ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CHS. 271 AND 287] Safe Fill

The Environmental Quality Board (Board) proposes to amend Chapters 271 and 287 (relating to municipal waste—general provisions; and residual waste management—general provisions). The amendments are the result of a comprehensive reevaluation of the Department of Environmental Protection's (Department) present clean fill policy.

This proposal was adopted by the Board at its meeting of November 20, 2001.

A. Effective Date

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

B. Contact Persons

For further information contact William F. Pounds, Chief of the Division of Municipal and Residual Waste, Bureau of Land Recycling and Waste Management, P. O. Box 8472, Rachel Carson State Office Building, Harrisburg, PA 17105-8472, (717) 787-7564, or Michelle M. Moses, Assistant Counsel, Bureau of Regulatory Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposal appears in Section I of this Preamble. Persons with a disability may use the AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal is available electronically through the Department's website (http://www.dep.state.pa.us).

C. Statutory Authority

The proposed 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 Department the authority to formulate, adopt, promulgate and repeal rules and regulations necessary to implement the CSL, and which in section 402 of the CSL (35 P. S. § 691.402) grants the Department 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 pollution.

The Municipal Waste Planning, Recycling and Waste Reduction Act (act) (53 P. S. §§ 4000.101—4000.1904), which in section 302 of the act (53 P. S. § 4000.302) gives the Board the power and duty to adopt regulations of the Department to accomplish the purposes and carry out the provisions of this act.

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 (SHS), appropriate mathematically valid statistical tests to define compliance with Act 2 and other regulations that may be needed to implement 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 SHSs for regulated substances for each environmental medium and the methods used to calculate the SHSs.

The Administrative Code of 1929 (code) which in section 1905-A of the code (71 P. S. § 510-5) authorizes the Department to require applicants for permits and permit revisions to provide written notice to municipalities; in section 1917-A of the code (71 P. S. § 510-17) 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; and in section 1920-A of the code (71 P. S. § 510-20) grants the Board the power and the duty to formulate, adopt and promulgate rules and regulations determined by the Board for the proper performance of the work of the Department.

D. Background and Purpose

The residual waste program in this Commonwealth was developed under the SWMA. There are currently no comprehensive Federal regulations governing the management of nonhazardous industrial, mining and agricultural wastes (residual waste). The SWMA authorizes the Department to develop and the Board to promulgate regulations to manage residual waste. Under the SWMA, residual waste generally consists of waste from industrial, mining and agricultural operations, and includes nonhazardous sludge from an industrial, mining, or agricultural waste treatment or pollution control facility. On July 4, 1992, the Board promulgated a comprehensive set of regulations for the management of residual waste. The regulations were recently updated, on January 13, 2001, through the Regulatory Basics Initiative (RBI). Under the RBI, the Department reevaluated existing regulations based on specific criteria.

In 1996, after passage of Act 2, the Department revised its clean fill policy and updated the clean fill standards, which are currently in effect. Since that time, the Department has attempted, on two occasions, to revise the interim policy by proposing changes that were open to public comment. First, on August 28, 1997, the Department published a draft clean fill policy. Comments were received during the public comment period. Major comments raised included the following: 1) for metals, the use of 10% of the residential direct contact values from the SHSs in Chapter 250 (relating to administration of land recycling program) as clean fill standards did not take into consideration natural occurrence of the metals; 2) the Cleanup Standards Scientific Advisory Board (CSSAB) should be asked to review the scientific and technical basis for the standards; 3) soils with low concentrations of listed hazardous wastes should be allowed to be used as

clean fill provided their use does not pose unacceptable risks to human health and the environment; 4) allow targeted sampling to be conducted to reduce the costs of sampling and analysis and allow the use of statistical tests in Chapter 250 to demonstrate that soil meets the clean fill standards; and 5) provide more flexibility for offsite movement and use of soils remediated under Act 2.

The second and most recent effort to update the standards occurred on March 11, 2000, when the Department developed a safe fill policy and related documents to address the safe movement and use of soil and dredged material as fill or construction material. The documents included proposed amendments to the residual waste regulations to provide flexibility for movement of contaminated soil and dredged material under a permit-by-rule (PBR), for movement of contaminated soil under a general permit for beneficial use, for use of historic fill through exemptions under the waste definition and for movement of waste materials onsite as part of a remediation conducted under Act 2 under a permit waiver. The Department held three public information meetings and hearings for the purposes of presenting and discussing the package and receiving testimony. In addition, written comments were accepted during a 60-day period.

During the public comment period for the March 11 proposal, 40 commentators provided input on the package. The Department considered the comments received at the public hearings and the written comments received on the draft safe fill package in the development of this proposed rulemaking package.

The following is a summary of major comments received on the draft safe fill package and responses indicating how the comments are addressed in this proposed rulemaking.

Draft Safe Fill Policy

Several commentators indicated that safe fill criteria, especially numeric standards, should be issued in regulation form rather than as a statement of policy. In response to these comments, the Department is proposing to include the numeric standards for safe fill in this rulemaking.

Most of the commentators opined that the numeric standards in the draft policy were too restrictive, which would result in regulating slightly contaminated soil as waste. One commentator suggested that safe fill numeric limits must be set at higher levels to be usable and workable on excavation projects. Several commentators recommended that fill should be defined by its use and not by levels of chemical constituents in the material. One commentator indicated that unless there is some evidence that the material proposed to be used as fill is contaminated by virtue of its appearance, odor or historical impacts, the presumption should be that the soil or other materials are uncontaminated and not subject to requirements of the SWMA.

The Department used certain SHSs promulgated under the Act 2 regulations to develop the numeric criteria in the draft policy and also took into account the natural occurrence of metals in soil in establishing numeric criteria for metals. In the proposed rulemaking, the Board is adopting the numeric standards suggested by the CSSAB in their recommended alternative to the safe fill policy proposal. The Board decided, however, that for copper and zinc, criteria based on the EPA Part 503 regulations for the land application of sewage sludge should be used. These criteria, promulgated in the State's municipal waste regulations in § 271.914 (relating to

pollutant limits), consider plant toxicity in establishing acceptable levels for copper and zinc in soil.

The proposed safe fill numeric standards in this rule-making are less stringent than the numeric standards proposed in the draft policy. To compensate for the numeric differences, the proposed amendments indicate that to qualify as safe fill, there must be no indication of a spill or release to the soil and there must be no visual stains, odors or other nuisances. Safe fill is, therefore, defined by impacts to the soil as well as by the numeric standards.

One commentator mentioned that the draft policy undercuts programs, including the Act 2 and residual waste program, and that the Department should seek to build on its existing programs rather than develop a new set of standards on "how clean is clean" in this Commonwealth. Since the SHS were developed to address cleanups at contaminated sites, they do not consider the impacts associated with the movement of soils to areas where soils are below the numeric levels used as the threshold for safe fill. In addition, unlike the land recycling program, locations where safe fill is placed are not evaluated from a geological or hydrological standpoint in advance of placement of material.

Several commentators raised concerns about using estimated quantitation limits (EQLs) as safe fill numeric standards for organic regulated substances in the draft policy. The concern expressed was that the use of EQLs would disqualify vast amounts of soil and other materials that may contain background concentrations of organic compounds resulting from airborne deposition and other mechanisms wholly independent of any particular spill or release. The Department used EQLs for organic regulated substances with the understanding that organics do not occur as natural constituents in soil. It is very likely, however, that miniscule quantities of organic substances may be generated by microbial decomposition of plants and soil. To account for this situation, the safe fill numeric standards in this proposal are based on a subset of the SHSs of Act 2. In the proposed regulations, the Board is adopting the numeric standards recommended by the CSSAB in their alternative proposal to the draft safe fill policy. The safe fill numeric value for organic regulated substances is the lower of the residential generic value (RGV) or the residential direct contact (RDC) value from the soil-to-groundwater pathway numeric values for a used aquifer and total dissolved solids (TDS) ≤2500 mg/L from Chapter 250, Table 3B of Appendix A.

Commentators also raised concerns on the numeric standards for metals in the draft policy stating that selecting the lower value between the estimated background and residential direct contact values is not appropriate as the SHS are based on health risks and background is based on natural occurrence. Concerns were expressed on the limited database used to develop estimated background values for most of the metals as being too regional to be of use. It was suggested that the Department perform a more detailed study of background concentrations for inorganic regulated substances (metals) in this Commonwealth before proposing background standards for these constituents. For inorganic regulated substances, the proposed amendments include the numeric standards recommended by the CSSAB in their alternative proposal to the draft safe fill policy. The safe fill numeric value for metals is the lower of the residential generic soil-to-groundwater pathway value (RGV) and the lowest residential direct contact value (RDC). The

value is further based on a used aquifer and TDS ≤2500 mg/L from Chapter 250, Table 4B of Appendix A. By capping the safe fill numeric values at RDC, the proposed amendments. protect human health by controlling exposure to regulated substances that are toxic to highly toxic.

Some commentators indicated that although the draft policy stated that sampling was voluntary, sampling would probably be necessary in most cases to show that the material is not hazardous and to confirm that it meets the numeric criteria of safe fill. According to the commentators, anyone wanting to move soil around will likely need to sample the soil to avoid liability. In addition, concern was raised that sampling will be cost prohibitive and will delay construction/development projects. One commentator further stated that there was no guidance on the number of samples that would be required for safe fill determinations. The commentator recommended that the Department use the 75%/10X rule used for the SHS in the Act 2 program for sampling and analysis of safe fill. The proposed amendments include a sampling and analysis protocol recommended by the CSSAB in their alternative proposal to the draft safe fill policy; however, sampling is not required. When sampling, the number of samples necessary is tied to the volume of soil proposed for use as fill. Discrete samples must be analyzed using a 75%/2X rule—75% of the samples taken must be less than or meet the standard, and no sample may be greater than two times the standard. For composite samples, the samples must be equal to or less than 1/2 the safe fill numeric standard in order to be equivalent to the 75\%/2X rule proposed for discrete sampling.

Three commentators stated that the draft policy is not clear on the onsite movement of excavated materials. The commentators recommended unrestricted onsite use of excavated material, including historic fill, without any sampling/analysis requirements. According to the commentators, sampling should be required only if the material is impacted by a spill or a release. In the proposed rulemaking, safe fill, which includes small quantities of historic fill, may be used within a right-of-way or within a property without sampling and analysis as long as the fill does not exceed nonresidential standards under the land recycling program. The safe fill definition offers three options for determining whether material meets the safe fill standards, including an option that relies on an appropriate level of due diligence and knowledge of the site that does not require sampling and analysis.

A few commentators questioned the exclusion of used asphalt from the list of materials qualifying for use as safe fill. Used asphalt is extensively used as fill and to bring areas to grade in a variety of construction projects. In the proposed regulations, the definition of safe fill includes "uncontaminated used asphalt." In addition, contaminated used asphalt may qualify for beneficial use under a PBR in new § 287.102(m) (relating to permit-by-rule).

One commentator indicated that the exclusion provided to soil excavated from trenches dug for utility installation, maintenance and replacement should include water pipelines. The Department has always maintained that right-of-way projects include those activities conducted for water pipelines. In the proposed rulemaking, safe fill includes material excavated and moved within right-of-way projects.

One commentator was concerned that the standards in the draft policy for safe fill were more stringent than the requirements under the Storage Tank and Spill Prevention Act (Act 32) (35 P. S. §§ 6021.101—6021.1315). The Department maintains that the standards in Act 32 are cleanup standards that apply to contaminated sites. Safe fill defines the threshold for material that is uncontaminated and has not been subject to a spill or release.

Several commentators raised concerns that most of the river dredging operations would be negatively impacted by the stringent numeric criteria in the draft policy and that sampling/analysis would be necessary every time dredging is carried out, to avoid liability. Commentators indicated the draft policy conflicted with maintenance and construction dredging operations, that are routine and frequent and are conducted in the western part of the State to keep river docks and berths open for access. It was also pointed out that dredged material excavated from western rivers is different in its contaminants status from that excavated from the waterways in the eastern part of the State and should be regulated differently. Commentators suggested that the Department further evaluate the legal and scientific issues under which dredging takes place before establishing standards and criteria for the environmentally sound management of navigational dredged material. As a result of these concerns, the proposed amendments include uncontaminated dredged material as safe fill. In addition, dredged material that exceeds safe fill numeric standards may be used for beach nourishment or as a soil additive or substitute on lands adjacent to a dredging operation. The proposed amendments also include greater flexibility in determining whether dredged material meets the safe fill definition by allowing due diligence and knowledge when making the determination. $\,$

Draft PBR

Several commentators took issue with the definition of contaminated soils under the PBR provision and stated that factual investigation and analysis will be required to determine which of the five PBR categories apply. The commentators recommended that only soils exceeding a set numeric criterion should be considered contaminated. The Department considers other characteristics about the soil, such as whether it has been subject to a release of a chemical or its elevated chemical levels are based on natural occurrences, to be important factors when determining whether it should be considered waste. In addition, soil may meet a numeric chemical standard but be offensive from a nuisance perspective, such as odorous. Unrestricted placement of odorous soil would be problematic

Several commentators took issue with the Department's notification and deed notice requirements in the PBR provisions indicating that these requirements go beyond the regulatory requirements and are inconsistent with the Hazardous Sites Cleanup Act (HSCA) (35 P. S. §§ 6020.101—6020.1305) and the SWMA. The commentators indicated that sites that are cleaned up to the residential SHS under the Act 2 program get relief from deed notice requirements under that act. Deed notices in the proposed ramendments are only included in circumstances where nonresidential standards will be met. The notification requirements have been retained to provide information to the Department that includes the location of these permitted waste activities.

Some commentators did not approve of linking property use to zoning as it makes PBR unavailable to areas not subject to local zoning ordinances. Under the proposed amendments, PBR materials may be placed on unzoned properties provided the background concentration for regulated substances in unzoned properties is equal to or

greater than the concentration in the soil brought to the receiving site and provided the unzoned property will be used for commercial or industrial purposes only.

One commentator requested that "abandoned mine reclamation" allowed under the PBR provisions should be replaced with "surface mining" as quarry reclamation using safe fill is a routine reclamation method approved on a case-by-case basis by the Department's Bureau of Mining and Reclamation. The proposed amendments include changes to the PBR provisions that allow contaminated soils to be used for reclamation at both active or abandoned mines.

A commentator raised issue with the dewasting restriction in the draft PBR provisions. Under the dewasting provision, a soil is dewasted as long as it remains in place at the receiving site. The commentator stated that it made no legal or technical sense and would lead to long-term uncertainty and confusion about current and future use of the property. The dewasting provisions have been retained in the proposed amendments. When contaminated soil or other materials are excavated and relocated in the future, management of the materials shall be conducted under the SWMA.

Draft General Permit

Several comments were received on the draft general permit. The draft general permit was developed for the beneficial use of contaminated soil at a remediation site to bring an area to grade, to control runoff and to limit infiltration of water.

One commentator objected to the movement of contaminated soil from one industrial site to another with the only stipulation that contaminants be similar. This commentator expressed that the Department should only allow the cleanest of soils to be received at contaminated sites, under the Growing Greener Initiative. According to this commentator, the draft general permit amounted to encouraging the polluting of a site while bringing it to grade. Several commentators indicated that the scope of the general permit was too limited and excessively restrictive as it allowed only movement of contaminated soil between Act 2 sites undergoing remediation under the SHS. The commentators recommended the Department not restrict movement to Act 2 sites only because the restriction ignores the magnitude of ongoing redevelopment projects. A few commentators wanted the general permit to apply to sites undergoing remediation using the Act 2 site-specific standard, also. Several other conditions in the draft general permit were considered too restrictive and hindered the movement of soil, such as requiring waste brought to the site being similar to contamination identified at the remediation site, requiring identification of contaminants brought to the Act 2 site in the notice of intent to remediate (NIR), requiring no exceedance of receiving site remediation standards and requiring ecological screening for organic contaminants.

The CSSAB in their alternative proposal to the draft safe fill package had suggested that the Department rescind the general permit. At this time, the Board is not proposing a general permit and, instead, is proposing a PBR in § 287.102.(0) to cover the activities described in the draft general permit.

The March 11 proposal was also reviewed by and discussed with the CSSAB on April 12, 2000, and by the Solid Waste Advisory Committee (SWAC), in advance of its notice of public release on March 9, 2000. On June 22, 2000, the CSSAB presented its alternative approach in response to the March 11 proposal. On February 22, 2001,

in response to all the comments received on its previous proposal, the Department presented this regulatory proposal to the CSSAB for review and comment. In addition, the Department met twice with subcommittees of SWAC and CSSAB on March 19, 2001, and April 30, 2001, to discuss this proposal. In addition, the Department met with SWAC on March 9, 2000, and provided an overview of this proposal and some specific language. This proposed rulemaking was approved by SWAC at its May 10, 2001, meeting.

This proposed rulemaking responds to many of the comments received during the previous public comment periods and the concerns raised by the advisory committees to the Department.

Based on the extensive evaluation of the Department's proposed standards for safe fill, the Department has determined that the numeric standards referenced in proposed § 287.11(a) (relating to safe fill numeric standards) and found in Appendix A, Tables 1, 2 and 3 may be used to demonstrate that material is clean fill in accordance with the Department's guidance document titled "Policy and Procedure Establishing Criteria for Use of Uncontaminated Soil, Rock, Stone, Unused Brick and Block, Concrete and Used Asphalt as Clean Fill" (Doc. No. 258-2182-773).

E. Summary of Regulatory Requirements

A description of the proposed amendments is as follows:

Article VIII. Municipal Waste Management Chapter 271. Municipal Waste Management—General Provisions

Section 271.1. Definitions.

The term "clean fill" has been deleted in this proposed rulemaking. A new term, "safe fill," has been added to this section and will replace the use of the term "clean fill."

The term "construction/demolition waste" has been modified. First, in subparagraph (v), the word "unsegregated" has been deleted. Second, language that discusses "clean fill" has been deleted.

A new term, "historic fill," has been added to describe material that was historically used in the foundations of construction projects prior to 1988¹, particularly in urban areas, and that is commonly found below buildings when clearing property for redevelopment. This material frequently includes mixtures of soil and various waste materials. Under the proposed amendments, historic fill is managed as waste unless it is generated in quantities less than or equal to 125 cubic yards per excavation location and it is both free of nuisance-related characteristics and free of contact with a release of a regulated substance.

The term "safe fill" has been added to this section with a cross reference to the residual waste regulations. The term is cross referenced here to avoid duplication. The term "safe fill" is discussed in more detail in this Preamble.

Section 271.2. Scope.

Subsection (c) has been modified to include a new category of material, historic fill, which shall be managed in accordance with the residual waste regulations, rather than the municipal waste regulations, regardless of where

¹The year 1988 is the date that comprehensive municipal waste regulations became effective under the SWMA. After 1988, state-of-the-art practices required by the regulations applied to the management of this material.

the material is generated. This modification will provide flexibility for managing the historic fill under a PBR.

Section 271.101. Permit requirement.

This section has been modified to remove the references to "clean fill" in subsection (b)(3). This provision is no longer necessary based on the changes to this regulatory proposal that address "safe fill." Materials that qualify as safe fill, when used as fill, are no longer considered waste and a permit is not required for placement. Therefore, a permit exemption for this activity is not necessary. In addition, with respect to land clearing waste, new language was added to this section on December 22, 2000, that eliminates the need for a permit if land clearing waste is used in accordance with best management practices.

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

Under this proposed rulemaking, subsection (g) has been amended for consistency with other parts of this rulemaking. The term "uncontaminated" has been deleted and new language has been added to indicate that the materials shall be separated from other waste and contaminants to be eligible for processing under this PBR.

This subsection has also been amended to allow mechanical processing facilities to receive up to 350 tons per day of segregated construction/demolition waste components provided certain conditions can be met. These modifications will facilitate the processing and reuse of brick, block and concrete that is separated from construction/demolition waste.

A new PBR, subsection (i), has been added to address the beneficial use of brick, block and concrete. Presently, contaminated and segregated brick, block or concrete is managed predominantly at landfills. This new category of PBR has been added to allow the beneficial use of these materials as construction material or in active or abandoned mine or abandoned quarry reclamation activities. Two examples of contaminated brick, block or concrete are when asbestos used as insulation for piping or boilers and PCBs used in ballast for lighting fixtures become dispersed among the material.

Under this permit, contamination levels may not exceed the lower of the residential generic value of the soil-to-groundwater numeric value compared to the lowest RDC numeric value, calculated for used aquifers, and listed in Tables 5 and 6 of Appendix A in Chapter 287. In addition, brick, block and concrete may be placed in waters of this Commonwealth under this permit if Department approval has been obtained and the mine or quarry reclamation activities or under Chapter 105 (relating to dam safety and waterway management) and if certain conditions are met. Under any use, placement of waste in water may not cause a violation of water quality standards.

Under this subsection, several conditions have been developed for this PBR that include the following: 1) site restrictions; 2) implementation of erosion and sedimentation control plan requirements; 3) prohibitions on the use of hazardous waste; 4) obligations to provide written notice to the Department of the person beneficially using the material, the amount of material used at a site and the locations of use; and 5) obligations to maintain records of any analytical evaluations. Material may only be placed on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, material shall be used in an area where the

background is equal to or greater than the concentration of contamination in the material being brought to the site, and the property must be used for commercial or industrial purposes only. In addition, waste that is placed in accordance with this permit will cease to be waste as long as the material remains in place.

Article IX. Residual Waste Management Chapter 287. Residual Waste Management General Provisions

Section 287.1. Definitions.

The term "clean fill" has been deleted and replaced with the term "safe fill" in this proposed rulemaking.

The term "historic fill" has been added to the proposed amendments to clarify the management requirements that may apply to this material. The definition is consistent with the term added in § 271.1, discussed previously.

The term "safe fill" has been added to the proposed amendments to replace the term "clean fill." "Safe fill" is more descriptive of the uncontaminated materials that the Department continues to exclude from the definition of waste. "Safe fill" is material that is uncontaminated and is one of the following: soil; dredged material; used asphalt; or segregated brick, block or concrete from construction or demolition activities from residential and commercial properties. Used asphalt is not waste under subparagraph (ii)(A) of the definition of "waste" § 287.1 when used or reused as an ingredient in the asphalt production process to make a product, such as new pavement structure, or when used as a coproduct. Construction or demolition materials from an industrial site will not qualify as "safe fill" due to the potential of contamination resulting from industrial activities at the property. In addition, when considering whether brick, block or concrete is "uncontaminated," the material should be separated from materials like lead-based paint surfaces, friable asbestos and hazardous materials such as PCB ballasts and fluorescent light bulbs.

To further qualify as "safe fill," due diligence shall indicate that the material has not been subject to a release, and the material does not contain any visible staining, odor or other sensory nuisance resulting from chemical contamination associated with the material.

