

**REGULATION OF LONGWALL MINING AND VALLEY FILL PRACTICES
IN PENNSYLVANIA**

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REGULATION OF LONGWALL MINING AND VALLEY FILL PRACTICES IN PENNSYLVANIA

This study describes the federal and Pennsylvania laws applicable to underground longwall coal mining and the disposal of coal refuse in stream valleys in the Commonwealth. After an introduction to the legal framework, it examines the legal requirements in four areas: (1) the subsidence effects of longwall mining, (2) the water supply effects of longwall mining, (3) permitting and enforcement issues related to subsidence and water supply, and (4) the disposal of coal refuse in valley fills. The study is intended to assist citizens, legislators, policy makers, and others in understanding the coverage of existing laws, regulations, and policies, including areas of uncertainty.

The laws and regulations governing these areas are lengthy and complex. Nevertheless, coal operators' obligations and surface owners' rights are explained in detail. Differences between the federal and Pennsylvania laws and regulations are also described and placed into context. Perhaps most important, the timing and nature of opportunities for citizen involvement in the regulatory processes are set out so that citizens can take advantage of these opportunities where they now exist, and can seek the creation of additional opportunities where they do not.

1.0 INTRODUCTION

1.1 FRAMEWORK OF FEDERAL AND STATE LAWS

Environmental effects of underground coal mining operations have been regulated in Pennsylvania for decades. Pennsylvania was one of the leaders in such regulation prior to enactment of the federal Surface Mining Control and Reclamation Act of 1977 (SMCRA).¹

SMCRA is the primary federal law that addresses the environmental effects of coal mining operations. It is complemented by the federal Clean Water Act, which regulates discharges of pollution into the waters of the United States. Despite its name, SMCRA is not limited to the regulation of surface mining methods, but also regulates the surface effects of underground mining. These include subsidence (the caving and settling of the land surface overlying the underground mine); disturbance of the hydrology (including diminution or contamination of wells, springs, and other waters); surface disturbances associated with mine

openings; and the disposal of coal refuse (unwanted materials excavated from the mine but separated from marketable coal).² In 1992, SMCRA was amended by the Energy Policy Act (EPAct), which added a new section requiring underground coal operators to repair, or compensate owners for, material damage to occupied residential dwellings and noncommercial buildings resulting from subsidence; and to replace drinking, domestic, or residential water supplies from any well or spring affected by contamination, diminution, or interruption caused by underground coal mining operations.³

SMCRA created a federal regulatory program that operates directly to regulate coal mining activities in the states unless a state elects to develop and implement its own program. SMCRA provides that any state may assume "exclusive jurisdiction" over the regulation of coal mining operations -- subject to continuing federal oversight and back-up federal enforcement -- if it enacts laws and adopts regulations that are consistent with SMCRA permitting and performance standards, and has enforcement provisions that are no less stringent than the federal requirements.⁴ Provisions of state law that are more stringent than SMCRA are not deemed inconsistent with the federal law.⁵

The Office of Surface Mining (OSM), an agency within the U.S. Department of the Interior, is the federal agency responsible for review and approval of state programs. It also conducts oversight of state implementation, and provides back-up federal enforcement against coal operators in instances where a state fails to carry out its approved program. Federal approval of a state program as sufficient under SMCRA is commonly termed "primacy," referring to the state's primary role in regulation. Pennsylvania received primacy on July 31, 1982, upon OSM's conditional approval of its regulatory program. Pennsylvania's coal mining regulatory program is administered by the Department of Environmental Protection (DEP).

Pennsylvania enacted its Bituminous Mine Subsidence and Land Conservation Act (BMSLCA) in 1966, and its Coal Refuse Disposal Control Act in 1968. Both laws were amended in 1980 in order to bring them into consistency with SMCRA, supporting the grant of "primacy" to the Commonwealth by OSM in 1982. In 1994, Pennsylvania's legislature amended these laws again.

If federal requirements change, states that wish to maintain primacy must submit amendments to their approved programs in order to keep them consistent with the federal regulatory program. Similarly, if a primacy state adopts laws and regulations on its own initiative, these must be submitted to OSM for review and approval to assure that the state

program remains consistent with federal requirements.

Pennsylvania amended the BMSLCA in 1994 to provide for repair or compensation for damage to structures, and for replacement of water supplies damaged by underground mining.⁶ The amendment, commonly known as Act 54, was intended both to implement the 1992 EPAct requirements, and to carry out the result of a (controversial) multi-year mediation effort among Pennsylvania underground coal mine operators and some conservation groups. Act 54 also removed some of the substantial impediments to longwall mining in Pennsylvania that had been a feature of state law since 1966. The BMSLCA, as originally enacted, had prohibited subsidence of dwellings, public buildings and certain other structures in existence in 1966,⁷ and so posed an obstacle to the use of longwall mining in populated areas. Act 54 repealed these prohibitions while adopting water replacement and subsidence repair and compensation obligations. The DEP began implementing Act 54 immediately after its enactment. In 1998, Pennsylvania's Environmental Quality Board adopted final regulations to implement Act 54.⁸ These regulations will be reviewed by OSM for consistency with SMCRA/EPAct in order to determine whether they can be approved as part of Pennsylvania's primacy program.

Pennsylvania also amended its Coal Refuse Disposal Control Act in 1994. These amendments, commonly known as Act 114, allow disposal of coal refuse in stream valleys and encourage the siting of coal refuse disposal areas in places adversely affected by prior coal mining activities that remain unreclaimed.⁹ These amendments were conditionally approved by OSM in 1998.¹⁰ As with Act 54, Pennsylvania began implementing Act 114 immediately after its enactment.

1.2 WHAT LAW APPLIES?

State-enacted laws and state-adopted regulations are fully operative and enforceable as a matter of state law, even before they have been reviewed and approved by OSM under SMCRA, and operators must comply with them.¹¹ However, they are not regarded by OSM as part of the state's approved primacy program prior to approval by OSM; and they may be preempted by federal law if they are inconsistent with SMCRA.¹² If state provisions are subsequently disapproved by OSM, the state must adopt new laws and regulations in order to maintain primacy jurisdiction.

When inconsistencies between state and federal regulations arise because of newly adopted federal requirements, the federal government generally must await their incorporation

into state law before the new requirements can be applied directly to particular operators. However, OSM determined that the 1992 EPA Act provisions protecting structures and water supplies are directly enforceable by OSM in instances where the corresponding state provisions are incomplete.¹³ OSM took this position because the law speaks directly to the obligations of operators and the protection of surface owners as of a specific date (October 24, 1992) rather than strictly in terms of performance standards for state programs to incorporate into permits. In Pennsylvania, there is, consequently, "joint enforcement" with respect to subsidence damage and water replacement; DEP enforces Act 54, while OSM enforces any federal regulatory provisions that are beyond the scope of DEP's authority pending achievement of consistency between the programs.¹⁴

Because of the complex interplay between state and federal regulation, coal mining operations often are permitted by DEP under state laws and regulations (1) that have been federally approved as part of the primacy program, (2) that are awaiting federal approval, or (3) that have not yet been brought into conformance to federal requirements (viz. where state law is either silent or appears to conflict with federal law).

Of course, Pennsylvania statutes and regulations that have been approved as part of the primacy program clearly apply. Pennsylvania statutes and regulations awaiting approval must be complied with as a matter of state law, but are subject to disapproval by OSM (which will require them to be changed if Pennsylvania is to maintain its primacy status). There is also a credible legal position, not shared by all legal scholars, that statutes and regulations awaiting approval but that are inconsistent with SMCRA are also automatically preempted by federal law even before OSM acts. Statutes and regulations disapproved by OSM as inconsistent with SMCRA are preempted by federal law;¹⁵ however, OSM has frequently allowed states a period of time to bring them into consistency through the device of "conditional" approval.

This array of circumstances may subject the operator to at least theoretically conflicting mandates, and can leave citizens and regulators alike uncertain of applicable remedies. Because the coal mining operation is governed in the first instance by its permit (which is issued under state law for a five-year term, subject to renewal),¹⁶ the state provisions are frequently implemented during the course of any disagreement between the DEP and OSM. However, the possibility of federal or citizen suit enforcement of federal provisions exists where the state law or regulations are inconsistent with SMCRA and the federal regulations.

The issue of applicable standards is also inevitably complicated by litigation. The coal

industry and environmental groups have filed suit over virtually every federal regulation adopted during SMCRA's 21-year history. One federal appeals court has observed: "As night follows day, litigation follows rulemaking under the statute."¹⁷ The federal regulations implementing EPA's Act were adopted in 1995,¹⁸ and Pennsylvania's 1998 regulations implementing Act 54 must be consistent with these federal regulations. But the National Mining Association (NMA) has a pending federal lawsuit in the District of Columbia challenging the validity of the federal regulations.¹⁹ This creates at least the possibility that the federal regulations may need to be changed in the future, making them a potentially moving target for state consistency.

2.0 REGULATION OF THE SUBSIDENCE EFFECTS OF LONGWALL MINING

Regulatory standards for subsidence impacts of longwall mining fall into two general categories: (1) requirements for preventive measures, and (2) repair, replacement, and compensation requirements.

2.1 PREVENTION REQUIREMENTS

2.1.1 *Federal Requirements*

SMCRA provides that each permit issued to the operator of underground coal mining operations must require the operator to:

adopt measures consistent with known technology in order to prevent subsidence causing material damage to the extent technologically and economically feasible, maximize mine stability, and maintain the value and reasonably foreseeable use of such surface lands, *except in those instances where the mining technology used requires planned subsidence in a predictable and controlled manner.*²⁰

Despite the "except" clause, longwall operators are not excused from the obligation to "maintain the value and reasonably foreseeable use" of the land. The federal district court that reviewed the regulations based on this section ruled that planned subsidence operators must still file subsidence control plans that demonstrate that they "will protect the values" reflected in this section.²¹ In other words, "subsidence in a predictable and controlled manner" means more than mere use of the longwall mining method.

