by the general permit, the procedures in this section shall be followed in addition to those stated in § 284.131 (relating to authorization for persons or municipalities to be included in a general permit):

(1) An application for a determination of applicability shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$500.

(2) The Department will provide notice in the *Pennsylvania Bulletin* of each application for a determination of applicability for a general permit which the Department has determined to be administratively complete. The Department may indicate in the notice that interested persons or municipalities may submit comments to the Department within a 60-day period. If a comment period is provided, counties may recommend to the Department conditions, revisions or disapproval of the application. The Department may hold a public meeting or public hearing on an application for determination of applicability for a general permit.

(3) The Department will make a determination that a general permit is or is not applicable to an activity for which an application for determination of applicability is filed within 60 days from the publication of the notice under paragraph (2) or, if a comment period is provided, within 120 days after publication of the notice. The time period does not include periods beginning with the date the Department has requested in writing that the applicant make substantive corrections or changes to the application and ending with the date that the applicant submits corrections or changes to the Department's satisfaction. Failure by the Department to comply with this timetable will not be construed or understood to constitute grounds for a determination that the general permit applies to the proposed activity.

(4) The Department will determine that the general permit does not apply to the proposed processing activity and deny coverage under the general permit if the applicant fails to demonstrate the following to the Department's satisfaction:

- (i) That the proposed activity is consistent with the terms and conditions of the general permit.
- (ii) That the activity does not have the potential to harm or present a threat of harm to the health, safety or welfare of the people or the environment of this Commonwealth.

(5) The Department will publish notice of its decision regarding each determination of applicability in the *Pennsylvania Bulletin*. If a county has made recommendations to the Department concerning conditions, revisions or disapproval of the permit during a 60-day comment period, and the Department has overridden the recommendations, the Department will publish its justification for overriding the recommendations in the *Pennsylvania Bulletin*. The applicant for a determination of applicability for coverage under a general permit shall provide written notice to each municipality in which the applicant intends to operate pursuant to the general permit.

(6) The Department may amend, suspend or revoke coverage under a general permit if the waste or the activity is not consistent with the terms and conditions of the general permit.

§ 284.133. Registration.

(a) When a general permit specifies that potential users are required to register with the Department prior to operating under the general permit, the procedures in

this section shall be followed in addition to those in § 284.131 (relating to authorization for persons or municipalities to be included in a general permit).

(1) A registration to operate under a general permit shall be accompanied by a nonrefundable fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$250.

(2) The Department will publish notice of each registration to operate under a general permit in the *Pennsylvania Bulletin*. The registrant under a general permit shall provide written notice to each municipality in which the registrant intends to operate under the general permit.

(b) Persons or municipalities may conditionally operate under a general permit in accordance with the terms of the general permit immediately upon registering with the Department.

(c) Upon the request of the Department, a person or municipality shall provide sufficient information to demonstrate to the satisfaction of the Department that the person or municipality is authorized to operate under the general permit. The Department may refuse to issue or approve a registration if the person or municipality has failed to demonstrate that the person or municipality is in conformance with the general permit.

(d) The Department may amend, suspend or revoke registration under a general permit if the waste or the activity is not consistent with the terms and conditions of the general permit.

Subchapter C. TRANSFER FACILITIES

- Sec.
- 284.201. Scope.
- 284.210. Application requirements.
- 284.220. Operating requirements.

§ 284.201. Scope.

This subchapter sets forth application and operating requirements for a person or municipality that operates a transfer facility for infectious or chemotherapeutic waste. The requirements in this subchapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general).

§ 284.210. Application requirements.

An application to operate a transfer facility shall comply with §§ 279.101—279.111 (relating to general requirements).

§ 284.220. Operating requirements.

A person or municipality that operates a transfer facility shall comply with §§ 279.201—279.262.

Subchapter D. PROCESSING FACILITIES

- Sec.
- 284.301. Scope.
- 284.310. Application requirements.
- 284.311. Plan for monitoring.
- 284.320. Operating requirements.
- 284.321. Infectious waste monitoring requirements.

§ 284.301. Scope.

This subchapter sets forth application and operating requirements for a person or municipality that operates a processing facility, other than a transfer or composting facility, for infectious or chemotherapeutic waste. The requirements in this subchapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions).

§ 284.310. Application requirements.

An application to operate a processing facility shall comply with §§ 283.101—283.114 (relating to general provisions).

§ 284.311. Plan for monitoring.

An application for a processing facility for infectious waste shall contain a plan, including necessary designs, procedures and test protocols on forms provided by the Department, for meeting the requirements of § 284.321 (relating to infectious waste monitoring requirements), including the following:

(1) The method by which disinfection will be accomplished.

(2) A description of the monitoring and quality assurance program to ensure disinfection.

§ 284.320. Operating requirements.

A person or municipality that operates a processing facility shall comply with §§ 283.201—283.224, 283.231—283.262 and 283.271—283.272.

§ 284.321. Infectious waste monitoring requirements.

(a) A person or municipality that disinfects infectious waste shall monitor the waste to ensure the following:

(1) For thermal processing or incineration, the absence of anaerobic or aerobic bacterial growth in a composite sample of processing residue or ash.

(2) For other disinfection processes, both of the following are met:

(i) The process shall be capable of inactivating vegetative bacteria, fungi, lipophilic/hydrophilic viruses, parasites and mycobacteria at a 6 log 10 reduction or greater.

(ii) Inactivating *Stearothermophilus* spores, *B. pumilus* or *B. subtilis* spores at a 4 log 10 reduction or greater.

(b) The operator of a facility that incinerates or thermally processes infectious waste shall submit to the Department a microbiological analysis of a composite sample of the processing or ash residue on forms provided by the Department at a minimum, quarterly during the life of the facility.

(c) The operator of a facility that incinerates infectious waste shall submit to the Department, at least annually during the life of the facility, a chemical analysis of composite samples of the ash residue on forms provided by the Department.

(d) If the facility disinfects infectious waste by means other than incineration or thermal processing, the operator shall perform a microbiological analysis of indicators removed from the processed waste. The analysis shall be conducted at a minimum, every 40 hours during the operational life of the facility, unless otherwise provided in a permit. The analyses shall be made available to the Department upon request.

(e) Unless the Department approves another indicator or test in writing, the following indicators shall be used to establish and verify the following processes:

(1) For autoclaving, spores of *Bacillus stearothermophilus*.

(2) For dry heat, gas or chemical disinfection, spores of *Bacillus subtilis* variety *niger* (*globigii*). Ethylene oxide may not be used for gas disinfection.

(3) For ionizing radiation, spores of *Bacillus pumilus*.

(f) Indicators used for methods of disinfection other than incineration or thermal processing shall be located prior to disinfection at a point where disinfection will be most difficult to achieve.

(g) Infectious waste will be considered to be infectious after disinfection, unless one of the following has occurred:

(1) For disinfection processes other than incineration or thermal processing, the indicator spores are determined by microbiological analysis to have been destroyed in accordance with subsection (a).

(2) For incineration or thermal processing using a test other than an indicator spore, a microbiological analysis determines that disinfection has occurred in accordance with subsection (a).

(h) The operator of the disinfection facility shall so certify that the requirements of subsection (a) have been met on a form provided by the Department.

(i) Ash or other processing residue shall be stored in accordance with § 284.418 or § 284.419 (relating to storage and containment of ash residue from infectious or chemotherapeutic waste incineration; and storage and containment of processing residue from an infectious or chemotherapeutic waste facility).

(j) Ash or other processing residue shall be transported in accordance with § 284.511 or § 284.514 (relating to transportation of ash residue from infectious or chemotherapeutic waste incineration; and transportation of processing residue from an infectious or chemotherapeutic waste facility).

(k) Compactors, grinders or similar devices may not be used to reduce the volume of infectious waste before the waste has been rendered noninfectious. If the volume reduction device is within a continuous, enclosed disinfection process and part of one processing system, then the reduction device may be used.

(l) The operator of an infectious waste processing facility shall dispose of ash or other processing residue from the facility in a landfill that has been approved by the Department to accept the waste, if the waste is disposed in this Commonwealth.

(m) In addition to other applicable requirements, an autoclave facility shall comply with the following:

(1) The processing of pathological waste is prohibited.

(2) The facility shall maintain a retention time for processing bulk fluids (greater than 500 ml) which allows for the complete vaporization of fluids.

Subchapter E. STORAGE

Sec.

284.401. Scope.

284.411. Basic storage requirements.

284.412. Sorting.

284.413. Duration of storage of infectious waste for generators.

284.414. Duration of storage of infectious waste for processors.

284.415. Storage containers.

284.416. Marking of containers.

284.417. Reuse of containers.

284.418. Storage and containment of ash residue from infectious or chemotherapeutic waste incineration.

284.419. Storage and containment of processing residue from an infectious or chemotherapeutic waste processing facility.

§ 284.401. Scope.

This subchapter sets forth operating requirements for a person or municipality that stores infectious or chemotherapeutic waste, ash residue from infectious or chemo-

therapeutic waste incineration and processing residue from an infectious or chemotherapeutic waste processing facility. The requirements in this chapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions) and the requirements in §§ 285.111—285.121 (relating to general provisions and types of storage).