One of the difficult issues associated with this term is how to determine whether a material is "uncontaminated." The proposed regulation offers three options. First, a person may conduct comprehensive sampling and analysis of the material to determine whether it meets numeric standards. Second, a person may use due diligence, the diligence reasonably expected, to determine whether past activity at the site had the potential to result in a release of regulated substances but there is no knowledge of a release and, based on the performance of due diligence, the material meets the numeric standards. Under this scenario, limited testing may be required to make a determination. Third, a person may use due diligence and knowledge of the site to demonstrate that the fill meets the numeric standards without sampling and analysis. In addition, the material may not be affected by a release and shall be free of visible stains, odors and other sensory nuisances.

Several exceptions for material that does not meet the numeric standards have been incorporated into this term. First, subparagraph (i) provides an exception for material moved within a right-of-way, moved offsite from residential properties and moved within a property as long as the material has not been subject to a release and is free of stains, odors and other sensory nuisances. The higher

levels are capped, under subparagraph (viii), at the lower of the nonresidential direct contact numeric value or nonresidential soil-to-groundwater pathway numeric value established for aquifers used or currently planned for use under the remediation standards of the Act 2 program. With regard to the rights-of-way and movement within a property, the movement of large quantities of soil is limited to reuse within the right-of-way or within the same property, thereby limiting exposure to soils that contain higher levels of chemical substances. Due to the small likelihood that residential properties contain historical chemical contamination that might exceed the safe fill numeric standards, it is inappropriate to burden all of the properties with excessive sampling and analysis.

Second, subparagraph (iii) provides an exception for soil moved from a fruit orchard under development where pesticides were properly applied in conjunction with standard horticultural practices as long as the material has not been subject to an unauthorized release and is free of stains, odors and other sensory nuisances. This exception was incorporated to recognize that some soil on orchard properties may exceed the safe fill numeric standards even though the chemicals were applied in compliance with law. Due to the large area of acreage that may be affected, if the soil exceeds the numeric values for safe fill, it may be used for commercial or industrial purposes. When used for these purposes, the higher numeric levels are capped, under subparagraph (viii), at the lower of the nonresidential direct contact numeric value or nonresidential soil-to-groundwater pathway numeric value established for aquifers used or currently planned for use under the remediation standards of the Act 2 program. The soil may also be used for residential purposes if it is blended with other soil to meet the safe fill numeric values.

Third, subparagraph (iv) provides an exception for dredged material placed directly on land adjacent to a dredging operation for beach nourishment or as a soil conditioner or soil substitute as long as the material has not been subject to a release and is free of stains, odors and other sensory nuisances. This exception was incorporated to allow the continuation of what is considered a common practice and involves the placement of material that has eroded from a beach to be placed back near the same beach location. If the dredged material exceeds the numeric values for safe fill, it may be used for commercial or industrial purposes. When used for these purposes, the higher numeric levels are capped, under subparagraph (viii), at the lower of the nonresidential direct contact numeric value or nonresidential soil-to-groundwater pathway numeric value established for aquifers used or currently planned for use under the remediation standards of the Act 2 program. The dredged material may also be used for residential purposes if it is blended with other soil or other dredged material to meet the safe fill numeric values.

In addition to exceptions based on numeric values, subparagraph (v) provides a quantity exception for historic fill. Historic fill in quantities less than 125 cubic yards per excavation location, which is the equivalent of approximately five dump trucks full of material, is considered safe fill as long as the material has not been subject to a release and is free of stains, odors and other sensory nuisances. This exception was added to recognize that ordinary development of residential property, including the replacement or addition of utility lines, results in the movement of historic fill on a regular basis and rarely causes environmental concern.

In most cases, safe fill may not be placed in waters of this Commonwealth. However, subparagraph (vi) allows safe fill to be placed in waters of this Commonwealth under active or abandoned mine or abandoned quarry reclamation or under Chapter 105 if, among other conditions, 10% of the numeric standards for safe fill are met. This margin of safety for placement of soil in saturated conditions was developed by the CSSAB as a SHS (soil-to-groundwater pathway generic value) under the land recycling program and was endorsed by the CSSAB for use in developing standards for placement of safe fill in water. Placement of safe fill in water shall be approved by the Department. Under any use, placement of safe fill in water may not cause a violation of water quality standards.

Subparagraph (vii), which is contained in the existing regulations in § 287.101(b)(6) (relating to permit requirement), continues to place the burden of proof that material is safe fill on the person using the material. Like coproduct determinations, prior approval from the Department to use safe fill is not required. Therefore, if a problem results from the use of the material, the person who placed the material will need to prove that requirements for its use have been met.

Subparagraph (viii) provides a numerical cap for safe fill when sampling and analysis is conducted under the application of due diligence and subparagraph (i). Subparagraph (viii) does not override the decision of whether sampling and analysis is performed under subparagraph (i) to determine whether material is safe fill.

Subparagraph (ix) indicates that materials that meet the requirements under this term are not regulated as waste when used as fill. This provision was added to clarify the regulatory status of safe fill.

The term "sediment" has been added to this proposal to explain what material qualifies for an alternative methodology to that specified in § 287.11 for sampling and analysis. Material that is sediment is material that remains underwater when sampled and cannot be sampled and analyzed under the same methodologies as dredged material that is removed from the water and deposited in basins. Once removed for placement, sediment is managed as dredged material. The Department will develop guidance on the alternative methodology that should be applied to sediment, and it will work with the dredge industry and the United States Army Corps of Engineers to develop guidance for sampling and analysis.

The term "site undergoing remediation activities" has been added to provide consistency between the Act 2 program and the waste program. The term "site" is already a defined term in § 287.1; therefore, "site undergoing remediation activities," has been added to be consistent with the use of the term "site" in Act 2.

Section 287.2. Scope.

In subsection (c), historic fill has been added to the list of wastes that are subject to the residual waste regulations, regardless of where the waste is generated. By adding historic fill to the list, materials generated in a residential or commercial setting may be managed in accordance with a PBR in § 287.102.

Section 287.11. Safe fill numeric standards.

This section establishes the numeric standards that shall be met for material to qualify as safe fill. In addition, this section includes a requirement that must be met if sampling and analysis are performed to demonstrate compliance with the standards.

In subsection (a), except for safe fill containing copper and zinc, material shall meet the lower of the following: the residential generic value of the soil-to-groundwater pathway numeric value, calculated in accordance with § 250.308 (relating to soil-to-groundwater pathway numeric values), or the lowest residential direct contact numeric values calculated in accordance with §§ 250.306 and 250.307 (relating to ingestion numeric values and inhalation numeric values).

For safe fill containing copper and zinc, material shall meet the concentrations identified in § 271.914(b)(3) (relating to pollutant limits) that take plant toxicity into consideration. If the material being tested is dredged material or sediment that is from tidal streams, the material shall also meet a chloride limit of 250 mg/l to protect the groundwater. This can be achieved by draining the dredged material to increase the solids content and reduce salinity.

In addition to the totals concentrations, a person shall demonstrate that dredged material will not leach either above standards that apply to unlined landfills by using the Toxicity Characteristic Leaching Procedure or above the medium-specific concentration for groundwater in used aquifers under Chapter 250 using the Synthetic Precipitation Leaching Procedure.

Subsection (b) specifies sampling and analysis procedures for determining whether safe fill meets the safe fill numeric standards. The sampling shall be random and representative of the pile of material or area of excavation. Subsection (b) provides two options for sampling: a composite and grab sampling protocol in subsection (b)(1), or a discrete sampling protocol in subsection (b)(2). Samples obtained through the discrete sampling protocol in subsection (b)(2) will be analyzed individually. To reduce the cost of sample analysis, a person may use the composite sampling protocol in subsection (b)(1) for compounds other than volatile organic compounds (VOCs). The composite sampling protocol requires that four samples be composited into one sample for analysis. For analysis of VOCs, sample compositing is not acceptable due to the potential loss of VOCs during the mixing process. Instead, a biased sampling protocol may be used to select sampling locations for the required number of grab samples. This procedure requires field screening of discrete samples first to identify the locations that are most likely to contain the highest concentrations of VOCs. Grab samples are then taken from the same sampling locations for VOC analysis. The number of samples required is based on the volume of material proposed for use as safe fill. For volumes of soil less than or equal to 125 cubic yards, eight discrete samples or two composite samples (eight samples composited into two) are required for analysis of regulated substances other than VOCs and two grab samples are required for analysis of VOCs. For volumes of soil more than 125 cubic yards but less than or equal to 3,000 cubic yards, 12 discrete samples or three composite samples are required for analysis of regulated substances other than VOCs and three grab samples are required for analysis of VOCs. For each additional 3,000 cubic yards of safe fill or part thereof over the initial 3,000 cubic yards, 12 additional discrete samples or three additional composite samples are required for analysis of regulated substances other than VOCs, and three additional grab samples are required for analysis of VOCs.

Subsections (c) and (d) describe the statistical tests that will be used to determine whether safe fill meets the safe fill numeric standards. For a composite sample, subsection (c) specifies that a safe fill numeric standard is met if the result of analysis is equal to or less than one-half the safe fill numeric standard for a regulated substance. This insures that the 2X criterion under the 75%/2X rule used for the discrete sampling protocol is validated in the composite sampling protocol.

For grab samples taken for VOCs analysis, subsection (c) requires that the analytical result for a regulated substance be less than or equal to safe fill numeric criteria for that regulated substance.

For discrete samples, subsection (d) prescribes a 75%/2X rule. This rule requires that 75% of the samples shall be equal to or less than the safe fill numeric standard with none of the samples exceeding more than twice the safe fill numeric standard for a regulated substance.

The sampling protocol in the proposed regulations is applicable for sampling of excavated materials in piles. The Board is seeking suggestions on alternative sampling methods for materials in place prior to excavation.

Section 287.101. General requirements for permits.

This section has been modified to remove the references to "clean fill" in subsection (b)(3). This provision is no longer necessary based on the changes to this regulatory proposal that address "safe fill." Materials that qualify as safe fill, when used as fill, are no longer considered waste and a permit is not required for placement. Therefore, a permit exemption for this activity is not necessary. In addition, the references to land clearing wastes have been deleted because under § 287.2 (relating to scope), land clearing wastes are managed in accordance with Article VIII (relating to municipal waste). The use of land clearing wastes does not require a permit if waste management is performed in accordance with best management practices.

Section 287.102. Permit-by-rule.

Several new PBRs have been added to this section to allow material that does not meet safe fill standards to be beneficially used in accordance with permit conditions included in the regulations. Materials that do not meet the safe fill standards are managed as waste.

Subsection (j) has been added to provide a permit for the beneficial use of contaminated soil, from known areas of contamination, to bring an area to grade, as construction material, for control of fire and subsidence events or in reclamation of active or abandoned mines. The purpose of this permit is to allow soils impacted by authorized agricultural practices resulting in lead, arsenic and pesticide contamination to be beneficially used. Under this permit, the contamination levels may not exceed nonresidential soil-to-pathway numeric values developed for used aquifers under Chapter 250 and listed in Table 4 of Appendix A of Chapter 287. Any direct contact pathways shall be promptly and permanently eliminated.

Subsection (k) has been added to provide a permit for the beneficial use of contaminated soil, dredged material or used asphalt to bring an area to grade, as construction material, for control of fire and subsidence events or in reclamation of active or abandoned mines. Under this permit, the contamination levels may not exceed the lowest residential direct contact numeric values developed for used aquifers under Chapter 250 and listed in Tables 5 and 6 of Appendix A of Chapter 287. In addition, a leach test shall demonstrate that groundwater will be protected.

Subsection (l) has been added to provide a permit for the beneficial use of historic fill as construction material. Under this permit, the contamination levels may not exceed either residential soil-to-groundwater pathway numeric values for used aquifers, as long as direct contact pathways are eliminated, or the lowest residential direct contact numeric value for used aquifers (if higher), as long as a leach test demonstrates that groundwater will be protected.

Subsection (m) has been added to facilitate the placement of contaminated soil generated offsite and placed at a site undergoing remediation. This permit allows the beneficial use of contaminated soil to bring an area to grade, to limit infiltration of rainfall and to facilitate runoff. Under this permit, soil contamination levels may not exceed the SHS for used aquifers, based on the residential or nonresidential standard identified for attainment in an Act 2 notice of intent to remediate. Types of contaminated soil that may be accepted at a remediation site shall match the contamination found at the receiving site. For contaminated soil placed at a site undergoing remediation activities, relief from liability under Act 2 may include the material brought to the receiving site undergoing remediation activities and shall be included in the final report.

Under subsections (j)—(m), several standard conditions have been developed for these PBRs. The permits include conditions on the following: 1) site restrictions; 2) prohibitions on the placement of material in waters of this Commonwealth; 3) implementation of erosion and sedimentation control plan requirements; 4) prohibitions on the use of hazardous waste; 5) obligations to provide written notice to the Department of the person beneficially using the material, the amount of material used a site and the locations of use; and 6) obligations to maintain records of any analytical evaluations. Under each permit, waste that is placed in accordance with this permit will cease to be waste as long as the material remains in place.

In each permit under subsections (j)—(l), material may only be placed on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, material shall be used in an area where the background is equal to or greater than the concentration of contamination in the material being brought to the site, and the property must be used for commercial or industrial purposes only.

(*Department Note*: The tables in Annex A are based on numbers that were in effect before the publication of amendments to Chapter 250 at 31 Pa.B. 6895 (November 24, 2001). On final rulemaking, all tables in Appendix A will be updated to be consistent with changes made to Chapter 250.)

F. Benefits, Costs and Compliance

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

Renefits

The proposed amendments replace the current clean fill policy. Under the current policy, soil and other materials are required to meet a stricter numeric standard for regulated substances (contaminants) if they are used as clean fill. These regulations should help the onsite and offsite movement of excavated material for use as fill or as construction material. Currently, a significant portion of these excavated materials is being disposed in landfills. The term "clean fill" in the proposal is replaced with the term "safe fill" as it better describes uncontaminated materials the Department continues to exclude from the definition of waste. The exclusion of safe fill, when used

as fill, from the "waste" definition will facilitate the reuse of these materials without applying the waste management requirements.

The proposed amendments will facilitate the movement of soil and other materials for construction activities even if the materials exceed the numeric thresholds. For example, moving soil within right-of-way projects, moving soil offsite from residential properties or within a property, placing dredged material on adjacent lands as beach nourishment and moving soil from fruit orchards where pesticides were used may be conducted free from regulation even if the material exceeds safe fill numeric limits, but are capped at nonresidential soil standards. These exceptions should benefit utility companies, specific dredging projects and development of lands where fruit orchards once stood.

The proposed amendments provide three options to determine if the material is "uncontaminated." The options require site knowledge and history to determine if sampling and analysis of excavated material is necessary. One of the three options requires no sampling and analysis whereas the other two options require either detailed sampling and analysis or reduced sampling and analysis. The monetary and timesaving benefits of this multiple options approach will help many of the construction projects in this Commonwealth. In addition, the proposed regulations provide two options for sampling: composite sampling or discrete sampling. To reduce the cost of sampling, a person may use the composite sampling protocol for regulated substances other than VOCs.

There are no permit applications, permit fees or bonding requirements associated with the five new PBRs proposed. The PBRs will encourage the beneficial use of contaminated soil, contaminated used asphalt, contaminated dredged material, historic fill, contaminated and segregated brick, block and concrete and the placement of contaminated soil at a site undergoing remediation activities. Currently the contaminated materials are disposed in permitted landfills.

The current cost of disposal in a permitted landfill is estimated at \$50/ton or cubic yard². The proposed amendments will result in huge savings to the regulated community by avoiding disposal costs. Under the proposed safe fill regulations, the savings from disposal cost are estimated at \$500 million if it is assumed that approximately 50% or more of the estimated 20 million cubic yards of soil and other materials generated annually in this Commonwealth will qualify for use as safe fill or used under one or more of the five permits-by-rule.

Compliance Costs

The proposed amendments will increase the cost of sampling and analysis to meet numeric standards. The number of samples required is based on the volumes of excavated material. Under current management practices, sampling is left to the discretion of the person managing the excavated materials. The proposed amendments include sampling and analysis procedures to be applied when a person decides to evaluate the excavated material. Under this proposal, a person has the option of using discrete or composite samples when analyzing material. By choosing composite samples, the cost of sampling and analysis will be a less expensive option. The current estimated sampling and analysis cost for a sample is estimated at \$1,000. The proposed sampling will require 48 discrete samples or 12 composite samples for 10,000 cubic yards of excavated material. Based on the analysis

²One ton of soil is equivalent to 1 cubic yard.

option selected, cost of analysis will be \$12,000 for composite samples or \$48,000 for discrete samples. It should be recognized, however, that the person managing safe fill has three options to determine the extent of sampling and analysis necessary for characterizing the material. This should actually lower the cost of offsite movement and use of excavated material as safe fill.

The net cost to the regulated community as a result of the proposed increase in sampling/analysis requirements is expected to be approximately \$8.8 million the first year and in subsequent years. The cost estimate is based on the estimate of 20 million cubic yards of soil excavated annually in this Commonwealth. It is assumed that 20% may qualify under the safe fill exclusions, and another 40% may not require sampling and analysis as a result of the three options provided for determining if sampling and analysis is necessary. It is assumed that the remaining 40% of the excavated material may require sampling and analysis and incur the cost, estimated in this paragraph as \$8.8 million. This is offset by the projected savings of \$500 million realized by avoiding landfill disposal.

It is projected that there will be no increase in costs or savings to local governments associated with these proposed amendments.

Compliance Assistance Plan

The Department will assist the regulated community by developing a series of fact sheets explaining changes to the definitions of waste and related terms. In addition, the Department will continue to work with the Pennsylvania Chamber of Business and Industry and other industry groups to develop workshops to explain how to apply the new regulations.

Paperwork Requirements

For PBR activity, no application process is required. A permittee shall only provide written notice to the Department that he is operating under a specific PBR. In addition, minimal recordkeeping requirements are imposed by this proposed rulemaking for persons who operate under a permit.

G. Sunset Review

These proposed amendments 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.

H. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on January 18, 2002, the Department submitted a copy of the proposed rulemaking to the Independent Regulatory Review Commission (IRRC), and the Chairpersons of the Senate and House Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, if IRRC has objections to any portion of the proposed amendments, it will notify the Department within 10 days of the close of the Committees' review period. The notification shall specify the regulatory review criteria that have not been met by that portion of the proposed amendments to which an objection is raised. The Regulatory Review Act specifies detailed procedures for the

Department, the Governor and the General Assembly to review these objections before final publication of the final-form regulations.

I. Public Comments

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed amendments to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 15th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by April 3, 2002. Interested persons may also submit a summary of their comments to the Board. The summary shall not exceed one page in length and shall also be received by April 3, 2002. The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulations will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@state.pa.us must also be received by April 3, 2002. A subject heading of the proposal and a return name and address must be included in each transmission.

J. Public Meetings and Hearings

The Department will hold three public meetings to explain the proposed amendments and to respond to questions from participants. The meetings will be held at 7 p.m. as follows:

February 13, 2002	Four Points Sheraton—Pittsburgh
, and the second	North
	910 Sheraton Drive
	M DA

Mars, PA

February 19, 2002 Department of Environmental

Protection

Auditorium, Rachel Carson State

Office Building 400 Market Street Harrisburg, PA

February 25, 2002 Upper Merion Township Building

Freedom Hall

175 West Valley Forge Road

King of Prussia, PA

The Board will hold three public hearings for the purpose of accepting comments on this proposal. The hearings will be held at 7 p.m. on the following dates:

March 6, 2002 Four Points Sheraton—Pittsburgh North

910 Sheraton Drive

Mars, PA

March 11, 2002 Upper Merion Township Building

Freedom Hall

175 West Valley Forge Road

King of Prussia, PA

March 19, 2002 Department of Environmental

Protection

Auditorium, Rachel Carson State

Office Building 400 Market Street Harrisburg, PA

Persons wishing to present testimony at a hearing are requested to contact Debra Failor at the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477, (717) 787-4526, at least 1 week in advance of the

hearing to reserve a time to present testimony. Oral testimony is limited to 10 minutes for each witness. Witnesses are requested to submit three written copies of their oral testimony to the hearing chairperson at the hearing. Organizations are limited to designating one witness to present testimony on their behalf at each hearing.

Persons in need of accommodations as provided for in the Americans with Disabilities Act of 1990 should contact Debra Failor directly at (717) 787-4526 or through the Pennsylvania AT&T Relay Service at (800) 654-5984 (TDD) to discuss how the Department may accommodate their needs.

> DAVID E. HESS, Chairperson

Fiscal Note: 7-372. (1) General Fund.

Environmental Program Management (dollars in thousands)

- (2) Implementing Year 2001-02 is \$10,000
- (3) 1st Succeeding Year 2001-03 is \$0

2nd Succeeding Year 2003-04 is \$0 3rd Succeeding Year 2004-05 is \$0

4th Succeeding Year 2005-06 is \$0

5th Succeeding Year 2006-07 is \$0

(d) Three-year history of program costs:

Environmental Program Management (dollars in thousands)

(4) 2000-01 Program—\$41,471

1999-00 Program—\$40,200

1998-99 Program—\$33,123

(8) recommends adoption.

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:

[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.]

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. J:

- (i) Wood.
- (ii) Plaster.

- (iii) Metals.
- (iv) Asphaltic substances.
- (v) Bricks, block and 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.

Historic fill—

- (i) Historically contaminated material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to 1988 that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction and demolition waste.
- (ii) The term does not include historically contaminated material in quantities of less than or equal to 125 cubic yards per excavation location if the following conditions are met:
- (A) There is no indication that the material has been subject to a release of regulated substances.
- (B) There is no visible staining, odor or other sensory nuisance associated with the material.

Safe fill—Safe fill as defined in § 287.1 (relating to definitions).

§ 271.2. Scope.

(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:

(7) Historic fill.

Subchapter B. GENERAL REQUIREMENTS FOR PERMITS AND PERMIT APPLICATIONS

REQUIREMENT

§ 271.101. Permit requirement.

