

PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 89]

Mine Subsidence Control, Subsidence Damage Repair and Water Supply Replacement

The Environmental Quality Board (Board) proposes to amend Chapter 89 (relating to the underground mining of coal and coal preparation facilities). The proposed amendments pertain to the control and repair of mine subsidence damage and the replacement of water supplies affected by underground bituminous coal mines.

A. Effective Date

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

B. Contact Persons

For further information contact Evan T. Shuster, Chief, Division of Monitoring and Compliance, Bureau of Mining and Reclamation, P. O. Box 8461, Rachel Carson State Office Building, Harrisburg, PA 17105-8461, or Joe Pizarchik, Assistant Counsel, Bureau of Regulatory Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464. Information regarding submitting comments on this proposal appears in Section J 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 of Environmental Protection's (Department's) Web site (<http://www.dep.state.pa.us>).

C. Statutory Authority

The amendments are proposed under the authority of The Bituminous Mine Subsidence and Land Conservation Act (BMSLCA) (52 P. S. §§ 1406.1—1406.21).

D. Background and Purpose

This rulemaking proposal is driven by recent changes in Commonwealth law and recent changes in Federal law which affect State primacy. These changes concern mine subsidence control, mine subsidence damage repair and compensation, and water supply replacement at underground bituminous coal mines. Key events affecting this rulemaking are as follows:

—On October 24, 1992, the United States Congress passed the National Energy Policy Act which amended the Federal Surface Mining Control and Reclamation Act. These amendments imposed on underground mine operators new duties to repair or compensate for subsidence damage to certain structures and to replace certain water supplies impacted by underground coal mining.

—On June 20, 1994, the Pennsylvania General Assembly passed the act of June 22, 1994 (P. L. 357, No. 54) (Act 54) amending the BMSLCA. These amendments became effective on August 21, 1994. The amendments imposed on underground bituminous coal mine operators new duties to replace water supplies affected by underground coal mining; repair or compensate for subsidence damage to a wide range of structures; avoid causing irreparable damage to certain structures; and prevent imminent hazards to human safety. The amendments,

among other things, also repealed existing prohibitions on subsidence damage to certain structures and the right of a surface owner to purchase coal support.

—On March 31, 1995, the United States Department of the Interior, Office of Surface Mining Control and Reclamation Enforcement (OSM) promulgated final rules to implement the provisions of the National Energy Policy Act. The rules expanded on the basic statutory provisions by imposing informational requirements and supplementary performance standards which the OSM viewed as necessary to ensure that the intent of the act would be fulfilled.

—On April 10, 1995, the OSM published a notice in the *Federal Register* soliciting comments regarding the manner in which the March 31, 1995, Federal regulations should be enforced in this Commonwealth.

—On July 28, 1995, the OSM published public notice of its determination on the manner in which the March 31, 1995, Federal regulations would be enforced in this Commonwealth. The OSM decided to pursue joint enforcement in which the Department would enforce the provisions of Act 54 and the OSM would enforce the provisions of the Federal regulations that are beyond the scope of Act 54.

—OSM's notice also stated that Pennsylvania would be submitting a primacy program amendment to address the changes to the Commonwealth's program that resulted from the passage of Act 54.

—On February 6, 1996, Governor Ridge signed Executive Order 1996-1. The order establishes standards for Commonwealth regulations, as follows:

- Regulations shall address a compelling public interest.
- Costs of regulations shall not outweigh their benefits.
- Regulations shall be written in clear, concise and, when possible, nontechnical language.
- Regulations shall address definable public health, safety or environmental risks.
- Where Federal regulations exist, Pennsylvania's regulations may not exceed Federal standards unless justified by a compelling and articulable Pennsylvania interest or required by State law.
- Compliance shall be the goal of all regulations.
- Where viable nonregulatory alternatives exist, they shall be preferred over regulations.
- Regulations shall be drafted and promulgated with early and meaningful input from the regulated community.
- Regulations may not hamper the Commonwealth's ability to compete effectively with other states.

This rulemaking proposal is intended to fulfill three objectives. One objective is to bring Department regulations regarding mine subsidence control, mine subsidence damage repair and water supply replacement into conformance with Pennsylvania law. Another objective is to ensure that this same subset of regulations meets requirements necessary to fulfill the Commonwealth's primacy requirements under the OSM regulations. The third objective is to ensure that the regulations revised during this rulemaking conform to Executive Order 1996-1.

Certain revisions in this rulemaking are necessary because of two Environmental Hearing Board (EHB) decisions which may have significant detrimental effects on this Commonwealth's underground bituminous coal mining industry. The decisions were issued in the case *P.U.S.H. et al. v. DEP et al.*, EHB Docket No. 95-232-R (Consolidated) (Two Opinions and Orders issued on November 27, 1996, and one Opinion and Order issued on December 23, 1996).

In a November 27 decision, the EHB found, among other things, that the amended BMSLCA contained authority for portions of the underground mining regulations that were put into place to prevent subsidence damage to dwellings, cemeteries, municipal public service operations and municipal utilities in place on April 27, 1966, *P.U.S.H. et al. v. DEP et al.*, EHB Docket No. 95-232-R (Consolidated) (Opinion and Order on Eighty-Four Mining Company's Motion for Partial Judgment against People United to Save Homes issued November 27, 1996), pp 25-29. Prior to this decision, the Department believed that the Legislature, through the Act 54 amendment to BMSLCA, specifically repealed the absolute protection and enacted a requirement to repair any subsidence damage caused to these structures. Consequently, in the Department's view, Act 54 invalidated Department regulations that protected these structures from experiencing any subsidence damage. The Department prepared an expedited rulemaking package to delete the subsidence damage prevention requirements which were based on repealed section 4 of BMSLCA (52 P. S. § 1406.4). These deletions are also reflected in this proposed rulemaking package.

In a second November 27 decision, the EHB determined that the Department had not complied with its own regulations to ensure adequate protection of utility lines and service. Specifically, the EHB found that a mine operator's mere notice to utility companies of future mining beneath utility pipelines is inadequate to comply with the Department's regulation, and to ensure protection of the lives and property of citizens as required by the BMSLCA, *P.U.S.H. et al. v. DEP et al.*, EHB Docket No. 95-232-R (Consolidated) (Opinion and Order on Motions for Summary Judgment issued November 27, 1996) pp. 5-13. The EHB's December 23, 1996, denial of the Department's and Eighty-Four Mining Company's Petition for Reconsideration emphasized that "the Department's regulations require Eighty-Four Mining Company to set forth in its subsidence plans exactly what mitigation measures it will employ in the mine," *P.U.S.H. et al. v. DEP et al.*, EHB Docket No. 95-232-R (Consolidated) (Opinion and Order issued on December 23, 1996), p.2 (citing *P.U.S.H. et al. v. DEP et al.*, EHB Doc. No. 95-232-R (Consolidated) (Opinion Motions for Summary Judgment, issued November 27, 1996), pp. 5-7. Although the EHB's decision can be interpreted as just requiring more than notice, to the extent that it directs in-mine measures in all cases, it unduly restricts the flexibility needed to address issues concerning utility services.

The Board believes that operators should be granted a certain amount of flexibility in deciding on the measures that will be taken to minimize damage or destruction of utility lines or disruptions in utility service. The Board believes that the primary objective of utility protection is minimizing disruption in service, which can be accomplished by various means, including, but not limited to, minimizing damage or destruction of utility lines. Unduly restricting utility protection to in-mine measures precludes the use of other protection options such as preparing pipelines to withstand subsidence; providing tempo-

rary water or energy service during subsidence; or demonstrating that pipelines are capable of withstanding the effects of subsidence. The Board does, however, share the EHB's opinion that a mine operator must do more than merely notify a utility operator that its lines are about to be undermined. The Board is therefore proposing amendments which will accomplish the objective of providing flexibility in addressing issues concerning utility services.

E. Input from Advance Notice of Proposed Rulemaking

In view of the number of people and organizations potentially affected by this rulemaking, the Department has taken several steps to solicit public input in the scope and content of the proposed amendments. The first step was a March 1996 meeting involving 12 representatives from the coal industry, farming community, citizens groups and the OSM. The purpose of the meeting was to discuss major issues and compare Act 54 provisions with those of Federal counterpart regulations.

Subsequently, the Department prepared a set of draft regulations which it made available for public comment through an advance notice of proposed rulemaking (ANPR). Under the ANPR the availability of draft proposed rules was published at 26 Pa.B. 4693 (September 28, 1996) and comments were received until October 28, 1996.

Thirteen sets of comments were received in response to the ANPR. Comments were submitted by mining interests, agricultural interests, public water suppliers, gas utilities, citizens groups and private individuals. In total, over 175 individual comments were submitted. The comments addressed every section of the proposed amendments as well as some sections of the current regulations which were not intended for revision.

Commentators offered 85 recommendations for specific changes to the draft regulations which were distributed during the ANPR. Many of these recommendations were adopted in preparing the proposed amendments in Annex A. The most significant change was a restructuring of the proposed amendments which was done for purposes of clarification.

Three commentators recommended changes to the ANPR definition of "irreparable damage." One commentator recommended defining the term to include only damage which cannot be repaired. Another commentator recommended defining the term using a cost threshold set at 75% of the replacement cost. The second commentator also recommended that the definition include the concept that damaged components must be restored with the same type of materials and workmanship. The third commentator requested that the definition include the term to include damage to public water mains and facilities. In reviewing these recommendations, the Board found that defining the term as damage which cannot be repaired does little to clarify the meaning of the term or promote its consistent application. The Board also believed that using a repair cost threshold set at 75% of the replacement cost would be difficult to justify. The Board also noted that the term irreparable damage as used in the BMSLCA applies to dwellings and agricultural structures and not to water mains and facilities. The Board did, however, recognize the merit of considering structural components which would be difficult to replace and added a subpart to the ANPR definition to reflect this consideration.

Four commentators recommended changes to the ANPR definition of "material damage." Two commentators rec-

ommended adding language specifying that the damage must be significant and permanent in nature. Another commentator noted that the definition was similar to the Federal definition, but the ANPR definition was missing some of the language of the Federal definition. The fourth commentator felt that the definition should be worded to apply to public water mains and facilities. After reviewing these recommendations, the Board made only those changes needed to conform the proposed definition to the Federal regulations since the Board believes that the Federal definition adequately defines the term.

Four commentators recommended changes to the ANPR definition of "permanently affixed appurtenant structures and improvements." Several commentators recommended adding additional items and qualifications to the list of structures and facilities given as examples. One commentator noted that the term "improvements" is only used in association with dwellings, while the term "permanently affixed appurtenant structures" is used in association with dwellings and buildings which are accessible to the public. After considering these recommendations, the Board has retitled the term "permanently affixed appurtenant structures" so that it can be applied in conjunction with both dwellings and buildings which are accessible to the public. The Board has also made changes to the text of the definition for purposes of clarification and added "inground swimming pools" to the list of examples.

Two commentators recommended changes to the ANPR definition of "public water supply system." One commentator recommended deleting the second clause of the definition which includes systems serving public buildings, churches, schools, hospitals and nursing homes. Another commentator recommended expanding the definition to include systems serving hunting camps and resorts. The Board decided to move forward with the ANPR definition because it believes that all systems covered by the definition are justifiably classified as public water supply systems under the BMSLCA. The Board did not add systems serving hunting camps and resorts to the definition because it believes that these systems were not intended to receive the special protection provided by section 9.1 of the BMSLCA (52 P. S. § 1406.9a). The Board also noted that water supplies serving hunting camps and resorts are covered by the water supply replacement provisions under section 5.1 of the BMSLCA (52 P. S. § 1406.5a).

One commentator recommended changes to the ANPR definition of "rebuttable presumption area." The commentator recommended that the definition include the 3-year limit on operator liability provided by the BMSLCA. The commentator also recommended that the rebuttable presumption should only apply to mining which results in subsidence. The Board rejected the first recommendation because the purpose of defining the term is to identify an area and not to reach a conclusion regarding liability. The Board also rejected the second recommendation, because Department records and published literature document that water supply impacts can occur in the absence of mine subsidence.

Three commentators offered recommendations regarding the ANPR definition of "water supply." One commentator recommended that the term not be defined in the regulations since it was already defined in the BMSLCA. Two commentators recommended that the Board modify the term to include water delivery systems like the Federal counterpart regulations. The Board has retained the ANPR definition as part of the proposed rulemaking because it believes that the definition contributes to the

clarity of the regulations. Since the term is specifically defined in the BMSLCA, the Board has made no attempt to modify the definition to include water delivery systems. The Board does, however, believe that the piping needed to connect a replacement well or spring to a dwelling, agricultural building or other point of service would be covered within the general requirement to replace a water supply. In § 89.145(f)(4) (relating to water supply replacement; performance standards) the Board has clarified the operator's obligation to include a water delivery system as a part of a water supply replacement.