§ 284.411. Basic storage requirements.

(a) Infectious and chemotherapeutic waste shall be stored and contained in a manner that:

(1) Maintains the integrity of the containers, prevents the leakage or release of waste from the containers and provides protection from water, rain and wind.

(2) Prevents the spread of infectious or chemotherapeutic agents.

(3) Affords protection from animals and does not provide a breeding place or a food source for insects or rodents.

(4) Maintains the waste in a nonputrescent state, using refrigeration ($\leq 7^{\circ}\text{C}$) or freezing (-18°C) when necessary.

(5) Prevents odors from emanating from the container.

(6) Prevents unauthorized access to the waste. As part of this requirement, the following shall be met:

(i) Enclosures and containers used for storage of infectious or chemotherapeutic waste shall be secured to deny access to unauthorized persons.

(ii) Enclosures and containers shall also be marked with prominent warning signs indicating the storage of infectious or chemotherapeutic waste.

(b) Enclosures at a waste generating or processing facility that are used for the storage of infectious or chemotherapeutic waste shall be constructed of finish materials that are impermeable and capable of being readily maintained in a sanitary condition. Storage areas shall be ventilated to minimize human exposure to the exhaust air.

(c) Infectious and chemotherapeutic waste may not be commingled with other waste.

(d) The generator may store infectious and municipal waste that has been sorted and separately containerized on the same cart for movement to an onsite processing or disposal facility. Chemotherapeutic waste may also be stored on the cart with municipal and infectious waste if it is sorted and separately containerized and if it is moved to an onsite incinerator.

§ 284.412. Sorting.

(a) Infectious and chemotherapeutic waste shall be placed in separate containers from other waste at the point of origin in the generating facility.

(b) Infectious and chemotherapeutic waste may be stored together in the same container if approved in writing by the Department.

(c) Used sharps, regardless of whether they are infectious or chemotherapeutic waste, may be stored in the same container if the requirements of §§ 284.413(a) and 284.415(a) and (b) (relating to duration of storage of infectious waste for generators; and storage containers) are met.

(d) Infectious waste shall be sorted at the point of origin in the generating facility into the following three classes, and each class shall be placed in a separate container:

- (1) Used sharps.
- (2) Fluids—quantities greater than 20 cubic centimeters.

(3) Other infectious waste.

(e) Chemotherapeutic waste shall be sorted at the point of origin in the generating facility into the following three classes, and each class shall be placed in a separate container:

(1) Used sharps.

(2) Fluids.

(3) Other chemotherapeutic waste.

(f) Sorted and separately containerized infectious waste may be placed together into another container for onsite handling or offsite transportation.

§ 284.413. Duration of storage of infectious waste for generators.

(a) Generators that store infectious or chemotherapeutic waste onsite shall meet the following requirements:

(1) Infectious waste, excluding used sharps, may be stored at room temperature until the storage container is full, but for no longer than 30 days from the date waste was first placed in the container.

(2) A storage container filled with infectious waste may be stored in a refrigeration unit for up to 30 days from the date waste was first placed in the container.

(3) A storage container of infectious waste that has been filled within 30 days from the date waste was first placed in the container may be frozen immediately for up to 90 days from the date waste was first placed in the container.

(b) If the infectious waste becomes putrescent during the storage period identified in subsection (a), the waste shall be moved offsite within 24 hours for processing or disposal.

(c) Used sharps containers may be used until full as long as the storage is in accordance with § 284.411 (relating to basic storage requirements).

§ 284.414. Duration of storage of infectious waste for processors.

If the waste processing facility is separate from the waste generating facility, infectious waste may not be stored at the waste processing facility for more than the following periods unless other periods are approved in a permit:

(1) Seventy-two hours at a temperature $\leq 28^{\circ}\text{C}$.

(2) Seven days in a refrigerator at $\leq 7^{\circ}\text{C}$.

(3) Thirty days in a freezer at -18°C .

§ 284.415. Storage containers.

(a) Infectious and chemotherapeutic waste shall be placed in containers that are:

(1) Leakproof.

(2) Impervious to moisture.

(3) Sufficient in strength to prevent puncturing, tearing or bursting during storage.

(b) In addition to the requirements of subsection (a), used sharps shall be stored in containers that are:

(1) Rigid.

(2) Tightly lidded.

(3) Puncture resistant.

(c) In addition to the requirements of subsection (a), infectious waste fluids—quantities greater than 20 cubic centimeters—and chemotherapeutic waste fluids shall be stored in containers that are:

(1) Break resistant.

(2) Tightly lidded or tightly stoppered.

(d) When bags are used as the only storage container, double or multiple bagging shall be employed and the following requirements shall be met:

(1) Upon packaging, the bags shall be securely tied.

(2) The bag shall be constructed of material of sufficient single thickness strength to meet the following:

(i) The ASTM standard D1709-91, *Test Method for Impact Resistance of Polyethylene Film by the Free Falling Dart Method*, with an impact resistance of 165 grams or greater (Method A).

(ii) The ASTM standard D1922-89, *Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method*, with a tearing resistance, parallel and perpendicular to the length of the bag, of 480 grams.

(iii) If the standards in subparagraphs (i) and (ii) are modified by ASTM, the standard that is in effect on the date of manufacture of the bags shall be applied.

(3) Bags shall include one of the following certifications indicating that the ASTM standards have been met:

(i) Each bag shall contain a printed certification by the manufacturer.

(ii) The manufacturer may issue a certification letter to the infectious or chemotherapeutic waste generator and print a certification on each packaged lot of the bags.

(4) Bags used as containers shall have sufficient seam strength that is at least equal in resistance to tearing and equally impermeable as the other portions of the bag.

(5) Bags used as containers shall be yellow in color for each package of chemotherapeutic waste and fluorescent orange, orange-red or red in color for each package of infectious waste and shall be labeled in accordance with § 284.416(c) (relating to marking of containers).

(e) Fluorescent orange, orange-red or red or yellow containers shall contain colorants which are organic pigments with no heavy metal content.

(f) With the exception of persons who work at a small quantity generator's operation, where less than 220 pounds of infectious and chemotherapeutic waste is generated per month, persons packaging infectious or chemotherapeutic waste for offsite transportation shall wear:

(1) Protective overalls.

(2) Heavy gloves of neoprene or equivalent materials.

§ 284.416. Marking of containers.

(a) The outermost container for each package of infectious or chemotherapeutic waste for offsite transportation shall be labeled immediately after packing. The label shall be securely attached and shall be clearly legible. Indelible ink shall be used to complete the information on the label. If handwritten, the label shall be at least 3 inches by 5 inches in dimension.

(b) The following information shall be included on the label:

(1) The name, address and telephone number of the generator.

(2) The date the waste was generated.

(3) The name of the transporter and, if applicable, Department-issued infectious and chemotherapeutic waste transporter license number.

(c) The following information shall be printed on the outermost container or bag for each package of infectious or chemotherapeutic waste for either onsite movement or offsite transportation:

(1) The words "infectious waste" or "chemotherapeutic waste," whichever is applicable.

(2) The universal biohazard symbol that conforms to the design shown in regulations of the United States Occupational Safety and Health Administration at 29 CFR 1910.145(f)(8)(ii) (relating to specifications for accident prevention signs and tags).

(d) The color coding scheme for infectious and chemotherapeutic waste bags and nonwall-mounted used sharps containers shall be fluorescent orange, orange-red or red in color, or predominately so, for infectious waste and yellow in color, or predominately so, for chemotherapeutic waste, with lettering and symbols in a contrasting color (for example, black).

(e) Stationary waste storage containers shall be lined with the appropriate colored bag for infectious or chemotherapeutic waste.

§ 284.417. Reuse of containers.

(a) Nonrigid containers shall be managed as either infectious or chemotherapeutic waste, based upon the contents of the container. These containers may not be reused.

(b) Corrugated fiberboard containers used for storage of infectious or chemotherapeutic waste may be reused if the surface of the container has been protected from direct contact with the waste.

(c) A rigid, nonfiberboard container used for the storage of infectious waste may be reused if one of the following applies:

(1) The container has been decontaminated utilizing a Department-approved decontamination procedure.

(2) The surface of the container has been protected from direct contact with infectious waste.

(d) A rigid container used for the storage of chemotherapeutic waste may be reused if the surface of the container has been protected from direct contact with chemotherapeutic waste.

§ 284.418. Storage and containment of ash residue from infectious or chemotherapeutic waste incineration.

(a) Ash residue from infectious or chemotherapeutic waste incineration shall be stored in accordance with the following:

(1) In an enclosed container, which may include a properly tarped container, or in an enclosed area, which may include an adequately ventilated building.

(2) On a pad that is no more permeable than 1×10^{-7} cm./sec.

(3) To prevent the release, dispersal or discharge of ash residue into the air, water or onto land.

(b) Ash residue may be commingled with other municipal waste if the commingled waste is from one generator and if storage of the commingled waste is in accordance with subsection (a).

§ 284.419. Storage and containment of processing residue from an infectious or chemotherapeutic waste processing facility.