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

- (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) 1 (3) * * *

[(5)](4) * * *

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

* * * * *

- (g) Mechanical processing facility. A facility for the processing of **[uncontaminated]** rock, stone, gravel, brick, block and concrete from construction/demolition activities, individually or in combination, by mechanical or manual sizing or by mechanical or manual separation for prompt reuse shall be deemed to have a municipal waste processing permit-by-rule if it meets the requirements of subsections (a)—(c), the rock, stone, gravel, brick, block and concrete are separate from other waste and contaminants 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 waste and the facility. The facility [shall be onsite or process less than 50 tons or 45 metric tons per day, and | may not operate in violation of any State, county or municipal waste management plan. If the facility is offsite and processes more than 50 tons or 45 metric tons per day, the following additional requirements shall be met:
- (1) The facility may not receive more than 350 tons or 315 metric tons per day.
- (2) The facility shall and maintain a 300-foot isolation distance from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet.
- (3) The facility shall process the incoming waste within 30 days.
- (4) Processed waste shall be removed from the facility within 60 days of processing for reuse.
- (5) The operator shall maintain records that indicate compliance with the waste processing and removal limits identified in paragraphs (3) and (4).
- (6) Residue from the operation shall be removed and disposed within 1 week of being generated. For purposes of this paragraph, the term "residue" includes material that is unable to be processed and processed material that is unusable.

* * * * *

- (i) Brick, block or concrete. The placement of segregated brick, block or concrete resulting from construction or demolition activities at industrial properties or placement of contaminated and segregated brick, block or concrete resulting from construction or demolition activities at commercial or residential properties shall be deemed to have a municipal waste permit when used to bring an area to grade, as construction material or in reclamation of an active or abandoned mine or abandoned quarry, if in addition to subsections (a)—(c), the following conditions are met:
- (1) The waste material does not exceed the lower of the following:
- (i) The residential generic value of the soil-togroundwater pathway numeric value calculated in

- accordance with the methodology in § 250.308 (a)(2)(i), (3), (4)(i) and (5) (relating to soil to groundwater pathway numeric values). The numeric standards to be met are listed in Appendix A, Tables 5 and 6.
- (ii) The lowest residential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values). The numeric standards to be met are listed in Appendix A, Tables 5 and 6.
- (2) When calculating numeric standards under paragraph (1), the following additional requirements apply:
- (i) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the soil to contain a substance.
- (ii) When calculating the residential soil-togroundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.
- (3) To determine whether waste material meets the standards in paragraphs (1) and (2), the waste material shall be sampled and analyzed in accordance with § 287.11(b) and (c) or (d) (relating to safe fill numeric standards).
- (4) Waste material may not be placed into or along surface waters of this Commonwealth unless prior Department approval has been obtained associated with active or abandoned mine or abandoned quarry reclamation activities or under Chapter 105 (relating to dam safety and waterway management), and the following conditions are met:
- (i) Waste material placed into or along surface waters as approved by the Department under Chapter 105 may not exceed 10% of the numeric standards calculated in paragraphs (1) and (2), and placement of the waste may not cause an exceedance of the water quality standards in Chapters 16 and 93 (relating to water quality toxics management strategy—statement of policy; and water quality standards).
- (ii) Waste material placed into or along waters as part of an active or abandoned mine or abandoned quarry reclamation may not cause an exceedance of the water quality standards in Chapters 16 and 93 and, based on an approved sampling and analysis plan, shall meet the following:
- (A) The waste material received shall meet 10% of the numeric standards calculated in paragraphs (1) and (2).
- (B) For metals only, in lieu of clause (A), the material may not produce a leachate in excess of the residential medium-specific concentration for groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the EPA). The numeric standards to be met for metals by SPLP are listed in Appendix A, Table 6. The SPLP may only be used

when groundwater monitoring is being conducted at the location where waste is placed.

- (5) The waste material may only be placed under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, waste material shall be reused in an area where the background is equal to or greater than the concentration of contamination in waste material being brought to the site and the property shall be used for commercial or industrial purposes only.
- (6) At locations where waste material is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102 (relating to erosion and sediment control).
- (7) At locations where waste material is placed, the materials may not be placed within 100 feet of surface waters of this Commonwealth except as provided in paragraph (4).
- (8) At locations where waste material is placed, the materials may not be placed within 100 feet of the edge of a sinkhole.
- (9) At locations where waste material is placed, the materials may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the material closer than 300 feet.
- (10) Waste material that is hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste) may not be used under this permit.
- (11) Waste material when placed may not contain free liquids, based on visual inspection, and may not create an odor or other public nuisance.
- (12) A person who receives and uses waste material shall submit a written notice to the Department that includes the following:
- (i) The name, address and phone number of the person receiving and using the waste material.
- (ii) The quantity of waste material used at the receiving location.
- (iii) The locations where waste material was removed for use and locations where the waste material is placed for use.
- (iv) An identification of whether the area from which the waste material is removed is the subject of a corrective action or remediation activity.
- (v) A description of engineering practices and construction activities used to assure that site excavation and placement of waste material does not cause onsite or offsite contamination.
- (13) Records of analytical evaluations conducted on the waste material shall be maintained by the person using and distributing the waste material and shall be made available to the Department for inspection. The records shall include the following:
 - (i) The dates of testing.
 - (ii) Each parameter tested.
 - (iii) The test results.
 - (iv) The laboratory where testing was conducted.

- (v) The sampling procedures and analytical methodologies used.
- (vi) The name of the person who collected the sample.
- (14) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where waste material originated, or the site where waste material is beneficially used, to the land or waters of this Commonwealth.
- (15) Waste placed in accordance with this permit shall cease to be waste as long as the material remains in place.

ARTICLE IX. RESIDUAL WASTE MANAGEMENT

CHAPTER 287. RESIDUAL WASTE MANAGEMENT—GENERAL PROVISIONS

Subchapter A. General

§ 287.1. Definitions.

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

* * * * *

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

* * * * *

Historic fill—

- (i) Historically contaminated material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to 1988 that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction/demolition waste.
- (ii) The term does not include historically contaminated material in quantities of less than or equal to 125 cubic yards per excavation location if the following conditions are met:
- (A) There is no indication that the material has been subject to a release of regulated substances.
- (B) There is no visible staining, odor or other sensory nuisance associated with the material.

Safe fill—

- (i) Material that is uncontaminated soil, including rock and stone, uncontaminated dredged material, uncontaminated used asphalt or uncontaminated and segregated brick, block or concrete resulting from construction or demolition activities from residential and commercial properties and that meets one of the following requirements:
- (A) The material meets the numeric standards referenced in § 287.11 (relating to safe fill numeric standards) and listed in Appendix A, Tables 1 and 2, and meets the following requirements:
- (I) Based on an appropriate level of due diligence, there is no knowledge or past activity that indicates the material has been subject to a release.

- (II) There is no visible staining, odor or other sensory nuisance resulting from chemical contaminants associated with the material.
- (B) Based on an appropriate level of due diligence, the historical data on the excavation site indicates that past activity had the potential to result in a release, but there is no knowledge of a release and the material meets the numeric standards referenced in § 287.11 and listed in Appendix A, Tables 1 and 3, and meets the requirements of clause (A).
- (C) Based on an appropriate level of due diligence and knowledge of the site, the material meets the safe fill numeric standards without sampling and analysis and meets the requirements of clause (A).
- (ii) The term includes the material in subparagraph (i) that exceed the numeric limits in Appendix A, Table 1 or either Table 2 or 3, if it meets the criteria in subparagraph (i)(A)(I) and (II) and meets one of the following requirements:
 - (A) The material is moved within a right-of-way.
- (B) The material is moved offsite from a residential property currently developed as a residential property or zoned residential and never used for nonresidential purposes.
- (C) The material is moved within a property, except for soil moved in accordance with subparagraph (iii).
- (iii) The term includes soil moved from a fruit orchard under development where pesticides were used in an authorized manner in conjunction with standard horticultural practices. If the soil exceeds the numeric limits in Appendix A, Table 1 or either Table 2 or 3, and meets one of the following requirements, it is considered "safe fill":
- (A) The soil is used for commercial or industrial purposes.
- (B) The soil is blended with other soil to meet the limits in Appendix A, Table 1 and either Tables 2 or 3, and used for residential purposes.
- (iv) The term includes dredged material placed directly on land adjacent to the dredging operation for beach nourishment or as a soil additive or soil substitute. If dredged material exceeds the numeric limits in Appendix A, Table 1 and either Table 2 or 3, it shall meet the criteria in subparagraph (i)(A)(I) and (II) and meet one of the following conditions, it is considered "safe fill":
- (A) The dredged material is placed on land at a location used for commercial or industrial purposes.
- (B) The dredged material is blended with other soil or other dredged material to meet the numeric limits in Appendix A, Tables 1 and 2, and used for residential purposes.
- (v) The term includes historic fill in quantities of less than or equal to 125 cubic yards per excavation location if the conditions of subparagraph (i)(A)(I) and (II) are met.
- (vi) The term does not include material placed into or along surface waters of this Commonwealth unless prior Department approval has been obtained associated with active or abandoned mine or

- abandoned quarry reclamation activities or under Chapter 105 (relating to dam safety and waterway management), and the material meets the following conditions:
- (A) Material placed into or along surface waters as approved by the Department under Chapter 105 and does not exceed 10% of the numeric standards calculated in § 287.11(a)(1) and (2), and placement of the material does not cause an exceedance of the water quality standards in Chapters 16 and 93 (relating to water quality toxics management strategy—statement of policy; and water quality standards).
- (B) Material placed into or along waters as part of an active or abandoned mine or abandoned quarry reclamation does not cause an exceedance of the water quality standards in Chapters 16 and 93 and, based on an approved sampling and analysis plan, meets the following:
- (I) The material received meets 10% of the numeric standards calculated in § 287.11(a)(1) and (2).
- (II) For metals only, in lieu of subclause (I), the material does not produce a leachate in excess of the residential medium-specific concentration for groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the EPA). The numeric standards to be met for metals by SPLP are listed in Appendix A, Table 1. The SPLP may only be used when groundwater monitoring is being conducted at the location where waste is placed.
- (vii) The person using the material has the burden of proof to demonstrate that the material is safe fill.
- (viii) If, based on a determination made under subparagraph (i), the material exceeds the numeric standards under subparagraphs (ii), (iii) or (iv), the exceedance may be no greater than the lower of the nonresidential direct contact numeric value (using §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values)) or nonresidential soil-to-groundwater pathway numeric value (using $\S 250.308(a)(2)(i)$, (3), (4)(i) and (5) (relating to soil to groundwater pathway numeric values)) established for aquifers used or currently planned for use containing less than 2,500 mg/l total dissolved solids. Formulae identified in § 250.305(b) (relating to MSCs in soil) apply as a limit to the physical capacity of the soil to contain a substance.
- (ix) Materials that meet the requirements under this term are not regulated as waste when used as fill.

Sediment—Materials deposited or overlain by water in rivers, lakes, ponds or tidal streams that consist of heterogeneous mixtures of sand, silt, clay, gravel and organic material deposited through erosion or by lake or river currents.

Site undergoing remediation activities—The extent of contamination originating within the prop-

erty boundaries and all areas in close proximity to the contamination necessary for the implementation of remediation activities to be conducted under the Land Recycling and Environmental Remediation Standards Act (Act 2) (35 P. S. §§ 6026.101—6026.909).

* * * *

§ 287.2. Scope.

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

* * * * *

(7) Historic fill.

* * *

§ 287.11. Safe fill numeric standards.

- (a) When conducting sampling and analysis, safe fill numeric standards listed in Appendix A, Tables 1, 2 and 3 shall be calculated as follows:
- (1) For safe fill containing substances other than copper and zinc, the lower of the following:
- (i) The residential generic value of the soil-togroundwater pathway numeric value calculated in accordance with the methodology in § 250.308 (a)(2)(i), (3), (4)(i) and (5) (relating to soil-togroundwater pathway numeric values).
- (ii) The lowest residential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307 (relating to ingestion numeric values; and relating to inhalation numeric values).
- (2) In addition to paragraph (1), for safe fill containing copper and zinc, numeric limits which take plant toxicity into consideration and that do not exceed concentrations in § 271.914(b)(3) (relating to pollutant limits).
- (3) When calculating numeric standards under paragraph (1), the following additional requirements apply:
- (i) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the safe fill to contain a substance.
- (ii) When calculating the residential soil-togroundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.
- (4) Dredged material shall be drained prior to placement on land as safe fill. In addition, dredged material shall meet the requirements of subparagraphs (i) and (iii) or the requirements of subparagraphs (ii) and (iii).
- (i) A Toxicity Characteristic Leaching Procedure (TCLP) that demonstrates that the dredged material meets the requirements in § 288.623(a) (relating to minimum requirements for acceptable waste).
- (ii) The dredged material may not produce a leachate in excess of the residential medium-

specific concentration for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the EPA). The numeric standards to be met by SPLP are listed in Appendix A, Tables 1 and 2.

- (iii) Dredged material and sediments from tidal streams shall meet the numeric criteria for chlorides as listed in Appendix A, Table 1.
- (b) To determine whether material meets the safe fill numeric standards, one of the sampling and analysis procedures identified in paragraph (1) or (2) shall apply:
- (1) Sampling based on composite sampling procedures shall include the following:
- (i) For volumes of material equal to or less than 125 cubic yards, a total of eight samples shall be collected and analyzed as follows:
- (A) For analysis of all substances other than volatile organic compounds (VOCs), the samples shall be analyzed in two composites of four samples each, in accordance with the most current version of the USEPA Manual, SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).
- (B) Two samples shall be selected from the 8 samples for analysis of VOCs. The samples shall be based on field screening of the eight samples to select those samples that are most likely to contain the highest concentrations of VOCs.
- (C) Two grab samples shall be taken from the same areas in the material from which the two samples used for field screening of VOCs were taken, in accordance with Method 5035 from the most current version of the USEPA Manual, SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).
- (ii) For volumes of material greater than 125 cubic yards and less than or equal to 3,000 cubic yards, a total of 12 samples shall be collected and analyzed as follows:
- (A) For analysis of all substances other than VOCs, the samples shall be analyzed in three composites of four samples each.
- (B) Three samples shall be selected from the 12 samples for analysis of VOCs. The samples shall be based on field screening of the 12 samples to select those samples that are most likely to contain the highest concentrations of VOCs.
- (C) Three grab samples shall be taken from the same areas in the material from which the three samples used for field screening of VOCs were taken, in accordance with EPA, Method 5035, referenced in subparagraph (i)(C).
- (iii) For each additional 3,000 cubic yards of material or part thereof over the initial 3,000 cubic yards, 12 additional samples shall be collected and analyzed as follows:

- (A) For analysis of all substances other than VOCs, the samples shall be analyzed in three composites of four samples each.
- (B) Three samples for analysis of VOCs shall be selected from the 12 samples for analysis of VOCs. The samples shall be based on field screening of the 12 samples to select those samples that are most likely to contain the highest concentrations of VOCs.
- (C) Three grab samples shall be taken from the same areas in material from which the three samples used for field screening of VOCs were taken, in accordance with EPA Method 5035, referenced in subparagraph (i)(C).
- (2) Sampling based on discrete sampling procedures shall include the following:
- (i) For analysis of substances, sampling shall be random and representative of the safe fill being sampled.
- (ii) Sampling shall be in accordance with the most current version of the EPA RCRA Manual, SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).
- (iii) For volumes of material equal to or less than 125 cubic yards, a minimum of eight samples shall be collected and analyzed. For volumes of material greater than 125 cubic yards and less than or equal to 3,000 cubic yards, a minimum of 12 samples shall be collected and analyzed. For each additional 3,000 cubic yards of material or part thereof over the initial 3,000 cubic yards, a minimum of 12 additional samples shall be collected and analyzed.
- (iv) For VOCs analysis, grab sampling procedures shall be the procedures described in paragraph (1), for the equivalent volumes of material sampled.
- (c) The analysis of composite samples required in subsection (b)(1) shall meet the following:
- (1) For a composite sample, the measured numeric value for a substance is equal to or less than half the safe fill numeric standard in § 287.11 (relating to numeric standards) for that substance and as listed in Appendix A, Tables 1, 2 and 3.
- (2) For a grab sample, taken in accordance with subsection (b)(1)(i)(C), (ii)(C) and (iii)(C), the measured numeric value for a substance is less than or equal to the safe fill numeric standard in § 287.11 for that substance and as listed in Appendix A, Tables 1, 2 and 3.
- (d) For discrete samples required in subsection (b)(2), the measured numeric values for a substance in 75% of the discrete samples shall be equal to or less than the safe fill numeric standard in this section for that substance with no single sample exceeding more than twice the safe fill numeric standard for a substance.
- (e) To determine whether sediments meet the safe fill numeric standards, sampling and analyses shall be conducted in accordance with guidance developed by the Department.

Subchapter C. GENERAL REQUIREMENTS FOR PERMITS AND PERMIT APPLICATIONS

§ 287.101. General requirements for permit.

* * * * *

- (b) A person or municipality is not required to obtain a permit under this article, comply with the bonding or insurance requirements of Subchapter E (relating to bonding and insurance requirements) or comply with Subchapter B (relating to duties of generators) for one or more of the following:
 - * * * * *
- [(6) The use as clean fill of the materials in subparagraphs (i) and (ii) if they are separate from other waste. The person using the material as clean fill has the burden of proof to demonstrate that the material is clean fill.
- (i) The following materials, if they are 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.

§ 287.102. Permit-by-rule.

* * * * *

- (j) Contaminated soil resulting from agricultural practices. The placement of soil from known areas of contamination shall be deemed to have a residual waste permit when used to bring an area to grade, as construction material, for control of fire and subsidence events or in reclamation of active or abandoned mines, if the reclamation work is approved by the Department or is performed under contract with the Department, and if in addition to subsection (a), the following conditions are met:
- (1) The soil from known areas of contamination is analyzed for lead and arsenic. If the soil comes from a location where an orchard once existed, the soil may be analyzed for pesticides including aldrin, dieldrin, DDD, DDE and DDT. Contamination in soil may not exceed the nonresidential soil-to-groundwater pathway numeric values based on the following:
- (i) The highest value between the nonresidential generic value and a value which is 100 times the nonresidential medium-specific concentration (MSC) for groundwater, as calculated in § 250.308 (relating to soil to groundwater pathway numeric values) and listed in Appendix A, Table 4.
- (ii) When calculating the nonresidential soil-togroundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.
- (iii) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the soil to contain a substance.
- (2) To determine whether soil meets the standards in paragraph (1), the soil shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d) (relating to safe fill numeric standards).
- (3) At locations where soil from known areas of contamination is placed, direct contact pathways

are promptly and permanently eliminated by the placement of uncontaminated soil or through other engineering controls.

- (4) At locations where soil from known areas of contamination is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102 (relating to erosion and sediment control).
- (5) Soil is not placed into or on waters of this Commonwealth.
- (6) At locations where soil from known areas of contamination is placed, soil may not be placed within 100 feet of surface waters of this Commonwealth.
- (7) At locations where soil from known areas of contamination is placed, soil may not be placed within 100 feet of the edge of a sinkhole.
- (8) At locations where soil from known areas of contamination is placed, soil may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the soil closer than 300 feet.
- (9) At locations where soil from known areas of contamination is placed, soil shall only be used under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, soil from known areas of contamination shall be used in an area where the background is equal to or greater than the concentration of contamination in soil being brought to the site and the property shall be used for commercial or industrial purposes only.
- (10) Soil from known areas of contamination that is hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste) may not be used under this permit.
- (11) Soil from known areas of contamination when placed may not contain free liquids, based on visual inspection, and may not create odor or other public nuisance resulting from chemical contaminants in the soil.
- (12) A person who receives and uses soil from known areas of contamination shall submit a written notice to the Department that includes the following:
- (i) The names, addresses and phone numbers of the persons receiving and using the soil from known areas of contamination.
- (ii) The quantity of soil used from known areas of contamination at the receiving location.
- (iii) The locations of the known areas of contamination where soil was removed for use and where the soil is placed for use.
- (iv) An identification of whether the known areas of contamination is the subject of a corrective action or remediation activity.
- (v) A description of engineering practices and construction activities used to eliminate direct contact pathways and to assure that site excavation and placement of soil does not cause onsite or offsite contamination.
- (vi) If soil is used for control of fire and subsidence events or in reclamation at abandoned mines,

- include a reference to the Department's separate authorization of the use in those projects.
- (13) Records of analytical evaluations conducted on the soil from known areas of contamination shall be maintained by the person using and distributing the soil and shall be made available to the Department for inspection. The records shall include the following:
 - (i) The dates of testing.
 - (ii) Each parameter tested.
 - (iii) The test results.
 - (iv) The laboratory where testing was conducted.
- (v) The sampling procedures and analytical methodologies used.
- (vi) The name of the person who collected the sample.
- (14) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where contaminated soil originated, or the site where contaminated soil is beneficially used, to the land or waters of this Commonwealth.
- (15) Soil from known areas of contamination placed in accordance with this permit shall cease to be waste as long as the soil remains in place.
- (16) For purposes of this subsection, the term "known areas of contamination" means known areas of soil impacted by authorized agricultural practices resulting in lead, arsenic and pesticide contamination.
- (l) Contaminated soil, dredged material or used asphalt impacted by a release or contaminated soil, dredged material or used asphalt that exceeds safe fill numeric standards as a result of urbanization. The placement of contaminated soil, dredged material or used asphalt impacted by a release or contaminated soil, dredged material or used asphalt that exceeds safe fill numeric standards as a result of urbanization shall be deemed to have a residual waste permit when used to bring an area to grade, as construction material, for control of fire and subsidence events or in reclamation of active or abandoned mines if the reclamation work is approved by the Department or is performed under contract with the Department and, if in addition to subsection (a), the following conditions are met:
- (1) The contaminated soil, dredged material or used asphalt impacted by a release or contaminated soil, dredged material or used asphalt that exceeds safe fill numeric standards may not exceed the lowest residential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values). The numeric standards are listed in Appendix A, Tables 5 and 6.
- (i) When calculating the residential direct contact numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.

- (ii) Formulae identified in § 250.305(b) shall apply as limits to the physical capacity of the soil to contain a substance.
- (2) Contamination in soil, dredged material or used asphalt may not exceed groundwater protection standards based on either of the following:
- (i) A Toxicity Characteristic Leaching Procedure (TCLP) that demonstrates that the contaminated soil, dredged material or used asphalt meets the requirements in § 288.623(a) (relating to minimum requirements for acceptable waste).
- (ii) Contaminated soil, dredged material or used asphalt do not produce a leachate in excess of the residential MSC for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the EPA). The numeric standards are listed in Appendix A, Tables 5 and 6.
- (3) To determine whether contaminated soil, dredged material or used asphalt meets the standards in paragraph (1), the soil, dredged material or used asphalt shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d).
- (4) At locations where contaminated soil, dredged material or used asphalt is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102.
- (5) Contaminated soil, dredged material or used asphalt is not placed into or on waters of this Commonwealth.
- (6) At locations where contaminated soil, dredged material or used asphalt is placed, soil, dredged material or used asphalt may not be placed within 100 feet of surface waters of this Commonwealth.
- (7) At locations where contaminated soil, dredged material or used asphalt is placed, the soil, dredged material or used asphalt may not be placed within 100 feet of the edge of a sinkhole.
- (8) At locations where contaminated soil, dredged material or used asphalt is placed, the soil, dredged material or used asphalt may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the contaminated soil, dredged material or used asphalt closer than 300 feet.
- (9) At locations where contaminated soil, dredged material or used asphalt is placed, the soil, dredged material or used asphalt shall only be used under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, contaminated soil, dredged material or used asphalt shall be reused in an area where the background is equal to or greater than the concentration of contamination in the soil, dredged material or used asphalt being brought to the site, and the property shall be used for commercial or industrial purposes only.
- (10) Contaminated soil, dredged material or used asphalt that is hazardous waste under Chapter 261a may not be used under this permit.