Several comments were received in response to the ANPR regulations on hydrologic data collection. One commentator recommended that only water supplies which are known should be required to be listed in the groundwater inventory. Another commentator recommended that data collection include at least 1 full year of sampling. In further considering hydrologic data collection requirements, the Board decided to restore the current language of § 89.34 (relating to hydrology) except for the addition of the requirement to obtain ownership information. The groundwater inventory in § 89.34 has historically been developed through a representative sampling of water supplies above and adjacent to a mine. The Board sees no reason to significantly expand this requirement given that all water supplies will eventually be sampled through premining survey requirements.

Two commentators recommended changes to the ANPR regulations on prediction of hydrologic consequences. One commentator recommended changing the current text to require verification of all hydrologic models. Another recommended modifying the existing test to require the use of site specific data and to eliminate the optional use of statistically representative data. No changes were made in response to these comments, since there is no evidence that current requirements are resulting in inaccurate predictions. Furthermore, these requirements track the Federal requirements in 30 CFR 784.14 (relating to hydrologic information).

Numerous comments were received in response to the ANPR regulations on premining water supply survey requirements. Several comments concerned the timing of surveys and the submission of survey results. Two commentators offered recommendations concerning analytical parameters and measurements which should be included in surveys. One commentator was concerned that the language of the ANPR regulations could relieve an operator of the duty to perform a survey based on the operator's opinion that the supply would not be affected. Two commentators also expressed concern that the regulations may be interpreted to limit survey requirements to those supplies which lie within the 35° rebuttable presumption area. After considering these recommendations, the Board modified the ANPR regulations on premining water supply surveys. Under the new proposal, all water supplies must be sampled prior to mining within a predetermined area in which the water supplies may be impacted. Survey results must be submitted to the Department and the landowner within 30 days as required by the BMSLCA. Information gathering requirements have been modified so that the proposed regulations are modeled after those used in the Department's surface mining program. In addition, hardness and total coliform have been added to the list of water quality sampling parameters.

Three commentators recommended changes to the ANPR regulations on premining structure surveys. One commentator recommended allowing structure surveys to

be conducted up to 1 month before the structure is undermined. Another commentator recommended that the requirement to conduct surveys should only apply in areas where subsidence is planned. Two commentators expressed concern about the handling of survey results which may include pictures or videos showing the contents of dwellings. After considering these recommendations, the Board revised the proposed amendments. The proposed amendments provide for surveys to be conducted nearer to the time of mining but uses distance criteria rather than time-based criteria to determine when surveys must be conducted. Surveys are required for all structures which fall within a 30° angle of draw of proposed mining to ensure that survey results are available in the event of either planned or unplanned subsidence. The proposed amendments also protect homeowner privacy by limiting the availability to the general public of structure survey results.

Numerous comments were received in response to the ANPR regulations on subsidence control plans. The proposed amendments have been substantially revised as a result. One of the more significant changes was the relocation of many requirements associated with water supply replacement to other sections of the regulations.

Several comments were received in response to the ANPR regulations on areas where underground mining is restricted. One commentator requested that the Department reinstate cemeteries on the list of features to which material damage must be prevented. One commentator recommended that the Department modify the standard for damage prevention so that operators could extract more than 50% of the coal. The commentator also recommended that the Department modify the regulations to allow owners of protected structures and features to waive the protection against material damage that is required by the BMSLCA. One commentator noted that the ANPR regulations included a paragraph which redefined the term "material damage." In response to these comments, the Board has deleted the paragraph which redefined material damage. The Board decided to retain the language specifying 50% coal support as the standard for preventing material damage due to difficulties inherent in forecasting the level of damage a structure may experience. The Board has chosen to refrain from reinstating cemeteries to the list of protected features since the protection afforded to cemeteries was specifically repealed by the Act 54 amendments. Pending further comment, the Board is proposing no specific language regarding the waiver of protection.

Two commentators recommended changes to the ANPR regulations on minimizing material and irreparable damages. One commentator noted that the requirement to minimize material damage to dwellings and other classes of unprotected structures is outside the scope of the BMSLCA. Another commentator requested that the regulations be revised to require the use of the most effective of available measures for minimizing damage. In reconsidering these regulations, the Board has decided to delete the requirement to minimize material damage to dwellings and other classes of unprotected structures, which is derived from Federal regulations. As proposed, the regulations now require the use of damage minimization measures when irreparable damage is forecast. This makes the regulations consistent with State law.

Numerous comments were received in response to the ANPR regulations on water supply replacement requirements. The vast majority of these comments expressed dissatisfaction with provisions which were derived di-

rectly from the BMSLCA. Several commentators were dissatisfied with the compensation requirements proposed in situations where replacement water supplies are more costly to operate than the original water supplies. One commentator recommended that replacement water supplies serving livestock or dairy operations be equivalent in quantity to the original water supply in order to ensure that these operations will be able to remain competitive under future market conditions. One commentator requested that temporary water supplies should not be required to meet the foreseeable use criteria which pertain to permanent replacement supplies. The proposed amendments in Annex A have been significantly revised from the version which appeared in the ANPR. Although the proposed amendments are still based primarily on BMSLCA provisions, additional subsections have been added to reflect Pennsylvania's case law on water supply replacement. In addition, language has been added to distinguish the requirements which apply to temporary water supplies from those which apply to permanent replacement water supplies.

Two comments were received concerning the ANPR regulations which relieve an operator of the responsibility to replace a water supply if he compensates a landowner for the reduction in fair market value of the property resulting from the loss of the water supply. The commentators believed that fair market value begins to decline at the time a mine opens. They recommended calculating reductions in fair market value using the fair market value of a property prior to the opening of the mine. The Board does not agree with this concept because it is not in accordance with section 5.2(g) of the BMSLCA (52 P. S. § 1406.5b(g)) that specifically requires reduction in fair market value be calculated using the fair market value immediately prior to the time a water supply is impacted.

Several comments were received in response to the ANPR regulations addressing the repair of subsidence damage to dwellings and other classes of structures. Many of these comments expressed dissatisfaction with provisions which came directly from the BMSLCA. One commentator noted that in cases involving agricultural structures, the regulations only required a demonstration that the structure was being used for an alternative purpose whereas the statute requires affirmative proof. In drafting the proposed amendments, the Board included the latter recommendation. Otherwise the proposed amendments are essentially the same as the ANPR version.

Two comments were received in response to the ANPR regulations on correcting material damage to surface lands. One commentator noted that according to the BMSLCA, an operator must only correct material damage to surface lands to the extent technologically and economically feasible. Another commentator recommended that the regulations be reworded to clarify that reductions in crop or timber production constitute material damage. In preparing the proposed amendments, the Board added the qualification that damage need only be repaired to the extent technologically and economically feasible. No other changes were made to the ANPR version, because the objective in revising the regulation was to conform as closely as possible to the Federal regulations, and the Board does not believe that the Commonwealth has a compelling reason to deviate from the Federal regulations.

Several comments were received in response to the ANPR regulations on protection of utilities. Several commentators requested the addition of provisions which

would require a mine operator to either protect utility lines from damage or compensate utility owners for expenses incurred in making repairs or taking precautionary measures. One commentator representing a gas utility indicated that his company had spent more than \$250,000 over the past 5 years to protect its pipelines from subsidence damage. Another commentator representing a water utility indicated his company will have to spend between \$3.5 and \$4 million to replace water lines damaged by subsidence. The Board is proposing to change regulations relating to utility protection. The revised regulations will require mine operators to assume a larger role in protecting utilities, but provide mine operators greater flexibility in carrying out this responsibility.

Several comments were received concerning the ANPR regulations on maintaining the value and reasonably foreseeable use of perennial streams. The Board did not intend to change these regulations other than to separate the text into information requirements and performance standards and to relocate these components to separate and distinct sections of the regulations. Pending further commentary, the Board is not proposing to revise the substance of the ANPR regulations.

Several comments were received in response to the ANPR regulations on preventing hazards to human safety. Several commentators recommended that damage to utility lines be directly referenced in this section. Another commentator requested that language be inserted to release an operator from liability when surface occupants refuse to take themselves out of harm's way. The Board decided not to change the ANPR regulations because it believes that the regulations should track the wording of section 9.1 of the BMSLCA and be sufficiently broad to address a variety of dangerous situations.

One comment was received in regard to the ANPR regulations on public notice. The commentator recommended expanding the notification requirements to include additional parties. The Board has responded by revising the proposed regulation to require operators to notify structure owners of impending mining.

Several comments were received concerning the ANPR regulations on resolution of subsidence and water supply damage claims. Most of these concerned dissatisfaction with the provisions of the BMSLCA. One commentator recommended adding a provision allowing an operator to request Department investigation of a water loss claim. Another commentator noted that the regulations did not reflect the statutory provision that an operator is only required to provide temporary water in the event that an affected water user is without a readily available alternate source of water. The Board did not include a provision to address a situation in which an operator requests a Department investigation of a water loss claim since the Department intends to investigate all water loss claims reported to it. The proposed amendments have been modified to reflect that an operator is not required to provide temporary water in situations in which an affected water user has a readily available and adequate alternate source of water.

Several comments were received regarding those ANPR regulations which described the terms and provisions of voluntary agreements. Some commentators felt that voluntary agreements should not be allowed as a means of resolving subsidence damage or water loss claims, even though the agreements were authorized under the BMSLCA. Some commentators recommended that the terms of agreements should be left as stated in the statute and not be repeated in regulations. After consider-

ing these comments, the Board decided not to propose amendments specifying the terms of voluntary agreements.

Several commentators recommended adding an additional regulatory section that would impose duties upon the Department to collect data in accordance with section 18.1 of the BMSLCA (52 P. S. § 1406.18a) and to conduct inspections of surface properties before and after underground mining. The Board does not believe that it is necessary to impose a regulatory requirement upon the Department in order for the Department to fulfill its responsibilities under section 18.1 of the BMSLCA.

In addition to the aforementioned comments, 36 comments were received expressing general concerns and questions which addresses issues beyond the scope of the ANPR process.

F. *Summary of Regulatory Requirements*

The proposed regulatory changes involve extensive revisions to Chapter 89. Overall changes of major significance include:

—The addition of new regulatory requirements on mine subsidence control, subsidence damage repair and water supply replacement.

—The restructuring of Subchapter F (relating to subsidence control and water supply replacement) to allow the grouping of current regulations and proposed amendments having a common purpose or objective.

—The subdivision and reorganization of current regulatory requirements to distinguish between information requirements and performance standards.

In addition to the aforementioned changes, several changes are also proposed to existing regulations to clarify the manner in which the Department currently implements these requirements. These changes relate to mining where overburden is less than 100 feet (30.48 meters) in thickness and where mining is proposed beneath utility lines.

In revising the regulations, the Board hopes to ensure the correct and consistent use of the terms "underground mining activities," "underground mining operations" and "underground mining." These terms are all derived from the definition of "underground mining activity" in § 89.5 (relating to definitions). The term "underground mining activity" is used to refer to all aspects of an underground mine including those operations which take place at the land surface. The term "underground mining operations" includes those activities which are carried out beneath the land surface. The term "underground mining" refers to the extraction of coal in an underground mine.

Due to the restructuring of Subchapter F, Annex A shows many current regulations marked for deletion. Most of these regulations reappear as inserted text at alternate locations. In some cases, a current regulations was divided into information requirements and performance standards prior to relocation.

The proposed amendments in Annex A differ in many respects from those which were prepared for the ANPR. In addition to organizational changes, the Board made numerous changes to information requirements and performance standards based on ANPR commentary and based on Department recommendations. The proposed amendments also differ from the ANPR because of changes made to Chapter 89 by the Mine Subsidence Control rulemaking at 27 Pa.B. 2371 (May 10, 1997).

The following is a discussion of the proposed amendments by section.

§ 89.5. Definition of "de minimis" cost increase.

A definition of the term "de minimis cost increase" is proposed to clarify a term used in association with water supply replacement requirements. The term identifies a threshold below which an operator is not responsible for compensating a landowner or water user for the increased cost of operating a replacement water supply. The definition is consistent with that employed in the Department's surface mining regulatory program which derives from Commonwealth case law.

§ 89.5. Definition of "fair market value."

A definition of the term "fair market value" is proposed for clarification. The term is used to determine the amount of compensation an operator must provide to a landowner whose water supply cannot be replaced. The definition is taken from *Blacks Law Dictionary*. In the context of water supply replacement, the term and its application are specific to Commonwealth law and have no counterparts in Federal regulations.