(a) Processing residue from infectious or chemotherapeutic waste processing facilities shall be stored in an enclosed container, which may include a properly tarped container, or in an enclosed area, which may include an adequately ventilated building, in order to:

- (1) Prevent the release, dispersal or discharge of processing residue into the air, water or onto land.
- (2) Afford protection from animals, rain and wind.
- (3) Prevent the development of a breeding place or food source for insects or rodents.
- (4) Prevent the leakage of waste from the storage container.

(b) Processing residue from an infectious or chemotherapeutic waste processing facility may be commingled with other municipal waste if the commingled waste is from one generator and if storage of the commingled waste is in accordance with subsection (a).

Subchapter F. COLLECTION AND TRANSPORTATION

GENERAL

Sec.
284.501. Scope.

TYPES OF WASTE

- 284.511. Transportation of ash residue from infectious or chemotherapeutic waste incineration.
- 284.512. Transportation of infectious and chemotherapeutic waste; general provisions.
- 284.513. Transportation of infectious and chemotherapeutic waste; additional provisions.
- 284.514. Transportation of processing residue from an infectious or chemotherapeutic waste facility.

GENERAL

§ 284.501. Scope.

This subchapter sets forth the requirements for a person or municipality that collects and transports infectious or chemotherapeutic waste, ash residue from infectious or chemotherapeutic waste incineration and processing residue from an infectious or chemotherapeutic waste processing facility. The requirements in this chapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions) and the requirements in §§ 285.211—285.219 (relating to general provisions).

TYPES OF WASTE

§ 284.511. Transportation of ash residue from infectious or chemotherapeutic waste incineration.

(a) Ash residue from infectious or chemotherapeutic waste incineration shall be wetted immediately prior to loading, and shall remain wetted during transportation and unloading at a municipal waste landfill, to prevent the dispersal of ash residue.

(b) Ash residue from infectious or chemotherapeutic waste incineration shall be transported in an enclosed or covered vehicle to prevent dispersal of the residue.

(c) A transporter shall transport separately each generator's ash residue from infectious or chemotherapeutic waste.

(d) A transporter may transport ash residue from an infectious or chemotherapeutic waste incinerator that is commingled with other municipal waste if the com-

mingled waste is from one generator and the waste is transported separately from another generator's waste.

§ 284.512. Transportation of infectious and chemotherapeutic waste; general provisions.

(a) *General.* This section sets forth general requirements for a person or municipality that transports infectious or chemotherapeutic waste. Section 284.513 (relating to transportation of infectious and chemotherapeutic waste; additional provisions) sets forth additional provisions relating to the transportation of the waste.

(b) *Manner of transportation.* Infectious and chemotherapeutic waste shall be transported in a manner that:

- (1) Maintains the integrity of the containers, prevents the leakage or release of waste from the containers and provides protection from water, rain and wind.
- (2) Prevents the spread of infectious or chemotherapeutic agents.
- (3) Affords protection from animals and does not provide a breeding place or a food source for insects or rodents.
- (4) Maintains the waste in a nonputrescent state, using refrigeration ($\leq 7^{\circ}\text{C}$) or freezing (-18°C) when necessary.
- (5) Prevents odors from emanating from the container.
- (6) Prevents unauthorized access to the waste.

(c) *Containers.*

(1) Infectious and chemotherapeutic waste shall be transported in containers that are:

- (i) Rigid.
- (ii) Leakproof.
- (iii) Impervious to moisture.

(iv) Sufficient in strength to prevent puncturing, tearing or bursting during transportation. A single-walled, corrugated fiberboard container shall be of a classified strength of at least 200 pounds per square inch, with a gross weight limit of at least 65 pounds at the time the container is manufactured. Compliance with these requirements shall be certified on the container by the manufacturer.

(2) In addition to the requirements of paragraph (1), used sharps shall be transported in containers that are tightly lidded.

(3) In addition to the requirement of paragraph (1), infectious waste fluids—quantities greater than 20 cubic centimeters—and chemotherapeutic waste fluids shall be transported in containers that are:

- (i) Break resistant.
- (ii) Tightly lidded or tightly stoppered.

(4) Bags meeting the requirements of § 284.415 (relating to storage containers) may be used to meet the requirements of this subsection that containers be leakproof and impervious to moisture.

(d) Infectious and chemotherapeutic waste may not be transported in the same containers, unless approved in writing by the Department. Infectious and chemotherapeutic waste shall be transported in separate vehicles from those used for other waste.

(e) Vehicles for transporting infectious or chemotherapeutic waste shall be noncompaction type vehicles.

(f) Load compartments of vehicles holding infectious or chemotherapeutic waste for transportation shall be con-

structed of materials that are impermeable and easily cleaned. Surfaces of vehicles that have been in direct physical contact with infectious or chemotherapeutic waste, because of a leak in the bag or container or because of another reason, shall be decontaminated as soon as possible after unloading.

(g) Infectious waste may not be kept in an unrefrigerated transport vehicle for more than 48 hours. If the vehicle is refrigerated ($\leq 7^{\circ}\text{C}$) or maintained at freezing temperatures (-18°C), the in-transit storage period may not exceed 5 days.

(h) Chutes may not be used by generators, processors or transporters to transfer infectious or chemotherapeutic waste at onsite or offsite locations.

§ 284.513. Transportation of infectious and chemotherapeutic waste; additional provisions.

(a) This section sets forth additional requirements for the transportation of infectious and chemotherapeutic waste. This section does not apply to vehicles used by a generator of less than 220 pounds of infectious and chemotherapeutic waste per month for transporting waste that he generated.

(b) Vehicles for transporting infectious or chemotherapeutic waste shall be identified on the two sides and back of the cargo compartment with the following:

(1) The transporter's Department-issued infectious and chemotherapeutic waste license number, if applicable.

(2) A placard or decal containing the phrase "infectious waste" or "chemotherapeutic waste," or both, and the universal biohazard symbol that conforms to the design shown in the United States Occupational Safety and Health Administration's regulations at 29 CFR 1910.145 (f)(8)(ii) (relating to specifications for accident prevention signs and tags). The placard or decal shall be capable of being read at a distance of 25 feet.

(c) A vehicle used for transporting infectious or chemotherapeutic waste shall contain, in a readily accessible place, a portable decontamination and spill containment unit, including at a minimum the following:

- (1) An adequate amount of absorbent material.
- (2) One gallon of hospital grade disinfectant in an appropriate applicator.
- (3) Fifty fluorescent orange, orange-red or red or yellow, or both, plastic bags that meet the requirements of § 284.415 (relating to storage containers). The bags shall be accompanied by seals and appropriate labels, and shall be large enough to overpack any container normally transported in the vehicle.
- (4) Two sets of protective overalls, gloves, boots, caps, goggles and masks. The protective garments shall be oversized or fitted for the vehicle operators.
- (5) A first aid kit, boundary marking tape and other appropriate safety equipment.

(d) The surface of vehicles that have not been in direct physical contact with infectious or chemotherapeutic waste shall be cleaned weekly. Drainage from the cleaning shall be discharged directly or through a holding tank to a sanitary sewer system or treatment facility.

(e) Individuals loading or unloading containers of infectious or chemotherapeutic waste onto or off transportation vehicles shall wear protective overalls and heavy gloves of neoprene or equivalent materials. Gloves and coveralls shall be decontaminated after each loading or unloading operation if the gloves and coveralls have been

contaminated or are suspected of having been contaminated. If no contamination occurs or none is suspected, decontamination shall be completed at the end of the working day or work shift.

§ 284.514. Transportation of processing residue from an infectious or chemotherapeutic waste facility.

(a) Processing residue from an infectious or chemotherapeutic waste facility shall be transported in an enclosed or covered vehicle to prevent dispersal of the residue.

(b) A transporter shall transport separately each generator's processing residue from infectious or chemotherapeutic waste.

(c) A transporter may transport processing residue from infectious or chemotherapeutic waste that is commingled with other municipal waste if the commingled waste is from one generator and the waste is transported separately from another generator's waste.

Subchapter G. TRANSPORTER LICENSING FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

GENERAL PROVISIONS

- Sec.
284.601. Scope.
284.602. License requirement.
284.603. Identification number.

LICENSE APPLICATION REQUIREMENTS

- 284.611. General application requirements.
284.612. Vehicular liability insurance.

LICENSE APPLICATION REVIEW

- 284.621. Criteria for license issuance or denial.
284.622. Term of license.
284.623. Conditions of licenses.
284.624. License renewal.
284.625. Public notice.

OPERATIONAL REQUIREMENTS

- 284.631. Basic limitations.
284.632. Infectious or chemotherapeutic waste discharges or spills.
284.633. Safety.
284.634. Annual report.

BOND

- 284.641. Bond requirements.
284.642. Release of bond.
284.643. Bond forfeiture.
284.644. Replacement of existing bond.
284.645. Preservation of remedies.

GENERAL PROVISIONS

§ 284.601. Scope.

This subchapter sets forth the Department's requirements for licensing of persons and municipalities that transport infectious or chemotherapeutic waste.

§ 284.602. License requirement.

(a) Except as provided in subsection (b), a person or municipality may not transport infectious or chemotherapeutic waste unless the person has first obtained a license from the Department in accordance with this subchapter.