Damage prevention is, moreover, in no way inconsistent with longwall mining. Both

structural reinforcement and subsidence engineering can prevent material damage and help maintain the value and foreseeable use of surface lands.²² Material damage is broadly defined as "any functional impairment of surface lands, features, structures or facilities; any 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; or any significant change in the condition, appearance or utility of any structure or facility from its pre-subsidence condition."²³

In addition to these requirements, the new federal regulations adopted in 1995 to implement EPart (but based in part on the above provision) require a longwall mining operator to:

take necessary and prudent measures, *consistent with the mining method employed*, to minimize material damage to the extent technologically feasible to non-commercial buildings and occupied residential dwellings and structures related thereto.²⁴

However, the longwall operator need not minimize material damage to these structures if the operator has obtained the written consent of the building owners, or if the costs of the measures would exceed the costs of repair (unless the anticipated damage is a threat to health or safety).²⁵

Several other provisions of SMCRA require prevention of subsidence damage to specific lands and structures. The law requires a regulatory agency "in order to protect the stability of the land" to "suspend coal underground mining under urbanized areas, cities, towns, and communities and adjacent to industrial or commercial buildings, major impoundments, or permanent streams" *if* it finds "imminent danger to inhabitants of the urbanized areas, cities, towns, and communities."²⁶ The regulations implementing this provision prohibit any underground operations (including longwall operations) beneath or adjacent to:

- (1) public buildings and facilities,
- (2) churches, schools, and hospitals, and
- (3) impoundments or bodies of water with volume of 20 acre-feet or more,

"unless the subsidence control plan demonstrates that subsidence will *not* cause material damage to, or reduce the reasonably foreseeable use of" these structures or features.²⁷

Federal regulations also require that all underground mining operations be "conducted 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" that pass through the permit area, unless the owner of the facilities gives permission for the damage and the state regulatory agency approves.²⁸

SMCRA prohibits surface coal mining operations in certain areas (subject to valid existing rights); these include areas within the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System (including study rivers), and National Recreation Areas designated by Congress. They also include Federal lands within the boundaries of any National Forest except where the Department of Interior finds that there are no significant recreational, timber, economic, or other values that may be incompatible with such operations; and parks or places on the National Register of Historic Sites unless approved jointly by the state and any federal, state, or local agency with jurisdiction over the site. Such operations are also not permitted within one hundred feet of any public road except where mine access roads or haulage roads join the outside right of way line (subject to relocation); nor within three hundred feet of any occupied dwelling (unless waived by the owner) nor within three hundred feet of any public park, public building, school, church, community, or institutional building, nor within one hundred feet of a cemetery.²⁹ There is a continuing controversy over whether these prohibitions apply to the subsidence effects of underground mining. OSM is still attempting to resolve this issue by regulation after 21 years of controversy.³⁰ In the meantime, most states do not apply the prohibition except to underground mine openings, facilities and similar surface disturbances. Nevertheless, these prohibitions may become an issue with respect to future operations.

Federal law also provides that primacy states must have processes for the designation of other areas as "unsuitable" for surface coal mining based on a petition process. Such designations may be made if mining operations will be incompatible with state or local land use plans or programs; will affect fragile or historic lands by producing significant damage; will affect renewable resource lands so that a substantial loss or reduction of long range productivity of water supply or of food or fiber products could result; or will affect natural hazard lands in which such operations could substantially endanger life and property.³¹

2.1.2 *Pennsylvania Requirements*

At common law, the land surface and structures thereon are entitled to support, unless the

coal owner or its predecessors in interest acquired either the support estate or a waiver or release of liability for subsidence-related damage. Much of the coal in Pennsylvania was conveyed many decades ago in mineral deeds which conveyed or waived the right of support and which released the coal owner from damages for subsidence.³² However, where the right was not waived nor damages released, the operator must prevent subsidence damage, as a matter of tort law and property law apart from any regulatory requirements.

Enactment of the BMSLCA in 1966 provided much broader protection to structures in existence on the date of that Act. It prohibited operators from causing subsidence damage to "any public building or noncommercial structure customarily used by the public, including but not being limited to churches, schools, hospitals, and municipal utilities or municipal public service operations," to "any dwelling used for human habitation," and to "any cemetery," if the protected structure was in place on April 27, 1966.³³ The 1966 law also allowed owners of post-1966 structures an opportunity to purchase the support coal under their homes to prevent subsidence damage.³⁴ Although these regulatory provisions were repealed by Act 54, Pennsylvania law retains some prevention obligations, as to both lands and structures. The BMSLCA continues to provide that the operator:

shall adopt measures and shall describe to the department in his permit application measures that he will adopt to prevent subsidence causing material damage to the extent technologically and economically feasible, to maximize mine stability, and to maintain the value and reasonable foreseeable use of such surface land: Provided, however, That nothing in this subsection shall be construed to prohibit planned subsidence in a predictable and controlled manner or the standard method of room and pillar mining.³⁵

Although this provision is similar to the federal SMCRA provision quoted above, it appears on its face to be more protective of surface lands and structures. Instead of saying "*except* in those instances where the mining technology used requires planned subsidence in a predictable and controlled manner," the BMSLCA imposes the damage prevention obligation generally upon all underground mining operations, and then states that the obligation cannot be construed to "prohibit" planned subsidence mining in a predictable and controlled manner. The statutory duty in Pennsylvania to prevent material damage, maximize mine stability, and maintain the value and reasonable foreseeable use of land plainly applies to both planned subsidence and conventional underground operations -- subject only to the proviso that planned subsidence, like other forms of underground mining, is not prohibited. However, the DEP does not appear to interpret this law to require more prevention than that provided by the federal

SMCRA.

The BMSLCA also continues to require an applicant for a permit to submit a "detailed description of the manner, if any, by which the applicant proposes to support the surface structures overlying the bituminous mine or mining operation. Upon receipt of such application in proper form the department shall cause a permit to be issued or reissued if, in its opinion, the application discloses that sufficient support will be provided for the protected structures and that the operation will comply with the provisions of this act and the rules and regulation issued thereunder."³⁶ Although the reference to "protected structures" was understood in the past to refer to pre-1966 structures, the legislature's retention of this provision despite its enactment of Act 54 must be read as purposeful. It may be read as a requirement to provide support where necessary to prevent damages to the structures identified below.

The Commonwealth does not interpret Act 54 and the new regulations to require longwall operators to "minimize" material damage to dwellings and miscellaneous noncommercial buildings to the same extent as under the federal regulations.³⁷ Act 54 requires operators to undertake minimization measures only where "irreparable injury" is likely to occur to dwellings and farm buildings. Specifically, Act 54 provides that if the DEP determines that a "proposed mining technique or extraction ratio will cause subsidence which will result in irreparable injury" to dwellings and permanently affixed appurtenant structures or farm buildings (barns, silos, permanently affixed structures of 500 square feet or greater), use of the technique or ratio "shall not be permitted unless the building owner, prior to mining, consents to such mining or the mine operator, prior to mining, agrees to take measures approved by the department to minimize or reduce impacts resulting from subsidence to such buildings."³⁸

The effect of this protection may be quite limited in practice. DEP's Program Guidance Manual notes that the Department's "experience has been that most structures damaged by subsidence can be repaired."³⁹ However, the Manual also notes that structures "actually listed on the National Register of Historic Places" may have their "intrinsic value...destroyed by extensive repairs" and so may need to have preventive measures applied under this section.⁴⁰

As under federal law, Act 54 provides for prevention of subsidence damage where a "proposed mining technique or extraction ratio will result in subsidence which creates an imminent hazard to human safety."⁴¹ The law provides that use of the technique or ratio shall not be permitted unless the operator takes measures "approved by the department to eliminate the imminent hazard to human safety."⁴² Also, as under federal law, underground mining activities

are prohibited beneath or adjacent to:

- (1) public buildings and facilities,
- (2) churches, schools, hospitals, and
- (3) impoundments or bodies of water with a capacity of 20 acre-feet or more

"unless the subsidence control plan demonstrates that subsidence will not cause material damage to or reduce the reasonably foreseeable use of such features or facilities."⁴³ The department may limit the percentage of coal extracted under or adjacent to such features and facilities, or under or adjacent to any aquifer or body of water that serves as a significant water source for any public water supply system.⁴⁴ The DEP ordinarily requires the operator to leave 50 percent of the coal beneath these protected features and facilities, but "an operator will be allowed to use a higher extraction rate if he can demonstrate that the resulting subsidence will not result in material damage to the structure."⁴⁵

Until 1998, Pennsylvania's regulations contained an identical prohibition for mining beneath or adjacent to "coal refuse disposal areas" unless the prevention standards were met.⁴⁶ However, in 1998, the Environmental Quality Board deleted this provision.⁴⁷ Pennsylvania regulations also formerly prohibited underground mining beneath structures where the depth of overburden was less than 100 feet.⁴⁸ However, the 1998 rules allow such mining if the subsidence control plan demonstrates to DEP's satisfaction that the mine workings will be stable and that the overlying structures will not suffer "irreparable" damage.⁴⁹

The BMSLCA, as amended by Act 54, does not prescribe a special duty to minimize damage to utilities. However, in order to maintain consistency with federal regulatory requirements, such a duty does exist in the regulations:

Underground mining 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.⁵⁰

Prior to 1998, the regulations specified that measures to minimize damage would include not only measures taken in the mine itself, but also measures on the surface of the land to minimize damage, destruction, or disruption, as well as a program for detecting subsidence

damage and avoiding disruption in services.⁵¹ According to Pennsylvania's Environmental Hearing Board, the prevention obligation imposed by the prior regulations could not be satisfied merely by requiring the operator to provide the utility owner advance notice of subsidence.⁵² But the 1998 regulations adopted by the Environmental Quality Board allow as sufficient "a notification to the owner of the facility which specifies when underground mining beneath or adjacent to the utility will occur."⁵³ This notice is intended to allow the investor-owned utility to take measures to prevent damage or disruption in service, with the costs being borne by whichever party does not own the support right; in many settings this will be the utility.⁵⁴

However, an operator is required to take measures to "minimize" damage to customer-owned gas and water service connections "unless the customer does not consent to such measures."⁵⁵ In addition, the Environmental Quality Board interprets the term "public buildings and facilities" in Act 54 to include government-owned utilities "such as a water or sewer authority."⁵⁶ Thus, the operator is required to prevent material damage to, or reduction of the reasonably foreseeable use of, a government-owned utility line.⁵⁷

The BMSCLA provides, in a provision unchanged by Act 54, that the grantor of any surface land in a county where bituminous coal is found shall certify in the deed whether or not any structure then or thereafter erected on the land is entitled to support. Absent such certification, the grantee of the land must sign a notice printed in the deed indicating that the grantee knows that it may not be obtaining protection against subsidence.⁵⁸ Because the regulatory duty of support for pre-1966 buildings is no longer in effect, this provision suggests that some deeds will need to be changed in connection with the next transfer of title; this may reduce the value and marketability of these lands.