§ 89.5. Definition of "irreparable damage."

A definition of the term "irreparable damage" is proposed for purposes of clarity. The term is used in section 9.1 of the BMSLCA to mean a level of damage which is not permissible without the consent of the structure owner. The term applies to dwellings and certain agricultural structures identified in section 5.4(a)(3) and (4) of the BMSLCA (52 P. S. § 1406.5d(a)(3) and (4)). By law, if any of these structures is likely to suffer irreparable damage, the operator must follow one of three courses of action prior to causing any damage to the structure. The operator may obtain the structure owner's consent to irreparably damage the structure. As an alternative course of action, the operator may take measures to prepare the structure to withstand the effects of mine subsidence and thereby minimize the extent of damage. As a third alternative, the operator may modify his mining plan to use a mining technique or extraction ratio which will not result in irreparable damage to the structure.

The proposed definition provides criteria which can be applied in advance of mining to predict whether or not irreparable damage is likely to occur. One criterion is that the estimated cost of repairing the predicted damage would exceed the cost of rebuilding the structure. This criterion is based on the logic that a structure which must be replaced in entirety has been irreparably damaged. The second criterion turns on the presence of structural components which would be extremely difficult or impossible to replace, if they were damaged. This criterion recognizes that certain components are irreparable because they are unique or because their restoration would require materials or craftsmanship which is no longer in existence.

§ 89.5. Definition of "material damage."

A definition of "material damage" is proposed to clarify the meaning of the term and to conform to Federal counterpart regulations. The language is derived from the Federal definition in 30 CFR 701.5 (relating to definitions). The proposal to adopt the Federal definition is based in part on the observation that the term "material damage" only appears in those parts of the BMSLCA which mirror the language of Federal law.

§ 89.5. Definition of "permanently affixed appurtenant structures."

A definition of "permanently affixed appurtenant structures" is proposed to clarify the meaning of a term which is used in association with dwellings and buildings accessible to the public under section 5.4 of the BMSLCA. By law, these structures are covered by subsidence damage repair and compensation requirements when they are associated with a building which is accessible to the public or associated with a dwelling.

The term is not defined in the the BMSLCA, but appears to be similar in concept to the term "structures related thereto" which appears in the Federal regulations. In order to clarify the meaning of this term and achieve consistency with Federal counterpart regulations, the proposed definition borrows from the definition of the Federal term "occupied residential dwelling and structures related thereto." Based on comments received during the ANPR, inground swimming pools have been added to the list of examples, and language has been added to clarify that utility coverage is limited to those facilities owned by utility customers.

§ 89.5. Definition of "public water supply system."

A definition of the term "public water supply system" is provided for clarity. The term relates to the protection of source aquifers and surface waters which serve as significant sources of water supply to these systems under section 9.1 of the BMSLCA, 30 CFR 817.121 (relating to subsidence control) and the proposed performance standard in § 89.142a(c)(3).

Although all water supplies are protected by the BMSLCA, significant sources to public water systems are protected against any damage caused by underground mining. The definition is needed to distinguish between public water supply systems protected under the mining regulations and public water systems regulated under the Commonwealth's safe drinking water program. Given that the protections under section 9.1 of the BMSLCA are generally enforced by restricting mining under aquifers and perennial streams, expanded protection would equate to increased obstacles to underground mining. Since one purpose of Act 54 was to allow the continued growth and development of the bituminous coal industry, the Board believes that the General Assembly did not intend the BMSLCA water supply systems to include all of the public water systems regulated by the Pennsylvania Safe Drinking Water Act. Consequently, in the BMSLCA, the General Assembly did not use the Safe Drinking Water Act term "public water systems." The Board believes that the proposed definition in Annex A fulfills the purposes of the BMSLCA.

§ 89.5. Definition of "rebuttable presumption area."

A term "rebuttable presumption area" has been defined for clarity and convenience. The term relates to water supply replacement and the definition is taken directly from section 5.2(c) of the BMSLCA. The term refers to an area within the proximity of a mine where an operator is presumed responsible for impacting water supplies. The area is defined to encompass an area above the mine, which is determined by projecting a line along a 35° angle from the outside of a coal removal area to the land surface.

The rebuttable presumption of responsibility for water loss is specific to the Commonwealth based on the BMSLCA. The concept has no counterpart in Federal water supply replacement regulations.

§ 89.5. Definition of "water supply."

A definition of the term "water supply" is proposed for clarity and convenience. The definition is taken from the language in section 5.1 of the BMSLCA and relates to the types of water supplies which must be replaced when affected by underground mining activities.

The definition includes virtually all types of water supplies found in the bituminous coal fields. The only obvious exclusions are water supplies which serve agricultural irrigation systems constructed after August 21, 1994, which is consistent with statutory requirements. This definition is much more inclusive than its Federal counterpart in 30 CFR 701.5 which covers only those water supplies used for drinking, domestic and residential purposes.

§ 89.33. Geology.

This rulemaking proposes to add coal seam thickness as an information requirement in subsection (a)(1). This addition is intended to demonstrate consistency with 30 CFR 784.20(b)(3) (relating to subsidence control plan). It does not impose additional data collection requirements on operators, since this information is currently required in permit applications.

§ 89.34. Hydrology.

Changes are proposed to subsection (a)(1)(i). These changes are proposed to demonstrate conformance with Federal requirements and to clarify certain information requirements.

The proposed amendments add the ownership of wells and springs to the list of information which must be provided in the groundwater inventory. These changes are proposed to conform to the Federal counterpart regulations in 30 CFR 784.14(b). This proposal will not impose additional data collection requirements on operators, since ownership information is currently required in permit applications.

Another proposed revision is the replacement of the term "potentially impacted offsite area" with the term "adjacent area." This proposed revision involves the replacement of an undefined term with a term which is defined. The term "adjacent area" is defined in § 89.5 and includes the area outside the permit area where surface water or groundwater may be impacted by underground mining activities.

§ 89.35. Prediction of hydrologic consequences.

Proposed language has been added to require permit applicants to predict whether underground mining activities may result in contamination, diminution or interruption of water supplies. This language is intended to conform to the Federal requirements in 30 CFR 784.14(e).

The information collected under this requirement is intended to be general, addressing supplies located in various areas and subareas above and proximate to the mine. It is not intended to be specific to the level of an individual water supply. This information will be used to evaluate the adequacy of a mine operator's plans for water supply replacement.

§ 89.36. Protection of the hydrologic balance.

A new subsection is proposed under § 89.36 requiring an operator to describe measures which he will use to replace water supplies impacted by the mining operation. This requirement is mandated by section 5.2(j) of the BMSLCA. It is also needed to conform to the Federal requirements in 30 CFR 784.20(b)(8).

§ 89.67. Support facilities.

Section 89.67 has been modified to address the EHB decision on utility protection. Language has been added to clarify that this section applies to surface construction and disturbances at sites associated with underground mining operations. These would include shaft sites, slope sites, drift entry sites, borehole sites, coal loading sites, coal preparation sites and other sites where surface operations associated with underground mining activity take place. The measures taken to protect utilities from construction and earthmoving may differ from those taken to protect utilities from mine subsidence. Section 89.67 has been revised to make this distinction.

§ 89.141. Subsidence control: application requirements.

Proposed language has been added to subsection (a) relating to geologic information. The language requires an operator to describe geologic conditions which affect the likelihood or extent of subsidence or subsidence related damage. This proposal is intended to conform to the Federal requirements in 30 CFR 784.20(b)(3). Additional language has also been inserted to clarify the relationship between the geologic information requirements of § 89.33 and this subsection.

In subsection (d), relating to subsidence control plans, language has been added to clarify the area which must be addressed by the subsidence control plan. This language is intended to conform to Federal requirements in 30 CFR 784.20(a)(3) and 817.121(c)(4). The proposed requirement ensures that subsidence control plans will address all structures which may be damaged by mine subsidence, and, moreover, all dwellings and noncommercial buildings which are covered by the rebuttable presumption under the Federal program.

Subsection (d)(2) is a new information requirement which is intended to conform to the Federal requirements in 30 CFR 784.20(a)(2). It requires an operator to provide a narrative description of the potential impacts of subsidence on overlying structures, surface lands and water supplies.

Proposed subsection (d)(3) is a modified version of a current requirement which was formerly found in § 89.141(d)(2)(ii). The language is revised to delete cross references to utilities and perennial streams. The description now pertains to the structures and features which are afforded specific protections under § 89.142(c). Descriptions of the measures which will be used to protect perennial streams and utilities have been moved to subsections (d)(10) and (11), respectively.

Proposed subsections (d)(4) and (5) describe information which an operator must provide when proposing mining which will result in planned subsidence. Subsection (d)(4) is a current regulatory requirement which has been relocated under this proposed rulemaking. Subsection (d)(5) contains a new information requirement which is adapted from the Federal requirements in 30 CFR 784.20(b)(8).

Proposed subsection (d)(6) requires a statement that underground mining activities will not be conducted within the support areas of public buildings and facilities, churches, schools, hospitals, impoundments and water bodies protected under section 9.1 of the BMSLCA, unless measures are taken to prevent material damage. This same list of structures is afforded equivalent protection under the Federal program. Protective measures include those mentioned under subsection (d)(3) and § 89.142a(c)(2).

Proposed subsection (d)(7)—(12) are current information requirements which have been relocated under this rulemaking proposal.

§ 89.142a. Subsidence control: performance standards.

This regulatory section addresses new subject matter. Section § 89.142a includes performance standards applicable to the control of mine subsidence and the repair of mine subsidence damage to surface lands and structures.

Proposed subsection (a) consists primarily of existing performance standards which are being relocated. Subsection (a)(2) has been revised to correct cross references. Subsection (a)(3) clarifies the demonstrations an operator must make in order to mine beneath a structure where the overburden thickness is less than 100 feet.

Proposed subsection (b) requires operators to conduct premining surveys of the condition of the dwellings and other structures listed under subsection (f)(1), unless the structure owner denies access to conduct a survey. The survey must be conducted prior to the time the structure is at risk to subsidence damage and at least prior to the time the structure falls within a 30° angle of draw of the underground mining. This ensures that baseline information will be available for all structures before they are impacted by mine subsidence. Furthermore it ensures that baseline information will be available to detect subsidence damage to all structures covered by the rebuttable presumption under the Federal program. Under the Federal regulations, an operator is presumed to be responsible for damage to a structure if he has mined within a 30° angle of draw of the structure.

Proposed subsection (b) also requires that premining surveys document the presence of structural components which cannot be repaired or replaced. This will enable operators, landowners and the Department to make informed decisions regarding the potential for irreparable damage to occur. In addition, the survey results must be provided to the landowner and to the Department upon Department request. Due to the confidential nature of pictures and videos showing the contents of dwellings and other structures, the proposed amendments do not require operators to submit to the Department survey results since the submitted results would become part of the public record. The proposed amendments provide for the Department to obtain survey results when necessary. Although the Federal regulations require survey results to be submitted at the time of permit application, the Board believes that the arrangement specified in subsection (b) is preferable because it provides for documentation of all improvements made up to the time a structure is damaged. This eliminates concerns about structural deterioration which may occur when the time frame between the premining survey and the occurrence of subsidence damage extends over a period of years. In addition, it eliminates unnecessary duplication and submission of documents and reduces the availability of information which should be kept confidential.

Proposed subsection (c) describes an operator's responsibility to prevent material damage and reductions in the value and reasonably foreseeable uses of certain structures and features protected under section 9.1 of the BMSLCA. These protections apply to public buildings and facilities; churches, schools and hospitals; impoundments with storage capacities of 20 acre-feet or more; and bodies of water with volumes of 20 acre-feet or more. These structures and features represent the remainder of those formerly protected under § 89.143(b) prior to the repeal of section 4 of the BMSLCA. The standard for protecting

these structures remains unchanged and requires leaving 50% of the coal in place to prevent subsidence. Alternative mining measures, including planned subsidence, are permissible within the support area if an operator demonstrates to the Department that the structure or features will not suffer material damage.

Proposed subsection (d) reflects the requirements of section 9.1(b) of the BMSLCA. It requires an operator to prevent irreparable damage to dwellings and agricultural structures, unless the structure owner consents to the damage. If the Department or the operator determines that irreparable damage is likely to occur, the operator must take measures to minimize the extent of damage, or alter the mining plan so that irreparable damage does not occur. Damage minimization measures include techniques such as trenching around the structure, jacking the structure off its foundation and banding the structure to prevent breakage. This requirement is comparable to the requirements of 30 CFR 817.121(a)(2) of the Federal program.