(b) This subchapter does not apply to the following:

- (1) Onsite movement of infectious or chemotherapeutic waste by generators.
- (2) Onsite movement of infectious or chemotherapeutic waste by owners or operators of permitted infectious or chemotherapeutic waste management facilities.
- (3) Transportation by a generator of less than 220 pounds per month of infectious or chemotherapeutic

waste when transporting only the infectious or chemotherapeutic waste he generated if the manifesting requirements under § 284.701(b)(3) (relating to scope) are met.

(4) The transportation of infectious or chemotherapeutic waste generated outside this Commonwealth destined for processing or disposal outside this Commonwealth.

§ 284.603. Identification number.

A person or municipality subject to this chapter may not transport infectious or chemotherapeutic waste without first receiving an identification number. The number shall be one of the following:

(1) An EPA identification number obtained under section 3010 of the Resource Conservation and Recovery Act of 1976 (42 U.S.C.A. § 6930).

(2) An identification number obtained from the Department, if the identification number under paragraph (1) is not available.

LICENSE APPLICATION REQUIREMENTS

§ 284.611. General application requirements.

(a) An application for a license to transport infectious or chemotherapeutic waste shall be submitted to the Department, in writing, on forms provided by the Department. An application for a license shall be accompanied by information, specifications and other data required by the Department to determine compliance with this subchapter.

(b) The application shall contain the following:

(1) The applicant's identification number, as required by § 284.603 (relating to identification number).

(2) The name, mailing address, place of business, business telephone number and 24-hour emergency telephone number of the applicant.

(3) The average yearly total tonnage of infectious and chemotherapeutic waste picked up or delivered in this Commonwealth.

(4) A nonrefundable application fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$500.

(5) Information concerning terminal locations that will store infectious and chemotherapeutic waste in-transit.

(6) An identification of interests and compliance history, as provided in §§ 271.124 and 271.125 (relating to identification of interests; and compliance information).

(7) Collateral bond, as required by § 284.641 (relating to bond requirement).

(8) Certificate of insurance, as required by § 284.612 (relating to vehicular liability insurance).

(9) A contingency plan consistent with § 284.632 (relating to infectious or chemotherapeutic waste discharges or spills).

(c) An application for a license shall be certified by a responsible official of the applicant with a statement that the information contained in the application is true and correct to the best of the official's information and belief.

§ 284.612. Vehicular liability insurance.

(a) The application shall include a certificate of insurance issued by an insurance company authorized to do business in this Commonwealth, certifying that the applicant has comprehensive vehicular liability insurance in

force covering the operation of vehicles and associated infectious and chemotherapeutic waste transportation activities.

(b) The certificate of insurance shall expressly document coverage for property damage and bodily injury to third parties. The insurance coverage shall include coverage for the cost of cleaning up an infectious or chemotherapeutic waste spill, and damages arising from the spill. Minimum insurance coverage shall be \$500,000 annual aggregate, exclusive of claims administration and legal defense costs.

(c) Insurance coverage provided under this section shall comply with the following:

(1) The insurance policy shall follow the standard commercial or comprehensive vehicular liability policy forms approved by the Insurance Department, and shall include coverage as specified in subsections (a) and (b).

(2) The insurance policy shall be issued by an insurer having a certificate of authority and a licensed agent authorized to transact the business of insurance in this Commonwealth by the Insurance Department. Insurance may be provided by an excess or surplus lines insurer approved by the Insurance Department.

(3) The full policy amount shall be applicable to each driver and vehicle authorized to operate under the license. There may be no proration of the policy amount of coverage among vehicles.

(4) The insurance policy shall provide that the insurer shall notify the Department by certified mail within 30 days whenever a substantive change is made in the policy, including policy amounts, scope of coverage, tail period, claims procedures, definitions of occurrences or claims or other provisions related to the requirements of this subchapter.

(d) The licensee shall maintain the insurance required by this section in full force and effect during the term of the license and renewals thereof.

(e) An applicant for a transporter license to transport infectious or chemotherapeutic waste which is a department or an agency of the United States or of the Commonwealth may fulfill the requirements under this section by means of one or more of the following:

(1) Commercial insurance as specified in this section.

(2) Self-insurance allowed by Federal or State law.

(3) Additional means approved by the Department.

(f) The amount of liability coverage for departments or agencies of the Commonwealth may not exceed the liability limits of 42 Pa.C.S. Chapter 85 (relating to matters affecting government units).

LICENSE APPLICATION REVIEW

§ 284.621. Criteria for license issuance or denial.

(a) A license application will not be approved unless the applicant affirmatively demonstrates to the Department's satisfaction that the following conditions are met:

(1) The license application is complete and accurate.

(2) The requirements of the act, the environmental protection acts and this title have been complied with.

(3) The compliance status of the applicant or a related party under section 503(c) and (d) of the act (35 P.S. § 6018.503(c) and (d)) does not require or allow license denial.

(b) The Department will deny a license application if the applicant fails to provide the Department with a bond consistent with this subchapter or fails to provide other required information within 120 days after the Department's written request.

§ 284.622. Term of license.

A license granted or renewed under this subchapter is valid for 2 years unless the Department determines that circumstances justify issuing a license for less than 2 years. The expiration date will be set forth in the license.

§ 284.623. Conditions of licenses.

(a) The Department may place terms and conditions upon a license it deems necessary to protect public health, public safety and the environment, and to ensure compliance with the act, the environmental protection acts and this title.

(b) Except to the extent that the license states otherwise, the licensee shall conduct transportation activities as described in the approved application.

(c) A license to transport infectious and chemotherapeutic waste is nontransferable and nonassignable. A license applies to the licensee and its employees. Leased or subcontracted drivers, and drivers who provide equipment, have no authority to operate under the licensee's license without prior written approval from the Department.

§ 284.624. License renewal.

A licensee that plans to transport infectious or chemotherapeutic waste after expiration of the current license term under § 284.622 (relating to term of license) shall file a complete application for license renewal on forms provided by the Department at least 90 days before the expiration date of the license. The application shall include a nonrefundable application fee in the form of a check payable to the "Commonwealth of Pennsylvania" for \$500. The license renewal application will be reviewed by the Department in the same manner as a new application for a license under this subchapter.

§ 284.625. Public notice.

The Department will publish notice in the *Pennsylvania Bulletin* of the following:

(1) Receipt of an application for a license under this subchapter.

(2) Approval or denial of a license application under this subchapter.

OPERATIONAL REQUIREMENTS

§ 284.631. Basic limitations.

(a) A person or municipality subject to this subchapter that transports infectious or chemotherapeutic waste shall comply with the following:

(1) The act, this article and other applicable regulations promulgated under the act, including Subchapter F (relating to collection and transportation).

(2) The terms and conditions of the license, the environmental protection acts, this title and orders issued by the Department.

(b) A transporter shall allow authorized representatives of the Commonwealth, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to areas in which operations will be, are being or have been conducted.

§ 284.632. Infectious or chemotherapeutic waste discharges or spills.

(a) A copy of the most recently approved Transporter Contingency Plan (TCP) shall be carried on each transport vehicle at all times. Information in the TCP shall be kept current.

(b) In the event of a discharge or spill of infectious or chemotherapeutic waste during transportation, the transporter shall take appropriate immediate action to protect the health and safety of the public and the environment, in accordance with its approved TCP. The transporter shall also immediately telephone the Department and the affected municipality, and provide the following information:

(1) The name of the person reporting the spill or discharge.

(2) The transporter's name, address, the Department-issued infectious and chemotherapeutic waste transporter license number and identification number.

(3) The telephone number where the person reporting the spill or discharge can be reached.

(4) The date, time and location of the spill or discharge.

(5) The mode of transportation and type of transport vehicle.

(6) A brief description of the accident.

(7) For each waste involved in the spill:

(i) The name and identification number of the generators of the waste.

(ii) The estimated quantity of the waste spilled.

(c) If a discharge or spill of infectious or chemotherapeutic waste occurs during transportation, and if the immediate removal of the waste is necessary to protect public health and safety or the environment, the Department may authorize the removal of the waste to a selected receiving facility by transporters who do not have identification numbers, licenses or manifests under this subchapter.

(d) A transporter shall:

(1) Clean up an infectious or chemotherapeutic waste discharge or spill that occurs during transportation or take action that may be required or approved by the Department so that the discharge or spill no longer presents a hazard to public health, public safety or the environment.

(2) File a complete report in writing concerning the incident with the Department's central office. The report shall include, at a minimum, a detailed description of the clean-up operation and the disposition of the waste, and the information required by subsection (a).

§ 284.633. Safety.

A transporter of infectious or chemotherapeutic waste shall provide adequate personnel training to ensure transport activities are conducted safely, in compliance with applicable laws and regulations, and according to the contingency plan approved under § 284.632 (relating to infectious or chemotherapeutic waste discharges or spills).

§ 284.634. Annual report.

(a) A transporter shall submit to the Department's Central Office an annual report. The report shall be

submitted by the end of March of each calendar year. The report shall be submitted on forms supplied by the Department.