- (11) Contaminated soil, dredged material or used asphalt when placed may not contain free liquids, based on visual inspection, and may not create odor or other public nuisance resulting from chemical contaminants in the soil, dredged material or used asphalt.
- (12) A person who receives and uses contaminated soil, dredged material or used asphalt shall submit a written notice to the Department that includes the following:
- (i) The names, addresses and phone numbers of the persons receiving and using the contaminated soil, dredged material or used asphalt.
- (ii) The quantity of contaminated soil, dredged material or used asphalt used at the receiving location.
- (iii) The locations of contaminated soil, dredged material or used asphalt where the contaminated soil, dredged material or used asphalt were removed for use and where the contaminated soil, dredged material or used asphalt are placed for use.
- (iv) An identification of whether the area of contamination where the contaminated soil, dredged material or used asphalt originated is the subject of a corrective action or remediation activity.
- (v) A description of engineering practices and construction activities used to assure that site excavation and placement of contaminated soil, dredged material or used asphalt does not cause onsite or offsite contamination.
- (vi) If contaminated soil, dredged material or used asphalt is used for control of fire and subsidence events or in reclamation at abandoned mines, include a reference to the Department's separate authorization of the use in those projects.
- (13) Records of analytical evaluations conducted on the contaminated soil, dredged material or used asphalt shall be maintained by the person using and distributing the soil, dredged material or used asphalt and shall be made available to the Department for inspection. The records shall include the following:
 - (i) The dates of testing.
 - (ii) Each parameter tested.
 - (iii) The test results.
 - (iv) The laboratory where testing was conducted.
- (v) The sampling procedures and analytical methodologies used.
- (vi) The name of the person who collected the sample.
- (14) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where contaminated soil, dredged material or used asphalt originated or the site where contaminated soil, dredged material or used asphalt is beneficially used, to the land or waters of this Commonwealth.
- (15) Contaminated soil, dredged material or used asphalt placed in accordance with this permit shall cease to be waste as long as the contaminated soil, dredged material or used asphalt remains in place.

- (16) Contaminated soil may not be used at a site undergoing a remediation or corrective action that will cause the receiving site to exceed the remediation standard selected.
- (17) Placement of contaminated soil at a site undergoing a remediation or corrective action shall meet the requirements of subsection (m).
- (I) Historic fill. The placement of historic fill shall be deemed to have a residual waste permit when used as construction material if, in addition to subsection (a), the following conditions are met:
- (1) The historic fill shall be analyzed and shall meet one of the following:
- (i) Historic fill may not exceed the residential soil-to-groundwater pathway numeric values based on the following parameters:
- (A) The highest value between the residential generic value and a value which is 100 times the residential MSC for groundwater, as calculated in § 250.308. The numeric standards are listed in Appendix A, Tables 5 and 6.
- (B) When calculating the residential soil-togroundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.
- (C) Formulae identified in § 250.305(b) apply as limits to the physical capacity of the soil to contain a substance.
- (ii) Historic fill may not exceed the lowest residential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307, if the requirements in clause (A) or (B) are met for groundwater protection and the requirements of clauses (C) and (D) are met when calculating the numeric value.
- (A) A TCLP that demonstrates that the historic fill meets the requirements in § 288.623(a).
- (B) The historic fill does not produce a leachate in excess of the residential MSC for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the EPA). The numeric standards are listed in Appendix A, Tables 5 and 6.
- (C) When calculating the residential direct contact numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.
- (D) Formulae identified in § 250.305(b) shall apply as limits to the physical capacity of the soil to contain a substance.
- (2) To determine whether historic fill meets the standards in paragraph (1), the historic fill shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d).

- (3) At locations where historic fill is placed and the numeric value under paragraph (1)(i) for a regulated substance does not provide protection from direct contact exposure, direct contact pathways are promptly and permanently eliminated by the placement of uncontaminated soil and uncontaminated dredged material or through other engineering controls.
- (4) At locations where historic fill is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102.
- (5) Historic fill is not placed into or on waters of this Commonwealth.
- (6) At locations where historic fill is placed, material may not be placed within 100 feet of surface waters of this Commonwealth.
- (7) At locations where historic fill is placed, material may not be placed within 100 feet of the edge of a sinkhole.
- (8) At locations where historic fill is placed, material may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the material closer than 300 feet.
- (9) At locations where historic fill is placed, material shall only be used under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, historic fill shall be reused in an area where the background is equal to or greater than the concentration of contamination in historic fill being brought to the site and the property shall be used for commercial or industrial purposes only.
- (10) Historic fill that is hazardous waste under Chapter 261a may not be used under this permit.
- (11) Historic fill when placed may not contain free liquids, based on visual inspection, and may not create odor or other public nuisance associated with the historic fill.
- (12) A person that receives and uses historic fill shall submit a written notice to the Department that includes the following:
- (i) The names, addresses and phone numbers of the persons receiving and using the historic fill.
- (ii) The quantity of historic fill used at the receiving location.
- (iii) The locations of historic fill where material was removed for use and where the historic fill is placed for use.
- (iv) An identification of whether the location where the historic fill originated is the subject of a corrective action or remediation activity.
- (v) A description of engineering practices and construction activities used to eliminate direct contact pathways and to assure that site excavation and placement of historic fill does not cause onsite or offsite contamination.
- (13) Records of analytical evaluations conducted on the historic fill shall be maintained by the person using and distributing the soil and shall be made available to the Department for inspection. The records shall include the following:

- (i) The dates of testing.
- (ii) Each parameter tested.
- (iii) The test results.
- (iv) The laboratory where testing was conducted.
- (v) The sampling procedures and analytical methodologies used.
- (vi) The name of the person who collected the sample.
- (14) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where historic fill originated or the site where historic fill is beneficially used, to the land or waters of this Commonwealth.
- (15) Historic fill placed in accordance with this permit shall cease to be waste as long as the material remains in place.
- (m) Contaminated soil placed at a receiving site undergoing remediation activities. Contaminated soil generated offsite and placed at a site undergoing remediation activities under Chapter 250 (relating to administration of land recycling program) and the Land Recycling and Environmental Remediation Standards Act (Act 2) (35 P. S. §§ 6026.101—6026.909) shall be deemed to have a residual waste permit when used to bring an area to grade, to limit infiltration of rainfall and to facilitate runoff if, in addition to subsection (a), the following conditions are met:
- (1) The notice of intent to remediate the soils at the receiving site undergoing remediation activities (required by section 303(h) of Act 2 (35 P. S. § 6026.303(h)) identifies the Statewide health standards as the remediation standards that shall be attained. The addition of contaminated soil at the site undergoing remediation activities shall meet the Statewide health standards as follows:
- (i) Prior to the placement at a residential site undergoing remediation activities, the contaminated soil brought to the residential site undergoing remediation activities shall meet the residential Statewide health standards in accordance with §§ 250.306—250.308 and as listed in Chapter 250, Appendix A, Tables 3A, 3B, 4A and 4B.
- (ii) Prior to the placement at a nonresidential site undergoing remediation activities, the contaminated soil brought to the nonresidential site undergoing remediation activities shall meet the nonresidential Statewide health standards in accordance with §§ 250.306—250.308 and as listed in Chapter 250, Appendix A, Tables 3A, 3B, 4A and 4B.
- (iii) When calculating the direct contact numeric value or the soil-to-groundwater pathway numeric value for the Statewide health standards, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.
- (iv) Formulae identified in § 250.305(b) shall apply as limits to the physical capacity of the soil to contain a substance.
- (2) The quantity, quality and destination of the contaminated soil shall be identified in the final

- report (under section 303(h) of Act 2) submitted for the receiving site undergoing remediation activities
- (3) Placement of the contaminated soil may not cause the receiving site undergoing remediation activities to exceed the Statewide health standard selected and identified in the notice of intent to remediate.
- (4) Contaminated soil containing a contaminant other than those identified in the notice of intent to remediate or subsequently identified during site characterization submitted for the receiving site undergoing remediation activities may not be placed at the receiving site undergoing remediation activities.
- (5) For contaminated soil placed at a site undergoing remediation activities prior to the approval of the final report, relief from liability may include the material brought to the receiving site undergoing remediation activities and the material shall be included in the final report.
- (6) At a site undergoing remediation activities where contaminated soil is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102.
- (7) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed into or on waters of this Commonwealth.
- (8) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed within 100 feet of surface waters of this Commonwealth.
- (9) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed within 100 feet of the edge of a sinkhole.
- (10) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the soil closer than 300 feet.
- (11) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed in a 100-year flood plain of waters of this Commonwealth.
- (12) To determine whether contaminated soil placed at a site undergoing remediation activities meets the standards in paragraph (1), the contaminated soil shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d).
- (13) Contaminated soil placed at a site undergoing remediation activities may not contain free liquids left in the soil, based on visual inspection, and the soil may not create odor or other public nuisance resulting from chemical contaminants in the soil.
- (14) Upon completion of areas where contaminated soil is placed, the areas shall be promptly vegetated to minimize and control erosion or capped to minimize infiltration.
- (15) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where contaminated soil originated or the site undergoing

remediation activities where contaminated soil is beneficially used, to the land or waters of this Commonwealth.

- (16) A person who receives and uses contaminated soil at a site undergoing remediation activities shall submit a written notice to the Department. The notice shall include the following:
- (i) The names, addresses and phone numbers of the persons receiving and using the contaminated soil.
- (ii) The quantity of contaminated soil from a site used at the receiving site undergoing remediation activities.
- (iii) The locations of areas where contaminated soil is generated and locations of areas where the contaminated soil will be placed.
- (iv) Copies of recorded deed notices that identify where on a receiving property contaminated soil is placed if nonresidential Statewide health standards are used at the sites undergoing remediation activities as the remediation standards.
- (v) An identification of whether the location where the contaminated soil originated is the subject of a corrective action or remediation activity.
- (vi) A description of engineering practices and construction activities used to assure that excava-

- tion and placement of contaminated soil at the site undergoing remediation activities does not cause onsite or offsite contamination.
- (17) Contaminated soils that are hazardous waste under Chapter 261a may not be used under this permit.
- (18) Records of analytical evaluations conducted on the contaminated soil shall be maintained by the person using and distributing the soil and shall be made available to the Department for inspection. The records shall include the following:
 - (i) The dates of testing.
 - (ii) Each parameter tested.
 - (iii) The test results.
 - (iv) The laboratory where testing was conducted.
- (v) The sampling procedures and analytical methodologies used.
- (vi) The name of the person who collected the sample.
- (19) Contaminated soil placed in accordance with this permit shall cease to be waste as long as the contaminated soil remains in place at the site undergoing remediation activities.

APPENDIX A

Table 1. Safe Fill Numeric Standards For Metals

D. J. J.G.J.	Residential Direct Contact RDC	Residential Generic Value RGV	(Lower of R	Fill DC to RGV)
Regulated Substance	mg/kg	mg/kg	mg/kg¹	mg/L ⁴
ANTIMONY	88	27	27	0.006
ARSENIC	12	150	12	0.05
BARIUM AND COMPOUNDS	15000	8200	8200	2
BERYLLIUM	440	320	320	0.004
BORON AND COMPOUNDS	20000	6.7	6.7	0.6
CADMIUM	110	38	38	0.005
CHLORIDES ²	na	na		250
CHROMIUM III	190,000	190,000	190,000	0.1
CHROMIUM VI	660	190	190	0.1
COBALT	13000	24	24	2.2
COPPER	8100	36000	4300^{3}	1
LEAD	500	450	450	0.005
MANGANESE	31000	na	31000	_
MERCURY	19	10	10	0.002
NICKEL	4400	650	650	0.1
SELENIUM	1100	26	26	0.05
SILVER	1100	84	84	0.1
THALLIUM	15	14	14	0.002
TIN	130000	240	240	22
VANADIUM	1500	26000	1500	0.26
ZINC	66000	12000	7500 ³	2.0

¹ Lower of the residential direct contact and residential generic value from the Statewide health standards promulgated under 25 Pa. Code Chapter 250.

na-not applicable

² Chloride analysis required of dredged material and sediments only.

³ Due to the phytotoxicity of copper and zinc, safe fill numerical standards are based on the 40 CFR Part 503 regulations.

⁴ SPLP for metals only if placement into or along waterways as part of an active or abandoned mine or abandoned quarry reclamation and where groundwater monitoring is being conducted.

APPENDIX A

TABLE 2. Safe Fill Numeric Standards for Organic Rgulated Substances

TABLE 2. Safe Fill Numeric Standards for Organic Rgulated Substances SHS¹ (residential used aquifer, TDS <2500mg/L Safe³ Fill											
		-		*		Safe	~ FIII	Is Safe Fill			
		Residential Di Contact			Pathway Numeric Value		GWMSC by	Number Based on			
Compound/Contaminant	CASRN	Soil MSC ² mg/kg		Residential Generic mg/kg	Value	RGV mg/kg	SPLP ⁴ mg/L	Generic Value?			
ACENAPHTHENE	83-32-9	13000.00	G	2700	Е	2700	2.2	1			
ACENAPHTHYLENE	208-96-8	13000.00	G	2500	Е	2500	2.2	1			
ACEPHATE	30560-19-1	880.00	G	0.84	Е	0.84	0.076	1			
ACETALDEHYDE	75-07-0	140.00	N	0.23	Е	0.23	0.019	1			
ACETONE	67-64-1	10000.00	С	41	Е	41	3.7	1			
ACETONITRILE	75-05-8	1100.00	С	19	Е	19	0.17	1			
ACETOPHENONE	98-86-2	10000.00	С	200	Е	200	3.7	1			
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.70	G	0.069	Е	0.069	0.00017	1			
ACROLEIN	10-702-8	0.38	N	0.00062	Е	0.00062	0.000055	1			
ACRYLAMIDE	79-06-1	4.00	G	0.00057	Е	0.00057	0.000033	1			
ACRYLIC ACID	79-10-7	19.00	N	0.051	Е	0.051	0.0028	1			
ACRYLONITRILE	107-13-1	4.70	N	0.0088	Е	0.0088	0.00063	1			
ALACHLOR	15972-60-8	220.00	G	0.077	Е	0.077	0.002	1			
ALDICARB	116-06-3	220.00	G	0.120	Е	0.12	0.007	1			
ALDRIN	309-00-2	1.10	G	0.100	Е	0.10	0.0000087	1			
ALLYL ALCOHOL	107-18-6	330.00	N	0.580	Е	0.58	0.049	1			
AMINOBIPHENYL, 4-	92-67-1	0.85	G	0.00120	Е	0.0012	0.000031	1			
AMITROLE	61-82-5	19.00	G	0.0280	Е	0.028	0.0007	1			
AMMONIA	7664-41-7	1900.00	N	330	Е	330	30	1			
AMMONIUM SULPHAMATE	7773-06-0	44000.00	G	22	Е	22	2	1			
ANILINE	62-53-3	19.00	N	0.160	Е	0.16	0.0028	1			
ANTHRACENE*	120-12-7	66000.00	G	350	Е	350	0.066	1			
ATRAZINE	1912-24-9	81.00	G	0.130	Е	0.13	0.003	1			
BAYGON (PROPRXUR)	114-26-1	880.00	G	0.033	Е	0.033	0.003	1			
BENOMYL	17804-35-2	11000.00	G	20.000	Е	20.00	1.8	1			
BENTAZON	25057-89-0	6600.00	G	12.000	Е	12.00	1.1	1			
BENZENE*	71-43-2	41.00	N	0.130	Е	0.13	0.005	1			
BENZIDINE	92-87-5	0.08	G	0.000032	Е	0.000032	0.0000029	1			
BENZO[A]ANTHRACENE*	56-55-3	25.00	G	80	Е	25.00	0.0009	0			
BENZO[A]PYRENE*	50-32-8	2.50	G	46	Е	2.50	0.0002	0			
BENZO[B]FLUORANTHENE*	205-99-2	25.00	G	120	Е	25.00	0.0009	0			
BENZO[GHI]PERYLENE*	191-24-2	13000.00	G	180	Е	180.00	0.00026	1			

		SHS¹ (residenti	ial use	ed aquifer, TDS <2500n	ng/L	Safe		
		Residential Di Contact		Soil to Groundwat Pathway Numeric Va	alue	Lower of RDC or	GWMSC by	Is Safe Fill Number Based on
Compound/Contaminant	CASRN	Soil MSC ² mg/kg		Residential Generic V mg/kg	/alue	RGV mg/kg	SPLP ⁴ mg/L	Generic Value?
BENZO[K]FLUORANTHENE	207-08-9	250.00	G	600	Е	250.00	0.00055	0
BENZOIC ACID	65-85-0	190000.00	C	2900	E	2900.00	150	1
BENZOTRICHLORIDE	98-07-7	1.40	G	0.00057	E	0.00057	0.000051	1
BENZYL ALCOHOL	100-51-6	10000.00	C	400	E	400.00	11	1
BENZYL CHLORIDE	100-44-7	6.40	N	0.051	E	0.051	0.00087	1
BHC, ALPHA-	319-84-6	2.80	G	0.046	E	0.046	0.0001	1
BHC, BETA-	319-85-7	9.90	G	0.22	E	0.22	0.00037	1
BHC, DELTA-	319-86-8	130.00	G	11	Е	11.00	0.022	1
BHC, GAMMA (LINDANE)	58-89-9	14.00	G	0.0710	Е	0.071	0.0002	1
BIPHENYL, 1,1-	92-52-4	11000.00	G	20	Е	20.00	1.8	1
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.96	N	0.00390	Е	0.0039	0.00013	1
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	32.00	N	8	Е	8.00	0.3	1
BIS(CHLOROMETHYL)ETHER	542-88-1	0.01	N	0.000010	Е	0.000010	0.00000069	1
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1300.00	G	130	Е	130.00	0.006	1
BISPHENOL A	80-05-7	11000.00	G	20	Е	20.00	1.8	1
BROMOCIL	314-40-9	29000.00	G	0.89	Е	0.89	0.08	1
BROMOCHLOROMETHANE	74-97-5	2900.00	G	1	Е	1.00	0.09	1
BROMODICHLOROMETHANE	75-27-4	8.60	N	3.4	Е	3.40	0.1	1
BROMOMETHANE	74-83-9	95.00	N	0.540	Е	0.54	0.01	1
BROMOXYNIL	1689-84-5	4400.00	G	63	Е	63.00	0.73	1
BROMOXYNIL OCTANOATE	1689-99-2	4400.00	G	360	Е	360.00	0.08	1
BUTADIENE, 1,3-	106-99-0	5.30	G	0.0017	Е	0.0017	0.00015	1
BUTYL ALCOHOL, N-	71-36-3	6600.00	N	12	Е	12.00	0.97	1
BUTYLATE	2008-41-5	10000.00	С	3.9	Е	3.90	0.35	1
BUTYLBENZENE, N-	104-51-8	2200.00	G	4.1	Е	4.10	1.5	1
BUTYLEBENZENE, SEC-	135-98-8	2200.00	G	4.1	Е	4.10	1.5	1
BUTYLEBENZENE, TERT-	98-06-6	2200.00	G	4.1	Е	4.10	1.5	1
BUTYLBENZYL PHTHALATE	85-68-7	10000.00	С	10000	С	10000	2.7	0
CAPTAN	133-06-2	5100.00	G	12	Е	12.00	0.19	1
CARBARYL	63-25-2	22000.00	G	42	Е	42.00	0.7	1
CARBAZOLE	86-74-8	900.00	G	0.37	Е	0.37	0.033	1
CARBOFURAN	1563-66-2	1100.00	G	0.870	Е	0.87	0.04	1
CARBON DISULFIDE	75-15-0	10000.00	С	160	Е	160.00	1.9	1

		SHS¹ (residenti	al use	d aquifer, TDS <2500n	ng/L	Safe	³ Fill	Is Safe Fill
		Residential Di Contact	rect	Soil to Groundwat Pathway Numeric V		Lower of RDC or	GWMSC by	Is Safe Fill Number Based on
		Soil MSC ²		Residential Generic	Value	RGV	$SPLP^{4}$	Generic
Compound/Contaminant	CASRN	mg/kg		mg/kg		mg/kg	mg/L	Value?
CARBON TETRACHLORIDE	56-23-5	21.00	N	0.26	E	0.26	0.005	1
CARBOXIN	5234-68-4	22000.00	G	7.8	E	7.80	0.7	1
CHLORAMBEN	133-90-4	3300.00	G	1.1	E	1.10	0.1	1
CHLORDANE	57-74-9	51.00	G	49	E	49.00	0.002	1
CHLORO-1, 1-DIFLUOROETHANE, 1-	75-68-3	190000.00	C	1600	E	1600.000	140	1
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	19.00	N	0.065	E	0.065	0.0028	1
CHLOROACETOPHENONE, 2-	532-27-4	1.90	G	0.0034	E	0.0034	0.00031	1
CHLOROANILINE, P-	106-47-8	880.00	G	19	E	19.00	0.15	1
CHLOROBENZENE	108-90-7	4400.00	G	3.4	Е	3.40	0.1	1
CHLOROBENZILATE	510-15-6	66.00	G	1.6	Е	1.60	0.0024	1
CHLORBUTANE, 1-	109-69-3	10000.00	С	170	Е	170.00	15	1
CHLORODIBROMOMETHANE	124-48-1	12.00	N	3.2	Е	3.20	0.1	1
CHLORODIFLUOROMETHANE	75-45-6	190000.00	С	1.1	Е	1.10	0.1	1
CHLOROETHYL VINYL	110-75-8	1700.00	N	3.1	Е	3.10	0.23	1
CHLOROFORM	67-66-3	14.00	N	2.5	Е	2.50	0.1	1
CHLORONAPHTHALENE, 2-	91-58-7	18000.00	G	6200	Е	6200.00	2.9	1
CHLORODINITROBENZENE, 2-	100-00-5	990.00	G	0.41	Е	0.41	0.037	1
CHLOROPHENOL, 2-	95-57-8	330.00	N	4.4	Е	4.40	0.04	1
CHLOROPRENE	126-99-8	130.00	N	0.45	Е	0.45	0.019	1
CHLROPROPANE, 2-	75-29-6	1900.00	N	0.45	Е	0.45	0.28	1
CHLOROTHALONIL	1897-45-6	1600.00	G	3.1	Е	3.10	0.06	1
CHLOROTOLUENE, O-	95-49-8	4400.00	G	1.1	Е	1.10	0.1	1
CHLORPYRIFOS	2921-88-2	660.00	G	23	Е	23.00	0.02	1
CHLORSULFURON	64902-72-3	11000.00	G	20	Е	20.00	1.8	1
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2200.00	G	4.4	Е	4.40	0.4	1
CHRYSENE*	218-01-9	2500.00	G	230	Е	230.00	0.0019	1
CRESOL(S)	1319-77-3	330.00	N	0.85	Е	0.85	0.18	1
CRESOL, M-(METHYLPHENOL, 3-)	95-48-7	10000.00	С	20	Е	20.00	1.8	1
CRESOL, O-(METHYLPHENOL, 2-)	108-39-4	10000.00	С	20	Е	20.00	1.8	1
CRESOL, P-(METHYLPHENOL, 4-)	106-44-5	1100.00	G	2	Е	2.00	0.18	1
CRESOL, P-CHLORO-M-	59-50-7	1100.00	G	37	Е	37.00	0.18	1
CROTONALDEHYDE	4170-30-3	9.40	G	0.00099	Е	0.0010	0.000079	1
CROTONALDEHYDE, TRANS-	123-73-9	9.40	G	0.0039	Е	0.0039	0.000079	1