Proposed subsection (e) is a revised version of an existing regulatory requirement involving the repair of damage to surface lands. The existing regulation is vague in that it requires operators to maintain the value and reasonably foreseeable use of surface lands. The proposed version specifies that an operator must correct material damage to surface lands. The revised language more clearly describes the intent of the regulation, which involves the repair of ground cracks and sinkholes and the correction of drainage problems. The revised language also parallels that of the Federal counterpart regulations in 30 CFR 817.121(c)(1).

Proposed subsection (f) reflects the provisions of section 5.4 of the BMSLCA. It sets forth an operator's responsibility to repair or compensate for subsidence damage to dwellings, agricultural structures and other buildings and structures as required by State law.

Proposed subsection (g) relating to the protection of utilities is an existing regulation which has been relocated from former § 89.143(c) and revised. The revised language clarifies that mine operators have the option to either minimize damage or destruction of utility lines or minimize disruption of utility service. This revision is intended to provide mine operators flexibility in complying with utility protection requirements. The revised language allows use of various measures such as supporting utility lines, taking surface measures to mitigate subsidence damage to utility lines, providing utility customers with alternative service and demonstrating that utility lines are unlikely to be damaged by subsidence.

Proposed subsection (h) relating to the protection of perennial streams is an existing performance standard which has been relocated under this rulemaking proposal. Details concerning the implementation of these amendments are covered in the *Department Program Guidance 563-2000-655* which has been in effect since February 18, 1994.

Proposed subsection (i) relating to the prevention of hazards to human safety contains one performance standard which has been relocated from its place in existing § 89.142 and one new performance standard which is derived from section 9.1(a) of the BMSLCA. The new performance standard imposes the general responsibility to protect human safety regardless of whether mining is occurring in an urban or rural area.

Proposed subsection (j) is a relocated performance standard which prohibits mining in an area which is not covered by an approved subsidence control plan.

Proposed subsection (k) is a new performance standard which requires mine operators to report mine subsidence damage claims to the Department. This requirement will enable the Department to investigate subsidence damage incidents near the time of occurrence when details relating to causation and extent of damage are best observed.

§ 89.143a. Subsidence control: procedure for resolution of subsidence damage claims.

This proposed section addresses new subject matter. As proposed, § 89.143a describes the responsibilities of operators, structure owners and the Department in resolving claims of mine subsidence damage. These responsibilities are taken directly from section 5.5 of the BMSLCA. The proposed section, like the statute, allows 6 months for an operator and structure owner to resolve the claim without Department intervention.

§ 89.144a. Subsidence control: relief from responsibility.

This proposed section addresses new subject matter. New § 89.144a, describes the conditions under which an operator may be relieved of responsibility to repair or compensate for damage to a structure. The provisions of this section come directly from the BMSLCA, and are included to alert operators and structure owners of their rights and responsibilities under the BMSLCA.

§ 89.145a. Water supply replacement: performance standards.

This proposed section addresses new subject matter. Proposed § 89.145a includes the performance standards which apply to the surveying of water supplies and the restoration or replacement of water supplies which have been contaminated, diminished or interrupted by underground mining.

Subsection (a) imposes on operators the responsibility to conduct premining surveys of all water supplies prior to mining in an area which could result in the water supplies being impacted. At a minimum, the survey must be conducted prior to the time underground mining encroaches within 1,000 feet of a water supply. The 1,000 foot distance is a readily determinable criterion which will generally suffice to ensure that baseline data is collected prior to the onset of mining related impacts. The proposed language provides for the distance to be increased in situations when the Department determines that supplies may be endangered outside the 1,000 foot range, and decreased if the Department determines that supplies at lesser distances are unlikely to be affected.

A survey must be conducted unless the landowner denies the operator access to the supply. The responsibility to conduct surveys is implicit in sections 5.1 and 5.2 of the BMSLCA and required by 30 CFR 784.20(a)(3). Although the Federal regulations require that operators conduct surveys at the time of permit application, the procedures outlined in § 89.145a(a) should be equally effective in ensuring the acquisition of unbiased baseline data. Furthermore, the procedures in § 89.145a(a) will serve to account for any additional uses which a landowner develops between the time of permit application and the time the water supply is affected. Proposed subsection (a) also specifies the type of information which an operator is required to collect during the premining survey.

Proposed subsection (b) sets forth the basic responsibility of an operator to replace a water supply which has been impacted by his underground mining. The provision comes directly from section 5.1 of the BMSLCA.

Proposed subsection (c) requires an operator to notify the Department within 24 hours of receiving a complaint that his underground mining has affected a water supply. This requirement is derived from section 5.2 (a)(3) of the BMSLCA.

Proposed subsection (d) reflects an operator's responsibility to diligently investigate claims of water supply contamination, diminution or interruption that are brought to his attention. This requirement is derived from section 5.2(a)(1) of the BMSLCA.

Proposed subsection (e) describes an operator's responsibility to provide temporary water to water users whose water supplies have been impacted and who are without a readily available alternate source of water. The requirement applies to those water supplies which are located within the rebuttable presumption area as defined by the 35° angle of dewatering influence. The requirement comes from section 5.2(a)(2) of the BMSLCA. It is important to note that mine operators must also provide temporary water to water users outside the rebuttable presumption area if ordered to do so by the Department.

Proposed subsection (f) describes the criteria which will be used to determine the adequacy of a restored or replacement water supply. The criteria presented are derived from section 5.1(a) of the BMSLCA and the Department's surface mining regulatory program where similar water supply replacement requirements have been in place for many years. Many of the criteria derive from Commonwealth case law. Although the criteria differ from those of the Federal program, they are expected to provide equivalent restored or replacement supplies in most cases.

Given seasonal variations in water quality, water supplies replaced to safe drinking water standards under the Commonwealth's program will generally be indistinguishable from water supplies replaced to premining conditions under the Federal program. Likewise, a replacement water supply which meets usage standards should not differ substantially from a replacement water supply which is equivalent in quantity to the premining water supply given that premining quantity determinations will usually be made using pumping equipment sized to meet the needs of the water user.

§ 89.146a. Water supply replacement: procedure for resolution of water supply damage claims.

This section has been retitled and revised to address new subject matter. As proposed, § 89.146a consolidates the duties of operators, landowners, water users and the Department in resolving claims of water supply contamination, diminution or interruption. The procedures are based on section 5.2 of the BMSLCA.

§ 89.152. Water supply replacement: relief from responsibility.

Proposed § 89.152 is a new regulatory section describing the conditions under which an operator may be relieved of responsibility to restore or replace a water supply. These releases are based on sections 5.1 and 5.2 of the BMSLCA.

§ 89.153. Water supply replacement: rebuttable presumption.

Proposed § 89.153 is a new regulatory section which describes the effect of the rebuttable presumption provision under section 5.2 of the BMSLCA, and the means by which an operator may rebut the presumption that he is liable for the contamination, diminution or interruption of a water supply.

§ 89.154. Maps.

Proposed § 89.154 describes the contents of mine subsidence control plan maps and 6 month maps. Most of these requirements are existing and have been relocated from their current location under § 89.142. Several new requirements have been added to reflect information associated with the Act 54 amendments to the BMSLCA and Federal counterpart regulations.

In proposed subsection (a), the scope of the general mine map has been modified to comply with Federal mapping requirements in 30 CFR 784.20(a)(1). Under the proposal, the map must show all areas where structures may be damaged by mine subsidence, and at a minimum cover the area within a 30° angle of draw of the limits of underground mining. This latter provision is intended to assure that all structures covered by the rebuttable presumption under the Federal program are considered in Commonwealth subsidence control plans. The remainder of subsections (a) and (b) list map details which are essentially unaltered from those of the existing regulation. The only significant addition is the requirement to describe areas where planned subsidence will take place, areas where subsidence damage minimization measures will be used, and areas where subsidence related damage will be repaired. This requirement has been added to conform to the Federal regulations in 30 CFR 784.20. These requirements will generally involve adding notes of explanation to maps.

§ 89.155. Public notice.

This section contains public notice requirements which have been relocated under this proposed rulemaking. One additional notification has been added. The new requirement involves the operator's responsibility to notify the owner of a structure. This is intended to ensure that owners as well as occupants receive advance notification of impending mining.

G. Benefits, Costs and Compliance

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

Benefits

The proposed amendments will benefit underground mine operators and coal field residents whose rights and responsibilities are currently found scattered among State law, State regulation, Federal law and case law. The consolidation of requirements into a single chapter of regulations promotes public understanding of these rights and responsibilities.

The proposed amendments will serve to codify benefits already contained in State and Federal law. These include benefits to many structure owners whose structures are damaged by mine subsidence, benefits to landowners and water users whose water supplies are affected by underground coal mining, and benefits to mine operators who mine in the bituminous coal fields.

Many structure owners benefit from the expanded subsidence damage repair and compensation requirements imposed under the Act 54 amendments to the BMSLCA. Recent information on mine subsidence damage claims show that the typical cost of repairing a damaged structure is \$30,000 to \$40,000. Under the Act 54 amendments, mine operators are responsible to repair or compensate for many of these damages. This results in a benefit to structure owners who would otherwise be forced to absorb these costs or suffer reductions in the value of their properties.

Landowners and water users also benefit from the water supply replacement requirements imposed under the Act 54 amendments to the BMSLCA. Recent estimates show that the costs of replacing a water supply at an underground coal mine site typically run between \$5,000 and \$10,000. In addition, the cost of providing temporary water may cost between \$1,000 and \$2,000. Since mine operators are now responsible to incur the costs associated with replacing water supplies, this represents a direct cost savings to landowners and water users.

Structure owners, landowners and water users will benefit from the premining survey requirements of the proposed regulations. Premining survey requirements are derived primarily from the Federal regulations which define the Commonwealth's primacy requirements. These surveys document the premining condition of structures and water supplies and are crucial to determining impacts and assessing the adequacy of remedial measures. The typical cost of a premining water survey ranges from \$500 to \$1,500. The typical cost of a premining structure survey ranges from \$300 to \$800 per property. The requirement that an operator perform these surveys is a benefit to landowners.

Mine operators benefit through the repeal of certain protections which were mandated by the BMSLCA and the regulations prior to the Act 54 amendments. The former protections resulted in mine operators having to leave support pillars beneath certain dwellings and cemeteries. In addition to reducing the amount of coal that could be mined in these areas, the support requirements often interfered with longwall mining, which is a highly mechanized technique. It is estimated that the repeal of these protections will free an additional 116,000 tons of coal per year per mine. This figure assumes the elimination of 20 support areas which each contain 5,800 tons of coal. At a value of \$20 per ton this equates to a benefit of approximately \$ 2.3 million per year to the average operating mine.

Compliance Costs

The compliance costs associated with the proposed regulations include the costs of performing premining surveys, repairing or compensating for subsidence damage to structures, and replacing water supplies affected by mining. Additional costs may also be incurred in taking precautionary measures to prevent irreparable damage, however, these costs will be offset by the resultant reductions in repair work.

The cost of performing premining structure surveys is estimated to be \$11,000 per mine per year. This is based on the assumed need to perform 20 surveys per mine per year at an average cost of \$550 per survey.

The cost of performing premining water supply surveys is estimated to be \$21,000 per mine per year. This is based on the assumed need to perform 20 surveys per year at an average cost of \$1,050 per survey.

The cost of repairing structure damage is estimated to be \$210,000 per mine per year. Repair estimates are based on 6 damage incidents per year at an average cost of \$ 35,000 per incident.

The cost of replacing water supplies is estimated to be \$110,000 per mine per year. This figure assumes the need to provide temporary water to 10 water users at an average cost of \$6,500 per service. It also assumes the need to permanently restore or replace six water supplies at an average cost of \$7,500.

The preceding costs total approximately \$352,000 per mine per year. These costs are directly attributable to the

Act 54 amendments to the BMSLCA and will be incurred by mine operators irrespective of the proposed amendments. It is notable that the costs incurred by mine operators also represent direct benefits to structure owners, landowners and water users.

Compliance Assistance Plan

The Department will prepare and update program guidances and fact sheets, and hold seminars as necessary to assist mine operators in complying with these regulations. The Department has already conducted similar activities in implementing the Act 54 amendments.

Paperwork Requirements

The primary paperwork associated with the proposed amendments is the correspondence and duplication of materials associated with arranging for premining surveys reporting survey results and settling damage claims. These costs are insignificant compared to the costs of performing premining surveys and repairing or compensating for damages.

H. *Sunset Review*

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

I. *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on April 21, 1997, the Department submitted a copy of this 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.