(b) The annual report shall be based on the shipments of infectious or chemotherapeutic waste during the previous calendar year, and shall include the following:

(1) The name, location, telephone number and permit identification number of each processing or disposal facility to which the transporter delivered infectious or chemotherapeutic waste.

(2) The weight or volume of each type of infectious or chemotherapeutic waste transported.

(3) When more than one transporter is used to transport a single shipment of infectious or chemotherapeutic waste from the generator to the processing or disposal facility, only the first transporter shall be required to submit information for that shipment on the annual report.

BOND

§ 284.641. Bond requirement.

(a) *General.* The applicant shall provide the Department a bond, secured by collateral as specified by this section and which bond is conditional upon compliance by the licensee with the requirements of the act, the act of July 13, 1988 (P. L. 525, No. 93) (35 P. S. §§ 6019.1—6019.6), referred to as the Infectious and Chemotherapeutic Waste Law, regulations thereunder, the terms and conditions of the license and Department orders issued to the licensee. The bond shall be consistent with, and subject to, the requirements of this section. The amount, duration, form, conditions and terms of the bond shall be specified by the Department. An additional bond amount will not be required of applicants that are also licensed hazardous waste transporters during the term of license or renewal thereof under this subchapter if the applicant or licensee submits a bond endorsement, including an increase in the amount of the bond of a minimum of \$10,000, to the Department that includes liability for infectious and chemotherapeutic waste transportation on the hazardous waste transporter bond.

(b) *Approval by Department.* A license to transport infectious or chemotherapeutic waste will not be issued by the Department before the applicant for the license has filed a collateral bond payable to the Department on a form provided by the Department, and the bond has been approved by the Department.

(c) *Amount of bond.*

(1) The bond shall be in an amount sufficient to assure that the licensee faithfully performs the requirements of the act, the Infectious and Chemotherapeutic Waste Law and regulations thereunder, the terms and conditions of the license, and Department orders issued to the licensee. The minimum amount of the bond is \$10,000.

(2) The Department may require additional bond amounts if the mode of transporting waste changes, or the Department determines additional bond amounts are necessary to meet the requirements described in paragraph (1).

(d) *Term of bond.* Liability under the bond shall contain at a minimum for the duration of the license, any renewals thereof and for 1 year after expiration, termination, revocation or surrender of the license. The 1-year extended period of liability includes, and shall be automatically extended for, an additional time period during which administrative or legal proceedings are pending

involving a violation by the transporter of the act, the Infectious and Chemotherapeutic Waste Law, regulations thereunder, the terms and conditions of the license or Department orders issued to the licensee.

(e) *Collateral for transporter bonds.*

(1) The Department will accept the types of collateral for transporter bonds that are provided in § 271.322 (relating to general terms and conditions for collateral bonds).

(2) The terms and conditions for the bonds shall be as provided in §§ 271.322—271.325.

(3) A department or agency of the United States or the Commonwealth applying for a transporter license to transport infectious or chemotherapeutic waste shall satisfy the requirements of this section by filing a bond with the Department under this section, or by another means of financial assurance approved by the Department which satisfies the terms and conditions for bonds under § 271.313(b) (relating to forms, terms and conditions of the bond or trust). The Department may accept a bond executed by a transporter who is not the licensee, in lieu of a bond executed by the licensee, if the liability on the bond meets the requirements of this subchapter. The transporter may not accept waste or initiate operation prior to the approval by the Department of the financial assurances required by this section.

(f) Bonds will be reviewed for legality and form according to established Department procedures.

§ 284.642. Release of bond.

(a) Except as provided in subsection (b), the Department will release a transporter bond 1 year after the expiration or termination of a license upon written request of the licensee.

(b) The Department will not release a bond if the transporter is in violation of the act, the act of July 13, 1988 (P. L. 525, No. 93) (35 P. S. §§ 6019.1—6019.6), known as the Infectious and Chemotherapeutic Waste Law, regulations thereunder, the terms and conditions of the license or Department orders issued to the licensee, whether or not the violation results from infectious or chemotherapeutic waste transportation.

(c) The release of a bond by the Department does not constitute a waiver or release of other liability provided in law, nor does it abridge or alter rights of action or remedies of a person or municipality presently or prospectively existing in equity or under criminal and civil common or statutory law.

§ 284.643. Bond forfeiture.

(a) The Department will declare a bond forfeit if the transporter is in violation of the act, the act of July 13, 1988 (P. L. 525, No. 93) (35 P. S. §§ 6019.1—6019.6), known as the Infectious and Chemotherapeutic Waste Law, regulations thereunder, the terms and conditions of the bond, the terms and conditions of the license or Department orders issued to the licensee, whether or not the violation results from infectious or chemotherapeutic waste transportation.

(b) If the Department declares a bond forfeit, it will:

(1) Send written notification to the transporter of the Department's determination to declare the bond forfeit and the reasons for the forfeiture.

(2) Advise the transporter and surety of the right to appeal to the EHB under the Environmental Hearing Board Act (35 P. S. §§ 7511—7514).

(3) Proceed to collect on the bond as provided by applicable laws for the collection of defaulted bonds or other debts.

(c) If the Department declares a transporter bond forfeited, it will pay, or direct the State Treasurer to pay, the collateral funds into the Solid Waste Abatement Fund. If upon proper demand and presentation, the banking institution or other person or municipality which issued the collateral refuses to pay the Department the proceeds of a collateral undertaking, the Department will take appropriate steps to collect the proceeds.

§ 284.644. Replacement of existing bond.

(a) The Department may allow a transporter to replace an existing collateral bond with another collateral bond, if the liability which has accrued under the bond and against the transporter is incorporated into the replacement bond. The bond amount for this replacement bond will be determined under this subchapter, but may not be less than the amount of the existing bond.

(b) The Department will not release existing bonds until the transporter has submitted and the Department has approved acceptable replacement bonds. A replacement of bonds under this section does not constitute a release of bond under § 284.642 (relating to release of bond).

§ 284.645. Preservation of remedies.

Remedies provided or authorized by law for violation of statutes, including, but not limited to, the act, the applicable environmental protection acts, this title and the terms and conditions of permits or licenses, and orders of the Department, are expressly preserved. Nothing in this subchapter is an exclusive penalty or remedy for the violations. No action taken under this subchapter waives or impairs another remedy or penalty provided in law or equity.

Subchapter H. MANIFESTING FOR INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

GENERAL

Sec.	
284.701.	Scope.
284.702.	Transfer facilities.
284.703.	Recordkeeping.

GENERATOR RESPONSIBILITIES

284.711.	Use of manifest.
284.712.	Preparation of manifest.
284.713.	Generator's distribution of copies.
284.714.	Exception reporting.

TRANSPORTER RESPONSIBILITIES

284.721.	Basic requirements.
284.722.	Preparation and use of manifest.
284.723.	Waste delivery.
284.724.	Transportation limitations.

FACILITY RESPONSIBILITIES

284.731.	Scope.
284.732.	Use of manifest.
284.733.	Distribution of copies.
284.734.	Significant discrepancies.

GENERAL

§ 284.701. Scope.

(a) Except as provided in subsections (b) and (c), this subchapter applies to a person or municipality that generates, transports, disposes or processes infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable.

(b) This subchapter does not apply to a person or municipality for the following activities:

(1) Onsite movement of infectious or chemotherapeutic waste by generators.

(2) Onsite movement of infectious or chemotherapeutic waste by owners or operators of permitted infectious or chemotherapeutic waste management facilities.

(3) Transportation by a generator who generates less than 220 pounds per month of infectious and chemotherapeutic waste if the following are met:

(i) The generator only transports his own waste.

(ii) The generator records on a log or shipping paper the following information for each shipment:

(A) The name, address and telephone number of the generator of the waste.

(B) The quantity of the waste transported and accepted by the processing or disposal facility.

(C) The date the waste is transported and accepted by the processing or disposal facility.

(iii) The generator carries and delivers a copy of this record with the waste shipment to the offsite processing or disposal facility.

(4) The transportation of used sharps from generators who generate less than 220 pounds per month of infectious and chemotherapeutic waste if the following are met:

(i) The package is sent to a permitted processing or disposal facility in this Commonwealth or to an out-of-State facility by certified mail, return receipt requested, indicating the name and address of the sender, the name of the addressee, the signature of the addressee, the date of delivery and the address where delivered or by utilizing an alternate tracking system approved in writing by the Department if applicable.

(ii) The packaging meets the requirements of the United States Postal Service or other mail carriers.

(iii) The generator maintains a log containing the following information:

(A) The weight of the waste transported.

(B) The date of shipment.

(C) The name and address of each processing or disposal facility to which the generator is shipping the waste by the United States Postal Service or other mail carrier.

(5) The transportation by a generator of less than 220 pounds per month of infectious or chemotherapeutic waste that he generates and processes onsite, but which is recognizable waste, if the following are met:

(i) The generator records on a log or shipping paper the following information for each shipment:

(A) The name, address and telephone number of the generator of the waste.

(B) The quantity of the waste transported and accepted by the disposal facility.

(C) The name, address and telephone number of the transporter for each shipment of waste. If applicable, the log or shipping paper shall include the identification number of a licensed transporter.