		SHS¹ (residential used aquifer, TDS <2500mg.					Safe³ Fill		
		Residential Di Contact		Soil to Groundwat Pathway Numeric V	ter Value	Lower of RDC or	GWMSC by	Is Safe Fill Number Based on	
Commound (Contominant	CASRN	Soil MSC ²	?	Residential Generic	Value	RGV	SPLP⁴ °	Generic Value?	
COMPOUND (CONDODAY, DENZENE)*		mg/kg	N.T.	mg/kg		mg/kg	mg/L		
CUMENE (ISOPROPYL BENZENE)*	98-82-8	7300.00	N C	790	E E	790.00	1.1	1	
CYCLOHEXANONE	108-94-1	10000.00	G	1400		1400.00	49	1	
CYFLUTHRIN	68359-37-5	5500.00		0.011	E	0.011	0.001	1	
CYROMAZINE	66215-27-8	1700.00	G	3	E	3.00	0.27	1	
DDD, 4,4'-	72-54-8	75.00	G	6.8	E	6.80	0.00062	1	
DDE, 4,4'-	72-55-9	53.00	G	41	E	41.00	0.0019	1	
DDT, 4,4'-	50-29-3	53.00	G	110	E	53.00	0.0019	0	
DI(2-ETHYLHEXYL)ADIPATE	103-23-1	10000.00	C	4.4	С	4.40	0.4	1	
DIALLATE	2303-16-4	18.00	N	0.15	E	0.15	0.0025	1	
DIAMINOTOLUENE, 2,4-	95-80-7	5.60	G	0.0023	E	0.002	0.00021	1	
DIAZINON	333-41-5	200.00	G	0.082	E	0.082	0.0006	1	
DIBENZO[A,H]ANTHRACENE	53-70-3	2.50	G	41	E	2.50	0.00009	0	
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	3.80	N	0.0091	E	0.0091	0.0002	1	
DIBROMOBENZENE, 1,4-	106-37-6	2200.00	G	4.1	E	4.10	0.37	1	
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.21	G	0.0012	Е	0.0012	0.00005	1	
DIBROMOMETHANE	74-95-3	670.00	N	3.7	Е	3.70	0.097	1	
DI-N-BUTYLPHTHALATE, N-	84-74-2	10000.00	С	1500	Е	1500.00	3.7	1	
DICHOLOR-2-BUTENE, 1,4-	764-41-0	91000.00	N	0.00018	Е	0.00018	0.000016	1	
DICHLOROBENZENE, 1,2-	95-50-1	3800.00	N	60	Е	60.00	0.6	1	
DICHLOROBENZENE, 1,3-	541-73-1	60.00	N	61	Е	60.00	0.6	0	
DICHLOROBENZENE, P-	106-46-7	750.00	G	10	Е	10.00	0.075	1	
DICHLOROBENZIDINE, 3,3'-	91-94-1	40.00	G	8.4	Е	8.40	0.0015	1	
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	3800.00	N	100	Е	100.00	1	1	
DICHLOROETHANE, 1,1-	75-34-3	200.00	N	0.65	Е	0.65	0.027	1	
DICHLOROETHANE, 1,2-	107-06-2	12.00	N	0.1	Е	0.10	0.005	1	
DICHLOROETHYLENE, 1,1-	75-35-4	6.40	N	0.19	Е	0.19	0.007	1	
DICHLOROETHYLENE, CIS-1,2-*	156-59-2	670.00	N	1.6	Е	1.60	0.07	1	
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1300.00	N	2.3	Е	2.30	0.1	1	
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	680.00	N	0.075	Е	0.08	0.005	1	
DICHLOROPHENOL, 2,4-	120-83-2	660.00	G	1	Е	1.00	0.02	1	
DICHLOROPHENOXYACETIC ACID, 2,4-(2,4-D)	94-75-7	2200.00	G	1.8	Е	1.80	0.07	1	

		SHS¹ (resident)	ial use	ed aquifer, TDS <2500r	Safe			
		Residential Di Contact	rect	Soil to Groundwat Pathway Numeric V		Lower of RDC or	GWMSC by	Is Safe Fill Number Based on
	a.a	Soil MSC ²	1	Residential Generic \	/alue	RGV	$SPLP^{4}$	Generic
Compound/Contaminant	CASRN	mg/kg		mg/kg		mg/kg	mg/L	Value?
DICHLOROPROPANE, 1,2-	78-87-5	18.00	N	0.11	E	0.11	0.005	1
DICHLOROPROPENE, 1,3-	542-75-6	8.60	N	0.013	E	0.013	0.0066	1
DICHLOROPROPIONIC ACID (DALAPON), 2,2-	75-99-0	2000.00	N	5.3	E	5.30	0.2	1
DICHLORVOS	62-73-7	62.00	G	0.012	E	0.0120	0.00052	1
DICYCLOPENTADIENE	77-73-6	6600.00	G	0.0061	E	0.0061	0.00055	1
DIELDRIN	60-57-1	1.10	G	0.11	E	0.11	0.000041	1
DIETHYL PHTHALATE	84-66-2	10000.00	C	160	E	160.00	5	1
DIFLUBENZIRON	35367-38-5	4400.00	G	2.2	E	2.20	0.2	1
DIMETHOATE	60-51-5	44.00	G	0.28	E	0.28	0.0073	1
DIMETHOXYBENZIDINE, 3,3-	119-90-4	1300.00	G	0.52	E	0.52	0.047	1
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	3.90	G	0.037	E	0.037	0.00014	1
DIMETHYLANILINE, N,N-	121-69-7	440.00	G	0.81	E	0.81	0.073	1
DIMETHYLBENZIDINE, 3,3-	119-93-7	1.90	G	0.0008	E	0.00080	0.000072	1
DIMETHYLPHENOL, 2,4-	105-67-9	4400.00	G	31	Е	31.00	0.73	1
DINITROBENZENE, 1,3-	99-65-0	22.00	G	0.049	Е	0.049	0.001	1
DINITROPHENOL, 2,4-	51-28-5	440.00	G	0.21	E	0.21	0.019	1
DINITROTOLUENE, 2,4-	121-14-2	58.00	G	0.05	E	0.050	0.0021	1
DINITROTOLUENE, 2,6,- (2,6-DNT)	606-20-2	220.00	G	1.1	E	1.10	0.037	1
DINOSEB	88-85-7	220.00	G	0.29	Е	0.290	0.007	1
DIOXANE, 1,4-	123-91-1	41.00	N	0.073	E	0.073	0.0056	1
DIPHENAMID	957-51-7	6600.00	G	2.2	Е	2.20	0.2	1
DIPHENYLAMINE	122-39-4	5500.00	G	12	E	12.00	0.2	1
DIPHENYLHYDRAZINE, 1,2-	122-66-7	22.00	G	0.15	E	0.15	0.00083	1
DIQUAT	85-00-7	480.00	G	0.24	Е	0.24	0.02	1
DISULFOTON	298-04-4	2.70	N	0.08	Е	0.08	0.0003	1
DIURON	330-54-1	440.00	G	0.87	E	0.87	0.01	1
ENDOSULFAN	115-29-7	1300.00	G	0.64	Е	0.64	0.058	1
ENDOSULFAN I (ALPHA)	959-98-8	1300.00	G	110	Е	110.00	0.22	1
ENDOSULFAN II (BETA)	33213-65-9	1300.00	G	130	Е	130.00	0.22	1
ENDOSULFAN SULFATE	1031-07-8	1300.00	G	72	E	72.00	0.12	1
ENDOTHALL	145-73-3	4400.00	G	4.2	Е	4.20	0.1	1
ENDRIN	72-20-8	66.00	G	5.4	Е	5.40	0.002	1
EPICHLOROHYDRIN	106-89-8	19.00	N	0.056	Е	0.056	0.0028	1

		SHS¹ (residenti	ial use	d aquifer, TDS <2500n	ng/L	Safe	³ Fill	
		Residential Di	rect	Soil to Groundwat		Lower of		Is Safe Fill Number
		Contact		Pathway Numeric Va		RDC or	GWMSC by	Based on
Compound/Contaminant	CASRN	Soil MSC² mg∕kg		Residential Generic V mg/kg	/alue	RGV mg/kg	SPLP ⁴ mg/L	Generic Value?
ETHEPHON	16672-87-0	1100.00	G	2	Е	2.00	0.18	1
ETHION	563-12-2	110.00	G	39	E	39.00	0.018	1
ETHOXYETHANOL, 2- (EGEE)	110-80-5	3800.00	C	7.8	E	7.80	0.55	1
ETHYL ACETATE	141-78-6	10000.00	C	220	E	220.00	8.7	1
ETHYL ACRYLATE	140-88-5	23.00	N	0.12	E	0.12	0.0031	1
ETHYL BENZENE*	100-41-4	10000.00	C	46	E	46.00	0.7	1
ETHYL DIPROPYL THIOCARBAMATE, S- (EPTC)	759-94-4	5500.00	G	10	E	10.00	0.91	1
ETHYL ETHER	60-29-7	10000.00	С	53	Е	53.00	1.9	1
ETHYLMETHACRYLATE	97-63-2	20000.00	G	9.7	Е	9.70	0.87	1
ETHYLENE GLYCOL	107-21-1	10000.00	С	85	Е	85.00	14	1
ETHYLENE THIOUREA (ETU)	96-45-7	18.00	G	0.033	Е	0.033	0.003	1
ETHYL P-NITROPHENYL PHENYLPHOSPHOROTHIOATE	2104-64-5	2.20	G	0.0041	Е	0.0041	0.00037	1
FENAMIPHOS	22224-92-6	55.00	G	0.17	Е	0.17	0.002	1
FENVALERATE (PYDRIN)	51630-58-1	5500.00	G	0.94	Е	0.94	0.085	1
FLUOMETURON (FLUORNETRON IN EPA FEB 96)	2164-17-2	2900.00	G	1	Е	1.00	0.09	1
FLUORANTHENE	206-44-0	8800.00	G	3300	Е	3300.00	0.26	1
FLUORENE*	86-73-7	8800.00	G	380	Е	380.00	1.5	1
FLUOROTROCHLOROMETHANE (FREON 11)	75-69-4	10000.00	С	90	Е	90.00	2	1
FONOFOS	944-22-9	140.00	N	2.8	Е	2.80	0.01	1
FORMALDEHYDE	50-00-0	24.00	N	12	Е	12.00	1	1
FORMIC ACID	64-18-6	10000.00	С	210	Е	210.00	19	1
FOSETYL-AL	039148-24-8	190000.00	С	1200	Е	1200.00	110	1
FURAN	110-00-9	220.00	G	0.11	Е	0.110	0.0097	1
FURFURAL	98-01-1	660.00	G	1.2	Е	1.20	0.097	1
GLYPHOSATE	1071-83-6	22000.00	G	630	Е	630.00	0.7	1
HEPTACHLOR	76-44-8	4.00	G	0.68	Е	0.680	0.0004	1
HEPTACHLOR EPOXIDE	1024-57-3	2.00	G	1	Е	1.00	0.0002	1
HEXACHLOROBENZENE	118-74-1	11.00	G	0.96	Е	0.96	0.001	1
HEXACHLOROBUTADIENE	87-68-3	44.00	G	1.2	Е	1.20	0.001	1
HEXACHLOROCYCLOPENTADIENE	77-47-4	1500.00	G	91	Е	91.00	0.05	1
HEXACHLOROETHANE	67-72-1	220.00	G	0.56	Е	0.560	0.001	1

		SHS¹ (resident	ial use	ed aquifer, TDS <2500r	ng/L	Safe	³ Fill	I G C Fill
		Residential Di Contact Soil MSC ²		Soil to Groundwater Pathway Numeric Value Residential Generic Value		Lower of RDC or RGV	GWMSC by SPLP⁴	Is Safe Fill Number Based on Generic
Compound/Contaminant	CASRN	mg/kg		mg/kg	aiue	mg/kg	mg/L	Value?
HEXANE	110-54-3	3800.00	N	510	Е	510.00	0.55	1
HEXYTHIAZOX (SAVEY)	78587-05-0	5500.00	G	5.6	Е	5.60	0.5	1
HYDRAZINE/HYDRAZINE SULFATE	302-01-2	0.06	N	0.000097	Е	0.000097	0.000088	1
HYDROQUINONE	123-31-9	8800.00	G	17	Е	17.00	1.5	1
INDENO[1,2,3-CD]PYRENE*	193-39-5	25.00	G	7000	Е	25.00	0.0009	0
IPRODIONE	36734-19-7	8800.00	G	17	Е	17.00	1.5	1
ISOBUTYL ALCOHOL	78-83-1	10000.00	С	76.00	Е	76.00	2.9	1
ISOPHORONE	78-59-1	10000.00	С	1.9	Е	1.90	0.1	1
KEPONE	143-50-0	1.10	G	0.56	Е	0.56	0.000041	1
MALATHION	121-75-5	1400.00	N	67	Е	67.00	0.1	1
MALEIC HYDRAZIDE	123-33-1	110000.00	G	47	Е	47.00	4	1
MANEB	12427-38-2	1100.00	G	2	Е	2.00	0.18	1
MERPHOS OXIDE	78-48-8	6.60	G	0.012	Е	0.012	0.0011	1
METHACRYLONITRILE	126-98-7	13.00	N	0.031	Е	0.031	0.0019	1
METHAMIDOPHOS	10265-92-6	11.00	G	0.02	Е	0.02	0.0018	1
METHANOL	67-56-1	10000.00	С	58	Е	58.00	4.9	1
METHOMYL	16752-77-5	5500.00	G	3.2	Е	3.20	0.2	1
METHOXYCHLOR	72-43-5	1100.00	G	630	Е	630.00	0.04	1
METHOXYETHANOL, 2-	109-86-4	220.00	G		Е	220.00	0.037	1
METHYL ACETATE	79-20-9	10000.00	С	410	Е	410.00	37	1
METHYL ACRYLATE	96-33-3	6600.00	G	12	Е	12.00	1.1	1
METHYL CHLORIDE	74-87-3	180.00	N	0.038	Е	0.038	0.003	1
METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	10000.00	С	53	Е	53.00	2.8	1
METHYL ISOBUTYL KETONE	108-10-1	1500.00	N	2.9	Е	2.90	0.19	1
METHYL METHACRYLATE	80-62-6	10000.00	С	26	Е	26.00	1.9	1
METHYL METHANESULFONATE	66-27-3	180.00	G	0.083	Е	0.083	0.0067	1
METHYL PARATHION	298-00-0	17.00	N	0.42	Е	0.42	0.002	1
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	1300.00	G	2.4	E	2.40	0.22	1
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	10000.00	C	0.28	E	0.28	0.02	1
METHYLENE BIS(2-CHLOROANILINE), 4,4'-	101-14-4	140.00	G	0.057	E	0.06	0.0051	1
METHYLNAPHTHALENE, 2-	91-57-6	4400.00	G	2900	E	2900.00	0.73	1
METHYLSTYRENE, ALPHA	98-83-9	15000.00	G	7.6	E	7.60	0.68	1
NAPHTHALENE*	91-20-3	4400.00	G	5	E	5.00	0.00	1
IVALIIIIALEIVE	91-20-3	4400.00	G	J		3.00	0.1	1

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		SHS¹ (resident.	ial use	ed aquifer, TDS <2500n	ng/L	Safe		
		Residential Di Contact	irect	Soil to Groundwat Pathway Numeric V		Lower of RDC or	GWMSC by	Is Safe Fill Number Based on
		Soil MSC ²	•	Residential Generic \	/alue	RGV	SPLP⁴ °	Generic
Compound/Contaminant	CASRN	mg/kg		mg/kg		mg/kg	mg/L	Value?
PHENYLENEDIAMINE, M-	108-45-2	1300.00	G	3.1	E	3.10	0.22	1
PHENYLPHENOL, 2-	90-43-7	9200.00	G	3.8	E	3.80	0.34	1
PHORATE	298-02-2	13.00	N	0.41	E	0.41	0.0019	1
PHTHALIC ANHYDRIDE	85-44-9	190000.00	C	2300	E	2300.00	73	1
PECLORAM	1918-02-1	15000.00	G	5.6	E	5.60	0.5	1
PRONAMIDE	23950-58-5	17000.00	G	3	Е	3.00	0.05	1
PROPANIL	709-98-8	1100.00	G	2	Е	2.00	0.18	1
PROPHAM	122-42-9	4400.00	G	8.1	Е	8.10	0.73	1
PROPYLBENZENE, N-	103-65-1	2200.00	G	4.1	Е	4.10	1.5	1
PROPYLENE OXIDE	75-56-9	75.00	G	0.048	Е	0.05	0.0028	1
PYRENE*	129-00-0	6600.00	G	2200	Е	2200.00	0.13	1
PYRIDINE	110-86-1	67.00	N	0.11	Е	0.11	0.0097	1
QUINOLINE	91-22-5	1.50	G	0.00061	Е	0.00061	0.000055	1
QUIZALOFOP (ASSURE)	76578-14-8	2000.00	G	3.3	Е	3.30	0.3	1
RONNEL	299-84-3	11000.00	G	20	Е	20.00	1.8	1
SIMAZINE	122-34-9	150.00	G	0.16	Е	0.16	0.004	1
STRYCHNINE	57-24-9	66.00	G	0.9	Е	0.90	0.011	1
STYRENE	100-42-5	10000.00	С	24	Е	24.00	0.1	1
TEBUTHIURON	34014-18-1	15000.00	G	5.6	Е	5.60	0.5	1
TERBACIL	5902-51-2	2900.00	G	1	Е	1.00	0.09	1
TERBUFOS	13071-79-9	1.70	N	0.13	Е	0.13	0.0009	1
TETRACHLOROBENZENE, 1,2,4,5-	95-94-3	66.00	G	0.12	Е	0.12000	0.011	1
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8-(TCDD)	1746-01-6	0.00	G	0.032	Е	0.00012	0.00000003	0
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	690.00	G	0.78	Е	0.78	0.07	1
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	5.50	N	0.023	Е	0.023	0.0003	1
TETRACHLOROETHYLENE (PCE)	127-18-4	340.00	G	0.43	Е	0.43	0.005	1
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6600.00	G	450	Е	450.00	0.29	1
TETRAETHYL LEAD	78-00-2	0.02	G	0.0046	Е	0.0046	0.0000037	1
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	33.00	N	0.054	Е	0.054	0.0049	1
THIOFANOX	39196-18-4	66.00	G	0.12	Е	0.12	0.011	1
THIRAM	137-26-8	1100.00	G	47	Е	47.00	0.18	1
TOLUENE*	108-88-3	7600.00	N	44	Е	44.00	1	1
TOLUIDINE, M-	108-44-1	75.00	G	0.13	Е	0.13	0.0028	1

		SHS¹ (resident)	ed aquifer, TDS <2500n	Safe				
		Residential Di Contact	rect	Soil to Groundwat Pathway Numeric V		Lower of RDC or	GWMSC by	Is Safe Fill Number Based on
Compound/Contaminant	CASRN	Soil MSC ² mg/kg	•	Residential Generic V mg/kg	/alue	RGV mg/kg	SPLP ⁴ mg/L	Generic Value?
TOLUIDINE, O-	95-53-4	75.00	G	0.32	Е	0.32	0.0028	1
TOLUIDINE, P-	106-49-0	94.00	G	0.32	Е	0.32	0.0035	1
TOXAPHENE	8001-35-2	16.00	G	1.2	Е	1.20	0.003	1
TRIALLATE	2303-17-5	2900.00	G	5.2	Е	5.20	0.47	1
TRIBROMOMETHANE (BROMOFORM)	75-25-2	290.00	N	4.3	Е	4.30	0.1	1
TRICHLORO- 1,2,2-TRIFLUOROETHANE, 1,1,2-	76-13-1	190000.00	С	920	Е	920.00	83	1
TRICHLOROBENZENE, 1,2,4-	120-82-1	2200.00	G	28	Е	28.00	0.07	1
TRICHLOROBENZENE, 1,3,5-	108-70-3	1300.00	G	31	Е	31.00	0.04	1
TRICHLOROETHANE, 1,1,1-*	71-55-6	4400.00	G	7.2	Е	7.20	0.2	1
TRICHLOROETHANE, 1,1,2-	79-00-5	20.00	N	0.15	Е	0.15	0.005	1
TRICHLOROETHYLENE (TCE)*	79-01-6	190.00	N	0.17	Е	0.17	0.005	1
TRICHLOROPHENOL, 2,4,5-	95-95-4	22000.00	G	2300	Е	2300.00	3.7	1
TRICHLOROPHENOL, 2,4,6-	88-06-2	1600.00	G	17	Е	17.00	0.06	1
TRICHLOROPHENOXYACETIC ACID, 2,4,5-(2,4,5-T)	93-76-5	2200.00	G	1.5	Е	1.50	0.07	1
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILVEX)	93-72-1	1800.00	G	22	Е	22.00	0.05	1
TRICHLOROPROPANE, 1,1,2-	598-77-6	1100.00	G	2	Е	2.00	0.18	1
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.16	N	3.3	Е	0.16	0.04	0
TRICHLOROPROPENE, 1,2,3-	96-19-5	1100.00	G	2	Е	2.00	0.18	1
TRIFLURALIN	1582-09-8	1700.00	G	0.056	Е	0.056	0.005	1
TRIMEHTYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-)	95-63-6	110.00	N	0.18	Е	0.18	0.016	1
TRIMETHYLBENZENE, 1,3,5-	108-67-8	110.00	N	0.18	Е	0.18	0.016	1
TRINITROTOLUENE, 2,4,6-	118-96-7	110.00	G	0.022	Е	0.022	0.002	1
VINYL ACETATE	108-05-4	3800.00	N	6.5	Е	6.50	0.55	1
VINYL BROMIDE (BROMOMETHANE)	593-60-2	160.00	G	0.016	Е	0.016	0.0014	1
VINYL CHLORIDE	75-01-4	1.30	N	0.27	Е	0.27	0.002	1
WARFARIN	81-81-2	66.00	G	2.6	Е	2.60	0.011	1
XYLENES (TOTAL)*	1330-20-7	8300.00	N	850	Е	850.00	10	1
ZINEB	12122-67-7	11000.00	G	20	E	20.00	1.8	1

Total No. of Organic Regulated Substances with Generic Value < Direct Contact (out of a total of 319 substances) = 302

SHS - Statewide health standards

^{*}For screening of petroleum hydrocarbons from airborne pollution at a site, if only those contaminants are of concern.