If IRRC has objections to any portion of the proposed amendments, it will notify the Department within 30 days of the close of the public comment period. The notification shall specify the regulatory review criteria which have not been met by that portion. The Regulatory Review Act specifies detailed procedures for review by the Department, the Governor and the General Assembly.

J. *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 the Board by July 9, 1997.

Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by July 9, 1997.

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-form regulations will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@A1dep.state.pa.us and must also be received by the Board by

July 9, 1997. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgement of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to ensure receipt.

K. *Public Hearing*

The Board will hold one public hearing for the purpose of accepting comments on this proposal. The hearing will be held at 4 p.m. on the following date: June 18, 1997, Days Inn, 127 West Byers Avenue, I-70 and Pa. Turnpike Exit #8, New Stanton, PA

Persons wishing to present testimony at a hearing are requested to contact Nancy Roush 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 Nancy Roush directly at (717) 787-4526 or through the Pennsylvania AT&T Relay Services at (800) 654-5984 (TDD) to discuss how the Department may accommodate their needs.

JAMES M. SEIF,
Chairperson

Fiscal Note: 7-316. No fiscal impact; (8) recommends adoption.

(Editor's Note: For a document relating to this document, see 27 Pa.B. 2371 (May 10, 1997).)

Annex A

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

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE I. LAND RESOURCES

CHAPTER 89. UNDERGROUND MINING OF COAL AND COAL MINING: GENERAL

Subchapter A. EROSION AND SEDIMENTATION CONTROL GENERAL PROVISIONS

§ 89.5. Definitions.

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

* * * * *

De minimis cost increase—For purposes of § 89.145a(f) (relating to water supply replacement: performance standards), a cost increase which meets one of the following criteria:

(i) Is less than 15% of the annual operating and maintenance costs of the previous water supply that is restored or replaced.

(ii) Is less than \$60.

* * * * *

Fair market value—The amount at which property would exchange hands between a willing

buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts.

* * * * *

Irreparable damage—For purposes of section 9.1 of the Bituminous Mine Subsidence and Land Conservation Act (52 P.S. § 1406.9a) and § 89.142a(d) (relating to subsidence control: performance standards, structural damage for which the cost of repair exceeds the cost of rebuilding the structure; or the cracking or breaking of structural components which cannot be repaired or replaced with identical structural components.

Material damage—Damage that results in one of the following:

- (i) Functional impairment of surface lands, structures, features or facilities.
- (ii) Physical change that has a significant adverse impact on the affected land's capability to support any current or reasonably foreseeable uses or causes significant loss in production or income to the owner or user, or both, of the land.
- (iii) Significant change in the condition, appearance or utility of any structure or facility from its presubsidence condition.

* * * * *

Permanently affixed appurtenant structures—A structure or facility securely attached to the land surface if that structure or facility is adjunct to and used in connection with structures listed in §§ 89.142a(f)(i) and (iii). Examples of the structures include:

- (i) Garages.
- (ii) Storage sheds and barns.
- (iii) Greenhouses and related structures.
- (iv) Customer owned utilities and cables.
- (v) Fences and other enclosures.
- (vi) Retaining walls.
- (vii) Paved or improved patios, walks and driveways.
- (viii) Septic treatment facilities.
- (ix) In-ground swimming pools.
- (x) Lot drainage and lawn and garden irrigation systems.

* * * * *

Public water supply system—A water delivery system which does one of the following:

- (i) Serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.
- (ii) Provides water to a public building, church, school, hospital or nursing home.

Rebuttable presumption area—As used in the context of water supply replacement, the area in which an operator is presumed responsible for diminishing, contaminating or interrupting a water supply. The area is defined by projecting a 35° angle from the vertical from the outside of any area where the operator has extracted coal from an underground mine.

* * * * *

Water supply—An existing source of water used for domestic, commercial, industrial or recreational purposes or for agricultural uses, including use or consumption of water to maintain the health and productivity of animals used or to be used in agricultural production and the watering of lands on a periodic or permanent basis by a constructed or manufactured system in place on August 21, 1994, to provide irrigation for agricultural production of plants and crops at levels of productivity or yield historically experienced by the plants or crops within a particular geographic area, or which serves a public building or a noncommercial structure customarily used by the public, including churches, schools and hospitals.

* * * * *

**Subchapter B. OPERATIONS
INFORMATION REQUIREMENTS**

§ 89.33. Geology.

(a) The operation plan shall include a description of the areal and structural geology in the permit and adjacent area, including the lithology of the strata that influence the occurrence, availability, movement and quality of groundwater that may be affected by the underground mining activities.

(1) For lands within the proposed permit and adjacent areas and over the coal seam to be mined, the description shall include the results of test borings, coal samplings and the stratum immediately beneath the coal seam to be mined, and overlying strata. When an aquifer or existing deep mine below the lowest coal to be mined may be affected, the description shall also include the aquifer or existing deep mine and overlying strata. For mines not underlain by existing deep mines and greater than 200 feet (60.96 meters) below surface drainage, the description need only include the strata down to and including the stratum immediately below the coal seam to be mined. At a minimum, the description shall include:

* * * * *

(iii) Coal seam thickness.

[(iii)](iv) ***

[(iv)](v) ***

* * * * *

§ 89.34. Hydrology.

(a) The operation plan shall contain premining or baseline hydrologic information representative of the proposed permit, adjacent and general areas.

(1) Groundwater information shall include:

(i) The results of a groundwater inventory of existing wells, springs and other groundwater resources, providing information on location, ownership, quality, quantity, depth to water and usage for the proposed permit area and [potentially impacted offsite areas] adjacent area. Information on water availability, occurrence and alternative water supplies shall be emphasized and water-quality information relating to suitability for existing premining uses shall be provided. At a minimum, water quality descriptions shall include total dissolved solids or specific conductance corrected to 25° C, pH, total iron, total manganese, alkalinity, acidity and sulfates.

* * * * *

§ 89.35. Prediction of the hydrologic consequences.

The operation plan shall include a prediction of the probable hydrologic consequences of the proposed underground mining activities upon the quantity and quality of groundwater and surface water within the proposed permit, adjacent and general areas under seasonal flow conditions, and whether underground mining activities may result in contamination, diminution or interruption of any water supplies within the permit or adjacent area. The prediction shall be prepared by a qualified hydrologist or engineer. The probable hydrologic consequences determination shall emphasize the anticipated responses of groundwater and surface water flow, its rate, direction and quality and quantity to the proposed underground mining activities. The prediction shall be based on baseline data collected at the proposed mine site or data statistically representative of the site or a combination of both. The prediction required by this section may be developed using modeling techniques, but the Department may require verification of any models.

§ 89.36. Protection of the hydrologic balance.

* * * * *

(c) A description of the measures which will be taken to replace water supplies which are contaminated, diminished or interrupted by underground mining activities.

Subchapter B. OPERATIONS
PERFORMANCE STANDARDS

§ 89.67. Support facilities.

* * * * *

(b) [All underground mining activities shall be conducted] Support facilities shall be designed, constructed or reconstructed in a manner which minimizes damage, destruction or disruption of services provided by oil, gas and water wells; oil, gas and coal-slurry pipelines; railroads; electric and telephone lines; and water and sewage lines which pass over, under or through the permit area, unless otherwise approved by the owner of those facilities and the Department.

Subchapter F. SUBSIDENCE CONTROL AND WATER
SUPPLY REPLACEMENT

§ 89.141. Subsidence control: [Application] application requirements.

(a) *Geology.* The application shall include a description of the geology overlying the proposed permit area, from the surface down to the first stratum below the coal seam to be mined. The description shall include geologic conditions which are relevant to the likelihood or extent of subsidence or subsidence related damage. For the same strata, a detailed description and cross section shall be provided from available test borings and core samples. A copy of the information developed for § 89.33 (relating to geology) may be [submitted to meet the requirement in this subsection] used as appropriate to meet the requirements of this section.

* * * * *

(d) *Subsidence control plan.* The permit application shall include a subsidence control plan which describes the measures to be taken to control subsidence effects from the proposed underground mining operations. [In determining the area to be protected a 25°

angle of draw shall be projected from the limits of the mine to the surface. Portions of the mine in which no underground mining activities will occur over the term of the permit need not be included]. The plan shall address the area in which structures, facilities and features may be damaged by mine subsidence. At a minimum, the plan shall address all areas within a 30° angle of draw of underground mining which will occur during the 5-year term of the permit. The subsidence control plan shall include the following information:

* * * * *

[(2) For each structure and surface feature, or class of structures and surface features, listed in § 89.143(b)—(d) (relating to performance standards), a detailed description of the measures to be taken to prevent, minimize or avoid subsidence from causing damage or lessening the value or reasonable foreseeable use of the surface land, including:

(i) The anticipated effects of planned subsidence, if any.

(ii) Measures to be taken in the mine to reduce the likelihood of subsidence, including measures such as:

(A) Backfilling or backstowing of voids.

(B) Leaving support pillars of coal.

(C) Setting forth areas in which no coal extraction is planned, including a description of the overlying area to be protected by leaving coal in place.

(iii) Measures to be taken on the surface to minimize the damage or lessening of the value or reasonable foreseeable use of the surface.

(iv) Monitoring, if any, to determine the commencement and degree of subsidence so that other appropriate measures can be taken to prevent or reduce the damage.

(3) A statement of the method of surface owner protection to be provided under section 6(a) of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.6(a)) or § 89.145 (relating to surface owner protection). The permittee shall submit a list of structures for which waiver agreements have been entered into with the current owner under section 4 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.4). The permittee shall certify that the waiver agreements comply with section 4 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.4) and that the permittee shall remedy subsequent subsidence damage to the structure under section 6(a) of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1046.6(a)).]

(2) A narrative describing whether subsidence, if it is likely to occur, could cause damage to or diminish the value or reasonably foreseeable use of any structures or could contaminate, diminish or interrupt water supplies.

(3) For each structure and feature, or class of structures and features, described in § 89.142a(c) (relating to subsidence control: performance standards), a detailed description of the measures to be

taken to prevent or minimize subsidence and subsidence-related damage, including:

- (i) Backfilling or backstowing of voids.
- (ii) Leaving support pillars of coal.
- (iii) Leaving areas in which no coal extraction will occur.
- (iv) Taking measures on the surface to prevent or minimize damage or diminution in value of the structure or feature.
- (4) A description of the anticipated effects of planned subsidence, if any.
- (5) A description of the measures to be taken to mitigate or remedy any subsidence-related damage to the surface land and structures identified in § 89.142a(f)(1) (relating to subsidence control: performance standards).
- (6) A statement that underground mining activities will not be conducted within the support area described in § 89.142a(c)(2)(i) of structures listed in subparagraphs (i)—(iv), or a detailed description of the measures to be taken to ensure that subsidence will not cause material damage to, or reduce the reasonably foreseeable uses of one or more of the following features or facilities:
 - (i) Public buildings and facilities.
 - (ii) Churches, schools or hospitals.
 - (iii) Impoundments with a storage capacity of 20 acre-feet (2.47 hectare-meters) or more.
 - (iv) Bodies of water with a volume of 20-acre feet (2.47 hectare-meters) or more.
- (7) A description of the monitoring, if any, the operator will perform to determine the occurrence of and extent of subsidence so that, when appropriate, other measures can be taken to prevent or reduce or correct damage in accordance with § 89.142a(e) and (f).
- (8) A description of the measures to be taken to maximize mine stability and maintain the value and reasonable by foreseeable use of the surface land.
- (9) A description of the measures which will be taken to maintain the value and foreseeable uses of perennial streams which may be impacted by underground mining operations. The description shall include a discussion of the effectiveness of the proposed measures as related to prior mining operations under similar conditions.
- (10) A description of the measures to be taken to prevent material damage to perennial streams and aquifers which serve as a significant source to a public water supply system.
- (11) A description of the measures to be taken to minimize damage or destruction of utilities or minimize disruption in utility service.

[(4)] (12) ***
* * * * *

[(5)] (13) ***

§ 89.142. [Maps] (Reserved).

[(a) *General mine map.* The application shall include maps prepared under the supervision of

and certified by a qualified registered professional engineer or qualified registered professional land surveyor drawn to a scale of 1 inch = 500 feet in a manner satisfactory to the Department, updated as requested by the Department, showing the items in this subsection. The requirements of paragraphs (2)—(7) may be satisfied by referencing the maps required by Subchapter B (relating to operations).