Finally, with respect to prevention obligations, Pennsylvania does have provisions in its laws to declare an area unsuitable for surface mining; this process is applicable to the surface activities connected with underground mining rather than to the underground mining itself.⁵⁹

2.2 REPAIR AND COMPENSATION REQUIREMENTS

2.2.1 *Federal Requirements*

Repair of material damage to surface *lands* is required, "to the extent technologically and economically feasible, by restoring the land to a condition capable of maintaining the value and

reasonably foreseeable uses that it was capable of supporting before subsidence damage."⁶⁰ This provision applies to all underground operations, including longwall mines.⁶¹

Repair or compensation requirements for damage to *structures* are limited. In 1979, OSM adopted a regulation requiring operators to repair or compensate owners for subsidence damage to structures, but it eliminated the requirement in 1983, instead allowing individual state laws to determine whether repair or compensation would be required. The courts eventually ruled in 1991 that while SMCRA could support a federal regulation requiring repair or compensation, the law did not require OSM to adopt such a regulation.⁶² In response, in 1992, Congress enacted EPAct, adding a new section to SMCRA explicitly requiring that underground coal mine operations conducted after October 24, 1992:

promptly repair, or compensate for, material damage resulting from subsidence caused to any occupied residential dwelling and structures related thereto, or non-commercial building.⁶³

The law further provides that "[r]epair of damage shall include rehabilitation, restoration, or replacement...[while c]ompensation...shall be in the full amount of the diminution in value resulting from the subsidence."⁶⁴

The federal regulations implementing these provisions make the underground coal mine operator presumptively responsible for repairing or compensating for material damages to these buildings whenever the damage "occurs as the result of earth movement within...a specified angle of draw," defined as a 30-degree angle unless the state shows in writing that a different angle has a more reasonable basis based on geotechnical analysis in the state.⁶⁵ Operators may also obtain state approval of a site-specific angle of draw if authorized by the state.⁶⁶

The presumption of liability based on the angle-of-draw does not apply if the permittee was denied access to the land to conduct a pre-subsidence survey.⁶⁷ Also, the operator may rebut the presumption by showing a different cause for the damage, that the damage predated mining, or that the damage occurred outside the subsidence area.⁶⁸ However, whether or not the presumption applies, in any determination whether damage to protected structures was caused by subsidence, "all relevant and reasonably available information will be considered by the regulatory authority."⁶⁹

When subsidence damage occurs to lands, to noncommercial buildings or occupied

dwellings, or to other structures that may be protected by state law, federal regulations provide that the operator must post an additional performance bond. The bond must be posted unless the repair, compensation, or replacement is completed within 90 days (a period that may be extended if damage is ongoing).⁷⁰

Repair or compensation with respect to structures other than dwellings and noncommercial buildings is not required by federal regulations, unless otherwise "required under applicable provisions of State law."⁷¹

2.2.2 *Pennsylvania Requirements*

The BMSLCA requires the operator to "prevent subsidence causing material damage to the extent technologically and economically feasible, to maximize mine stability, and to maintain the value and reasonable foreseeable use of such surface land."⁷² As under federal law, the operator's duty to maintain the value and reasonable use of land includes the duty to *correct* material damage to such land to the extent technologically and economically feasible.⁷³

However, the 1998 Pennsylvania regulations lack the qualifying language "by restoring the land to a condition capable of supporting the value and reasonably foreseeable uses that it was capable of supporting before subsidence damage," a proviso found in the former Pennsylvania regulations and in the federal regulations.⁷⁴ In addition, while prior Pennsylvania regulations required the operator to correct material damage caused by subsidence to perennial streams,⁷⁵ the 1998 regulations only require the operator to "mitigate the effects to the extent technologically and economically feasible."⁷⁶

Act 54 requires underground coal mine operators to repair or provide compensation with respect to a broader array of structures than those covered by federal law:⁷⁷

- (1) "any building which is accessible to the public, including, but not limited to, commercial, industrial and recreational buildings and all permanently affixed structures appurtenant thereto,"
- (2) "any noncommercial buildings customarily used by the public, including, but not limited to, schools, churches and hospitals,"
- (3) "dwellings 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 mine's permit application or a five-year renewal thereof, and

(4) "the following agricultural structures: all barns and silos, and all permanently affixed structures of 500 or more square feet in area that are used for raising livestock, poultry or agricultural products, for storage of animal waste or processing or retail marketing of agricultural products produced on the farm." However, if an irreparably damaged agricultural structure is being used for a different purpose than that for which it was constructed, the operator may provide for the reasonable cost to replace the structure with one satisfying the current use.⁷⁸

A few structures covered by federal law fall outside the scope of Act 54. These are (1) dwellings constructed after April 27, 1966 and damaged prior to August 21, 1994, (2) dwellings where the operator was denied access for premining or postmining surveys (discussed below), and (3) noncommercial buildings not used by or accessible to the public.⁷⁹ Initially it was believed that Act 54 also did not cover dwellings constructed after August 21, 1994 but damaged prior to the operator's next permit renewal.⁸⁰ However, in 1998, the Environmental Quality Board determined that this timing limitation applied only to "improvements" constructed after Act 54's effective date, not to dwellings and appurtenant structures.⁸¹ Thus, even dwellings constructed during the course of an operator's mining are deemed to qualify for repair or compensation.

The Act 54 duty to repair or compensate for subsidence damage to the listed structures is termed the "sole and exclusive remedy for such damage" and is not diminished by prior leases, agreements, or deeds relieving operators from such a duty (except for valid waivers of pre-1966 building protections entered into for consideration between 1966 and the 1994 Act).⁸²

The owner of any structure covered by Act 54 who believes that a structure has been damaged by subsidence must first notify the mine operator. If the operator accepts responsibility, the operator must repair the damage or provide compensation.⁸³ If the parties are unable within six months of the date of the notice to agree on the cause of the damage or the reasonable cost of repair or compensation, the owner "may" file a claim with the DEP. (The DEP will not act until after the operator "has had six months to address the complaint.")⁸⁴ The claim must be filed within two years of the date damage occurred.⁸⁵ The DEP must investigate the claim within 30 days, and within 60 days following the investigation must issue a determination as to causation and reasonable costs of repair or replacement. If the DEP finds that

the mining caused the damage, it must order the operator to compensate the owner or make repairs within 6 months (or a longer period if further subsidence damage is expected).⁸⁶ The occupants of a subsidence-damaged structure are also entitled to payment of reasonable expenses for temporary relocation, and for other incidental costs if approved by the DEP.⁸⁷

Neither Act 54 nor the Pennsylvania regulations establish any angle of draw presumption of liability -- rebuttable or otherwise. The absence of such a presumption and the assignment of the determination of liability to DEP means that the agency will require substantial expertise in subsidence mechanics, structural engineering, building appraisal, and damage estimation in order to carry out its obligations. The 1998 regulations require the subsidence control plan filed with the operator's permit application to address all areas within a 30-degree angle of draw; although not a presumption, this may serve as a general guide to DEP in determining causation.⁸⁸ This is an increase from the smaller 25-degree angle of draw area formerly specified in Pennsylvania regulations for subsidence planning purposes.⁸⁹

If the operator is aggrieved by the DEP's order, it may appeal to the Environmental Hearing Board, but must deposit the compensation amount ordered by the DEP in escrow. If the operator loses the appeal and still fails to comply, the DEP must pay the escrow amount with accumulated interest to the landowner. Likewise, if the landowner is aggrieved by the DEP's "order," the landowner may appeal to the Environmental Hearing Board.⁹⁰

If the operator does not comply with the DEP order, and does not appeal, or has exhausted its appeal rights without compliance, the DEP must take further necessary action, including issuance of cessation orders and commencement of permit revocation.⁹¹

The operator is not liable for subsidence damage under Act 54 if it was denied access for premining and postmining surveys, thereafter served notice by personal service or certified mail upon the landowner, and the landowner failed to grant access within ten days after receipt of the notice.⁹²

Claims for damages to structures must be filed with the DEP within two years after the damage to the structure occurred in order to invoke the procedures under Act 54.⁹³ Failure to file a subsidence damage claim with DEP within two years after damage to a structure is not, however, a defense to liability. The Environmental Quality Board found that the two-year limit in Act 54 "only pertains to a structure owner's right to a Department investigation of his subsidence claim. It does not relieve an operator of the responsibility to repair or compensate for subsidence damage."⁹⁴ The Board rejected the interpretation of the statute taken in proposed

regulations that would have made the failure to file a claim within two years an absolute defense to liability for repair or compensation.⁹⁵

Bonding for subsidence damage is required in a "reasonable amount as determined by the Department."⁹⁶ Bonding may be phased, with an initial deposit of \$10,000 and annual increments added, or the DEP may require subsidence insurance in lieu of the subsidence bond. The DEP also has discretion to accept a self-bond from the permittee. However, as a matter of custom and practice, the DEP requires \$10,000 as the entire subsidence bond.⁹⁷ Act 54 does not provide for the posting of an additional bond after the occurrence of subsidence damage, relying instead on its enforcement mechanisms and escrow provisions.

Under Act 54, a mine operator and landowner may enter into an agreement at any time to establish the "manner and means" for repair or compensation for subsidence damage. The release of liability must clearly state what rights are established by the law, and the landowner must expressly acknowledge the release for consideration -- provided that the consideration (payment or other valuable undertaking) is not less than that necessary to compensate an owner for reasonable costs of repair or replacement. The release is of no effect if no mining occurs for a period of 35 years within the "coal field" of which the coal underlying the surface property is a part.⁹⁸ The landowner must include the agreement and release in any deed for the conveyance of property covered by the agreement in order to notify future surface owners that the statutory rights have been modified by agreement.⁹⁹

2.3 DISCUSSION

Neither the federal government nor Pennsylvania has clearly defined the operator's duties of prevention of subsidence damage with respect to the land surface itself. Maintaining value and reasonably foreseeable use of lands and waters has not been meaningfully translated into clear preventive obligations. With respect to minimizing longwall subsidence damage to structures, federal regulations and Pennsylvania law are generally comparable, although Act 54's qualification of prevention obligations with respect to dwellings with the term "irreparable damage" has no counterpart in the federal regulations. Pennsylvania's explicit duty of damage minimization with respect to irreparable damage to farm buildings is not present in the federal regulations.

In general, Pennsylvania's repair and compensation obligations apply to a much broader array of buildings than do federal obligations, which apply only to dwellings and noncommercial

buildings. But there is a gap in coverage in Pennsylvania for post-1966 dwellings and noncommercial structures that were damaged by subsidence between October 1992 and August 1994. As time passes, this gap in coverage will become less important, and indeed most claims from this period should already have been identified and addressed by the federal Office of Surface Mining.

In determining responsibility for repair, replacement, or compensation for dwellings and noncommercial buildings, federal regulations make the operator presumptively liable for damages occurring within a 30-degree angle of draw (or another angle adopted by a state). Act 54 and its implementing regulations lack such a presumption. This creates an issue of whether Act 54 is consistent with federal requirements and whether Pennsylvania's program will be approved by OSM. The absence of a presumption means that surface owners and the DEP will carry the burden of proving an operator's liability for subsidence damage in all cases.

Pennsylvania law also bars claims for repairs, replacement or compensation if the surface owner did not grant the operator access for premining and postmining structural surveys. This provision, which has no counterpart in the federal law, may be particularly problematic for surface owners since Act 54 requires provision of such access within a fairly narrow window of time (within 10 days of notice). The Pennsylvania regulations provide no opportunity to cure the denial even if there was good cause for missing the original ten-day notice period, and even if the operator would not be prejudiced thereby -- for example, if a surface owner (or owner's successor in interest) could grant access to the operator for a premining or postmining survey outside that time period. The absence of such a provision raises the spectre of unknowing, unintended, or needless waivers of rights by surface owners.

Act 54 provides that DEP is to wait six months after the filing of a subsidence damage claim before taking action. Thereafter it is to investigate within thirty days, and within sixty days following the investigation to order the responsible operator to repair the structure or compensate the surface owner "within six months or a longer period."¹⁰⁰ Whether this period of longer than one year for resolution of damage claims is consistent with the federal requirement that the operator is "promptly" to repair or compensate for subsidence damage is uncertain. It may be that these periods will be deemed too long.