APPENDIX A

Table 3: Safe Fill Numeric Standards for Organic Regulated Substances

Regulated Compound/Contaminant	Lower of RDC to RGV ¹ mg/kg
ALDRIN ²	0.10
ANTHRACENE	350.0
BENZENE	0.13
BENZO[A]ANTHRACENE	25.0
BENZO[A]PYRENE	2.5
BENZO[B]FLUORANTHENE	25.0
BENZO[GHI]PERYLENE	180.0
CHRYSENE	230.0
CUMENE (ISOPROPYL BENZENE)	790.0
DDD, 4,4'-2 ²	0.68
DDE, 4,4'-2 ²	41.0
DDT, 4,4'-2 ²	53.0
DICHLOROETHYLENE, CIS-1,2-	1.6
DIELDRIN2 ²	0.1
ETHYL BENZENE	46.0
FLUORENE	380.0
INDENO[1,2,3-CD]PYRENE	25.0
NAPHTHALENE	5.0
PCB-1254 (AROCLOR)	4.4
PHENANTHRENE	10000.0
PYRENE	2200.0
TOLUENE	44.0
TRICHLOROETHANE, 1,1,1-	7.2
TRICHLOROETHYLENE (TCE)	0.2
XYLENES (TOTAL)	850.0

¹ Lower of the residential direct contact compared to residential generic value of the statewide health standards of the Act 2 regulations.

¹ Residential SHS (used aquifer, TDS \leq 2500 mg/l) developed under the land recycling program of Act 2.

² MSC—medium specific concentration

³ Lower of the Residential Generic Value compared to Residential Direct Contact value of the applicable SHS

E-Number calculated by the soil to groundwater equation in Section 250.308

G = Ingestion; C = Cap; N = Inhalation

⁴ Waste not to exceed groundwater MSC by SPLP analysis

² Pesticides

APPENDIX A

Table 4: Numeric Standards for Soil from "Known Areas of Contamination" Qualifying for PBR 287.102(j)

		SHS¹ (nonresider TDS ≤25	ntial, used aq 00 mg/kg)	Permit By Rule FOR Known					
REGULATED SUBSTANCES	CASRN	100XGWMSC (M) mg/kg	Generic Value (G) mg/kg						Area of Contamination² Section 287.102 (j) (higher of M or G)
ARSENIC	7440-38-2	5	150		150				
LEAD	7439-92-1	0.5	450		450				
ALDRIN	309-00-2	0.0037	0.44	Е	0.44				
DIELDRIN	60-57-1	0.016	0.44	Е	0.44				
DDD, 4,4'-	72-54-8	0.27	30	Е	30				
DDE, 4,4'-	72-55-9	0.76	170	Е	170				
DDT, 4,4'-	50-29-3	0.55	330	Е	330				

¹ Statewide health standards

 $E-Number\ calculated\ by\ the\ soil\ to\ groundwater\ equation\ in\ 25\ Pa.\ Code\ Section\ 250.308$

² Contaminated soil resulting from urbanization and agricultural practices

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APPENDIX A

TABLE 5: Numeric Standards for Organic Regulated Substances in: Historic Fill; In Soil and Dredged Material Exceeding Safe Fill Standards; in Soil Impacted by a Release; and in Segregated BBC from C/D Waste

		SHS¹ (res	idential	, used aquifer;	TDS<2500 mg	g/L)	Permit by Rule	Peri	nit by Rule ³		Permit by Rule
		Direct Contact(R		Soil to Groundwater Pathway Numeric Value			Historic Fill Soil/Dredge Section Safe Fi 287.102(l) Spill/Relea		ted Material Exceeding Fill or Impacted by ase:Section 287.102(k)		Segregated BBC from C/D Waste, 271.103(i)
REGULATED SUBSTANCE	CASRN	Soil MSC ² (RDC) mg/kg (lowest)		100XMSC (M) Generic Valu mg/kg mg/kg			mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg	SPLP ⁵ mg/L		Lower of RDC or RGV mg/kg
ACENAPHTHENE	83-32-9	13000	G	220	2700	Е	2700	13000	2.2	G	2700
ACENAPHTHYLENE	208-96-8	13000	G	220	2500	Е	2500	13000	2.2	G	2500
ACEPHATE	30560-19-1	880	G	7.6	0.9	Е	7.6	880	0.076	G	0.9
ACETALDEHYDE	75-07-0	140	N	1.9	0.23	Е	1.9	140	0.019	N	0.23
ACETONE	67-64-1	10000	С	370	41	Е	370	10000	3.7	G	41
ACETONITRILE	75-05-8	1100	С	17	1.9	Е	17	1100	0.17	N	1.9
ACETOPHENONE	98-86-2	10000	С	370	200	Е	370	10000	3.7	G	200
ACETYLAMINOFLUORENE,2- (2AAF)	53-96-3	4.7	G	0.017	0.069	Е	0.069	4.7	0.00017	G	0.069
ACROLEIN	10-702-8	0.38	N	0.0055	0.00062	Е	0.0055	0.38	0.000055	N	0.00062
ACRYLAMIDE	79-06-1	4	G	0.0033	0.00057	Е	0.0033	4	0.000033	N	0.00057
ACRYLIC ACID	79-10-7	19	N	0.28	0.051	Е	0.28	19	0.0028	N	0.051
ACRYLONITRILE	107-13-1	4.7	N	0.063	0.0087	Е	0.063	4.7	0.00063	N	0.0087
ALACHLOR	15972-60-8	220	G	0.2	0.077	Е	0.2	220	0.002	M	0.077
ALDICARB	116-06-3	220	G	0.7	0.12	Е	0.7	220	0.007	M	0.12
ALDRIN	309-00-2	1.1	G	0.00087	0.1	Е	0.1	1.1	0.0000087	N	0.1
ALLYL ALCOHOL	107-18-6	330	N	4.9	0.58	Е	4.9	330	0.049	N	0.58
AMINOBIPHENYL,4-	92-67-1	0.85	G	0.0031	0.0012	Е	0.0031	0.85	0.000031	G	0.0012
AMITROLE	61-82-5	19	G	0.07	0.029	Е	0.07	19	0.0007	G	0.029
AMMONIA	7664-41-7	1900	N	3000	360	Е	3000	1900	30	Н	360
AMMONIUM SULFAMATE	7773-06-0	44000	G	200	24	Е	200	44000	2	Н	24
ANILINE	62-53-3	19	N	0.28	0.16	Е	0.28	19	0.0028	N	0.16
ANTHRACENE	120-12-7	66000	G	6.6	350	Е	350	66000	0.066	S	350
ATRAZINE	1912-24-9	81	G	0.3	0.13	Е	0.3	81	0.003	M	0.13
BAYGON (PROPOXUR)	114-26-1	880	G	0.3	0.057	Е	0.3	880	0.003	Н	0.057
BENOMYL	17804-35-2	11000	G	180	880	Е	880	11000	1.8	G	880
BENTAZON	25057-89-0	6600	G	110	16	Е	110	6600	1.1	G	16
BENZENE	71-43-2	41	N	0.5	0.13	Е	0.5	41	0.005	M	0.13
BENZIDINE	92-87-5	0.078	G	0.00029	0.38	Е	0.38	0.078	0.0000029	G	0.078
BENZO[A]ANTHRACENE	56-55-3	25	G	0.09	79	E	79	25	0.0009	G	25
BENZO[A]PYRENE	50-32-8	2.5	G	0.02	46	E	46	2.5	0.0002	M	2.5
BENZO[B]FLUORANTHENE	205-99-2	25	G	0.09	120	E	120	25	0.0009	G	25

		SHS¹ (res.	idential	, used aquifer,	TDS<2500 m	g/L)	Permit by Rule	Permit by Rule ³			Permit by Rule
			Direct Soil to Groundwater Pathway			Historic Fill Section 287.102(l)	Soil/Dredged Material Exceeding Safe Fill or Impacted by Spill/Release:Section 287.102(k)			Segregated BBC from C/D Waste, 271.103(i)	
REGULATED SUBSTANCE	CASRN	Soil MSC ² (RDC) mg/kg (lowest)		100XMSC (M) mg/kg	(M) Generic Value (GV)		mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg SPLP ⁵ mg/L		r/L	Lower of RDC or RGV mg/kg
BENZO[GHI]PERYLENE	191-24-2	13000	G	0.026	180	Е	180	13000	0.00026	S	180
BENZO[K]FLUORANTHENE	207-08-9	250	G	0.055	610	Е	610	250	0.00055	S	250
BENZOIC ACID	65-85-0	190000	С	15000	2900	Е	15000	190000	150	G	2900
BENZOTRICHLORIDE	98-07-7	1.4	G	0.0051	0.012	Е	0.012	1.4	0.000051	G	0.012
BENZYL ALCOHOL	100-51-6	10000	С	1100	400	Е	1100	10000	11	G	400
BENZYL CHLORIDE	100-44-7	6.4	N	0.087	0.051	Е	0.087	6.4	0.00087	N	0.051
BHC,ALPHA	319-84-6	2.8	G	0.01	0.046	Е	0.046	2.8	0.0001	G	0.046
BHC,BETA-	319-85-7	9.9	G	0.037	0.22	Е	0.22	9.9	0.00037	G	0.22
BHC,DELTA-	319-86-8	130	G	2.2	11	Е	11	130	0.022	G	11
BHC,GAMMA (LINDANE)	58-89-9	14	G	0.02	0.072	Е	0.072	14	0.0002	M	0.072
BIPHENYL,1,1-	92-52-4	11000	G	180	790	Е	790	11000	1.8	G	790
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.96	N	0.013	0.0039	Е	0.013	0.96	0.00013	N	0.0039
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	32	N	30	8	Е	30	32	0.3	Н	8
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0051	N	0.000069	0.00001	Е	0.000069	0.0051	0.00000069	N	0.00001
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1300	G	0.6	130	Е	130	1300	0.006	M	130
BISPHENOL A	80-05-7	11000	G	180	700	Е	700	11000	1.8	G	700
BROMACIL	314-40-9	22000	G	8	2	Е	8	22000	0.08	Н	2
BROMOCHLOROMETHANE	74-97-5	2200	G	9	1.6	Е	9	2200	0.09	Н	1.6
BROMODICHLOROMETHANE	75-27-4	8.6	N	10	3.4	Е	10	8.6	0.1	M	3.4
BROMOMETHANE	74-83-9	95	N	1	0.54	Е	1	95	0.01	Н	0.54
BROMOXYNIL	1689-84-5	4400	G	73	63	Е	73	4400	0.73	G	63
BROMOXYNIL OCTANOATE	1689-99-2	4400	G	8	360	Е	360	4400	0.08	S	360
BUTADIENE,1,3-	106-99-0	5.3	G	0.015	0.0062	Е	0.015	5.3	0.00015	N	0.0062
BUTYL ALCOHOL,N-	71-36-3	6600	N	97	12	Е	97	6600	0.97	N	12
BUTYLATE	2008-41-5	10000	С	35	51	Е	51	10000	0.35	Н	51
BUTYLBENZENE,N-	104-51-8	8800	G	150	950	Е	950	8800	1.5	G	950
BUTYLBENZENE,SEC-	135-98-8	8800	G	150	350	Е	350	8800	1.5	G	350
BUTYLBENZENE,TERT-	98-06-6	8800	G	150	270	Е	270	8800	1.5	G	270
BUTYLBENZYL PHTHALATE	85-68-7	10000	С	270	10000	С	10000	10000	2.7	S	10000
CAPTAN	133-06-2	5100	G	19	12	Е	19	5100	0.19	G	12
CARBARYL	63-25-2	22000	G	70	41	Е	70	22000	0.7	Н	41
CARBAZOLE	86-74-8	900	G	3.3	21	Е	21	900	0.033	G	21
CARBOFURAN	1563-66-2	1100	G	4	0.87	Е	4	1100	0.04	M	0.87
CARBON DISULFIDE	75-15-0	10000	C	190	160	E	190	10000	1.9	N	160

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		SHS¹ (resi	idential,	, used aquifer,	TDS<2500 m	g/L)	Permit by Rule	Peri	nit by Rule ³		Permit by Rule
			Direct Soil to Groundwater Pathway			Historic Fill Section 287.102(l)	Soil/Dredged Material Exceeding Safe Fill or Impacted by Spill/Release:Section 287.102(k)			Segregated BBC from C/D Waste, 271.103(i)	
REGULATED SUBSTANCE	CASRN	Soil MSC ² (RDC) mg/kg (lowest)		MSC ² (RDC) (M) Generic Value (kg (lowest) mg/kg mg/kg			mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg			Lower of RDC or RGV mg/kg
CARBON TETRACHLORIDE	56-23-5	21	N	0.5	0.26	Е	0.5	21	0.005	M	0.26
CARBOXIN	5234-68-4	22000	G	70	53	Е	70	22000	0.7	Н	53
CHLORAMBEN	133-90-4	3300	G	10	1.6	E	10	3300	0.1	Н	1.6
CHLORDANE	57-74-9	51	G	0.2	49	Е	49	51	0.002	M	49
CHLORO-1,1-DIFLUOROETHANE,1-	75-68-3	190000	С	14000	2300	Е	14000	190000	140	N	2300
CHLORO-1-PROPENE,3- (ALLYL CHLORIDE)	107-05-1	19	N	0.28	0.065	Е	0.28	19	0.0028	N	0.065
CHLOROACETOPHENONE,2-	532-27-4	1.9	G	0.031	0.0093	Е	0.031	1.9	0.00031	G	0.0093
CHLOROANILINE,P-	106-47-8	880	G	15	19	Е	19	880	0.15	G	19
CHLOROBENZENE	108-90-7	4400	G	10	6.1	Е	10	4400	0.1	M	6.1
CHLOROBENZILATE	510-15-6	66	G	0.24	1.6	Е	1.6	66	0.0024	G	1.6
CHLOROBUTANE,1-	109-69-3	10000	С	1500	2300	Е	2300	10000	15	G	2300
CHLORODIBROMOMETHANE	124-48-1	12	N	10	3.2	Е	10	12	0.1	M	3.2
CHLORODIFLUOROMETHANE	75-45-6	190000	С	10	2.6	Е	10	190000	0.1	Н	2.6
CHLOROETHANE	75-00-3	6200	G	23	5	Е	23	6200	0.23	G	5
CHLOROFORM	67-66-3	14	N	10	2.5	Е	10	14	0.1	M	2.5
CHLORONAPHTHALENE,2-	91-58-7	18000	G	290	6,200	Е	6200	18000	2.9	G	6200
CHLORONITROBENZENE,P-	100-00-5	990	G	3.7	4.9	Е	4.9	990	0.037	G	4.9
CHLOROPHENOL,2-	95-57-8	330	N	4	4.4	Е	4.4	330	0.04	Н	4.4
CHLOROPRENE	126-99-8	130	N	1.9	0.45	Е	1.9	130	0.019	N	0.45
CHLOROPROPANE,2-	75-29-6	1900	N	28	21	Е	28	1900	0.28	N	21
CHLOROTHALONIL	1897-45-6	1600	G	6	15	Е	15	1600	0.06	G	15
CHLOROTOLUENE,O-	95-49-8	4400	G	10	20	Е	20	4400	0.1	Н	20
CHLORPYRIFOS	2921-88-2	660	G	2	23	Е	23	660	0.02	Н	23
CHLORSULFURON	64902-72-3	11000	G	180	25	Е	180	11000	1.8	G	25
CHLORTHAL-DIMETHYL (DACTHAL) (DCPA)	1861-32-1	2200	G	40	650	Е	650	2200	0.4	Н	650
CHRYSENE	218-01-9	2500	G	0.19	230	Е	230	2500	0.0019	S	230
CRESOL(S)	1319-77-3	330	N	18	3.1	Е	18	330	0.18	N	3.1
CRESOL,0- (METHYLPHENOL,2-)	95-48-7	10000	С	180	64	Е	180	10000	1.8	G	64
CRESOL,M (METHYLPHENOL,3-)	108-39-4	10000	С	180	36	Е	180	10000	1.8	G	36
CRESOL,P (METHYLPHENOL,4-)	106-44-5	1100	G	18	4.2	Е	18	1100	0.18	G	4.2
CRESOL,P-CHLORO-M-	59-50-7	1100	G	18	37	E	37	1100	0.18	G	37
CROTONALDEHYDE	4170-30-3	9.4	G	0.0079	0.00099	E	0.0079	9.4	0.000079	N	0.00099
CROTONALDEHYDE,TRANS-	123-73-9	9.4	G	0.035	0.0044	E	0.035	9.4	0.000079	G	0.0044
CUMENE	98-82-8	7300	N	110	780	E	780	7300	1.1	N	780
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		SHS¹ (resi	idential	, used aquifer,	TDS<2500 mg	g/L)	Permit by Rule	Pern	nit by Rule ³		Permit by Rule
		Direct Contact(R			oundwater Pati meric Value	hway	Historic Fill Section 287.102(1)	Safe Fill	d Material Exc l or Impacted : se:Section 287.	by [Segregated BBC from C/D Waste, 271.103(i)
REGULATED SUBSTANCE	CASRN	Soil MSC ² (mg/kg (lov	(RDC) west)	100XMSC (M) mg/kg	Generic Valu		mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg	SPLP⁵mg	g/L	Lower of RDC or RGV mg/kg
DICHLOROPROPIONIC ACID (DALAPON),2,2-	75-99-0	2000	N	20	5.3	Е	20	2000	0.2	M	5.3
DICHLORVOS	62-73-7	62	G	0.052	0.012	Е	0.052	62	0.00052	N	0.012
DICYCLOPENTADIENE	77-73-6	6600	G	0.055	0.12	Е	0.12	6600	0.00055	N	0.12
DIELDRIN	60-57-1	1.1	G	0.0041	0.11	Е	0.11	1.1	0.000041	G	0.11
DIETHYL PHTHALATE	84-66-2	10000	С	500	160	Е	500	10000	5	Н	160
DIFLUBENZURON	35367-38-5	4400	G	20	52	Е	52	4400	0.2	S	52
DIMETHOATE	60-51-5	44	G	0.73	0.28	Е	0.73	44	0.0073	G	0.28
DIMETHOXYBENZIDINE,3,3-	119-90-4	1300	G	4.7	16	Е	16	1300	0.047	G	16
DIMETHYLAMINOAZOBENZENE,P-	60-11-7	3.9	G	0.014	0.037	Е	0.037	3.9	0.00014	G	0.037
DIMETHYLANILINE,N,N-	000121-69-7	440	G	7.3	4.1	Е	7.3	440	0.073	G	4.1
DIMETHYLBENZIDINE,3,3-	000119-93-7	1.9	G	0.0072	0.4	Е	0.4	1.9	0.000072	G	0.4
DIMETHYLPHENOL,2,4-	105-67-9	4400	G	73	32	Е	73	4400	0.73	G	32
DINITROBENZENE,1,3-	99-65-0	22	G	0.1	0.049	Е	0.1	22	0.001	Н	0.049
DINITROPHENOL,2,4-	51-28-5	440	G	1.9	0.21	Е	1.9	440	0.019	N	0.21
DINITROTOLUENE,2,4-	121-14-2	58	G	0.21	0.05	Е	0.21	58	0.0021	G	0.05
DINITROTOLUENE,2,6- (2,6-DNT)	606-20-2	220	G	3.7	1.1	Е	3.7	220	0.037	G	1.1
DINOSEB	88-85-7	220	G	0.7	0.29	Е	0.7	220	0.007	M	0.29
DIOXANE,1,4-	123-91-1	41	N	0.56	0.073	Е	0.56	41	0.0056	N	0.073
DIPHENAMID	957-51-7	6600	G	20	12	Е	20	6600	0.2	Н	12
DIPHENYLAMINE	122-39-4	5500	G	20	12	Е	20	5500	0.2	Н	12
DIPHENYLHYDRAZINE,1,2-	122-66-7	22	G	0.083	0.15	Е	0.15	22	0.00083	G	0.15
DIQUAT	85-00-7	480	G	2	0.24	Е	2	480	0.02	M	0.24
DISULFOTON	298-04-4	2.7	N	0.03	0.078	Е	0.078	2.7	0.0003	Н	0.078
DIURON	330-54-1	440	G	1	0.86	Е	1	440	0.01	Н	0.86
ENDOSULFAN	115-29-7	1300	G	5.8	30	Е	30	1300	0.058	N	30
ENDOSULFAN I (ALPHA)	959-98-8	1300	G	22	110	Е	110	1300	0.22	G	110
ENDOSULFAN II (BETA)	33213-65-9	1300	G	22	130	Е	130	1300	0.22	G	130
ENDOSULFAN SULFATE	1031-07-8	1300	G	12	70	Е	70	1300	0.12	S	70
ENDOTHALL	145-73-3	4400	G	10	4.1	Е	10	4400	0.1	M	4.1
ENDRIN	72-20-8	66	G	0.2	5.5	Е	5.5	66	0.002	M	5.5
EPICHLOROHYDRIN	106-89-8	19	N	0.28	0.056	Е	0.28	19	0.0028	N	0.056
ETHEPHON	16672-87-0	1100	G	18	2.1	Е	18	1100	0.18	G	2.1
ETHION	563-12-2	110	G	1.8	39	Е	39	110	0.018	G	39
ETHOXYETHANOL,2- (EGEE)	110-80-5	3800	[C] N	55	7.8	Е	55	3800	0.55	N	7.8