(D) The date the waste is transported and accepted by the processing or disposal facility.

(ii) A copy of the log or record shall be carried and delivered to the disposal facility by the transporter for each shipment of waste.

(6) The transportation through this Commonwealth of infectious or chemotherapeutic waste generated outside this Commonwealth and which is destined for processing or disposal outside this Commonwealth.

(7) The transportation of processed infectious or chemotherapeutic waste to a disposal facility if the waste has been rendered unrecognizable.

(c) This subchapter does not apply to a person or municipality which receives infectious or chemotherapeutic waste generated in this Commonwealth and which processes or disposes of the waste outside this Commonwealth in a state that provides a manifest or tracking form if the following are met:

(1) The state requires a manifest or tracking form for infectious or chemotherapeutic waste, regardless of whether the state requires a manifest or tracking form for infectious or chemotherapeutic waste as defined in this article.

(2) The generator obtains a manifest or tracking form for infectious or chemotherapeutic waste from that state.

(3) The generator, transporter and owner or operator of a processing or disposal facility comply with the requirements on the manifest or tracking form and applicable state or Federal law, managing the infectious or chemotherapeutic waste as if it were regulated waste under applicable law. For purposes of this subsection, applicable law includes the provisions of this subchapter that are expressly applicable to waste that will be transported outside this Commonwealth for processing or disposal.

§ 284.702. Transfer facilities.

(a) Infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable may be transported to or from a transfer facility under this subchapter. The use of a transfer facility shall require two manifests, one for the transportation of waste to the facility, and one for the transportation of waste from the facility.

(b) If infectious or chemotherapeutic waste or processed waste which is recognizable is transported to a transfer facility, the transfer facility shall be considered the designated facility for purposes of this subchapter. When the waste is transported from the transfer facility to a processing or disposal facility, the transfer facility shall be considered the generator and the processing or disposal facility shall be considered the new designated facility for purposes of this subchapter.

§ 284.703. Recordkeeping.

(a) The records required under this subchapter shall be retained for at least 5 years from the date on which the report was required to be prepared. The retention period shall be extended automatically during the course of an enforcement action or as requested by the Department.

(b) Manifest copies shall be retained for at least 5 years from the date of shipment of the waste. Manifest copies retained under this subchapter shall be furnished to the Department upon request. The retention period shall be extended automatically during the course of an enforcement action or as requested by the Department.

GENERATOR RESPONSIBILITIES

§ 284.711. Use of manifest.

(a) A generator who transports, or offers for transportation, infectious or chemotherapeutic waste for offsite processing or disposal shall ensure proper segregation of infectious and chemotherapeutic waste from other types

of waste and prepare a manifest according to the instructions supplied with the manifest. A processor who transports, or offers for transportation, processed infectious or chemotherapeutic waste that is recognizable for offsite disposal shall be considered a generator for purposes of manifesting. The manifest shall be in at least four parts.

(b) If the waste is to be processed or disposed in this Commonwealth, the generator shall use one of the manifest formats prescribed by the Department.

(c) The manifest copies shall be distributed as follows:

(1) A four-part manifest shall be used by a generator who designates only one transporter.

(i) Copy 4 of the manifest is retained by the generator.

(ii) Copy 3 of the manifest is retained by the transporter.

(iii) Copy 2 of the manifest is retained by the owner or operator of the processing or disposal facility.

(iv) Copy 1 of the manifest is mailed to the generator by the owner or operator of the processing or disposal facility.

(2) A five-part manifest shall be used by a generator who designates two transporters.

(i) Copy 4 of the manifest is retained by the generator.

(ii) Copy 3A of the manifest is retained by the first transporter.

(iii) Copy 3 of the manifest is retained by the second transporter.

(iv) Copy 2 of the manifest is retained by the owner or operator of the processing or disposal facility.

(v) Copy 1 of the manifest is mailed to the generator by the owner or operator of the processing or disposal facility.

(3) A six-part manifest shall be used by a generator who designates three transporters.

(i) Copy 4 of the manifest is retained by the generator.

(ii) Copy 3B of the manifest is retained by the first transporter.

(iii) Copy 3A of the manifest is retained by the second transporter.

(iv) Copy 3 of the manifest is retained by the third transporter.

(v) Copy 2 of the manifest is retained by the owner or operator of the processing or disposal facility.

(vi) Copy 1 of the manifest is mailed to the generator by the owner or operator of the processing or disposal facility.

(d) If the waste is to be processed or disposed outside this Commonwealth, the generator shall obtain the manifest from the destination state. If the destination state does not supply the manifest, the generator shall use the manifest format required by the Department.

§ 284.712. Preparation of manifest.

(a) The generator shall provide the following information on each manifest before the offsite transportation of the manifested waste occurs:

(1) The name, mailing address and telephone number of the generator.

(2) The total number of pages used to complete the manifest, counting the first page plus the number of continuation sheets, if any.

(3) Each transporter's company name, identification number, Pennsylvania infectious and chemotherapeutic waste transporter license number and telephone number. If three transporters are designated by the generator, enter the third transporter's name, identification number, Pennsylvania infectious and chemotherapeutic waste transporter license number, telephone number and the words "Transporter 3 sign here," in the Special Handling Instruction Section.

(4) The number of containers, types of containers and the total quantity of the waste by weight or volume.

(5) The infectious or chemotherapeutic waste code number for each waste as indicated on the manifest instructions.

(6) The United States Department of Transportation proper shipping name, hazard class and identification number (UN or NA) for each waste identified by 49 CFR Subchapter C (relating to hazardous materials regulations), if applicable.

(7) Special instructions and information necessary for proper handling of the waste during transportation, processing, storage or disposal, if any.

(8) The printed or typed name and handwritten signature of the generator's authorized representative, and the date of shipment.

(9) The printed or typed name and handwritten signature of the initial transporter's authorized representative, and the date of receipt.

(10) The designated facility's name, site address, Pennsylvania State permit or identification number and phone number. One alternate facility's name, site address, Pennsylvania State permit or identification number and phone number may be designated on the manifest to receive the waste. A facility may only be designated if it has been approved by the Department to accept the generator's waste.

(b) An authorized representative of the generator shall ensure that the manifest has been completed and shall read the certification statement on the manifest prior to signing the manifest.

(c) The generator shall ensure before the waste is transported offsite that the required information on all parts of the manifest are capable of being read.

(d) When the generator uses lab packs containing more than four different waste streams, the generator shall complete a continuation sheet (EPA Form 8700-22A).

(e) For a shipment containing more than four different waste streams, which is not a lab pack, the generator shall complete additional manifests as necessary for waste streams in excess of four, according to the instructions on the manifest.

§ 284.713. Generator's distribution of copies.

(a) Except as provided in subsection (b), the generator shall detach and retain copy 4 of the manifest.

(b) A generator located in this Commonwealth and designating a facility in a state that supplies the manifest shall provide information and distribute copies as required by the manifest in accordance with instructions supplied with the manifest and retain one copy of the manifest.

(c) The generator shall give the transporter the remaining copies of the manifest before the transporter leaves the generator's property.

§ 284.714. Exception reporting.

(a) A generator that does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated processing or disposal facility within 20 days of the date the generator's waste was accepted by the initial transporter shall:

(1) Contact the transporter or the owner or operator of the designated facility, or both, to determine the status of the infectious or chemotherapeutic waste or processed recognizable waste shipment.

(2) Notify the Department's appropriate regional office by telephone within 1 business day of the status of the shipment.

(b) A generator shall notify by telephone the Department's appropriate regional office and submit an exception report to the Department's central office if the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated processing or disposal facility within 35 days of the date the generator's waste was accepted by the initial transporter.

(c) The exception report shall include the following:

(1) A legible copy of the manifest for which the generator does not have confirmation of delivery.

(2) A cover letter signed by the generator or an authorized representative explaining the efforts taken to locate the waste shipment and the results of those efforts.

TRANSPORTER RESPONSIBILITIES

§ 284.721. Basic requirements.

Except as provided in § 284.701 (relating to scope), a transporter may not accept infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable unless it is accompanied by a manifest which has been completed and signed by the generator or the generator's authorized agent under § 284.712 (relating to preparation of manifest).

§ 284.722. Preparation and use of manifest.

(a) Before transporting infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable, the transporter shall print or type his name, sign and date the manifest, and, by the signature, acknowledge acceptance of the waste from the generator.

(b) Before leaving the generator's property, the transporter shall ensure that all copies of the manifest are properly completed and capable of being read, and shall return copy 4 of the manifest to the generator according to the instructions on the manifest.

(c) The transporter shall ensure that the manifest accompanies the waste shipment.

(d) The transporter may not add additional information to the generator's or designated facility's portions of the manifest or alter the generator's information on a manifest as it existed when the generator signed the manifest.

(e) A transporter who delivers infectious or chemotherapeutic waste or processed recognizable waste to the designated processing or disposal facility shall:

(1) Obtain on the manifest the date of delivery, the printed or typed name and handwritten signature of the owner or operator of the designated facility.

(2) Retain copy 3 of the manifest according to the instructions supplied with the manifest.

(3) Give the remaining copies of the manifest to the owner or operator of the designated facility.