- (1) The boundaries of areas proposed to be affected over the estimated total life of the mining activity, with a description of the size, sequence and time of the mining of subareas of the mine.
- (2) The surface and coal elevations and the location of test borings and core samplings.
- (3) Coal crop lines and the contours of the coal seam to be mined within the permit and adjacent areas.
- (4) The location and extent of known workings of active, inactive or abandoned, underground or surface mines, including identification of the coal seams mined and mine openings to the surface within, above and below the proposed adjacent and permit areas.
- (5) The portrayal of major aquifers on cross sections.
- (6) The area covered by the subsidence control plan submitted under § 89.141(d) (relating to application requirements) with the following information identified:
 - (i) The boundaries of lands and names of current surface owners of record and known subsurface owners.
 - (ii) Public buildings and noncommercial structures customarily used by the public including churches, schools, and hospitals, and identifying these features by a numerical reference.
 - (iii) Dwellings identified by numerical reference.
 - (iv) Urbanized areas, cities, towns, communities and adjacent industrial or commercial buildings.
 - (v) Public parks and historic structures.
 - (vi) Structures which are entitled to support identified by numerical reference.
 - (vii) Major electric transmission lines and pipelines, including identification by name or numerical reference.
 - (viii) Public roads and railroads.
 - (ix) Surface water bodies, including perennial streams, lakes, ponds, dams and impoundments with a volume of 20 acre-feet or more, indicating by numerical reference those perennial streams and other bodies of water which are a significant source for a public water supply.
 - (x) Coal refuse disposal areas identified by numerical reference, solid and hazardous waste disposal areas, and other air and water pollution control facilities.
 - (xi) Gas, oil and water wells, identified by numerical reference.
 - (xii) Mine surface operations and facilities.
 - (xiii) Landslide prone areas.

(xiv) Aquifers which serve as a significant source for a public water supply system, identified by numerical reference.

(xv) Political subdivisions.

(7) Areas over the proposed mine where the overburden is 100 feet or less.

(b) *Six-month maps.* The operator shall submit mining maps to the Department every 6 months. The maps shall:

(1) Be drawn to a scale of 1 inch = 100 feet or 1 inch = 200 feet.

(2) Be prepared under the supervision of and certified by a qualified registered professional engineer or qualified registered professional land surveyor.

(3) Show the area of mining projected for the next 6 months.

(4) Show the area of mining affected over the last 6 months, including pillar locations, and the areas abandoned or completed within the last 6 months.

(5) Provide the following information:

(i) The location and identifying number for structures and surface features required to be identified by number in subsection (a)(6).

(ii) The location and identifying number of structures and surface features required to be identified by number in subsection (a)(6), which have appeared since the permit application.

(iii) The location of features described in subsection (a)(6)(iv) and (viii).

(iv) The location of surface boundaries and identification of surface owners of record and the owner of record of the coal seam being mined.

(v) The boundaries of the projected mining area and within that area the designation of coal areas to be mined and coal areas to be left unmined, including: A description for areas to be supported by the pillar plan required by § 89.143(b)(3) (relating to performance standards), coal left in place in compliance with other statutes including those listed in § 89.141(d)(4) and identification of other areas of planned and controlled subsidence.

(vi) Existing mine workings adjacent to the projected mining area, including a designation of any survey stations, elevations of the bottom of the coal seam and areas of geographical faults.

(vii) Other information as requested in accordance with the policies and procedures of the Department.

(c) *Map to be filed with recorder of deeds.* After the Department has determined that the 6 month map is in accordance with the subsidence control plan, the operator shall file a copy of the map with the Recorder of Deeds for each county in which mining is projected, and submit to the Department proof of this filing.

(d) *Mining restricted until map filed.* No mining may occur until it is shown as projected mining on the maps required by this subsection and the maps have been on file with the Recorder of Deeds' office for 10 days.]

§ 89.142a. Subsidence control: performance standards.

(a) *General requirements.* Underground mining activities shall be planned and conducted in accordance with the following:

(1) The subsidence control plan required by § 89.141(d) (relating to subsidence control: application requirements) and the postmining land use requirements in § 89.88 (relating to postmining land use).

(2) The performance standards in subsections (b)—(j).

(3) Underground mining activity will not be authorized beneath structures where the depth of overburden is less than 100 feet, unless the subsidence control plan demonstrates to the Department's satisfaction that the mine workings will be stable and that overlying structures will not suffer irreparable damage.

(4) The mine operator shall adopt measures to maximize mine stability. This subsection does not prohibit planned subsidence in a predictable and controlled manner or the standard method of room and pillar mining.

(b) *Structure surveys.*

(1) The operator shall conduct premining surveys of all structures listed under subsection (f)(1). The applicant is relieved of the duty to conduct a premining survey if the landowner denies the operator access to the site to conduct a premining survey, and the operator has complied with the notice procedure as follows:

(i) The premining survey shall document the existing condition of each structure and any components which cannot be repaired or replaced with identical structural components.

(ii) The premining survey shall be conducted prior to extracting coal. At a minimum, the premining survey shall be conducted prior to the time that a structure falls within a 30° angle of draw of underground mining.

(iii) The results of a premining survey shall be submitted to the landowner within 30 days of their receipt by the operator and to the Department upon Department request.

(2) The operator will be relieved of the duty to conduct a premining survey if the operator submits evidence to the Department that the operator notified the owner by certified mail or personal service of the following:

(i) The landowner's rights as set forth in sections 5.4—5.6 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. §§ 1406.5d—1406.5f).

(ii) A description of the operator's attempt to conduct a survey and a statement that within 10 days of receipt of the operator's notice of intent to conduct a survey, the landowner failed to provide the operator with access to the site to conduct a survey.

(c) *Restrictions on underground mining.*

(1) Unless the subsidence control plan demonstrates that subsidence will not cause material damage to, or reduce the reasonably foreseeable

use of the structures and surface features listed in subparagraphs (i)—(iv), no underground mining activities may be conducted beneath or within the support area of the following:

- (i) Public buildings and facilities.
- (ii) Churches, schools or hospitals.
- (iii) Impoundments with a storage capacity of 20 acre-feet (2.47 hectare-meters) or more.
- (iv) Bodies of water with a volume of 20 acre-feet (2.47 hectare-meters) or more.

(2) The measures adopted by the operator to comply with paragraph (1) shall consist of either:

(i) Providing a support area beneath the structure or surface feature to be protected where coal extraction is limited to 50%, and the following:

(A) The support area shall consist of pillars of coal of a size and in a pattern which maximize bearing strength, and which is approved by the Department.

(B) For purposes of this section, the support area shall be rectangular in shape and determined by projecting a 15° angle of draw from the surface to the coal seam beginning 15 feet (4.57 meters) from the sides of the structure. For a structure on a slope of 5% or greater, the support area on the downslope side of the structure shall be extended an additional distance determined by multiplying the thickness of the overburden by the percentage expressed as a decimal of the surface slope. A pillar lying partially within the support area shall be considered part of the support area and shall be consistent with the other support pillars in size and pattern.

(C) The area lying between two support areas shall be treated as a support area, when the distance between the two support areas is less than the depth of the overburden.

(D) More stringent measures may be imposed or mining may be prohibited, if the Department finds that the measures used by the operator fail to prevent material damage.

(ii) Alternative measures, including full extraction techniques which result in planned and controlled subsidence, may be adopted if the operator demonstrates that the proposed measures are at least as effective in the prevention of subsidence damage as those described in subparagraph (i). In support of the demonstration, the operator shall meet the following conditions:

(A) Submit to the Department premining and postmining elevation surveys of a nearby area which core samples demonstrate to be geologically similar to the area of the protected surface features.

(B) Submit to the Department a history of mining in the surrounding area and a report describing any subsidence damage to structures or surface features resulting from the underground mining.

(C) Submit to the Department an engineering report which sets forth the damage to be expected from the proposed underground mining pattern.

(D) Initiate a monitoring program within a specified area to detect surface movement resulting from the underground mining. The program shall

entail placing monitors sufficiently in advance of the underground mining so that if excessive subsidence occurs the underground mining can be stopped before the protected surface features are damaged. In calculating the area to be monitored, a 30° angle of draw shall be used.

(3) An operator may not mine beneath or adjacent to any perennial stream or aquifer which serves as a significant source to a public water supply system if the underground mining is likely to cause material damage to the perennial stream or aquifer.

(d) *General measures to prevent or minimize irreparable damage.* Operators may not use a mining technique or extraction ratio which will result in irreparable damage to a structure enumerated in subsection (f)(1)(iii) or (iv) unless the operator, prior to mining, takes measures approved by the Department to minimize or reduce impacts resulting from subsidence to these structures.

(e) *Repair of damage to surface lands.* To the extent technologically and economically feasible, the operator shall correct any material damage to surface lands resulting from subsidence caused by the operator's underground mining operations.

(f) *Repair of damage to structures.*

(1) *Repair of compensation for damage to certain structures.* Whenever underground mining conducted after August 21, 1994, causes damage to any of the structures in subparagraphs (i)—(iv), the operator responsible for extracting the coal shall fully rehabilitate, restore, replace or compensate the owner for material damage to the structures resulting from the subsidence unless the operator demonstrates to the Department's satisfaction that one of the provisions of § 89.144a (relating to subsidence control: relief from responsibility) relieves the operator of responsibility:

(i) Buildings that are accessible to the public including, but not limited to, commercial, industrial and recreational buildings and all permanently affixed appurtenant structures.

(ii) Noncommercial buildings customarily used by the public, including, but not limited to, schools, churches and hospitals.

(iii) Dwellings which are used for human habitation and permanently affixed appurtenant structures or improvements in place on August 21, 1994, or on the date of first publication of the application for a mine activity permit or a 5-year renewal thereof for the operations in question and within the boundary of the entire mine as depicted in the application.

(iv) Barns and silos.

(v) Permanently affixed structures of 500 or more square feet (46.45 square meters) in area that are used for raising livestock, poultry or agricultural products, for storage of animal waste or for the processing or retail marketing of agricultural products produced on the farm on which the structures are located.

(2) *Amount of compensation.* If, rather than repair the damage, the operator chooses to compensate the structure owner for damage caused by the

operator's underground mining, the operator shall meet the following conditions:

(i) Provide compensation equal to the reasonable cost of repairing the structure or, if the structure is determined to be irreparably damaged, the compensation shall be equal to the reasonable cost of its replacement except for an irreparably damaged agricultural structure identified in paragraph (1)(iv) which at the time of damage was being used for a different purpose than the purpose for which the structure was originally constructed. For such an irreparably damaged agricultural structure, the operator may provide for the reasonable cost to replace the damaged structure with a structure satisfying the functions and purposes served by the damaged structure before the damage occurred if the operator can affirmatively prove that the structure was being used for a different purpose than the purpose for which such structure was originally constructed.

(ii) Compensate the occupants with an additional payment for reasonable, actual expenses incurred during their temporary relocation, if the occupants of a damaged structure are required to relocate. The operator shall also compensate the occupants for other actual, reasonable incidental costs agreed to by the parties or approved by the Department.

(g) *Protection of utilities.* Underground mining activities shall be planned and conducted in a manner which minimizes damage or destruction of facilities or which minimizes disruption in services provided by facilities such as oil, gas and water wells; oil, gas and coal slurry pipelines; rail lines; electric and telephone lines; and water and sewerage lines which pass under, over, or through the permit area, unless otherwise approved by the owner of the facilities and the Department.

(h) *Perennial streams.*

(1) Underground mining operations shall be planned and conducted in a manner which maintains the value and reasonably foreseeable uses of perennial streams, such as aquatic life; water supply; and recreation, as they existed prior to coal extraction beneath streams.

(2) If the Department finds that the underground mining operations have adversely affected a perennial stream, the operator shall mitigate the adverse effects to the extent technologically and economically feasible, and, if necessary, file revised plans or other data to demonstrate that future activities will meet the requirements of paragraph (1).

(i) *Prevention of hazards to human safety.*

(1) Underground mining operations shall be suspended beneath urbanized areas; cities; towns; and communities and adjacent to or beneath industrial or commercial buildings; solid and hazardous waste disposal areas; major impoundments of 20 acre-feet (2.47 hectare-meters) or more; or perennial streams, if the operations present an imminent danger to the public.

(2) Operators may not use a mining technique or extraction ratio which may result in subsidence which creates an imminent danger to human safety unless the operator, prior to mining, takes measures approved by the Department to eliminate the imminent danger to human safety.

(j) *Prohibition.* Underground mining operations are prohibited under an area which is not included within a subsidence control plan that has been submitted under § 89.141(d) (relating to subsidence control: application requirements) and approved by the Department.

(k) *Report of claim.* Within 10 days of being advised of a claim of subsidence damage to a structure or surface feature, the operator shall provide the Department with a report of the claim which shall include the following information:

(1) The date of the claim.