PROPOSED

RULEMAKING

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		SHS¹ (res.	idential,	, used aquifer,	TDS<2500 m _g	g/L)	Permit by Rule	Peri	nit by Rule ³		Permit by Rule
		Direct Contact(R			undwater Pati meric Value	hway	Historic Fill Section 287.102(1)	Soil/Dredged Material Exceeding Safe Fill or Impacted by Spill/Release:Section 287.102(k)		by [Segregated BBC from C/D Waste, 271.103(i)
REGULATED SUBSTANCE	CASRN	Soil MSC ² mg/kg (lo	(RDC) west)	100XMSC (M) mg/kg	Generic Valu mg/kg		mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg	SPLP⁵mg	g/L	Lower of RDC or RGV mg/kg
INDENO[1,2,3-CD]PYRENE	193-39-5	25	G	0.09	7000	Е	7000	25	0.0009	G	25
IPRODIONE	36734-19-7	8800	G	150	430	Е	430	8800	1.5	G	430
ISOBUTYL ALCOHOL	78-83-1	10000	С	290	76	E	290	10000	2.9	N	76
ISOPHORONE	78-59-1	10000	С	10	1.9	E	10	10000	0.1	Н	1.9
KEPONE	143-50-0	1.1	G	0.0041	0.56	E	0.56	1.1	0.000041	G	0.56
MALATHION	121-75-5	1400	N	10	34	E	34	1400	0.1	Н	34
MALEIC HYDRAZIDE	123-33-1	110000	G	400	47	E	400	110000	4	Н	47
MANEB	12427-38-2	1100	G	18	2	E	18	1100	0.18	G	2
MERPHOS OXIDE	78-48-8	6.6	G	0.11	15	E	15	6.6	0.0011	G	6.6
METHACRYLONITRILE	126-98-7	13	N	0.19	0.031	E	0.19	13	0.0019	N	0.031
METHAMIDOPHOS	10265-92-6	11	G	0.18	0.022	E	0.18	11	0.0018	G	0.022
METHANOL	67-56-1	10000	С	490	58	E	490	10000	4.9	N	58
METHOMYL	16752-77-5	5500	G	20	3.2	E	20	5500	0.2	Н	3.2
METHOXYCHLOR	72-43-5	1100	G	4	630	Е	630	1100	0.04	M	630
METHOXYETHANOL,2-	109-86-4	220	G	3.7	0.41	Е	3.7	220	0.037	G	0.41
METHYL ACETATE	79-20-9	10000	С	3700	690	Е	3700	10000	37	G	690
METHYL ACRYLATE	96-33-3	6600	G	110	27	Е	110	6600	1.1	G	27
METHYL CHLORIDE	74-87-3	180	N	0.3	0.038	Е	0.3	180	0.003	Н	0.038
METHYL ETHYL KETONE	78-93-3	10000	С	280	54	Е	280	10000	2.8	N	54
METHYL ISOBUTYL KETONE	108-10-1	1500	N	19	2.9	Е	19	1500	0.19	N	2.9
METHYL METHACRYLATE	80-62-6	10000	С	190	26	Е	190	10000	1.9	N	26
METHYL METHANESULFONATE	66-27-3	180	G	0.67	0.083	Е	0.67	180	0.0067	G	0.083
METHYL PARATHION	298-00-0	17	N	0.2	0.42	Е	0.42	17	0.002	Н	0.42
METHYL STYRENE (MIXED ISOMERS)	25013-15-4	1300	G	22	120	Е	120	1300	0.22	G	120
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	10000	С	2	0.28	Е	2	10000	0.02	Н	0.28
METHYLENE BIS(2-CHLOROANILINE),4,4'-	101-14-4	140	G	0.51	3.9	Е	3.9	140	0.0051	G	3.9
METHYLNAPHTHALENE,2-	91-57-6	4400	G	73	2,900	Е	2900	4400	0.73	G	2900
METHYLSTYRENE,ALPHA	98-83-9	15000	G	68	120	Е	120	15000	0.68	N	120
NAPHTHALENE	91-20-3	4400	G	10	25	Е	25	4400	0.1	Н	25
NAPHTHYLAMINE,1-	134-32-7	9.9	G	0.037	0.3	Е	0.3	9.9	0.00037	G	0.3
NAPHTHYLAMINE,2-	91-59-8	9.9	G	0.037	0.012	Е	0.037	9.9	0.00037	G	0.012
NAPROPAMIDE	15299-99-7	22000	G	370	860	Е	860	22000	3.7	G	860
NITROANILINE,M-	99-09-2	13	G	0.21	0.033	Е	0.21	13	0.0021	G	0.033
NITROANILINE,O-	88-74-4	13	G	0.21	0.038	Е	0.21	13	0.0021	G	0.038
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		SHS ¹ (residential, used aquifer, TDS<2500 mg/L)					Permit by Rule	Peri	mit by Rule ³		Permit by Rule
		Direct Contact(R			oundwater Pati meric Value	hway	Historic Fill Section 287.102(1)	Soil/Dredged Material Exceed Safe Fill or Impacted by Spill/Release:Section 287.102		by Ö	Segregated BBC from C/D Waste, 271.103(i)
REGULATED SUBSTANCE	CASRN	Soil MSC ² mg/kg (lo	(RDC) west)	100XMSC (M) mg/kg	Generic Value (GV) mg/kg		mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg SPLP ⁵ mg		g/L	Lower of RDC or RGV mg/kg
NITROANILINE,P-	100-01-6	13	G	0.21	0.031	Е	0.21	13	0.0021	G	0.031
NITROBENZENE	98-95-3	110	G	1.8	0.79	Е	1.8	110	0.018	G	0.79
NITROPHENOL,2-	88-75-5	1800	G	29	5.9	Е	29	1800	0.29	G	5.9
NITROPHENOL,4-	100-02-7	1800	G	6	4.1	Е	6	1800	0.06	Н	4.1
NITROPROPANE,2-	79-46-9	0.12	N	0.0016	0.00026	Е	0.0016	0.12	0.000016	N	0.00026
NITROSODIETHYLAMINE,N-	55-18-5	0.0073	N	0.0001	0.000018	Е	0.0001	0.0073	0.000001	N	0.000018
NITROSODIMETHYLAMINE,N-	62-75-9	0.023	N	0.00031	0.000041	Е	0.00031	0.023	0.0000031	N	0.000041
NITROSO-DI-N-BUTYLAMINE,N-	924-16-3	3.3	G	0.0027	0.0033	Е	0.0033	3.3	0.000027	N	0.0033
NITROSODI-N-PROPYLAMINE,N-	621-64-7	2.6	G	0.0094	0.0013	Е	0.0094	2.6	0.000094	G	0.0013
NITROSODIPHENYLAMINE,N-	86-30-6	3700	G	13	20	Е	20	3700	0.13	G	20
NITROSO-N-ETHYLUREA,N-	759-73-9	0.13	G	0.00047	0.000054	Е	0.00047	0.13	0.0000047	G	0.000054
OCTYL PHTHALATE,DI-N-	117-84-0	4400	G	73	10,000	С	10000	4400	0.73	G	4400
OXAMYL (VYDATE)	23135-22-0	5500	G	20	2.6	Е	20	5500	0.2	M	2.6
PARATHION	56-38-2	1300	G	22	130	Е	130	1300	0.22	G	130
PCB-1016 (AROCLOR)	12674-11-2	15	G	0.05	14	Е	14	15	0	P	14
PCB-1221 (AROCLOR)	11104-28-2	36	G	0.05	0.24	Е	0.24	36	0	P	0.24
PCB-1232 (AROCLOR)	11141-16-5	36	G	0.05	0.19	Е	0.19	36	0	P	0.19
PCB-1242 (AROCLOR)	53469-21-9	36	G	0.05	6	Е	6	36	0	P	6
PCB-1248 (AROCLOR)	12672-29-6	9.9	G	0.05	24	Е	24	9.9	0	P	9.9
PCB-1254 (AROCLOR)	11097-69-1	4.4	G	0.05	100	Е	100	4.4	0	P	4.4
PCB-1260 (AROCLOR)	11096-82-5	30	G	0.05	230	Е	230	30	0	P	30
PEBULATE	1114-71-2	10000	С	180	300	Е	300	10000	1.8	G	300
PENTACHLOROBENZENE	608-93-5	180	G	2.9	230	Е	230	180	0.029	G	180
PENTACHLORONITROBENZENE	82-68-8	69	G	0.25	5	Е	5	69	0.0025	G	5
PENTACHLOROPHENOL	87-86-5	150	G	0.1	5	Е	5	150	0.001	M	5
PHENACETIN	62-44-2	8100	G	30	12	Е	30	8100	0.3	G	12
PHENANTHRENE	85-01-8	66000	G	110	10,000	Е	10000	66000	1.1	S	10000
PHENOL	108-95-2	130000	G	400	66	Е	400	130000	4	Н	66
PHENYLENEDIAMINE,M-	108-45-2	1300	G	22	3.1	Е	22	1300	0.22	G	3.1
PHENYLPHENOL,2-	90-43-7	9200	G	34	490	Е	490	9200	0.34	G	490
PHORATE	298-02-2	13	N	0.19	0.41	Е	0.41	13	0.0019	N	0.41
PHTHALIC ANHYDRIDE	85-44-9	190000	С	7,300	2,300	Е	7300	190000	73	G	2300
PICLORAM	1918-02-1	15000	G	50	7.4	Е	50	15000	0.5	M	7.4
POLYCHLORINATED BIPHENYLS(ARACLORS)(PCBS)									0.0005	M	0

		SHS¹ (resi	idential	used aquifer,	TDS<2500 m _g	g/L)	Permit by Rule	Per	mit by Rule ³		Permit by Rule
		Direct Contact(R			undwater Pati meric Value	hway	Historic Fill Section 287.102(1)	Soil/Dredged Material Exceeds Safe Fill or Impacted by Spill/Release:Section 287.102(by [Segregated BBC from C/D Waste, 271.103(i)
REGULATED SUBSTANCE	CASRN	Soil MSC ² (mg/kg (lo	(RDC) west)	100XMSC (M) mg/kg	Generic Valu mg/kg		mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg	SPLP ⁵ mg	r/L	Lower of RDC or RGV mg/kg
PRONAMIDE	23950-58-5	17000	G	5	3.1	Е	5	17000	0.05	Н	3.1
PROPANIL	709-98-8	1100	G	18	9.2	Е	18	1100	0.18	G	9.2
PROPHAM	122-42-9	4400	G	73	17	Е	73	4400	0.73	G	17
PROPYLBENZENE,N-	103-65-1	2200	G	150	290	Е	290	2200	1.5	G	290
PROPYLENE OXIDE	75-56-9	75	G	0.28	0.049	Е	0.28	75	0.0028	G	0.049
PYRENE	129-00-0	6600	G	13	2200	Е	2200	6600	0.13	S	2200
PYRIDINE	110-86-1	67	N	0.97	0.11	Е	0.97	67	0.0097	N	0.11
QUINOLINE	91-22-5	1.5	G	0.0055	0.018	Е	0.018	1.5	0.000055	G	0.018
QUIZALOFOP (ASSURE)	76578-14-8	2000	G	30	47	Е	47	2000	0.3	S	47
RONNEL	299-84-3	11000	G	180	280	Е	280	11000	1.8	G	280
SIMAZINE	122-34-9	150	G	0.4	0.15	Е	0.4	150	0.004	M	0.15
STRYCHNINE	57-24-9	66	G	1.1	0.89	Е	1.1	66	0.011	G	0.89
STYRENE	100-42-5	10000	С	10	24	Е	24	10000	0.1	M	24
TEBUTHIURON	34014-18-1	15000	G	50	83	Е	83	15000	0.5	Н	83
TERBACIL	5902-51-2	2900	G	9	2.2	Е	9	2900	0.09	Н	2.2
TERBUFOS	13071-79-9	1.7	N	0.09	0.12	Е	0.12	1.7	0.0009	Н	0.12
TETRACHLOROBENZENE,1,2,4,5-	95-94-3	66	G	1.1	5.1	Е	5.1	66	0.011	G	5.1
TETRACHLORODIBENZO-P-DIOXIN,2,3,7,8-(TCDD)	1746-01-6	0.00012	G	0.000003	0.032	Е	0.032	0.00012	0.00000003	M	0.00012
TETRACHLOROETHANE,1,1,1,2-	630-20-6	690	G	7	18	E	18	690	0.07	Н	18
TETRACHLOROETHANE,1,1,2,2-	79-34-5	5.5	N	0.03	0.0093	Е	0.03	5.5	0.0003	N	0.0093
TETRACHLOROETHYLENE (PCE)	127-18-4	340	G	0.5	0.43	Е	0.5	340	0.005	M	0.43
TETRACHLOROPHENOL,2,3,4,6-	58-90-2	6600	G	29	450	Е	450	6600	0.29	N	450
TETRAETHYL LEAD	78-00-2	0.022	G	0.00037	0.0046	Е	0.0046	0.022	0.0000037	G	0.0046
TETRAETHYLDITHIOPYROPHOSPHATE	3689-24-5	33	N	0.49	0.73	Е	0.73	33	0.0049	N	0.73
THIOFANOX	39196-18-4	66	G	1.1	0.12	Е	1.1	66	0.011	G	0.12
THIRAM	137-26-8	1100	G	18	47	Е	47	1100	0.18	G	47
TOLUENE	108-88-3	7600	N	100	44	Е	100	7600	1	M	44
TOLUIDINE,M-	108-44-1	75	G	0.28	0.13	Е	0.28	75	0.0028	G	0.13
TOLUIDINE,O-	95-53-4	75	G	0.28	0.32	Е	0.32	75	0.0028	G	0.32
TOLUIDINE,P-	106-49-0	94	G	0.35	0.32	Е	0.35	94	0.0035	G	0.32
TOXAPHENE	8001-35-2	16	G	0.3	1.2	Е	1.2	16	0.003	M	1.2
TRIALLATE	2303-17-5	2900	G	47	240	Е	240	2900	0.47	G	240
TRIBROMOMETHANE (BROMOFORM)	75-25-2	290	N	10	4.4	Е	10	290	0.1	M	4.4
TRICHLORO-1,2,2-TRIFLUOROETHANE,1,1,2-	76-13-1	190000	С	8300	2600	Е	8300	190000	83	N	2600

		SHS¹ (res.	idential,	used aquifer;	TDS<2500 mg	g/L)	Permit by Rule	Pern	nit by Rule ³		Permit by Rule
		Direct Contact(R			Soil to Groundwater Pathway Numeric Value			Soil/Dredged Material Exceeding Safe Fill or Impacted by Spill/Release:Section 287.102(k)		Segregated BBC from C/D Waste, 271.103(i)	
REGULATED SUBSTANCE	CASRN	Soil MSC ² mg/kg (lo	(RDC) west)	100XMSC (M) mg/kg	Generic Valu mg/kg		mg/kg Higher of M to GV	RDC ⁴ (soil) mg/kg	SPLP⁵mg	g/L	Lower of RDC or RGV mg/kg
TRICHLOROBENZENE,1,2,4-	120-82-1	2200	G	7	27	Е	27	2200	0.07	M	27
TRICHLOROBENZENE,1,3,5-	108-70-3	1300	G	4	31	Е	31	1300	0.04	Н	31
TRICHLOROETHANE,1,1,1-	71-55-6	4400	G	20	7.2	Е	20	4400	0.2	M	7.2
TRICHLOROETHANE,1,1,2-	79-00-5	20	N	0.5	0.15	Е	0.5	20	0.005	M	0.15
TRICHLOROETHYLENE (TCE)	79-01-6	190	N	0.5	0.17	Е	0.5	190	0.005	M	0.17
TRICHLOROPHENOL,2,4,5-	95-95-4	22000	G	370	2,300	Е	2300	22000	3.7	G	2300
TRICHLOROPHENOL,2,4,6-	88-06-2	1600	G	6	17	Е	17	1600	0.06	G	17
TRICHLOROPHENOXYACETIC ACID,2,4,5-(2,4,5-T)	93-76-5	2200	G	7	1.5	Е	7	2200	0.07	Н	1.5
TRICHLOROPHENOXYPROPIONIC ACID,2,4,5- (2,4,5-TP) (SILVEX)	93-72-1	1800	G	5	22	Е	22	1800	0.05	M	22
TRICHLOROPROPANE,1,1,2-	598-77-6	1100	G	18	3.1	Е	18	1100	0.18	G	3.1
TRICHLOROPROPANE,1,2,3-	96-18-4	0.16	N	4	[3.3] 3.2	Е	4	0.16	0.04	Н	0.16
TRICHLOROPROPENE,1,2,3-	96-19-5	1100	G	18	11	Е	18	1100	0.18	G	11
TRIFLURALIN	1582-09-8	1700	G	0.5	0.96	Е	0.96	1700	0.005	Н	0.96
TRIMETHYLBENZENE,1,3,4- (TRIMETHYLBENZENE,1,2,4-)	95-63-6	110	N	1.6	9	Е	9	110	0.016	N	9
TRIMETHYLBENZENE,1,3,5-	108-67-8	110	N	1.6	2.8	Е	2.8	110	0.016	N	2.8
TRINITROTOLUENE,2,4,6-	118-96-7	110	G	0.2	0.023	Е	0.2	110	0.002	Н	0.023
VINYL ACETATE	108-05-4	3800	N	55	6.5	Е	55	3800	0.55	N	6.5
VINYL BROMIDE (BROMOETHENE)	593-60-2	160	G	0.14	0.068	Е	0.14	160	0.0014	N	0.068
VINYL CHLORIDE	75-01-4	1.3	N	0.2	0.027	Е	0.2	1.3	0.002	M	0.027
WARFARIN	81-81-2	66	G	1.1	2.6	Е	2.6	66	0.011	G	2.6
XYLENES (TOTAL)	1330-20-7	8300	N	1,000	990	Е	1000	8300	10	M	990
ZINEB	12122-67-7	11000	G	180	29	Е	180	11000	1.8	G	29

¹ Statewide health standards

G—Ingestion

N-Inhalation

С—Сар

E—Number calculated by the soil to groundwater equation in 25 Pa. Code Section 250.308

² Medium specific concentration as defined in Section 250.1 of Act 2 regulations

³ Soil must meet both the RDC and GWMSC numeric standards under this permit by rule

⁴ Residential direct contact numeric standards as listed in Tables 3A of Chapter 250, Appendix A, to be met in soil exceeding safe fill stds or soil impacted by spill/release

⁵ Waste not to exceed groundwater MSC by SPLP analysis

- M—Maximum Contaminant Level
- H-Lifetime Health Advisory Level
- S—Aqueous solubility cap
- P—For MSC in groundwater for PCBs, look under polychlorinated biphenyls (PCBS)

APPENDIX A

TABLE 6. Numeric Standards for Metals in Historic Fill, Soil or Dredged Material Exceeding Safe Fill Standards; Soil Impacted by Release; and in Segregated BBC from C/D Waste

		SHS¹ (residential, used aquifer, TDS≤2500mg/L)											
						Permit by Rule		Permit	by Rule ³		Permit	By Rule	
		Direct Co (RD)		100XMSC	Generic Value	Historic Fill Section	Soil I	Exceedi by Spi	ng Safe Fi. II/Release:	ll or	Segrega:	ted Brick, Concrete	
		Soil M	SC^2			287.102(l)	Ппрасиси	287.	102(k)	Section		271.103(i)	
REGULATED SUBSTANCES Metals including Chlorides	CASRN	mg/l	kg	mg/kg	mg/kg	Higher of 100xMSC or GV	RDC⁴ m	ng/kg	GWMSC	5 mg/L	Lower of RGV or RDC mg/kg	mg/L ⁸	
ALUMINUM	7429-90-5	190000	С	na	na	na	190000	C	0.2	SMCL	190000	0.2	
ANTIMONY	7440-36-0	88	G	0.6	27	27.0	88	G	0.006	M	27	0.006	
ARSENIC	7440-38-2	12	G	5	150	150.0	12	G	0.05	M	12	0.05	
ASBESTOS (fibers/L)	12001295	na		na	na	na	na		7,000,000	M	na	7,000,000	
BARIUM AND COMPOUNDS	7440-39-3	15000	G	200	8200	8200.0	15000	G	2	M	8200	2	
BERYLLIUM	7440-41-7	440	G	0.4	320	320.0	440	G	0.004	M	320	0.004	
BORON AND COMPOUNDS	7440-42-8	20000	G	60	6.7	60.0	20000	G	0.6	Н	6.7	0.6	
CADMIUM	7440-43-9	47	G	0.5	38	38.0	47	G	0.005	M	38	0.005	
CHLORIDES ⁷		na	na	na	na	na	na		250	SMCL	na	250	
CHROMIUM III	16065-83-1	190000	С	10	190000	190000.0	190000	С	0.1	M	190000	0.1	
CHROMIUM VI	18540-29-9	94	G	10	190	190.0	94	G	0.1	M	94	0.1	
COBALT	7440-48-4	13000	G	220	24	220.0	13000	G	2.2	G	24	2.2	
COPPER ⁶	7440-50-8	8200	G	100	36000	4300.0	4300	G	1	M	8200	1	
CYANIDE, FREE	57-12-5	4400	G	20	200	200.0	4400	G	0.2	M	200	0.2	
IRON	7439-89-6	66000	G	NA	NA	NA	66000	G	0		66000	0	
LEAD	7439-92-1	500	U	0.5	450	450.0	500	U	0.005	M	450	0.005	
MANGANESE	7439-96-5	31000	G	NA	NA	0.0	31000	G	0		31000	0	
MERCURY	7439-97-6	66	G	0.2	10	10.0	66	G	0.002	M	10	0.002	
NICKEL	7440-02-0	4400	G	10	650	650.0	4400	G	0.1	Н	650	0.1	
SELENIUM	7782-49-2	1100	G	5	26	26.0	1100	G	0.05	M	26	0.05	
SILVER	7440-22-4	1100	G	10	84	84.0	1100	G	0.1	Н	84	0.1	
THALLIUM	7440-28-0	15	G	0.2	14	14.0	15	G	0.002	M	14	0.002	

PROPOSED RULEMAKING

PROPOSED RULEMAKING

			SHS^{1} (residential, used aquifer, $TDS \leq 2500 \text{mg/L}$)										
						Permit by Rule	Permit by Rule ³				Permit By Rule		
			OC) 100YMSC Value Fill		Direct Contact (RDC) 100		Fill Soil Exceeding			Soil Exceeding Safe Fill or Impacted by Spill/Release: Section			
		Soil M	SC^2			287.102(l)	287.102(k)			Block, Concre Section 271.103			
REGULATED SUBSTANCES Metals including Chlorides	CASRN	mg/l	kg	mg/kg	mg/kg	Higher of 100xMSC or GV	RDC⁴ m	g/kg	GWMSC	⁵ mg/L	Lower of RGV or RDC mg/kg	mg/L ⁸	
TIN	7440-31-5	130000	G	2200	240	2200.0	130000	G	22	G	240	22	
VANADIUM	7440-62-2	1500	G	26	26000	26000.0	1500	G	0.26	G	1500	0.26	
ZINC ⁶	7440-66-6	66000	G	200	12000	7500.0	7500	G	2	Н	12000	2	
1 Statewide health standards													

¹ Statewide health standards

SMCL—Secondary Maximum Contaminant Level

G-Ingestion; N - Inhalation;

C—Cap

E-Number calculated by the soil to groundwater equation in 25 Pa. Code Section 250.308

H—Lifetime Health Advisory Level

M-Maximum Contaminant Level

[Pa.B. Doc. No. 02-172. Filed for public inspection February 1, 2002, 9:00 a.m.]