Surface owners may also have some difficulty in appealing adverse DEP decisions on repair or compensation. Although Act 54 provides for DEP determinations and orders, the law only refers to appeals of "orders." If DEP determines that an operator did not cause the

subsidence damage, there may be no order, and hence a potential problem for the surface owner. However, the Environmental Quality Board has concluded that the negative determination is appealable.¹⁰¹

Bonding amounts for subsidence damage are not well-supported by experience in Pennsylvania. The customary practice is to impose the minimum statutory bond of \$10,000. This is substantially less than amounts generally needed to deal with subsidence damages to lands and structures. Indeed, even the voluntary agreements executed between coal operators and surface owners in southwestern Pennsylvania generally provide (in the aggregate) for more than this amount if more than one dwelling is involved. Calculation of "full-cost" bonding, or greater support for establishment of a standard or customary bond amount may be appropriate. Act 54 contains a provision that requires the Department to compile data on deep mining effects "on subsidence of surface structures and features and on water resources, including sources of public and private water supplies" and to file a written report with the Governor, the General Assembly, and the Citizens Advisory Council at 5 year intervals.¹⁰² The first report is due in 1998. It should be directed at bonding issues of this sort, as well as at issues of damage prevention and minimization.

Given the frankly remedial character of the law, the DEP could also seek to clarify issues in ways that protect surface owners to the greatest extent possible. Section 1406.19 provides that the BMSLCA is remedial legislation "and each and every provision hereof is intended to receive a liberal construction such as will best effectuate that purpose, and no provision is intended to receive a strict or limited construction."¹⁰³ This supports, for example, the Environmental Quality Board's decision to interpret the time limitation on protection of structures constructed after August 21, 1994 as applicable only to "improvements." It could also support interpretations of the statute by the Environmental Hearing Board and the courts in ways that resolve ambiguities in favor of surface owners.

Other provisions of the BMSLCA make it clear that the DEP has authority to go beyond the prescriptive statutory requirements:

The department shall have the authority to adopt such rules, regulations, standards, and procedures as shall be necessary to protect the air, water, and land resources of the Commonwealth and the public health and safety from subsidence, prevent public nuisances, and to enable it to carry out the purposes and provisions of this act, including additional requirements for providing maps, plans, and public hearings.¹⁰⁴

This language could enable the DEP to go much farther than mere repair of damaged structures and replacement of water "supplies." These legislative directions run counter to the effort in Executive Order 1996-1 and DEP's Reg Basics Initiative to drop Pennsylvania's protection to the minimum levels required by federal laws except where Pennsylvania law specifies otherwise. It is possible that the BMSLCA falls within the exceptions to Exec. Order 1996-1, which allow Pennsylvania regulations to exceed federal standards if "justified by a compelling and articulable Pennsylvania interest *or required by state law.*"¹⁰⁵

The compelling and articulable Pennsylvania interest may also be provided by the Commonwealth's constitution: "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."¹⁰⁶ Although Pennsylvania courts have not overturned state actions for violation of this provision, Commonwealth Court has established a three-part test for applying it to decisions by state agencies. The decision maker must determine: "(1) Was there compliance with all applicable statutes and regulations relevant to the protection of the Commonwealth's public natural resources? (2) Does the record demonstrate a reasonable effort to reduce environmental incursion to a minimum? (3) Does the environmental harm which will result from the challenged decision or action so clearly outweigh the benefit to be derived therefrom that to proceed further would be an abuse of discretion?"¹⁰⁷

The legislative findings under the BMSLCA echo these concerns, suggesting a link between the Constitution and the legislation that could support further regulatory action. The findings include, among others: "(2) Damage from mine subsidence has seriously impeded land development of the Commonwealth. (3) Damage from mine subsidence has caused a very clear and present danger to the health, safety and welfare of the people of Pennsylvania. (4) Damage by subsidence erodes the tax base of the affected municipalities..."¹⁰⁸ All of these factors suggest a basis for adopting more preventive measures to supplement the repair and compensation measures that are embodied in Act 54.

3.0 REGULATION OF HYDROLOGIC EFFECTS OF LONGWALL MINING

3.1 PREVENTION OF DAMAGE TO WATER SUPPLIES

3.1.1 *Federal Requirements*

Federal law does not clearly spell out detailed prevention duties with respect to developed water supplies. Although SMCRA does require the operator to describe the measures to be taken to protect water supplies, these duties are expressed in broad terms.¹⁰⁹ Most of the focus of performance standards is on duties to minimize damage to groundwater and surface water systems. Operators must "minimize the disturbances of the prevailing hydrologic balance at the minesite and in associated offsite areas, and to the quantity of water in surface ground water systems."¹¹⁰ Operators must "avoid" acid or toxic mine drainage, and "prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow or runoff outside the permit area."¹¹¹ Operators must also "prevent material damage to [the] hydrologic balance outside [the] permit area."¹¹²

The most specific prevention obligations applicable to water supplies are subsidence-related. Federal regulations provide that a state regulatory authority may limit the percentage of coal extracted under or adjacent to any "aquifer or body of water that serves as a significant water source for any public water supply system" if necessary to minimize material damage.¹¹³ Also, underground mining activities may not be conducted under impoundments or bodies of water with a capacity or volume of 20 acre-feet or greater unless the subsidence control plan first demonstrates that there will be no material damage to, or reduction in the reasonable use of, the water body.¹¹⁴

3.1.2 *Pennsylvania Requirements*

Except for sources of water for public water systems, the BMSLCA does not specifically require prevention of damage to developed water supplies, focusing instead upon replacement or provision of alternative water supplies if damage should occur.

However, as under the federal regulations, operators must "minimize changes to the prevailing hydrologic balance in both the permit and adjacent areas."¹¹⁵ In addition to complying with effluent limits, operators must "avoid" drainage into groundwater and surface water from pollution-forming underground development waste and spoil.¹¹⁶ Regulations provide that underground mining must be conducted in a manner that maintains the value and reasonably foreseeable uses of perennial streams, such as aquatic life, recreation, and water supply, as they existed prior to mining beneath the stream.¹¹⁷ Pennsylvania's Clean Streams Law also requires

that discharges from underground mines not pollute the waters of the Commonwealth.

The DEP may limit the percentage of coal extracted under or adjacent to any "aquifer or body of water that serves as a significant water source for any *public* water supply system" if necessary to minimize material damage.¹¹⁸ Also, underground mining activities may not be conducted under impoundments or bodies of water with a capacity or volume of 20 acre-feet or greater unless the subsidence control plan first demonstrates that there will be no material damage to, or reduction in the reasonable use of, the water body.¹¹⁹

3.2 REPLACEMENT OF DAMAGED WATER SUPPLY

3.2.1 *Federal Requirements*

Although the issue of whether SMCRA required underground coal mine operators to replace damaged water supplies was disputed for many years, in 1988, a federal appeals court ruled that OSM was not obliged to require states to compel operators to replace damaged water supplies.¹²⁰ Congress responded by enacting a mandatory water replacement requirement limited to certain water supply uses. The 1992 EPA Act provides that "underground coal mining operations conducted after October 24, 1992" must "promptly replace any drinking, domestic, or residential water supply from a well or spring in existence prior to the [permit] application . . . which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations."¹²¹

The federal regulations define "drinking, domestic or residential water supply" as "water received from a well or spring and any appurtenant delivery system that provides water for direct human consumption or household use." Wells and springs that serve only agricultural, commercial or industrial enterprises are excluded, except to the extent that they support direct human consumption, sanitation, or domestic use.¹²² The regulations provide that the water loss will be determined using the hydrologic and geologic baseline information required as part of the permit application.¹²³ The federal regulations do not create presumptions, nor do they establish time limits on claims by water users.

"Replacement of water supply" is defined as "provision of water supply on both a temporary and permanent basis equivalent to premining quantity and quality...includ[ing] provision of an equivalent water delivery system and payment of operation and maintenance

costs in excess of customary and reasonable delivery costs for premining water supplies."¹²⁴ The water supply owner may, however, accept a one-time payment for operating and maintenance costs. If the affected water supply is not needed at the time of loss nor for the postmining land use, the owner may accept the operator's demonstration that a suitable alternative supply is available and could be feasibly developed, without actually requiring replacement.¹²⁵

If a water supply is damaged, the regulatory authority must require the operator to provide additional bonding unless the replacement is completed within 90 days (which may be extended if damage is ongoing).¹²⁶

3.2.2 *Pennsylvania Requirements*

Act 54 provides that any operator who, after August 21, 1994, "as a result of underground mining operations, affects a public or private water supply by contamination, diminution or interruption" must "restore or replace" the supply with an alternate source which "adequately services in quantity and quality the premining uses of the supply or any reasonable uses of the supply."¹²⁷ The quality of the replacement supply is deemed adequate if it meets drinking water standards, or is comparable to the premining supply if that supply did not meet such standards.¹²⁸

While federal law is limited to replacement of drinking, domestic, or residential water supplies from a well or spring, in Pennsylvania the law requires replacement of a water supply "used for domestic, commercial, industrial or recreational purposes, or for agricultural uses...or which serves any public building or any noncommercial structure customarily used by the public, including, but not limited to, churches, schools and hospitals."¹²⁹ Agricultural uses include water supplies to be used in constructed irrigation systems that were in place on August 21, 1994.¹³⁰

However, Pennsylvania law does not require replacement of the following water supplies that are protected by federal law: (1) drinking, domestic, or residential water supplies affected between Oct. 24, 1992 and August 21, 1994, (2) cases where landowners waived water supply replacement (not waivable under federal law) or accepted compensation, and (3) cases where the mine operator was denied access to conduct pre- or postmining surveys and no pre-mining data was available.¹³¹

Under Act 54, a landowner or water user must notify the mine operator of a claim of contamination, diminution or interruption, and the operator must investigate "with reasonable diligence."¹³² The operator must notify the DEP of any claim and its disposition.¹³³ Within 24

hours of notice from the landowner or water user, the operator must provide a "temporary water supply" if the affected water supply is within a 35 degree angle of draw from the outside of any coal removal area and the user is "without a readily available alternate source."¹³⁴ If a temporary supply is not provided within 24 hours, the department must order the operator to provide one within 24 hours.¹³⁵

If the water supply is not replaced or if the operator ceases to provide an alternate source, the landowner or water user may request a DEP investigation. The DEP must investigate any claim of water loss within ten days of such request and determine within 45 days whether the mining activity caused the damage to the water supply, notifying all parties of its finding. If it finds causation, the DEP must order the operator to comply with its obligations, including temporary water supplies and permanent replacement.¹³⁶ The law's further explanation of DEP's authorities says that the DEP may order the operator to provide "a permanent alternate source where the contamination, diminution or interruption does not abate within three years of the date on which the supply was adversely affected."¹³⁷

Any landowner, water user, or operator aggrieved by an "order or determination" by DEP has the right to appeal "such order" to the Environmental Hearing Board within 30 days of its receipt.¹³⁸

The operator is presumptively responsible for water replacement if the affected supply is within a 35-degree angle of draw from the outside of any coal removal area. However, the operator may rebut this presumption if it affirmatively proves that it was denied access "to conduct premining and postmining surveys of the quality and quantity of the supply" and that it had thereafter served notice upon the landowner by certified mail and the landowner failed to provide access within ten days after receipt of the notice.¹³⁹ Under the statute, this denial of access *does not bar recovery by the landowner*, but simply shifts the burden of proof from the operator to the claimant or the DEP.