(2) The name, address and telephone number of the owner of the structure, surface feature or surface land claimed to be damaged.

(3) The number assigned to the structure or feature under § 89.154(a) (relating to maps).

§ 89.143. [Performance standards] (Reserved).

[(a) *General requirements.* Underground mining activities shall be planned and conducted in accordance with the following:

(1) The subsidence control plan required by § 89.141(d) (relating to application requirements) and be consistent with the postmining land use protected by § 89.88 (relating to postmining land use).

(2) The performance standards in subsections (b)–(f).

(3) No underground mining activity will be authorized beneath structures where the depth of overburden is less than 100 feet, with the exception of mine related openings to the surface such as entries, shafts and boreholes and site specific variances for entry development as approved by the Department.

(4) The mine operator shall adopt and describe to the Department in his permit application measures to maximize mine stability; however, this subsection does not prohibit planned subsidence in a predictable and controlled manner or the standard method of room and pillar mining.

(b) *Prevention of damage.* Requirements are as follows:

(1) Underground mining activities shall be planned and conducted in a manner which prevents subsidence damage to the following:

(i) Public buildings and noncommercial structures customarily used by the public, including churches, schools and hospitals.

(ii) Impoundments and other bodies of water with a storage capacity of 20 acre feet or more.

(iii) Aquifers, perennial streams and bodies of water which serve as a significant source for a public water supply system, as defined in the Pennsylvania Safe Drinking Water Act (35 P. S. §§ 721.1–721.17).

(iv) Coal refuse disposal areas authorized by permits issued under Chapter 90 (relating to coal refuse disposal).

(2) The damage prohibited by this subsection includes the cracking of walls, foundations and monuments, the draining of aquifers, perennial

streams or other bodies of water which serve as a significant source for a public water supply system, as defined in the Pennsylvania Safe Drinking Water Act and the weakening of impoundments and embankments. Damage to structures described in paragraph (1)(i) need not be prevented if done with the consent of the current owner.

(3) The measures adopted to comply with this subsection shall consist of one of the measures in subparagraph (i) or (ii).

(i) The support area beneath the structure or surface feature to be protected where coal extraction is limited to 50%, and the following:

(A) The support area shall consist of pillars of coal of a size and in a pattern which maximizes bearing strength and is approved by the Department.

(B) The support area shall be rectangular in shape and determined by projecting a 15° angle of draw from the surface to the coal seam beginning 15 feet from either side of the structure. For a structure on a slope of 5% or greater, the support area on the downslope side of the structure shall be extended an additional distance determined by multiplying the depth of the overburden by the percentage of the surface slope. A pillar lying partially within the support area shall be considered part of the support area and be consistent with the other support pillars in size and pattern.

(C) The area between the two support areas shall be treated as a support area, when the distance between the two support areas is less than the depth of the overburden.

(D) More stringent measures may be imposed or mining may be prohibited, if the measures fail to prevent subsidence damage.

(ii) Alternative measures, including full extraction techniques which result in planned and controlled subsidence, may be adopted where the operator demonstrates that the proposed measures are at least as effective in the prevention of subsidence damage as those described in this subsection. In support of the demonstration the Department may require:

(A) Premining and postmining elevation surveys of a nearby area which core samples demonstrate to be geologically similar to the area of the protected surface features.

(B) A history of mining in the surrounding area and a report listing claims of subsidence damage resulting from the mining.

(C) An engineering report on the damage to be expected from the proposed mining pattern.

(D) The operator to initiate a monitoring program to detect surface movement resulting from the mining operation. The program shall consist of monitors placed sufficiently in advance of the mining so that the mining can be stopped before the protected surface features are damaged; in calculating this distance a 25° angle of draw shall be used.

(c) *Protection of utilities.*

(1) Underground mining activities shall be planned and conducted in a manner which minimizes damage, destruction or disruption in services

provided by oil, gas and water wells; oil gas and coal slurry pipelines; rail lines; electric and telephone lines; and water and sewerage lines which pass under, over or through the permit area unless otherwise approved by the owner of the facilities and the Department.

(2) The measures adopted to minimize damage, destruction or disruption of services protected by this subsection may include, in addition to those measures discussed in § 89.141(d), a program for detecting subsidence damage and avoiding disruption in services, and a notification to the owner of the facility which specifies when the mining activity beneath or adjacent to the structure will occur.

(d) *Perennial streams.*

(1) Underground mining activities shall be planned and conducted in a manner which maintains the value and reasonably foreseeable uses of perennial streams, such as aquatic life, water supply and recreation, as they existed prior to mining beneath streams.

(2) The measures to be adopted to comply with this subsection shall be described in the application and include a discussion of the effectiveness of the proposed measures as related to prior mining activities under similar conditions.

(3) If the Department finds that the measures have adversely affected a perennial stream, the operator shall meet the requirements of § 89.145(a) (relating to surface owner protection) and file revised plans or other data to demonstrate that future activities will meet the requirements of paragraph (1).

(e) *Overlying surface land.* Underground mining activities shall be planned and conducted in a manner which maintains the value and reasonably foreseeable use of the overlying surface land prior to mining.

(f) *Urbanized areas.* Underground mining activities shall be suspended beneath urbanized areas, cities, towns and communities, and adjacent to or beneath industrial or commercial buildings, solid and hazardous waste disposal areas, major impoundments or perennial streams, if the activities present an imminent danger to the inhabitants of the urbanized areas, cities, town or communities.

(g) *Prohibition.* Underground mining activities are prohibited under an area which is not included within a subsidence control plan which has been submitted under § 89.141(d) and has been approved by the Department.]

§ 89.143a. Subsidence control: procedure for resolution of subsidence damage claims.

(a) The owner of a structure listed in § 89.142a(f)(1) (relating to subsidence control: performance standards) who believes that underground mining caused mine subsidence resulting in damage to the structure and who wishes to secure repair of the structure or compensation for the damage shall provide the operator responsible for the underground mining with notification of the damage to the structure.

(b) If the operator agrees that mine subsidence damaged the structure, the operator shall fully repair the damage or compensate the owner for the

damage in accordance with either § 89.142a(f) or a voluntary agreement between the parties authorized by section 5.6 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. L. § 1406.5f).

(c) If, within 6 months of the date that the building owner sent the operator notification of subsidence damage to the structure, the parties are unable to agree as to the cause of the damage or the reasonable cost of repair or compensation for the structure, the owner of the structure may within 2 years of the date damage to the structure occurred, file a claim in writing with the Department. The owner shall also send a copy of the claim to the operator.

(d) Upon receipt of the claim, the Department will conduct an investigation in accordance with the following procedure:

(1) Within 30 days of receipt of the claim, the Department will conduct an investigation to determine whether underground mining caused the subsidence damage to the structure.

(2) Within 60 days of completion of the investigation, the Department will determine, and set forth in writing, whether the damage is attributable to subsidence caused by the operator's underground mining and, if so, the reasonable cost of repairing or replacing the damaged structure.

(3) If the Department finds that the operator's underground mining caused the damage to the structure, the Department will issue a written order directing the operator to compensate the structure owner or repair the damaged structure within 6 months of the date of issuance of the order. The Department may allow more than 6 months if the Department finds that further damage may occur to the same structure as a result of additional subsidence.

§ 89.144. [Public notice] (Reserved).

[(a) The operator shall send a notice by certified mail, return receipt requested, to the owner of record of each property and each political subdivision overlying its mining activities. A notice shall be sent to the resident of each structure overlying the mining operation. The notice shall be sent at least 6 months, but not more than 5 years, prior to mining beneath that property or structure or within that political subdivision. The operator shall provide the Department with a copy of each notice and return receipt, or, if the certified mail is not accepted, a copy of the returned envelope documenting that the notice was not accepted or not deliverable.

(b) The notice shall include the following information:

(1) An identification of the area in which mining will take place.

(2) The approximate time frame, within the permit term, for the conduct of underground mining activities that may cause subsidence and affect specific structures.

(3) The location of the offices where the applications and maps submitted under §§ 89.141 and 89.142 (relating to application requirements; and maps) are available for inspection and a schedule of dates for the submission of the 6 month maps under § 89.142(b).

(4) The location of the offices of both the permittee and the Department where a surface owner can submit a written complaint alleging subsidence damage covered by section 6(a) of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.6(a)) or § 89.145(a) (relating to surface owner protection).

(c) The operator shall establish and implement a procedure to notify Federal, State or local government agencies responsible for administering public facilities, such as roads, as to when the mining activity beneath or adjacent to the public facility will occur. The notification shall be 6 months prior to mining beneath the public facility or shall be timed to enable the agency to take appropriate measures to protect the facility and to prevent conditions which may endanger the health, safety or welfare of the public.]

§ 89.144a. Subsidence control: relief from responsibility.

(a) The operator will not be required to repair any structure or compensate any structure owner for damage to structures identified in § 89.142a(f)(1) if the operator demonstrates to the Department's satisfaction one or more of the following apply:

(1) The landowner denied the operator access to the property upon which the structure is located to conduct a premining survey or a postmining survey of the structure and surrounding property, and thereafter served notice upon the landowner by certified mail or personal service. The operator shall demonstrate the following:

(i) The notice identified the rights established by sections 5.4—5.6 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. §§ 1406.5d—1406.5f).

(ii) The landowner denied the operator access to the site to conduct the survey within 10 days after the landowner's receipt of the notice.

(2) The operator's underground mining did not cause the damage.

(3) No written claim of subsidence damage was filed with the Department within 2 years of the date that damage to the structure occurred.

(4) The operator and the landowner entered into a voluntary agreement that satisfies the requirements of section 5.6 of The Bituminous Mine Subsidence and Land Conservation Act.

§ 89.145. [Surface owner protection] (Reserved).

[(a) The operator shall correct material damage resulting from subsidence caused to surface lands including perennial streams as protected under § 89.143(d) (relating to performance standards), to the extent technologically and economically feasible, by restoring the land to a condition capable of maintaining the value and reasonably foreseeable uses which it was capable of supporting before subsidence.

(b) Within 10 days of being advised of a claim of subsidence damage to a structure or surface feature, the operator shall provide the Department with a report of the claim which shall include the following information:

(1) The date of the claim.

(2) The name, address and telephone number of the owner of the structure, surface feature or surface land claimed to be damaged.

(3) The number assigned to the structure or feature under § 89.142(a)(6) (relating to maps).

(4) A mine map, scale 1 inch = 100 feet or 200 feet, showing the structure, feature or surface land and the extent of mining either beneath or adjacent to it.

(5) Other information pertinent to the investigation.]

§ 89.145a. Water supply replacement: performance standards.

(a) *Water supply surveys.*

(1) The operator shall conduct a premining survey and may conduct a postmining survey of the quantity and quality of all water supplies within the permit and adjacent area, except when the landowner denies the operator access to the site to conduct a survey and the operator has complied with the notice procedure in this section. Premining surveys shall be conducted prior to mining within 1,000 feet (304.80 meters) of a water supply unless otherwise authorized or required by the Department based on site specific conditions. Survey information shall include:

(i) The location and type of water supply.

(ii) The existing and reasonably foreseeable uses of the water supply.

(iii) The chemical and physical characteristics of the water, including, at a minimum, total dissolved solids or specific conductance corrected to 25° C, pH, total iron, total manganese, hardness, total coliform, acidity, alkalinity and sulfates. An operator who obtains water samples in a premining or postmining survey shall utilize a certified laboratory to analyze the samples.

(iv) The quantity of the water.

(v) The physical description of the water supply, including the depth and diameter of the well, length of casing and description of the treatment and distribution systems.

(vi) Hydrogeologic data such as the static water level and yield determination.

(vii) The operator shall submit copies of the results of the analyses, as well as the results of any quantitative analysis, to the Department and to the landowner within 30 days of their receipt by the operator.

(2) If the operator cannot make a premining or postmining survey because the owner will not allow access to the site, the operator shall submit evidence to the Department that the operator notified the landowner by certified mail or personal service of the following:

(i) The landowner's rights as set forth in sections 5.1—5.3 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. §§ 1406.5a—1406.5c), and the effect on the landowner of the landowner's denial to the operator of access to the site as described in section 5.2(d) of The Bituminous Mine Subsidence and Land Conservation Act.

(ii) A description of the operator's attempt to conduct a survey and a statement that the landowner failed to authorize access to the operator to conduct a survey within 10 days of receipt of the operator's notice of intent to conduct a survey.