(f) The transporter who delivers infectious or chemotherapeutic waste to another transporter shall:

(1) Obtain the following information on the original manifest and on an additional copy of the manifest provided by the generator:

(i) The date of delivery to the subsequent transporter.

(ii) The printed or typed name of the subsequent transporter and his handwritten signature.

(2) Retain the additional copy signed by the subsequent transporter.

(3) Give the remaining additional copies of the manifest to the subsequent transporter.

§ 284.723. Waste delivery.

(a) The transporter shall deliver the entire quantity of infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable which he has accepted from a generator, a processor or a transporter to one of the following:

(1) The designated facility listed on the manifest by the generator.

(2) The next designated transporter listed on the manifest by the generator.

(b) If the waste cannot be delivered in accordance with subsection (a), the transporter shall do one of the following:

(1) Return the waste to the generator.

(2) Deliver the waste to the alternate facility designated by the generator on the original manifest.

(3) Receive from the generator another properly completed manifest designating an alternate facility from the originally designated facility before transporting the waste to the alternate facility.

§ 284.724. Transportation limitations.

(a) A transporter may not accept or transport a shipment of infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable if:

(1) The waste is in containers or packaging which appear to be leaking, damaged or otherwise in violation of § 284.415 or § 284.512 (relating to storage containers; and transportation of infectious and chemotherapeutic waste; general provisions).

(2) The waste is not labeled or identified as required by § 284.416 (relating to marking of containers).

(3) The number and type of containers and quantity of waste to be transported do not correspond with the number and type of containers and quantity of waste stated on the manifest.

(4) Any copy of the manifest is not completed according to the manifest instructions or if information on copies of the manifest is not capable of being read.

(b) A transporter shall ensure that the waste shipment complies with applicable United States Department of

Transportation regulations and 67 Pa. Code Part I (relating to Department of Transportation).

FACILITY RESPONSIBILITIES

§ 284.731. Scope.

Sections 284.732—284.734 (relating to use of manifest; distribution of copies; and significant discrepancies) apply to owners and operators of waste processing or disposal facilities that receive infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable from offsite sources.

§ 284.732. Use of manifest.

(a) Except for waste managed in accordance with § 284.701 (relating to scope), an owner or operator of a designated facility may not accept shipments of infectious or chemotherapeutic waste or processed infectious or chemotherapeutic waste that is recognizable from offsite sources unless the shipment is accompanied by a Pennsylvania manifest in accordance with this subchapter.

(b) The owner or operator of the designated facility shall:

(1) Print or type his name, and sign and date each copy of the manifest to certify that the waste covered by the manifest was received.

(2) Note significant discrepancies in the information on the manifest, as defined in § 284.734 (relating to significant discrepancies).

(3) Note the rejection in the discrepancy indication space, and sign and date the manifest in accordance with paragraph (1) if either partially or totally rejecting the waste.

(c) The owner or operator of the designated facility may not alter or add to the information in the generator or transporter sections of the manifest form.

(d) The owner or operator of the designated facility shall ensure that information entered on the manifest is capable of being read on all copies of the manifest.

§ 284.733. Distribution of copies.

The owner or operator of a designated facility or an authorized representative shall:

(1) Immediately upon signing the manifest to either partially or totally accept or reject the waste shipment, give the transporter copy 3 of the signed manifest.

(2) Retain copy 2 of the manifest for his records.

(3) Send copy 1 of the manifest to the generator within 14 days of the date of receipt of the waste.

§ 284.734. Significant discrepancies.

(a) This section applies if there is a significant discrepancy in a manifest. A discrepancy is a difference between the quantity or type of waste designated on the manifest, and the quantity or type of waste a facility actually receives. A significant discrepancy occurs if one or more of the following apply:

(1) There is a variation greater than 5% in weight, for bulk waste.

(2) There is a variation in piece count, for batch waste.

(3) There is a difference in waste type which can be discovered by inspection or waste analysis.

(b) If there is a significant discrepancy in a manifest, the owner or operator shall attempt to reconcile the discrepancy before the waste is processed or disposed at the facility or before the waste is accepted at a transfer

facility. If the discrepancy is not resolved within 3 days of receipt of the waste, the owner or operator shall immediately notify the appropriate regional office of the Department by telephone. Within 7 days of receipt of the waste, the owner or operator shall also send a letter to the regional office describing the discrepancy and attempts to reconcile it, and include a legible copy of the relevant manifest.

CHAPTER 285. STORAGE, COLLECTION AND TRANSPORTATION OF MUNICIPAL WASTE

Subchapter A. STORAGE OF MUNICIPAL WASTE SCOPE

§ 285.101. Scope.

(a) A person or municipality that stores municipal waste shall comply with §§ 285.111—285.117 (relating to general).

(b) In addition to the requirements of subsection (a):

(1) A person or municipality that stores municipal waste in the manner identified in §§ 285.121—285.124 (relating to types of storage) shall store the waste under the applicable provisions of those sections.

(2) A person or municipality that stores the type of municipal waste referred to in §§ 285.131—285.134 (relating to additional requirements for certain types of waste) shall store the waste under the applicable provisions of those sections.

GENERAL

§ 285.111. General requirements.

A person or municipality that stores municipal waste may not do the following:

(1) Mix the waste with hazardous waste that is regulated under Article VII (relating to hazardous waste management).

(2) Mix the waste with, or store the waste in close proximity to, other solid waste to create a risk of fire or explosion, or a risk of the accumulation of poisonous or otherwise harmful vapors or gases.

(3) Mix the waste with special handling waste.

(4) Allow waste or constituents of waste to be blown or otherwise deposited outside of the storage area.

§ 285.112. Design and operation.

(a) A person or municipality storing municipal waste shall employ best engineering design and construction practices for all phases of construction and operation.

(b) A person or municipality may not store municipal waste in a manner that exceeds the design capacity of the storage facility.

(c) The Department may require a person or municipality to install a water quality monitoring system in accordance with §§ 273.281—273.285 if storage of the waste has the potential to cause groundwater degradation. In all cases, a groundwater monitoring system is required for sewage sludge storage impoundments constructed after January 25, 1997, and leachate storage impoundments under § 285.123 (relating to impoundments—general).

(d) A person or municipality storing municipal waste shall routinely inspect the facility, its equipment and the surrounding area for evidence of failure and shall immediately take necessary corrective actions. The person or municipality shall maintain records of inspections and

corrective actions that were taken, and shall make the records available to the Department upon request.

(e) A person or municipality may not store putrescible waste in piles, except for sewage sludge that has been stabilized, dried to 20% or greater solids content by weight, and stored under this chapter.

§ 285.115. Nuisance minimization and control.

(a) A person or municipality that stores municipal waste shall:

(1) Eliminate conditions conducive to the harborage, breeding or attraction of vectors.

(2) Take other measures necessary to minimize and control the presence of vectors.

(3) If vectors are present, immediately take measures necessary to exterminate them.

(b) A person or municipality storing municipal waste shall also minimize and control conditions not otherwise prohibited by this subchapter that are harmful to the public health, public safety or the environment, or which create safety hazards, odors, dust, unsightliness or other public nuisances.

§ 285.116. Surface and groundwater protection.

(a) Surface water runoff from storage areas shall be minimized. Collection of surface water runoff shall be managed in accordance with The Clean Streams Law (35 P. S. §§ 691.1—691.1001) and the regulations promulgated thereunder.

(b) Surface water run-on to storage areas shall be minimized.

(c) Waste may not be stored in a manner that causes groundwater degradation.

§ 285.117. Emergency storage.

Notwithstanding a provision of this article or term or condition of a permit for a solid waste processing or disposal facility, the Department may allow the storage of municipal waste at a permitted facility if the following conditions are met:

(1) The waste was created, spilled or released during or as a result of an emergency. The waste may also be created as a result of adverse effects on groundwater from a solid waste management facility, materials storage tank or similar source.

(2) The permitted facility includes the following:

(i) A designated waste storage area.

(ii) An approved storage and handling plan that will allow storage of the waste without any adverse effect on public health, safety, welfare or the environment.

(iii) Plans for prompt removal of the waste and disposal or processing at another permitted facility if the Department denies the application for permit modification under paragraph (3).

(3) Within 5 working days after storage begins, the Department has received an application for permit modification under § 271.222 (relating to permit modification) to allow the disposal or processing of the waste at the facility.

TYPES OF STORAGE

§ 285.121. Containers.

(a) A person or municipality storing municipal waste shall provide a sufficient number of containers to prevent

leaks, odors and vector attraction and to contain solid waste generated during periods between regularly scheduled collections.

(b) An individual container or bulk container used for the storage of municipal waste shall have the following characteristics:

(1) The container shall be constructed to be easily handled for collection.

(2) The container shall be constructed of rust resistant and corrosion resistant materials.

(3) The container shall be equipped with a tight fitting lid or cover, or otherwise sealed.

(4) The container shall be watertight, leak proof, insect proof and rodent proof.

(5) The container shall be clearly labeled as "municipal waste" or a specific type of municipal waste.

(c) A person or municipality that stores municipal waste outside of containers shall tie the wastes securely in bundles of a size that can be readily handled for collection, and in a manner that minimizes litter, safety hazards and fire hazards.