If the presumption does not apply, the landowner, user, or DEP must prove that the operator caused the contamination, diminution, or disruption. Moreover, if the operator was denied access to conduct a premining survey despite serving the required notice, the landowner or Department *must* produce "premining baseline data...relative to the water supply" as part of the proof.¹⁴⁰ Thus, where the operator was not allowed to collect premining baseline data, more than mere assertions of damage to the water supply must be shown.

A mine operator can entirely avoid liability for water replacement by affirmatively proving that the contamination, diminution or interruption:

- (1) existed prior to the mining activity as determined by a premining survey,
- (2) occurred more than three years after the mining activity, or
- (3) was caused by something other than the mining activity.¹⁴¹

An operator is also "not liable" for water replacement under Act 54 if the claim was made more than two years after the water supply was adversely affected.¹⁴²

The Environmental Quality Board has now interpreted the water replacement obligation as extending to contamination, diminution or interruption "from the time of underground mining to the period ending three years after reclamation has been completed."¹⁴³ This interpretation of the three-year limitation is broader than that in the DEP's Program Guidance Manual, which formerly interpreted the provision to bar claims for water supply impacts occurring "more than 3 years after the most recent mining in the vicinity of the supply."¹⁴⁴

On the issue of permanent remedies, if a water supply is "not restored or reestablished or a permanent alternate source" is not provided within three years, the landowner may either negotiate for and accept agreed compensation from the mine operator, or "at the option of the landowner" may require the mine operator to purchase the property for its fair market value as of the time immediately prior to the damage to the water supply, or may require the mine operator to make a one-time payment reflecting the diminution in fair market value brought about by the damage to the water supply.¹⁴⁵ The landowner may request from DEP an advisory opinion on whether a permanent water supply cannot "reasonably be restored or that a permanent alternate source...cannot reasonably be provided" in order to assist the landowner in exercising these rights to compensation.¹⁴⁶

Notwithstanding the specific replacement and compensation requirements of Pennsylvania law, a mine operator and landowner may enter into a voluntary agreement at any time to establish the "manner and means" for water replacement or for compensation. In order to be valid, the release of liability must clearly state what rights are established by the law, the landowner must expressly acknowledge the release for value received, and the term of the release must not exceed 35 years.¹⁴⁷ The landowner must incorporate the agreement and release in any deed for the conveyance of the property covered by the agreement.¹⁴⁸ If a voluntary agreement calls for restoration or replacement, but the water supply "cannot be reasonably restored" or an

alternate source "cannot reasonably be provided" within three years after the damage, the landowner may elect to invoke his or her statutory right to sell the land to the operator or receive compensation for the diminution in fair market value (minus any payment already received under the agreement).¹⁴⁹

Act 54 does not specifically address the provision of an additional bond to cover water supply replacement as under the federal regulations.¹⁵⁰ The Environmental Quality Board has concluded that the law "does not authorize" DEP to require additional bonding to ensure the resolution of water supply complaints.¹⁵¹

Act 54 provides that the rights to water replacement or compensation set forth in the Act are non-exclusive, and landowners and water users not proceeding under this law may pursue any other remedies available at law or equity, subject to any defenses that may be available in mineral deeds, leases, or otherwise.¹⁵²

3.3 DISCUSSION

The array of water supply uses for which replacement is required under Pennsylvania law is far broader than the "drinking, domestic, or residential" supplies covered by the federal requirements. However, the Pennsylvania law does not require replacement of water supplies damaged between the date of the federal law (October 24, 1992) and the state law (August 21, 1994).

Act 54 establishes a rebuttable presumption of operator liability if a water supply is within a 35-degree angle of draw of the coal removal area. This is broader than the federal law, which contains no such presumption. However, Pennsylvania denies use of the presumption if the surface owner fails to grant access for premining and postmining surveys of the water supply. If the presumption does not apply (either because the water supply is outside the angle of draw or because of denial of access), the surface owner and DEP must use "premining baseline data" concerning the water supply. It is unclear what level of data would be deemed sufficient for this purpose: Testimony that water once came out of the faucet and doesn't? Or that the owner could fill a stock trough in ten minutes and now it takes 3 hours? The regulations and DEP guidance manual do not provide guidance on this point

As with provisions regarding surface owner denial of access for premining and postmining subsidence surveys (discussed above), the regulations do not provide a means to cure

such denials in cases where there would be no prejudice to the operator but the information could still be obtained in time to assist the finder of fact.

Act 54 cuts off all rights to replacement or compensation under the Act for failure to make a claim for water loss within 2 years of the loss, or if mining occurred more than 3 years before the loss. The 3-year post-mining cutoff, in particular, appears unduly strict and potentially inconsistent with federal regulations. Although most water losses (particularly in quantity) from longwall mining occur rapidly, it is not at all clear that water losses from contamination will all occur within three years of the nearest mining. This may be particularly true where the mine is flooded after mining. Similarly, where the hydrologic regime is altered by another part of the mine but the effect is experienced in a previously mined area, the three-year cutoff may be inappropriate. The Environmental Quality Board's interpretation of the three-year cutoff provision as being triggered by the completion of reclamation at the mine, rather than simply completion of coal extraction in the particular longwall panel nearest the water supply is apparently intended to address this concern. The two-year limit for filing of claims provided by Act 54 may also raise concerns, but procedural provisions like state statutes of limitation are more apt to receive federal deference than are cut-offs of liability based on state substantive provisions.

Act 54 provides that if a water supply is not restored or replaced within three years, the operator may be relieved of further responsibility by entering into a compensation agreement, or (at the election of the surface owner) purchasing the property for its premining value or paying the amount of the diminution in value of the property caused by the water loss. This buyout option is usable where the supply "cannot reasonably be restored" or a permanent alternate source "cannot reasonably be provided"; but these terms are not defined. The "reasonably" language is particularly troublesome, as it may suggest an economic test or balancing test for restoring or replacing water supplies. If this is the case, then Act 54 would create a virtual "eminent domain" right over properties with water supplies in the vicinity of longwall mines. It should be noted that the federal law and regulations do not provide for a buyout, but require replacement in all instances.

As noted in the preceding section, the BMSLCA provides ample authority to adopt additional protective requirements. These are not simply limited to elaborations on obligations to replace water supplies, but may also support additional preventive obligations if the Environmental Quality Board and the DEP sought to adopt them. Of particular note in this regard is the "Purpose" section of the BMSLCA, as amended: "This act shall be deemed to be an

exercise of the police powers of the Commonwealth for the protection of the health, safety and general welfare of the people of the Commonwealth, by providing for the conservation of surface land areas which may be affected in the mining of bituminous coal by methods other than "open pit" or "strip" mining, to aid in the protection of the safety of the public, to enhance the value of such lands for taxation, *to aid in the preservation of surface water drainage and public and private water supplies*, to provide for the restoration or replacement of water supplies affected by underground mining, to provide for the restoration or replacement of or compensation for surface structures damaged by underground mining and generally to improve the use and enjoyment of such lands and to maintain primary jurisdiction over surface coal mining in Pennsylvania."¹⁵³ The italicized language provides a further basis for requiring prevention, as well as replacement.

4.0 SUBSIDENCE AND WATER LOSS ISSUES IN THE PERMITTING AND ENFORCEMENT PROCESS

4.1 PERMITTING ISSUES

Before an underground coal mining operation may begin surface-disturbing activities it must obtain a permit under the BMSLCA. Operators are also required to conduct surveys of structures and water supplies and to give notice to surface landowners prior to the undermining of properties. Surface owners and others have opportunities for involvement in the permitting and premining survey processes. This section describes the Pennsylvania process, with cross-references to federal requirements where appropriate.

The permit is the heart of the regulatory process. The operator is required to file a copy of the permit application with the recorder of deeds of each county where the operation is located, and to give notice of the application within 5 days to each affected political subdivision.¹⁵⁴ Notice of the permit application must be published in local newspapers once a week for four consecutive weeks.¹⁵⁵ The DEP publishes notice of the application in the Pennsylvania Bulletin. The public has an opportunity to comment on the application for a period extending 30 days after the appearance of the last newspaper notice.¹⁵⁶ In addition, any person may request an informal conference with the DEP concerning the application.¹⁵⁷

Pennsylvania's permit application regulations require preparation and submittal of detailed geologic data, watershed data, hydrologic data, substantial technical information, and a mining map.¹⁵⁸ Under Pennsylvania regulations, operators must submit subsidence control plans

with the permit application.¹⁵⁹ The subsidence control plan must address, at a minimum, the area within a 30-degree angle of draw.¹⁶⁰ The plan must describe whether subsidence "could cause material damage to or diminish the value or reasonably foreseeable use of any structures or could contaminate, diminish, or interrupt water supplies."¹⁶¹ The plan must also describe measures to maintain the value and reasonably foreseeable use of the surface land and perennial streams; these requirements are believed by the Environmental Quality Board to address a corresponding federal requirement to project subsidence impacts to "renewable resource lands."¹⁶²

Pennsylvania operators must also conduct pre-subsidence surveys of structures prior to "the time that a structure falls within a 30 degree angle of draw of underground mining, or such larger area as required by the Department."¹⁶³ The regulations excuse the operator from surveying a structure constructed less than 15 days before the structure falls within the angle of draw.¹⁶⁴ The results of the survey must be provided to the land owner within 30 days of completion, and to the DEP upon request.¹⁶⁵ The operator must not provide the results of the premining survey of structures to anyone other than the structure owner and the DEP.¹⁶⁶

Federal regulations require both the subsidence control plan and the pre-subsidence survey to be submitted with the permit application.¹⁶⁷ However, under Pennsylvania regulations, the operator is not required to conduct the pre-subsidence survey until "prior to the time that a structure falls within a 30 degree angle of draw of underground mining."¹⁶⁸ The timing of the structure survey under the 1998 Pennsylvania regulations may be inconsistent with federal law and problematic in practice.¹⁶⁹ Although it is desirable to know the pre-mining condition of structures close to the time of mining both in order to establish the baseline for repair and compensation and to protect such structures as they then exist, it may also be quite difficult at that time to redesign the overall mining approach or include appropriate preventive measures in the subsidence control plan if the structures are not assessed until after the permit has been issued.