(b) *Restoration or replacement of water supplies.* An operator who, as a result of underground mining, affects a public or private water supply by contamination, diminution or interruption shall restore or replace the affected water supply with a permanent alternate source which adequately serves the premining uses of the water supply or any reasonably foreseeable uses of the water supply. The operator shall be relieved of any responsibility under The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. §§ 1406.1—1406.21) to restore or replace a water supply if the operator demonstrates that one of the provisions of § 89.152 (relating to water supply replacement: relief from responsibility) relieves the operator of further responsibility.

(c) *Notification of receipt of claim.* Within 24 hours of an operator's receipt of a claim of water supply contamination, diminution or interruption, the operator shall notify the Department of the claim.

(d) *Investigation and reporting of water supply damage complaints.* Upon receipt of notification that a water supply has been contaminated, diminished or interrupted and that the operator's underground mining may have caused the contamination, diminution or interruption, the operator shall diligently investigate the complaint and notify the Department in a timely manner of the results of the operator's investigation.

(e) *Temporary water supplies.*

(1) If the affected water supply is within the rebuttable presumption area and the rebuttable presumption applies and the landowner or water user is without a readily available alternate source, the operator shall provide a temporary water supply within 24 hours of being contacted by the landowner or water supply user or the Department, whichever occurs first.

(2) The temporary water supply provided under this subsection shall meet the requirements of subsection (f)(2) and provide a sufficient amount of water to meet the water supply user's premining needs.

(f) *Adequacy of permanently restored or replaced water supply.* A permanently restored or replaced water supply shall include any well, spring, municipal water supply system or other supply approved by the Department, which meets the criteria for adequacy as follows:

(1) *Reliability, cost, maintenance and control.* A restored or replaced water supply, at a minimum, shall:

(i) Be as reliable as the previous water supply.

(ii) Be as permanent as the previous water supply.

(iii) Not require excessive maintenance.

(iv) Provide the owner and the user with as much control and accessibility as exercised over the previous water supply.

(v) Not result in more than a de minimis cost increase to operate and maintain. If the operating and maintenance costs of the restored or replacement water supply are more than a de minimis cost increase, the operator shall provide for the permanent payment of the increased operating and maintenance costs of the restored or replacement water supply.

(2) *Quality.* A restored or replaced water supply will be deemed adequate when it differs in quality from the premining water supply, if it meets standards in the Pennsylvania Safe Drinking Water Act (35 P. S. §§ 750.1—750.20), or is comparable to the premining water supply when that water supply did not meet these standards.

(3) *Adequate quantity.* A restored or replaced water supply will be deemed adequate in quantity if it meets one of the following:

(i) It delivers the amount of water necessary to satisfy the water user's needs and the demands of any reasonably foreseeable uses.

(ii) It is established through a connection to a public water supply system.

(4) *Water source servcability.* A replacement of a water supply shall include the installation of any piping, pumping equipment and treatment equipment necessary to put the replacement water source into service.

§ 89.146. [Payment of damages] (Reserved).

[Settlement of claims filed under section 6(a) of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.6(a)), shall be made within 6 months of the filing of the claim. The operator may postpone the time for satisfying the claim by depositing with the Department an amount as determined by the Department equal to the reasonable cost of remedying the damage. The deposit shall be held in escrow until the operator submits evidence that the claim has been settled. Failure to satisfy claims under § 89.145(a) (relating to surface owner protection) or section 6(a) of The Bituminous Mine Subsidence and Land Conservation Act requires the Department to suspend or revoke the operator's mining permit.]

§ 89.146a. Water supply replacement: procedure for resolution of water supply damage claims.

(a) Whenever a landowner or water supply user experiences contamination, diminution or interruption of a water supply which is believed to have occurred as a result of underground mining, the landowner or water user shall notify the operator. The operator shall diligently investigate the water loss.

(b) The Department will order the operator to provide temporary water to the landowner or water supply user within 24 hours of issuance of the order if the following apply:

(1) No alternate temporary water supply is available to the landowner or water user.

(2) The water supply is contaminated, diminished or interrupted.

(3) The water supply is located within the rebuttable presumption area.

(4) The landowner notified the operator of the water supply problem.

(c) If the affected water supply has not been restored or an alternate water supply has not been provided by the operator or if an operator provides and later discontinues an alternate source, the landowner or water supply user may so notify the Department and request that the Department conduct an investigation in accordance with the following procedure:

(1) Within 10 days of notification, the Department will commence an investigation of any landowner or water supply user claim.

(2) Within 45 days of notification, the Department will make a determination of whether the contamination, diminution or interruption was caused by the operator's underground mining and will notify the affected parties of the Department's determination.

(3) If the Department determines that the operator's underground mining caused the water supply to be contaminated, diminished or interrupted, the Department will issue orders that are necessary to assure compliance with The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. §§ 1406.1—1406.21) and this chapter.

§ 89.152. Water supply replacement: relief from responsibility.

The operator will not be required to restore or replace a water supply if the operator can demonstrate one of the following:

(1) The contamination, diminution or interruption existed prior to the underground mining as determined by a premining survey, and the operator's underground mining operation did not worsen the preexisting contamination, diminution or interruption.

(2) The contamination, diminution or interruption is due to underground mining which occurred more than 3 years prior to the onset of water supply contamination, diminution or interruption.

(3) The contamination, diminution or interruption occurred as the result of some cause other than the underground mining.

(4) The claim for contamination, diminution or interruption of the water supply was made more than 2 years after the water supply was adversely affected by the underground mining.

(5) That the operator has done one of the following:

(i) Has purchased the property for a sum equal to the property's fair market value immediately prior to the time the water supply was affected or has made a one-time payment equal to the difference between the property's fair market value determined immediately prior to the time the water supply was affected and the fair market value determined at the time payment is made.

(ii) The landowner and operator have entered into a valid voluntary agreement under section 5.3 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.5c) which does not require restoration or replacement of the water supply or authorizes a lesser amount of compensation to the landowner than provided by section

5.3(a)(5) of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1401.5c(a)(5)).

§ 89.153. Water supply replacement: rebuttable presumption.

(a) *Rebuttable presumption.* In any determination or proceeding under section 5.2 of The Bituminous Mine Subsidence and Land Conservation Act (52 P. S. § 1406.5b), it is presumed that the operator is responsible for the contamination, diminution or interruption of a water supply that is within the rebuttable presumption area.

(b) *Rebutting the presumption.* The operator may successfully rebut the presumption by affirmatively proving that the landowner denied the operator access to the property on which the water supply is located to conduct a premining survey and a postmining survey of the quality and quantity of the water supply and that the operator complied with the notification procedure in § 89.145a(a)(2) (relating to water supply replacement: performance standards).

§ 89.154. Maps.

(a) *General mine map.* The application shall include maps prepared under the supervision of and certified by a qualified registered professional engineer or qualified registered professional land surveyor drawn to a scale of 1 inch = 500 feet in a manner satisfactory to the Department, updated as requested by the Department, showing the items identified in this subsection. The map shall cover all areas where structures may be damaged and surface lands may suffer material damage as a result of mine subsidence. At a minimum, the map shall cover the entire area above the mine, and all area within a 30° angle of draw of the limits of the mine. The requirements of paragraphs (2)—(7) may be satisfied by referencing the maps required by Subchapter B (relating to operations). The map, at a minimum, shall show the following:

(1) The boundaries of areas proposed to be affected over the estimated total life of the underground mining activity, with a description of the size, sequence and the schedule for mining subareas of the mine.

(2) The location of test borings and core samplings, and surface and coal elevations at these locations.

(3) Coal crop lines and the contours of the coal seam to be mined within the permit and adjacent areas.

(4) The location and extent of known workings of active, inactive or abandoned, underground or surface mines, including identification of the coal seams mined and location of mine openings to the surface within, above and below the proposed permit and adjacent areas.

(5) The portrayal of major aquifers on cross-sections.

(6) The area covered by the subsidence control plan submitted under § 89.141(d) (relating to subsidence control: application requirements) with the following information identified:

(i) The boundaries of lands and names of current surface and subsurface owners of record.

(ii) Dwellings, public buildings and facilities, churches, schools, hospitals and impoundments with a storage capacity of 20 acre-feet (2.47 hectare-meters), identified by numerical reference.

(iii) Structures or classes of structures listed in § 89.142a(f)(1)(i)—(iv) (relating to subsidence control: performance standards), identified by numerical reference.

(iv) Urbanized areas, cities, towns, communities and industrial or commercial buildings.

(v) Public parks and historic structures.

(vi) Other structures which are entitled to support, identified by numerical reference.

(vii) Water supplies.

(viii) Major electric transmission lines and pipelines, including identification by name or numerical reference.

(ix) Public roads and railroads.

(x) Surface water bodies, including perennial streams, lakes, ponds, dams and impoundments with a volume of 20 acre-feet (2.47 hectare meters) or more, indicating by numerical reference those perennial streams and other bodies of water which are a significant source for a public water supply.

(xi) Coal refuse disposal areas, solid and hazardous waste disposal areas, and other air and water pollution control facilities, all identified by numerical reference.

(xii) Gas, oil and water wells, identified by numerical reference.

(xiii) Surface sites and facilities associated with the underground permit application.

(xiv) Aquifers which serve as a significant source for a public water supply system, identified by numerical reference.

(xv) Political subdivisions.

(xvi) Landslide prone areas.

(xvii) Proposed underground workings including a description of the location and extent of the areas in which planned subsidence mining methods will be used and the identification of all areas where the measures described in § 89.141(d)(3), (5) and (7) will be taken to prevent or minimize subsidence and subsidence-related damage; and when applicable, to repair subsidence-related damage.

(7) Areas over the proposed mine where the overburden is 100 feet (30.48 meters) or less.

(b) *Six-month maps.* The operator shall submit mine maps to the Department every 6 months. The maps shall:

(1) Be drawn to a scale of 1 inch = 100 feet or 1 inch = 200 feet.

(2) Be prepared under the supervision of and certified by a qualified registered professional engineer or qualified registered professional land surveyor.

(3) Show the area in which mining is projected to occur in the next 6 months.

(4) Show the area where underground mining occurred over the last 6 months, including pillar locations, and the areas abandoned or completed within the last 6 months.

(5) Provide the following information:

(i) The location and identifying number for structures and surface features required to be identified by number in subsection (a)(6)(i)–(xiv).

(ii) The location and identifying number of structures and surface features required to be identified by number in subsection (a)(6)(i)–(xiv), which have appeared since the permit application.

(iii) The location of surface boundaries and identification of surface owners of record and the owner of record of the coal seam being mined.

(vi) The boundaries of the projected mining area and within that area designate coal areas to be mined and coal areas to be left unmined, including: a description of the areas to be supported by the pillar plan required by § 89.142a(c)(2), coal left in place in compliance with other statutes including those listed in § 89.141(d)(11) (relating to subsidence control: application requirements) and identification of other areas of planned and controlled subsidence.

(v) Existing mine workings adjacent to the area to be mined in the next 6 months, including a designation of any survey stations, elevations of the bottom of the coal seam and areas of geologic faults.

(vi) Other information as requested by the Department.

(c) *Map to be filed with recorder of deeds.* After the Department has determined that the 6-month map is in accordance with the subsidence control plan, the operator shall file a copy of the map with the recorder of deeds for each county in which underground mining is projected, and submit to the Department proof of this filing.

(d) *Restriction of activity.* No underground mining may occur until it is shown as projected underground mining on the maps required by this subsection and the maps have been on file with the Recorder of Deeds' office for 10 days.

§ 89.155. Public notice.

(a) The operator shall send a notice by certified mail, return receipt requested, to the owner of record of each property and each political subdivision overlying its underground mining. A notice shall be sent to the resident and owner of each structure overlying the mining operation. The notice shall be sent at least 6 months, but not more than 5 years, prior to mining beneath that property or structure or within that political subdivision. The operator shall provide the Department with a copy of each notice and return receipt, or, if the certified mail is not accepted, a copy of the returned envelope documenting that the notice was not accepted or not deliverable.

(b) The notice shall identify:

(1) The area in which underground mining will take place.

(2) The approximate time frame, within the permit term, when the underground mining that may cause subsidence and affect specific structures is expected to occur.

(3) The location of the offices where the applications and maps submitted under this chapter are available for inspection and a schedule of dates for the submission of the 6-month maps under § 89.154(b) (relating to maps).

(4) The location of the offices of both the operator and the Department where a surface owner can submit written complaints alleging subsidence damage or water supply contamination, diminution or interruption.

(c) The operator shall establish and implement a procedure to notify Federal, State or local government agencies responsible for administering public facilities, such as roads, when the underground mining beneath or adjacent to the public facility will occur. The notification shall be given 6 months prior to underground mining beneath the public facility or shall be timed to enable the agency to take appropriate measures to protect the facility and to prevent conditions which may endanger the health, safety or welfare of the public.

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