§ 285.124. Impoundments—failure.

(a) If a surface impoundment fails, the person or municipality storing municipal waste shall immediately:

- (1) Stop adding waste to the impoundment.
- (2) Contain a discharge that has occurred or is occurring.
- (3) Empty the impoundment in a manner approved by the Department if leaks cannot be stopped.

(4) Notify the Department of the failure of the impoundment and the measures taken to remedy the failure.

(b) A surface impoundment that has been removed from service due to failure may not be restored to service unless the following requirements are met:

- (1) The impoundment has been repaired.
- (2) The repair has been certified to the Department, in writing, by a registered professional engineer.
- (3) The Department has approved, in writing, the restoration of the impoundment to service.

(c) If a storage impoundment fails and the impoundment or surrounding area cannot be cleaned up in a manner that will protect public health, safety and the environment and that is satisfactory to the Department, the operator shall submit a closure plan to the Department that meets one of the following and, upon Department approval, implement the closure plan:

- (1) *Removal of waste.*
 - (i) The closure plan provides for removal of the waste and structures or other materials which contain or are contaminated with solid waste.

- (ii) The closure plan provides for the processing or disposal of the waste and material under the environmental protection acts and this title.

- (iii) If required by the Department, the closure plan includes a soil and groundwater monitoring plan to assess the impact of the failure on groundwater consistent with § 273.286 (relating to assessment plan).

(iv) If the groundwater assessment shows the presence of groundwater degradation at one of the monitoring wells, the operator shall comply with § 273.287 (relating to abatement plan).

(2) *Waste remaining in place.* If the closure plan provides for leaving the waste in place, the operator shall comply with § 271.113 (relating to closure plan).

ADDITIONAL REQUIREMENTS FOR CERTAIN TYPES OF WASTE

§ 285.132. (Reserved)

ADDITIONAL REQUIREMENTS FOR INFECTIOUS/CHEMOTHERAPEUTIC WASTE

§ 285.142—285.148. (Reserved)

Subchapter B. COLLECTION AND TRANSPORTATION OF MUNICIPAL WASTE SCOPE

§ 285.201. Scope.

A person or municipality that collects or transports municipal waste shall comply with §§ 285.211—285.219 (relating to general provisions). A person or municipality that transports the types of municipal waste referred to in §§ 284.512, 285.221 and 285.225 (relating to transportation of ash residue from municipal waste incineration and from infectious or chemotherapeutic waste incinerations; transportation of infectious and chemotherapeutic waste; general provisions and transportation of residential septage) shall transport the waste under the applicable provisions of those sections.

GENERAL PROVISIONS

§ 285.211. General requirements.

(a) Municipal waste, including ash residue from municipal waste incineration and infectious or chemotherapeutic waste incineration, shall be completely covered during transportation and parking with a cover that meets the following requirements. The cover shall:

- (1) Be water resistant.
- (2) Be securely fastened.
- (3) Eliminate the potential for roadside littering, dust, leakage, discharge, attraction or harboring of vectors, or other nuisances.

(b) A person or municipality that collects or transports municipal waste may not mix the waste with:

- (1) Hazardous waste regulated under Article VII (relating to hazardous waste management).
- (2) Other solid waste to create a risk of fire or explosions, or a risk of the accumulation of poisonous or otherwise harmful vapors or gases.
- (3) Special handling waste.

(c) A person or municipality that collects or transports source separated recyclable materials may not combine waste with the source separated recyclable materials in the collection or transportation vehicle.

§ 285.212. Collection and transportation.

(a) A person or municipality that is responsible for the collection of municipal waste shall make collection services available with sufficient frequency to prevent a nuisance or hazard to public health, safety or welfare.

(b) A person or municipality that generates municipal waste shall schedule collection of waste with sufficient frequency to prevent a nuisance.

(c) A person or municipality may not park a municipal waste collection or transportation vehicle to cause a nuisance or a hazard to public health, safety and welfare. A person or municipality may not allow a municipal waste collection or transportation vehicle to remain in a residential area for more than 4 hours.

§ 285.214. Transportation equipment cleaning areas and securing loads in vehicles.

(a) Transportation equipment cleaning areas shall meet the following requirements:

(1) Drainage from equipment cleaning areas shall be managed to prevent surface water pollution or groundwater pollution.

(2) Drainage shall be discharged to a sanitary sewer system or other treatment facility.

(3) The surface of the equipment cleaning area shall be constructed of impervious material that can be easily cleaned and is well drained.

(4) Windborne drift of steam or atomized water shall be controlled.

(b) Loads in vehicles shall be secured in the following manner:

(1) *Load of loose garbage.* Every load of loose nonbaled municipal waste being transported through or within this Commonwealth shall be transported in a vehicle with four solid sides and with a cover or top of a type to prevent any of the load from escaping. The cover or top shall remain tightly in place going to a disposal site. The load shall be no higher than the solid sides of the vehicle. It is imperative that municipal waste be removed from the vehicle at the disposal site to prevent scattering of litter on the highway during the return trip. A truck, trailer or semitrailer with an open body or stake body may not be used for these purposes. This subsection does not apply to vehicles engaged in the systematic collection of garbage or refuse and which are designed to be open in the rear for the loading of municipal waste.

(2) *Load of baled garbage.* Municipal waste in a tightly compacted and baled form being transported through or within this Commonwealth shall be securely fastened to the vehicle and covered over exposed areas with a canvas cover or cover of a comparable type which shall be securely attached to the under sides of the sides of the truck, trailer or semitrailer to prevent material from the bales from escaping. No part of a bale may be uncovered, except for inspection, during transportation within or through this Commonwealth until arrival at the disposal site.

§ 285.216. Wastes from accidents and spills.

(a) A person or municipality that generates or discharges municipal waste or other material as a result of an accident, spill or emergency shall notify the Department prior to the disposal of the waste.

(b) The Department may immediately approve emergency storage, transportation, processing or disposal methods necessary to mitigate harm to the public health, safety or the environment. Storage may be at the site of emergency at a permitted processing or disposal facility under § 285.117 (relating to emergency storage) or at a site approved by the Department.

(c) Compliance with this section does not relieve a person from liability, either criminal or civil, under the act, the environmental protection acts or this title.

§ 285.217. Recordkeeping and reporting.

(a) *General.* A person or municipality that collects or transports municipal waste other than infectious and chemotherapeutic waste shall make and maintain an operational record each day that municipal waste is collected or transported, or both. The daily operational record shall be kept in the cab of each transportation vehicle on the date of collection or transportation. The record shall include the following:

(1) The county and state where the waste was originally collected.

(2) The name, mailing address and telephone number of the person or municipality collecting or transporting the waste.

(3) The name and location of a transfer facility that has received, or will receive, the waste.

(4) The name and location of the solid waste processing or disposal facility where the waste will be ultimately disposed or processed.

(5) The weight or volume of the types of municipal waste transported.

(6) A description of handling problems or emergency disposal activities.

(b) The records required in subsection (a) shall be made available to the Department upon request and shall be retained for at least 5 years.

§ 285.219. Transporting foodstuffs and feedstuffs in vehicles used to transport waste.

(a) A person or municipality may not transport, or knowingly provide a vehicle for the transportation of, a food product or produce intended for human or livestock consumption, in a vehicle which has been used to transport municipal, residual or hazardous waste, or, chemical or liquid, in bulk, which is not a food product or produce.

(b) A person or municipality may not knowingly accept a food product or produce from, or provide a food product or produce to, a vehicle used to transport municipal, residual or hazardous waste, or, chemical or liquid, in bulk, which is not a food product or produce.

(c) As used in this section, the following words and phrases have the following meaning:

(1) *Food product or produce*—A raw, cooked or processed edible substance, beverage or ingredient used or intended for use or for sale, in whole or in part, for human consumption.

(2) *In bulk*—Not divided into parts or packaged in separate units.

(3) *Chemical or liquid*—The term includes any chemical or liquid, including any pesticide or herbicide regardless of its use or intended use. The term does not include the following:

(i) A chemical or liquid food product or produce.

(ii) A chemical or liquid being transported for use directly in the production and preparation for market of poultry, livestock and their products or in the production, harvesting or preparation for market of agricultural, agronomic, horticultural, silvicultural or aquicultural crops and commodities.

(iii) A chemical or liquid being transported for use as an ingredient in a product used in the production and preparation for market of poultry, livestock and their products or in the production, harvesting or preparation for market of agricultural, agronomic, horticultural, silvicultural or aquicultural crops and commodities.

TYPES OF WASTE

§§ 285.222—285.224. (Reserved)

Subchapter C. (Reserved)

§§ 285.301—285.303. (Reserved)

§ 285.311. (Reserved)

§ 285.312. (Reserved)

§§ 285.321—285.325. (Reserved)

§§ 285.331—285.334. (Reserved)

§§ 285.341—285.345. (Reserved)

Subchapter D. (Reserved)

§§ 285.401—285.403. (Reserved)

§§ 285.411—285.414. (Reserved)

§§ 285.421—285.424. (Reserved)

§§ 285.431—285.434. (Reserved)

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