Federal regulations require planned subsidence operators to describe measures to "minimize" material damage to dwellings and noncommercial buildings unless the owner has consented in writing to such damage or the cost of minimization measure exceeds the anticipated cost of repair (except where health and safety is involved).¹⁷⁰ The operator must also describe measures to "mitigate or remedy" material damage to the land and such structures.¹⁷¹ The Pennsylvania regulations only require the subsidence control plan submitted with the application to include a description of measures to be used to correct any subsidence-related material damage to surface lands;¹⁷² and to describe measures to ensure that subsidence will not cause material

damage to, or reduce the reasonably foreseeable uses of, public buildings and water bodies greater than 20 acre-feet.¹⁷³ But with respect to dwellings and other structures, the regulations do not address such minimization at the permit application stage. The Environmental Quality Board has concluded that "the specific plans to minimize damage to a particular structure are best determined near the time of mining rather than at the time of permit application."¹⁷⁴

It is important that surface owners be aware of the significance of the pre-subsidence survey. The Pennsylvania statute and regulations provide that if the surface owner fails to provide access within 10 days of the operator's notice of intent to conduct a survey, and the operator's notice advised the surface owner that failure to provide access would bar the owner altogether from maintaining a claim for subsidence repair or compensation, the surface owner cannot maintain a claim for repair or compensation.¹⁷⁵ The federal regulations provide only that if a surface owner denies the operator access, upon notice by the operator, the denial of access will prevent the owner from taking advantage of the federal regulations' rebuttable presumption of liability within the 30-degree (or other approved) angle of draw, which is not found in Act 54.¹⁷⁶

Premining requirements also apply to potential effects on water supplies. Pennsylvania regulations require the subsidence control plan submitted with the permit application to describe whether subsidence "could contaminate, diminish, or interrupt water supplies."¹⁷⁷ A similar prediction is required in the operation plan, submitted with the permit application.¹⁷⁸ Pennsylvania's Act 54 provides that operators must describe how they intend to replace water supplies contaminated, diminished, or interrupted by underground coal mining activities.¹⁷⁹ The regulations require that the information on plans for water replacement must be provided with the operation plan filed with the permit application.¹⁸⁰

The federal regulations provide that the operator must record the quantity and quality of all drinking, domestic, and residential water supplies within the permit area and adjacent area that could be adversely affected by subsidence, and must submit this information with the permit application.¹⁸¹ Pennsylvania's regulations require the operator to conduct a premining survey of the quantity and quality of all water supplies within the permit and adjacent areas.¹⁸² However, in Pennsylvania the premining survey need not be conducted prior to the permit application, but only "prior to mining within 1000 feet of a water supply unless otherwise authorized or required by the Department based on site specific conditions."¹⁸³ The results of the analysis must be provided to the landowner and the DEP within 30 days of their receipt by the operator.¹⁸⁴ The premining survey need not be conducted if the owner will not allow access to the site; the

operator must, in that case, submit evidence that the owner failed to provide access within 10 days of the operator's notice of intent to conduct a survey; the notice must advise the owner that failure to provide access will bar the owner from relying on the presumption for water replacement where the affected supply lay within a 35-degree angle of draw.¹⁸⁵

The timing of the premining survey may not be consistent with the federal requirements because it places the water supply survey too late in the permitting process (indeed, allowing it after the permit has been issued), thus making planning for the protection or restoration of water supplies more difficult. However, Pennsylvania's requirements (applicable at the time of permit application) that operators predict whether there will be impacts on water supplies,¹⁸⁶ inventory the quantity and quality of water and usage of wells and springs,¹⁸⁷ and provide a description of measures to replace such supplies,¹⁸⁸ may provide a similar level of protection if they are interpreted strictly by the DEP.

Underground coal mining operators must give notice by registered or certified mail to political subdivisions and to surface landowners at least six months prior to mining under the property.¹⁸⁹ The notices must advise landowners of the availability of mining maps, which must be filed both with the county recorder of deeds and with the offices of whatever political subdivisions request them.¹⁹⁰ Mining maps must be updated every six months.¹⁹¹

4.2 ENFORCEMENT ISSUES

Commonwealth Court and the courts of common pleas each have jurisdiction to issue injunctions to prevent violations of the BMSLCA and otherwise to enforce the law upon suit by the DEP, the county commissioners, any political subdivision, or any affected property owner.¹⁹² Officials of political subdivisions, including counties, within which underground mining is conducted, and their agents, are legally entitled to access to inspect the mining operations to determine whether the provisions of the law are being complied with.¹⁹³

Citizen suits for compliance may be brought after 60 days' notice to the DEP and any alleged violator, or immediately upon notice to the DEP where the violation or order complained of presents an imminent threat to the health or safety of the plaintiff or would immediately affect a legal interest of the plaintiff.¹⁹⁴

County commissioners have independent authority to prevent underground coal mining in violation of the law, and to prevent the miners from entering the mine until such time as the law

is complied with.¹⁹⁵

Civil penalties may be assessed by DEP for up to \$5,000 per day for each violation; and not less than \$750 per day for failure to correct a violation within the period prescribed by order or notice of violation. Criminal penalties are also prescribed.¹⁹⁶ The existence of unresolved subsidence claims may not be used by DEP to withhold permits or delay the processing of permits, however, unless the operator has violated a DEP order to make repairs or pay compensation.¹⁹⁷

SMCRA provides for back-up enforcement by OSM in the event that a state is not adequately enforcing its approved program. If OSM becomes aware of a violation, it must give the DEP ten days' notice before taking enforcement action itself, unless the violation is causing an imminent danger to the public health and safety or significant imminent environmental harm, in which case OSM may act immediately.¹⁹⁸ Where the violation involves a water replacement or subsidence damage provision of EPAct that is not covered by Pennsylvania law, OSM will take enforcement action itself under the federal law after notice to DEP.

5.0 REGULATION OF VALLEY FILLS

Disposal of materials in stream valleys has arisen as an issue in recent years in Pennsylvania as underground coal mining operations seek to locate disposal areas for the wastes associated with coal preparation and processing. In Pennsylvania this is commonly referred to as the "valley fill" issue.

In much of the eastern United States the term "valley fill" is used broadly to refer to the controlled disposal of any surface or underground mining-associated material (such as overburden, waste rock, spoil, or coal refuse) in a steep stream valley.¹⁹⁹ Pennsylvania's bituminous coal mining operations generally have disposed of such materials elsewhere (either at the mine site in order to restore the site to its approximate original contour, or in permitted coal refuse disposal areas not located in stream valleys). Thus, there is sometimes a misunderstanding when the term "valley fill" is being discussed in a federal or regional context. As used in Pennsylvania, the term "valley fill" is generally understood to refer to the siting of permitted coal refuse disposal areas in stream valleys under the Commonwealth's Coal Refuse Disposal Control Act (CRDCA).²⁰⁰

5.1 COAL REFUSE DISPOSAL CONTROL ACT

Prior to 1994, Pennsylvania law did not allow coal refuse disposal within one hundred feet of a stream bank.²⁰¹ In 1994, Pennsylvania amended its Coal Refuse Disposal Control Act in order to give the DEP authority to grant variances to this provision. The amendments allow coal companies to apply for a variance to "dispose of coal refuse and to relocate or divert streams in the stream buffer zone if the operator demonstrates to the satisfaction of the department that there will be no significant adverse hydrologic or water quality impacts as a result of the variance."²⁰² The 1994 amendments (referred to as Act 114) also established new requirements for the siting of coal refuse disposal areas and new design and performance standards. In addition, Act 114 provided for a special authorization process and modified effluent limits for coal refuse disposal areas sited on lands with a pre-existing pollution discharge. The Act 114 provisions apply to new coal refuse disposal sites permitted on or after January 6, 1995, including lateral expansions of existing sites.

Act 114 was conditionally approved in 1998 by the federal Office of Surface Mining as part of Pennsylvania's primacy program under SMCRA.²⁰³ The Pennsylvania regulations for coal refuse disposal operations (Chap. 90) have not been amended since the enactment of Act 114, except in connection with broad amendments to all of Pennsylvania's mining regulations (Chaps. 86-90) intended to reduce requirements to federal minimum standards whenever possible in accordance with the Governor's Executive Order 1996-1 and the DEP's "Reg Basics Initiative."²⁰⁴

Act 114 does require the Environmental Quality Board to develop regulations to implement a portion of the Act dealing with coal refuse disposal on previously affected areas in order to assure consistency with federal and state water quality provisions for re-mining of surface coal mined areas.²⁰⁵ These regulations have not yet been developed. In 1997, the DEP circulated a draft technical guidance document on site selection for coal refuse disposal sites. Final guidance was issued in 1998.²⁰⁶

5.2 PERMITTING PROCESS

As administered by the DEP, the CRDCA provides for a two step process for coal companies to dispose of coal refuse in a valley fill. First, a suitable site must be selected; and second, the company must obtain a permit for coal refuse disposal from the DEP. A number of state and federal agencies play a role, or can become involved, in the site selection and permitting processes. These include the DEP, the Pennsylvania Fish and Boat Commission, the

Pennsylvania Game Commission, the U.S. Army Corps of Engineers, the federal Office of Surface Mining, U.S. EPA Region III, and the U.S. Fish and Wildlife Service.²⁰⁷

5.2.1 *Site Selection*

Subject to valid existing rights (usually defined as possessing a valid permit prior to 1977) certain lands are designated by both federal and state law as off-limits for coal refuse disposal.²⁰⁸ These include lands within the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System (including study rivers), and National Recreation Areas designated by Congress. Coal refuse disposal is also not permitted on any Federal lands within the boundaries of any National Forest except where the Department of Interior and the DEP find that there are no significant recreational, timber, economic, or other values that may be incompatible with disposal operations. Disposal in parks or places on the National Register of Historic Sites is also prohibited unless approved jointly by the DEP and any federal, state, or local agency with jurisdiction over the site.²⁰⁹

Coal refuse disposal is also not permitted within one hundred feet of any public road except where mine access roads or haulage roads join the outside right of way line. DEP may permit roads to be relocated or the area affected to lie within one hundred feet of a right of way line if after public notice and opportunity for public hearing, a written finding is made that the interests of the public land and the landowners affected will be protected. Disposal operations are not permitted within three hundred feet of any occupied dwelling (unless waived by the owner) nor within three hundred feet of any public park, public building, school, church, community, or institutional building, nor within one hundred feet of a cemetery.²¹⁰ As noted above, disposal was also not permitted within one hundred feet of any stream bank; but because state law had created the stream bank prohibition, the legislature was free to amend this provision to allow a variance like that provided for in federal regulations.²¹¹ In 1994, the legislature in Act 114 authorized DEP to grant variances to dispose of coal refuse within one hundred feet of a stream bank and to relocate and divert streams if the operator demonstrates that there will be "no significant adverse hydrologic or water quality impacts as a result of the variance."²¹²

The federal Office of Surface Mining granted conditional approval to this variance provision, noting that it lacked several provisions found in the corresponding federal variance. The federal regulations allow a variance from the stream buffer requirement only where the authorized activity will not "cause or contribute to the violation of applicable State or Federal

water quality standards *and* will not adversely affect the water quantity and quality or other environmental resources of the stream."²¹³ The Act 114 variance language does not expressly address water quality standards, although this may be implied. But Act 114's use of the word "significant" to modify "adverse hydrologic or water quality impacts," introduces a qualifying word not present in the federal standard which may make Pennsylvania's variance less protective of streams. It is also not clear whether the Act 114 variance protects "other environmental resources of the stream." Thus, the Office of Surface Mining conditioned its approval of the Pennsylvania program upon modification of the variance provision to reflect the federal standards.

Act 114 also provides that, except for preferred sites (see below), coal refuse disposal operations shall not be sited in prime farmlands, in sites known to contain threatened or endangered species, in watersheds designated as "exceptional value" under the regulations implementing Pennsylvania's Clean Streams Law, in areas hydrologically connected to certain exceptional value wetlands, and in watersheds of less than 4 square miles located upstream of public water supplies or public recreational impoundments.²¹⁴

The site selection process begins with an applicant identifying a search area for potential coal refuse disposal sites. Act 114 states that:

For new refuse disposal areas to support an existing coal mining activity, the applicant shall identify the alternative sites considered within a one mile radius and the basis for their consideration...For other new coal refuse disposal activities, the applicant shall identify the alternative sites considered within a twenty-five square mile area and the basis for their consideration.²¹⁵

The DEP's technical guidance document provides that the DEP district mining office should "encourage meetings involving the applicant, the Pa. Fish and Boat Commission, the Pa. Game Commission and the U.S. Fish and Wildlife Service at key points in the [site selection] review process including: prior to the site selection process to discuss the procedures to be used; before defining the search area; before selecting the final site; and before developing a mitigation plan."²¹⁶ There are, however, no procedures for involving the public in any of these stages. Nor is there any notice to the public that an operator is engaged in site selection discussions, studies, and negotiations.