² Medium specific concentration as defined in Section 250.1 of Act 2 regulations

³ Soil must meet both the RDC and GWMSC numeric standards under this permit by rule

⁴ Residential direct contact numeric standards as listed in Tables 3A of Chapter 250, Appendix A, to be met for soil exceeding safe fill stds. or for soil impacted by spill/release.

⁵ Groundwater MSC - by SPLP analysis

⁶ Due to the plant toxicity of copper and zinc, numeric values under PBRs are based on the 40 CFR Part 503 regulations

⁷ Chlorides are required for dredged material from tidal basins only

⁸ GWMSC by SPLP if placement into or along waterways as part of an active or abandoned mine or abandoned quarry reclamation and where groundwater monitoring is being conducted.

INSURANCE DEPARTMENT

[31 PA. CODE CH. 115] Public Adjuster Contracts and Licensing

The Insurance Department (Department) proposes to amend Chapter 115 (relating to publice adjuster contracts and licensing rquirements) to read as set forth in Annex A. This proposal is under the general rulemaking authority of sections 206, 506, 1501 and 1502 of The Administrative Code of 1929 (71 P. S. §§ 66, 186, 411 and 412) and under the specific statutory authority of sections 1—8 of the act of December 20, 1983 (P. L. 260, No. 72) (63 P. S. §§ 1601—1608) (act).

Purpose

Chapter 115 was promulgated in 1980 under the authority of a prior statute. The current authorizing statute, the act, was enacted in 1983. The Department seeks to amend Chapter 115 for consistency with the current statute and to more effectively regulate the licensing and conduct of public adjusters and public adjuster solicitors.

Explanation of Regulatory Changes

Section 115.1 (relating to definitions) is being amended to delete the definition of "business day." The term has been recommended for deletion from all Department regulations and is being replaced with "calendar day." In addition, the term "public adjuster" has been recommended for deletion as it is already defined in the statute. The term "execution date" has been added to clarify the date a document is signed. The terms "active officer" and "active partner" have been added to clarify which individuals must be licensed to obtain an agency license.

Section 115.2 (relating to contents of public adjuster contracts, minimum standards), as proposed, would reduce the cancellation notice currently in use, from a two-page document to a more concise, detachable form located at the bottom of the contract. Type size requirements and gender references have been deleted in the interest of uniformity with other Department regulations.

Section 115.3 (relating to additional procedures) clarifies the insured's right to cancel the contract, removes the reference to and required use of the formal name "Notice of Right to Cancel."

Sections 115.5—115.7 (relating to misrepresentation; other remedies; and penalties) are being proposed for deletion. The provisions of these sections are clearly and more effectively stated in the act and their inclusion in the regulation in no way enhances the statute.

Section 115.8 (relating to effective date and revision, filing and approval of existing contracts) is being retitled to reflect the elimination of references to prior effective dates. In addition, the appropriate address, within the Department, where applications and contracts are to be sent for the approval has been indicated.

Sections 115.11—115.22 (relating to licensing requirements) are being added to formalize the Department's policy with respect to the licensing of public adjusters and public adjuster solicitors, consistent with regulations pertaining to other types of licensees. Section 115.11—115.16 specifically relate to examinations for public adjuster and public adjuster solicitor licenses and include the standards which the Department intends to apply in contracting with an outside vendor for testing services. Sections 115.17—115.22 set forth procedures and requirements

relating to applications for new and renewal licenses for individuals, partnerships or corporations.

External Comments

In drafting this updated proposal, the Department requested comments from the Insurance Federation of Pennsylvania, the Pennsylvania Public Adjuster Association and the Pennsylvania Association of Mutual Insurance Companies. The comments received in response to the Department's request were considered and, where appropriate, consolidated in the development of this proposed rulemaking.

Fiscal Impact

These proposed amendments are anticipated to have no measurable impact on costs associated with the Department's licensing of public adjusters or its review of public adjuster contracts. These proposed amendments should impose no additional costs on public adjusters or insurers. These proposed amendments should have no impact on costs to political subdivisions or the general public. The general public will benefit to the extent that adoption of these proposed amendments will enhance the clarity of public adjuster contracts, which is one of the goals of the amendments.

Paperwork

The proposed amendments will impose no additional paperwork requirements on the Department, public adjusters, insurers or the general public.

Persons Regulated

The proposed amendments apply to all public adjusters and public adjuster solicitors licensed, or seeking licensure, to do business in this Commonwealth.

Contact Person

Questions or comments regarding these proposed amendments may be addressed in writing to Peter J. Salvatore, Regulatory Coordinator, Insurance Department, 1326 Strawberry Square, Harrisburg, PA 17120, within 30 days following the publication of this notice in the *Pennsylvania Bulletin*. Questions and comments may also be e-mailed to psalvatore@state.pa.us or faxed to (717) 772-1969.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on January 23, 2002, the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the Senate Banking and Insurance Committee and the House Insurance Committee. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed Regulatory Analysis Form prepared by the Department in compliance with Executive Order 1996-1, "Regulatory Review and Promulgation." A copy of that material is available to the public upon request.

If IRRC has objections to any portion of the proposed amendments, it will notify the Department within 10 days after the close of the Committees' review period. The notification shall specify the regulatory review criteria that have not been met by that portion. The Regulatory Review Act specifies detailed procedures for the Department, the Governor and the General Assembly to review these objections before final-form publication of the regulations.

M. DIANE KOKEN, Insurance Commissioner **Fiscal Note:** 11-146. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 31. INSURANCE

PART VII. PROPERTY, FIRE AND CASUALTY INSURANCE

CHAPTER 115. PUBLIC ADJUSTER CONTRACTS AND LICENSING REQUIREMENTS

GENERAL

§ 115.1. Definitions.

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

Act—The act of [April 25, 1921 (P. L. 276, No. 136) (40 P. S. §§ 301—308) (Repealed)] December 20, 1983 (P. L. 260, No. 72) (63 P. S. §§ 1601—1608).

Active officer—A person who holds a current public adjuster license and is designated by the corporation as an officer of record for the public adjuster agency license.

Active partner—A person who holds a current public adjuster license and is designated by the partnership as a partner of record for the public adjuster agency license.

[Business day—A day other than a Saturday, Sunday or Holiday.]

Commission—The Insurance Commissioner of the Commonwealth.

Execution date—The date that a public adjuster contract has been signed by all parties.

* * * * *

[Public adjuster—A person, partnership, association, corporation or other legal entity licensed as a public adjuster or public adjuster solicitor under the act.]

Resident—A person whose business address or legal residence is located in this Commonwealth. § 115.2. Contents of public adjuster contracts, minimum standards.

- (a) All public adjuster contracts shall contain, at a minimum, the following [minimum] information:
- (1) The title of the contract **to read**: Public Adjuster
- (2) **[Business] The name, business** name, address and **[phone] telephone** number of the public adjuster.
 - (3) **Name The name** and address of **the** insured.
- (4) The consideration[,] expressed as a percentage of any payments to be received on the negotiated claim, and as a maximum dollar amount.
- (5) [Date of execution (day, month, year)] A space provided for the execution date (month, day, year) of the contract.
- (6) [Signature] A space provided for the signature of the insured and the public adjuster.
- (7) [The following Right to Cancel language in bold face type of a minimum size of ten points,] A

provision setting forth the insured's right to cancel, which shall be printed in prominent type on the first page of the public adjuster contract in substantially the following form:

[You, the insured may cancel this contract at any time prior to midnight of the third business day after the date of this contract. If you exercise your right to cancel this contract you will remain liable for reasonable and necessary emergency out-of-pocket expenses or services which were paid for or incurred by the public adjuster during the said three-day period to protect the interests of the insured. See the attached notice of right to cancel form for an explanation of this right.

(8) The following completed form, in duplicate captioned "Notice of Right to Cancel" which shall be attached to and made a part of the contract, and shall be easily detachable, shall contain in ten-point bold face type the following information in substantially the following form:

Notice of Right to Cance.	<i>1</i>
8	(Entan Data of Contrac

(Enter Date of Contract)

You may cancel this contract, without penalty or obligation, within three business days from the above date. If you exercise your right to cancel this contract you will remain liable for reasonable and necessary emergency out-of-pocket expenses or services which were paid for or incurred by the public adjuster during the said three-day period to protect the interests of the insured.

If you cancel, anything of value given by you under the contract will be returned within ten business days following the receipt by the Public Adjuster of your cancellation notice, and any security interest arising out of the contract will be cancelled.

To cancel this contract, mail or deliver a signed and dated copy of this notice or any other written notice, or telegram indicating cancellation and date thereof to (name of public adjuster) at (business address of public adjuster) not later than midnight of (date)).

I hereby cancel this contract.

J	
(Date)	
(Insured's signature)]	

Notice of Right to Cancel

You, the insured, may cancel this contract at any time prior to midnight of the fourth calendar day after the execution date of this contract. If you exercise your right to cancel this contract, you will be liable for reasonable and necessary emergency out-of-pocket expenses or services which were paid for or incurred by the public adjuster to protect the interests of the insured during the period preceding cancellation.

If you cancel this contract, anything of value given by you under the contract will be returned to you within 15 calendar days following the receipt

by the public adjuster of your cancellation notice, and any security interest arising out of the contract will be cancelled.

To cancel this contract, mail, fax or deliver in person a signed and dated copy of this notice or any other written notice, indicating your intent to cancel and the date thereof to (name of public adjuster) at (business address of public adjuster) not later than midnight of (date).

I hereby cancel this contract.

(Date)		

(Insured's signature)

- (b) A public adjuster contract may not contain any contract term that:
- (1) Allows the public adjuster's fee to be collected when money is due from an insurance company, but not paid, or that allows a public adjuster to collect the entire fee from the first check issued by an insurance company, rather than as percentage of each check issued by an insurance company.
- (2) Requires the insured to authorize an insurance company to issue a check only in the name of the public adjuster.
- (3) Imposes unreasonable late fees or collection costs on the insured.
- § 115.3. Additional procedures.
 - (a) Each insured shall be **[orally]:**
- (1) Verbally informed by the public adjuster at the time [he signs] of signing the contract of [his] the right to cancel.
- (2) Furnished with a copy of the executed public adjuster contract.
- (b) Before furnishing [copies of the "Notice of Right to Cancel" to the insured, both copies] the approved notice to the insured setting forth the insured's right to cancel the contract, the notice shall be completed by entering the name of the public adjuster; the address of the public adjuster's place of business; the execution date of the contract; and the date, not earlier than the [third business] fourth calendar day following the execution date of the contract, by which the insured may give notice of cancellation.
- (c) The cancellation period provided for in this chapter may not begin [to run] until the insured has been informed of [his] the insured's right to cancel and has been provided with [copies of the "Notice of Right to Cancel"] the approved notice setting forth the insured's right to cancel.
- (d) Within **[10 business] 15 calendar** days after the receipt of the cancellation notice, the public adjuster shall:
- (3) Take action necessary or appropriate to **promptly** terminate **[promptly]** any security interest created **[in] under** the contract.

- (e) [No] A contract [shall] may not be negotiated, transferred, sold or assigned by the public adjuster to a finance company or other third party prior to midnight of the fifth [business] calendar day following the execution date of the contract [was signed].
- (f) If an insured exercises [his] the insured's right to cancel the contract, [he] the insured shall [remain] be liable for reasonable and necessary emergency out-of-pocket expenses or services which were paid for or incurred by the public adjuster during the [3-day] period preceding cancellation [to protect the interests of the insured].
- § 115.5. [Misrepresentation] (Reserved).

[A misrepresentation of the right to cancel shall be deemed prima facie evidence of lack of competence and trustworthiness to transact business as a public adjuster and public adjuster solicitor.]

§ 115.6. [Other remedies] (Reserved).

[The provisions of this chapter may not impair other rights or remedies of insureds with respect to public adjuster contracts.]

§ 115.7. [Penalties] (Reserved).

[A violation of the provisions of this chapter will be subject to penalties set forth in section 6 of the act (40 P. S. § 306).]

§ 115.8. [Effective date and revision, filing and approval of existing contracts] Filing and approval of contracts.

[This chapter shall take effect August 15, 1980. Between May 17, 1980 and August 14, 1980 existing contracts shall be submitted to Mary Ellen Shope, Chief; Division of Agents and Brokers; Insurance Department; 14th Floor, Strawberry Square; Harrisburg, Pennsylvania 17120 for filing, revision and approval in accordance with this chapter.] Applications for licensure and contract forms shall be submitted to the Pennsylvania Insurance Department, Bureau of Producer Services, for filing and approval by the Commissioner.

LICENSING REQUIREMENTS

§ 115.11. Examination requirement.

Applicants for public adjuster and public adjuster solicitor licenses shall be required to successfully complete an examination, except as provided for in subsections (b) and (c). Applicants seeking a license shall apply for examination directly to the testing facility.

§ 115.12. Waiver of examination for resident applicants.

A resident applicant who has voluntarily terminated or allowed to lapse a public adjuster or public adjuster solicitor license within 2 years of reapplying for licensure shall be exempt from taking the written examination provided for in subsection (a), if the applicant reapplies for the same type of license for which the applicant was previously licensed.

§ 115.13. Examination requirements for nonresident applicants.

A nonresident applicant for a license shall:

- (1) Submit, along with the application, a letter or other official document from the regulatory authority of the jurisdiction where the applicant holds a license, confirming the applicant's licensure in good standing for the same type of license for which application is being made with the Department, whether qualification is under a written examination or whether licensure preceded the requirement of a written examination.
- (2) Be subject to reciprocal agreements between the Department and the regulatory authority of the confirming jurisdiction.
- (3) Be required to pass the appropriate examination if unable to produce documentation from the confirming regulatory authority which is satisfactory to the Department.

§ 115.14. Qualifications for examination.

An individual, or officer of a corporation, partner in a partnership or member of an association, who is 18 years or age or older, who can read and write in the English language and who maintains a bona fide business office or legal residence in this Commonwealth, may take a public adjuster/public adjuster solicitor examination upon payment of the applicable fee and submission of an application form.

§ 115.15. Administration of examination.

The Commissioner may delegate to a person or corporation, by contract, the authority for administering and scoring examinations. An eligible delegee shall guarantee to adhere to the following standards:

- (1) Examinations shall be offered at regular intervals at least 12 times each year.
- (2) Testing may be conducted in locations throughout this Commonwealth and other designated locations.
- (3) Test security shall be strictly maintained, and a set of security rules shall be developed by the testing facility, which shall be approved by the Commissioner.
- (4) Bias or favoritism towards an applicant will not be permitted by the testing facility.
- (5) The testing facility shall develop a comprehensive brochure describing, at a minimum, applicable fees, the nature of examination questions and providing sample questions. The brochure shall be distributed to an applicant at the time of registration for examination or, upon request, at any other reasonable time.

§ 115.16. Scope of examination.

Examinations shall be designed by the testing facility to test the adequacy of an applicant's knowledge of general principles of insurance, insurance laws of the Commonwealth and the business of adjusting losses.

§ 115.17. General application requirements.

Applicants for a license shall follow the procedures:

(1) An individual shall be required to take a written examination unless the requirement is waived under §§ 115.12 and 115.13 (relating to ex-

- amination requirements; and waiver of examination for resident applicants).
- (2) An active officer of a corporation, active partner in a partnership or member of an association shall be required to take a written examination unless the requirement is waived under §§ 115.12 and 115.13 or unless the active officer, active partner or member is a currently licensed public adjuster.
- (3) Persons who have passed the examination may apply to the Department for a license. The applicant shall attach a certification from the testing facility attesting that the applicant passed the examination. The certification from the testing facility is not required if the testing facility reports test scores directly to the Department.
- (4) Test scores and results shall remain valid for 1 year from the date of the examination. Applications received with test results in excess of 1 year shall be denied.
- § 115.18. Completion of application and renewal application forms.

Public adjusters and public adjuster solicitors shall complete application and renewal forms fully and accurately, and shall submit the required fees. Those applications and renewal forms submitted to the Department which are not complete and accurate or accompanied by required fees, will be returned for correction together with written notice of the reason for the return of the applications or renewal forms.

- § 115.19. Application procedures for individual persons.
- (a) An individual shall complete the application for an initial license. Accompanying the application shall be:
 - (1) The appropriate application fee.
 - (2) A bond as required by statute.
- (3) A receipt from the surety stating that the premium has been paid in full on the bond.
- (4) A copy of the contract to be used in this Commonwealth.
- (b) An applicant for a public adjuster solicitor license shall also obtain and present with the application a letter of intent from a licensed public adjuster to employ the applicant as a public adjuster solicitor.
- (c) Applications shall be subscribed and sworn to before a notary public.
- (d) Applications executed more than 3 months prior to the date of filing with the Department will not be accepted.
- (e) Making a false statement in an application may constitute a ground for license denial or revocation.
- (f) Initial licenses will be valid as of the date issued by the Department until the expiration date stated on the license, unless earlier revoked by the Commissioner.
- (g) Before a license is granted, the applicant shall first answer and submit, in writing and under oath, interrogatories on forms prepared by the Department

(h) When the Commissioner is satisfied that the applicant is worthy of a license, and that the applicant has passed the examination or qualified for a waiver, and has paid any appropriate fees, the Commissioner will issue a license stating that the licensee has been authorized by the Department to transact business as a public adjuster or public adjuster solicitor within this Commonwealth.

§ 115.20. Denial of application.

The applicant may be denied a license for any of the following reasons. The applicant:

- (1) Has provided incorrect, misleading or incomplete answers to interrogatories on forms incidental to applying for a license.
- (2) Has been denied a license or has had an existing license revoked, suspended or not renewed by the Department or a regulatory authority in another state, territory or possession of the United States, or in the District of Columbia, or the Canadian provinces.
- (3) Does not possess the professional competence and trustworthiness required to engage in the business of being a public adjuster or public adjuster solicitor.
- (4) Has pleaded guilty, entered a plea of nolo contendere or has been found guilty of a felony in a court of competent jurisdiction, or has pleaded guilty, entered a plea of nolo contendere, or been found guilty of criminal conduct which relates to the applicant's suitability to engage in the business of being a public adjuster or public adjuster solicitor.
- (i) Examples of criminal violations which the Department may consider related to the applicant's suitability to engage in the business of being a public adjuster or public adjuster solicitor including unlawful practices as set forth in sections 6(a)(1)—(3), (5)—(7) and (12) of the act (63 P. S. § 1606(a)(1)—(3), (5)—(7) and (12)), embezzlement, obtaining money under false pretenses, conspiracy to defraud, bribery or corrupt influence, perjury or false swearing, unlicensed activity or a criminal offense involving moral turpitude or harm to another.
- (ii) Examples of violations or incidents which the Department will not consider related to the applicant's suitability to engage in the business of being a public adjuster or public adjuster solicitor are all summary offenses, records of arrests if there is no conviction or a crime based on the arrest, convictions which have been annulled or expunged or convictions for which the applicant has received a pardon from the Governor.
- (5) Fails to comply with the insurance-related provisions in sections 320 and 603(a) of the Violent Crime Control and Law Enforcement Act of 1994 (18 U.S.C.A. §§ 1033 and 1034), if applicable.
- (6) Has unpaid and overdue amounts, including, fees and civil penalties, owing to the Department.
- § 115.21. Partnership or corporation application procedures.

Procedures for partnerships or corporations are as follows:

(1) Partnerships or corporations shall apply for licensure using the appropriate licensing applica-

tion form. The form shall be signed in the name of the partnership or corporation by each active partner or active officer, and be accompanied by the appropriate licensing application form for each active partner or active officer who is not currently licensed. Accompanying the licensing application shall be:

- (i) The appropriate application fee.
- (ii) A bond as required by statute.
- (iii) A receipt from the surety stating the premium has been paid in full on the bond.
- (iv) A copy of the contract to be used in this Commonwealth.
- (v) A copy of the articles of incorporation as filed with the Department of State, Corporation Bureau.
- (vi) A copy of the public adjuster license of each active partner or active officer, if applicable.
- (2) Employees of partnerships and corporations who apply for a license shall apply in their individual capacity.
- (3) The worthiness of a partnership or corporation is determined by the worthiness of the active partner or the active officer.
- (4) The application shall be subscribed and sworn to before a notary public.
- (5) Applications executed more than 3 months prior to the date of filing with the Department will not be accepted.
- (6) Making a false statement in an application may constitute a ground for license denial or revocation.
- (7) Initial licenses will be valid as of the date issued by the Department until the expiration date stated on the license, unless earlier revoked by the Commissioner.
- (8) Before a license is granted, the applicant shall first answer and submit, in writing and under oath, interrogatories on forms prepared by the Department. When the Commissioner is satisfied that the applicant is worthy of a license and has paid any appropriate fees, the Commissioner will issue a license stating that the licensee has been authorized by the Department to transact business as a public adjuster or public adjuster solicitor within this Commonwealth.

§ 115.22. Renewal of license.

License renewal procedures are as follows:

- (1) Mailing of a license renewal form to the last known address of the licensee will satisfy the Department's obligation to provide the appropriate forms and notices.
- (2) A license can be renewed only upon submission of a completed renewal form, payment of the required fees and a receipt from a surety stating the premium on the bond, as required, has been paid in full.
- (3) Licenses shall be renewed annually on the anniversary of the effective date of the initial license.
- (4) Corporations shall provide to the Department the names of each active officer with the renewal form to be eligible for license renewal. Partner-

ships shall provide to the Department the names of each active partner with the renewal form to be eligible for license renewal.

(5) Failure to complete and submit the renewal form and required fee by the expiration date shall be deemed voluntary termination by the public adjuster or public adjuster solicitor. Failure to correct and resubmit application renewal forms returned by the Department under this section, prior to the expiration date of the license, or within 15 days of the date the forms were mailed by the Department, whichever is greater, will be deemed

voluntary termination by the public adjuster or public adjuster solicitor. Renewal forms received by the Department after expiration will be denied; except that renewal forms returned by the Department under this section and resubmitted as instructed by the Department after expiration but within 15 days of the date the incomplete forms were mailed by the Department to the applicant will be accepted.

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