5.2.1.1 Preferred Sites

Identifying a "preferred site" within the designated search area is the next step for the applicant. A "preferred site" is defined by Act 114 as:

- (1) A watershed polluted by acid mine drainage.
- (2) A watershed containing an unreclaimed surface mine but which has no mining discharge.
- (3) A watershed containing an unreclaimed surface mine with discharges that could be improved by the proposed coal refuse disposal operation.
- (4) Unreclaimed coal refuse disposal piles that could be improved by the proposed coal refused disposal operation.[or]
- (5) Other unreclaimed areas previously affected by mining activities.²¹⁷

The DEP's technical guidance document states that ordinarily about 25 percent of the first-order watershed where the coal refuse disposal area is to be sited should consist of unreclaimed mine lands in order to invoke (2) or (3).²¹⁸

By designating these areas as preferred disposal sites, the law creates an incentive for operators to redisturb areas previously affected by coal mining activities rather than to disturb new areas.

A site otherwise meeting one of the five criteria is not "preferred" under the statute if the "adverse impacts" of its use for coal refuse disposal "clearly outweigh the public benefits."²¹⁹ If a preferred site is considered for coal refuse disposal, the applicant must identify any adverse environmental impacts and any public benefits that might occur as a result of coal refuse disposal, including any environmental impacts that might result from a variance to the stream buffer requirement. The applicant must submit this information to the DEP for evaluation.²²⁰ If the DEP finds that adverse environmental impacts outweigh public benefit, site approval is denied, and the DEP issues a report documenting the reasoning behind the its decision. If the DEP finds that adverse environmental impacts do not outweigh public benefit, site approval is granted, and the permitting process begins.²²¹

The first valley fill site selection completed entirely under Act 114 illustrates this process. The operator chose a "preferred site" after searching a 1-mile radius. The operator, DEP, the Fish and Boat Commission, the Game Commission, and the Army Corps of Engineers engaged in discussions concerning the adverse environmental impacts of the chosen disposal site, and

determined that the adverse impacts would not (with mitigation) outweigh the public benefit. Mitigation was needed for loss of a length of stream and approximately 2-3 acres of wetlands; the parties identified a mitigation site not near the proposed disposal site because there was little nearby disturbed area suitable for restoration activities. The mitigation site selected was an unreclaimed refuse pile adjacent to a stream. The preferred site and mitigation plan were decided upon among the agencies and the company during the site selection phase.²²²

5.2.1.2 Non-preferred sites

If there are no preferred sites within the search area, or if an applicant identifies a preferred site within the search area but does not intend to use it based on the greater suitability of another site, the applicant must conduct an alternatives analysis comparing all potential sites. The analysis must demonstrate the basis for exclusion of other sites, and must demonstrate that the proposed site is "the most suitable on the basis of environmental, economic, technical, transportation, and social factors."²²³

The Pennsylvania DEP uses this analysis, along with a study of adverse environmental impacts conducted by the Pennsylvania Fish and Boat Commission, to determine whether the adverse environmental impacts outweigh public benefit for coal refuse disposal in a non-preferred site. If the DEP finds that adverse environmental impacts outweigh public benefit, site approval is denied, and DEP issues a report documenting the reasoning behind its decision. If DEP finds that adverse environmental impacts do not outweigh public benefit, site approval is accepted, and the permitting process begins.²²⁴

5.2.2 *Permitting*

The permit is the public process wherein the operation is evaluated. The DEP's technical guidance document contemplates this process as commencing *after* the operator and state agencies have agreed on the selected site:

After site selection has been approved by the Department, the operator may submit an application to obtain a permit to dispose of coal refuse on the selected site.²²⁵

Statutory permit procedures require the applicant to publish notice of the filing of the application in local newspapers once a week for four consecutive weeks, and public notice and comment procedures are governed by the same regulations that govern the permitting of

underground coal mines described previously in this report.²²⁶ Written comments or objections may be submitted to the DEP within 30 days after the last publication of the newspaper notice; and any person may request an informal conference on the application during the same period. The conference must be held publicly within 60 days of the close of the public comment period.²²⁷

The permit application must contain detailed geological, hydrological, engineering, and other information prescribed by the CRDCA and regulations.²²⁸ Permit application information is available for public review and inspection.²²⁹ The DEP conducts a technical review of the entire application. The plan must "include a system to prevent adverse impacts to surface and ground water and to prevent precipitation from contacting the coal refuse."²³⁰ In addition, the system must, when final reclamation of the disposal area is achieved, minimize infiltration to the extent practicable and be graded to promote surface runoff in a manner that does not promote erosion. The reclaimed area, including the infiltration control system, must allow for revegetation.²³¹

The decision on the permit must be made within 60 days after the informal hearing.²³² If the permit is approved, the operator must post the required bond. Prior to commencing disposal operations "the operator shall file with the department a bond for the land to be affected by the coal refuse disposal area . . . payable to the Commonwealth The amount of the bond required shall be in an amount determined by the secretary based upon the total estimated cost to the Commonwealth of completing the approved reclamation plan."²³³ In accordance with DEP's bonding guidelines, an applicant posts a bond equal to \$1,000 per each disturbed acre of land. Under the statute no bond may be less than \$10,000.²³⁴ In the Vesta Mining application, which was the first approved under Act 114, the DEP required a bond of \$3,000 per acre, covering both the coal preparation plant and the associated coal refuse disposal area (\$3,000 per acre is the usual amount required for preparation plants).²³⁵

Liability under the bond extends for the duration of the operation plus five years after completion of reclamation.²³⁶ Bonds may be released on a phased basis, but no part of the bond is to be released so long as "the lands to which the release would be applicable are contributing suspended solids to streamflow or runoff outside the permit area in excess of the requirement of law."²³⁷ DEP releases the entire bond when "the operator has completed successfully all coal refuse disposal and reclamation activities" after the period of responsibility has been completed.²³⁸ Bond releases are subject to public notice and comment procedures.²³⁹

5.2.2.1 Stream Buffer Variance

For valley fill disposal, an applicant must submit an additional request for variance to the prohibition against coal refuse disposal within 100 feet of a stream bank. The application must include a list of all adverse hydrologic and water quality impacts resulting from coal refuse disposal activities within 100 feet of the stream bank, a mitigation plan to prevent or reduce adverse environmental impacts, proof of public notification in two newspapers of general circulation, and a complete scientific characterization of streams to be impacted by the coal refuse disposal. The Pennsylvania DEP provides copies of the application to the Army Corps of Engineers, US EPA, US Fish and Wildlife Service, Pennsylvania Fish and Boat Commission, and the Pennsylvania Game Commission. These agencies have 30 days in which to respond to the application.²⁴⁰ The US EPA has stated that it intends to review individually all applications for instream coal refuse disposal projects in the Commonwealth.²⁴¹

Pennsylvania law requires an applicant to "give public notice of his application for the variance in two newspapers of general circulation in the area once a week for two successive weeks. Should any person file an exception to the proposed variance within twenty days of the last publication of the notice, the department shall conduct a public hearing with respect to the application within thirty days of receipt of the exception." It is at this time that any person may comment upon the application for variance, and a hearing may be held to address public concerns. The Department must also "consider any information or comments submitted by the Pennsylvania Fish and Boat Commission prior to taking action" upon the request.²⁴²

The variance process will typically be combined with, and handled concurrently with, the coal refuse disposal permit process.

5.2.2.2 Special Authorization for Site With Pre-Existing Discharge

If an operator proposes to engage in coal refuse disposal activities in an area with pre-existing pollution discharges resulting from mining operations, DEP must issue special authorization to proceed with coal refuse disposal activities.²⁴³ Such a special authorization may be necessary where the operator has selected (or been required to select) a "preferred site," since some such sites, by definition, have discharges that do not meet state water quality standards.

The operator must provide a characterization of all preexisting discharges with its application. In order to obtain special authorization, the operator must demonstrate that "the

proposed pollution abatement plan will result in a significant reduction of the baseline pollution load and represents best technology."²⁴⁴ Pre-existing discharges that are encountered by the coal refuse disposal facility must be treated in accordance with effluent standards during the life of the operation.²⁴⁵ The operator must also demonstrate that the area can be reclaimed and that the coal refuse disposal activities will not cause any additional surface water pollution or groundwater degradation.²⁴⁶

An operator granted special authorization is relieved of the requirements of the Clean Streams Law with respect to non-encountered preexisting discharges "to the extent of the baseline load" if the operator complies with the terms and conditions of the pollution abatement plan approved as part of the application and the baseline load has not been exceeded at the time of final bond release.²⁴⁷ An operator may be required to treat non-encountered preexisting discharges under some circumstances if the operator causes the baseline pollution load to be exceeded.²⁴⁸

In establishing the bond amount for special authorization areas, the DEP is to credit toward the amount of the bond any funds collected from a prior bond forfeiture on the area.²⁴⁹ The federal Office of Surface Mining has conditioned its approval of this provision on a showing that this credit would not result in a lesser standard of reclamation than would have been achieved under the original bond forfeiture.²⁵⁰

5.3 OTHER PERMITS

In addition to the coal refuse disposal permit, an operator wishing to construct a coal refuse valley fill must obtain two permits under the federal Clean Water Act in connection with the placement of material into streams and operation of the coal refuse disposal facility. The U.S. Army Corps of Engineers must issue a Section 404 permit which regulates the placement of materials into waterways.²⁵¹ And the DEP must issue a discharge permit under the Commonwealth's Clean Streams Law satisfying the requirement under Section 402 of the federal Clean Water Act for permitting of pollution discharges.²⁵²

The § 404 permit may be issued by the Corps on an individual permit application, subject to notice and comment procedures. The permit process requires that the applicant demonstrate that there are not "practicable alternatives" to the discharge of the material in the selected location that would have less adverse effects on the aquatic ecosystem.²⁵³ The Corps also applies a sequence of steps to determine that the applicant has minimized adverse effects on the aquatic

ecosystem.²⁵⁴ An applicant must first avoid filling where possible; if impacts cannot be avoided, they must be minimized to the extent practicable by the project's design; any remaining impacts must be compensated for by providing other resources (such as rehabilitation of other stream or wetlands resources).²⁵⁵ Individual Corps permits may be vetoed by the U.S. Environmental Protection Agency if the project will have "unacceptable adverse effects."²⁵⁶

The Corps has provided for the approval of certain similar activities with minimal impacts under so-called "nationwide" general permits under the law. The nationwide permits do not require a separate, individualized permit application and public review process, but simply require notice to the Corps, and set standard conditions. Nationwide Permit 21 (NWP21) covers activities associated with coal mining activities regulated under SMCRA, allowing them provided they are authorized by a state permit.²⁵⁷ However, the practice of the Pittsburgh District of the Corps is to require operators to obtain individual § 404 permits for coal refuse valley fills because of the potential extent of the impacts.²⁵⁸

The Clean Streams permit is issued to set the pollution discharge limits from the coal refuse disposal area. The limits are the technology-based standards (based on best available technology), as modified by water quality standards (where the technology-based standards are not sufficient to meet stream quality designations). As noted under the discussion of areas with pre-existing discharges above, coal refuse disposal operations with "special authorizations" are subject to more limited (modified) effluent requirements reflecting baseline conditions. The US EPA also has the power to review the Clean Streams permit, and has stated that it will exercise this authority for each such permit issued by the DEP.²⁵⁹ Environmental organizations have argued that disposal of coal refuse and other coal-mining related materials in valley fills is unlawful under Section 402 of the Clean Water Act, Section 401 of the Clean Water Act (dealing with water quality standards), and federal antidegradation regulations intended to protect water quality and existing uses, because such fills can result in the burial of long sections of stream.²⁶⁰ No final decisions have been rendered on this issue in federal court. EPA Region III has also begun to examine valley fill permitting throughout the region to determine whether there are ways in which the process can be made more protective of riparian habitat and wetlands.

5.4 ENFORCEMENT

It is unlawful to establish, operate or maintain a coal refuse disposal area in a manner that fails to comply with any rule, regulation, order or permit of the department, or in violation of the Coal Refuse Disposal Control Act.²⁶¹ It is also unlawful to "cause air or water pollution in

connection with coal refuse disposal operations and not otherwise proscribed by" the Act.²⁶² DEP may issue orders to enforce any provision of the Coal Refuse Disposal Control Act.²⁶³ The DEP has the authority to issue cessation orders if the operator does not have a permit or where the public safety and welfare is immediately threatened. A cessation order stays in effect until the operator takes corrective steps to the satisfaction of the department.²⁶⁴ DEP may also obtain injunctive relief to restrain violations.²⁶⁵

DEP may assess civil penalties of up to \$5,000 per day for each violation, and must assess a civil penalty of not less than \$750 per day for each day of violation beyond the period described for abatement.²⁶⁶ Criminal penalties may be assessed as well.²⁶⁷ All fines, civil penalties, bond forfeitures and fees collected under the CRDCA are paid into the state treasury "Coal Refuse Disposal Control Fund." All moneys in this fund are to be used by the DEP to carry out the purposes provided in the Coal Refuse Disposal Control Act such as the elimination of pollution and the abatement of health and safety hazards and nuisances.²⁶⁸

The law provides that "Any person having an interest which is or may be adversely affected may commence a civil action on his own behalf to compel compliance with this act or any rule, regulation, order or permit issued pursuant to this act against the department where there is alleged a failure of the department to perform any act which is not discretionary with the department or against any person who is alleged to be in violation of any provision of this act or any rule, regulation, order or permit issued pursuant to this act."²⁶⁹ An action may not be filed prior to 60 days written notice to the DEP and any alleged violator, unless the violation constitutes an imminent threat to the health or safety of the plaintiff or a threat to the legal interests of the plaintiff.²⁷⁰

Any person may present information which gives the department reason to believe that a person is in violation of a requirement of the CRDCA or any condition of a permit; DEP will immediately order an inspection of the operation. The person filing the information may be present at the time of inspection.²⁷¹

The law has a savings clause that preserves the right of the Commonwealth or any district attorney to proceed in court to "abate pollutions forbidden under this act, or abate nuisances under existing law."²⁷²

The § 404 permit is enforceable by the Corps of Engineers or the U.S. Environmental Protection Agency through orders, injunctions, civil penalties, and criminal penalties.²⁷³ Clean

Streams enforcement actions may be brought by the DEP. And citizen suits, subject to the 60-day notice requirement under the Clean Water Act, are also available.²⁷⁴

5.5 PETITIONS TO DESIGNATE AREAS AS UNSUITABLE FOR COAL REFUSE DISPOSAL

Pennsylvania law allows the public and local governments to petition the DEP to designate an area as unsuitable for coal refuse disposal operations.²⁷⁵ An area must be designated, upon petition, if the DEP finds that reclamation is not technologically and economically feasible.²⁷⁶ An area may be designated if its use for disposal will be incompatible with state or local land use plans or programs, will affect fragile or historic lands in which such operations could result in significant damage, will affect renewable resource lands in which such operations could result in substantial loss of long-range productivity of water supply or food or fiber (including aquifers and aquifer recharge areas) or will affect natural hazard lands on which such operations could substantially endanger life or property.²⁷⁷

5.6 DISCUSSION

It is important to note that there is currently no role for the public in the site selection process for coal refuse disposal areas. Indeed, while the DEP has bifurcated the process in order to simplify its permitting obligations and to meet permit grant or denial timetables expeditiously by deferring the actual application until most of the agreements have already been reached, the division of coal refuse disposal permitting into a 2-step process does not appear to be required by Act 114. Section 30.54a simply requires the applicant to identify alternatives considered within the applicable area, and to demonstrate suitability of the selected site. It then provides standards for the DEP to disapprove a site. But the statute itself does not provide that either the demonstration or the approval/disapproval must take place in advance of the permit application and before the opportunity for public scrutiny. The DEP's practice and its technical guidance document, however, clearly segregate these two processes. The DEP provides for submittal of the coal refuse disposal application, with attendant public processes only "[a]fter site selection has been approved by the Department." The lack of meaningful public review is further demonstrated by the fact that even the mitigation sites are selected, designed, and approved by all of the relevant agencies before the permit application is submitted. Opening up the site selection process and the alternatives analysis to real public involvement may result in improving the site selection, alternatives analysis, and the mitigation decisions.

The DEP expects perhaps a half dozen valley fill permit applications over the next ten years, so such permits will not be a frequent occurrence. Exposing them to an earlier and more substantial level of public scrutiny should not, therefore, be unduly burdensome for the agency. Regulations to implement Act 114 have not been developed, but could improve the process by providing for reasonable levels of public involvement.

In addition, the relationship between protection of water quality, stream health, and the use of the stream buffer variance is likely to attract substantial regulatory and research attention over the next several years.

Notes

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1. 30 U.S.C. § 1201 et seq.
 2. 30 U.S.C. § 1291(28). Also see 30 U.S.C. § 1266 (setting the performance standards applicable to underground mining).
 3. 30 U.S.C. § 1309a(a).
 4. 30 U.S.C. §§ 1253, 1271(d). See generally, James M. McElfish, Jr. and Ann E. Beier, *Environmental Regulation of Coal Mining: SMCRA's Second Decade*, esp. Chapter 3 "Federal-State Relations: The Core Issue," (Environmental Law Institute, 1990).
 5. 30 U.S.C. § 1255(b).
 6. As amended, the law is found at 52 P.S. § 1406.1 et seq.
 7. See *Keystone Bituminous Coal Assn. v. DeBenedictus*, 480 U.S. 470 (1987) (upholding the Act against a constitutional challenge).
 8. "Mine Subsidence Control, Subsidence Damage Repair, and Water Supply Replacement," (amendments to 25 Pa. Code, Chapter 89), adopted March 17, 1998, Environmental Quality Board; to be published in Pa. Bulletin. (Amended regulations cited hereafter as 25 Pa. Code 89.__(1998)).
 9. 52 P.S. § 30.51 et seq. (Act 114). The CRDCA was originally enacted in 1968, and had been amended in 1980 to bring it into consistency with SMCRA.
 10. 63 Fed. Reg. 19802-19821 (April 22, 1998).
 11. 30 U.S.C. § 1255.
 12. See 30 U.S.C. § 1255.
 13. See 60 Fed. Reg. 38685-38689 (July 25, 1995)(OSM announces that it will enforce subsidence damage and water replacement provisions directly to the extent to which they are not enforceable by Pennsylvania).

14. Id.

15. 30 U.S.C. § 1255.

16. The normal term is five years, although a longer term is allowed under some circumstances, 25 Pa. Code § 86.40; but the permit must be "reviewed" at least every five years. 25 Pa. Code § 86.51.

17. National Wildlife Fedn. v. Lujan, 950 F. 2d 765, 767 (D.C. Cir. 1991).

18. 60 Fed. Reg. 16722-51 (March 31, 1995). This was approximately one and one-half years after they were required to have been promulgated. The delay was due, in part, to the contentious nature of the new requirements, which imposed new obligations on underground coal mine operations.

19. National Mining Association v. Babbitt, Civ. No. 95-CV-0938(WBB) (D.D.C. filed May, 19, 1995) (pending). Industry's motion for summary judgment argues that: (1) the regulations unlawfully conflict with EPAct and SMCRA by prohibiting or interrupting underground coal mining operations; (2) the regulations unlawfully conflict with states' "exclusive" authority to regulate, and OSM allegedly failed to provide notice and comment on its intention to conduct federal enforcement of the requirements; (3) the regulations are arbitrary, capricious, and otherwise inconsistent with law in that:

- (a) OSM failed to explain its requirement of a presubsidence survey of the condition of protected surface structures,
- (b) requiring planned subsidence operators to engage in any damage minimization conflicts with § 516(b)(1) of SMCRA,
- (c) the regulations' performance standards for water replacement and subsidence repairs unlawfully abrogate rights under state law such as state statutes of limitations, water rights, and waivers,
- (d) replacement of water supply requirements exceed OSM's authority under EPAct which is limited to replacement of water and not replacement of damaged water delivery systems,
- (e) repair and replacement requirements conflict with an OSM rule that terminates jurisdiction over mining sites upon bond release,
- (f) requiring bonding for subsidence damage is *ultra vires* and arbitrary and capricious, and
- (g) the "material damage" definition is arbitrary and capricious and exceeds the plain language of EPAct; and

(4) the regulations are arbitrary, capricious, and illegal because they prescribe an angle of draw of 30 degrees to identify the buildings presumptively entitled to repair even though the scientific and technical literature will not support such an angle (Plaintiff's Motion for Summary Judgment, Feb. 16, 1996).

20. 30 U.S.C. § 1266(b)(1).

21. In re: Permanent Surface Mining Regulation Litigation, 10 Env't. L. Rep. (Env'tl. L. Inst.) 20208, 20217, 14 Env't. Rep. Cas. (BNA) 1083, 1098 (D.D.C. Feb. 26, 1980)

22. James M. McElfish, Jr. and Ann E. Beier, *Environmental Regulation of Coal Mining: SMCRA's Second Decade* (Environmental Law Institute, 1990), at pp. 193-94.

23. 30 CFR 701.5.

24. 30 CFR 817.121(a)(2) (emphasis supplied).

25. 30 CFR 817.121(a)(2).

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26. 30 U.S.C. § 1266(c); 30 CFR 817.121(f).
27. 30 CFR 817.121(d).
28. 30 CFR 817.180.
29. 30 U.S.C. § 1272(e).
30. See 62 Fed. Reg. 4836-72 (Jan. 31, 1997) (proposed rule); 62 Fed. Reg. 20138 (April 25, 1997) (public hearings).
31. 30 U.S.C. § 1272(a).
32. See generally, Henry Ingram, "Regulations of Mine Subsidence -- Legal Issues Raised by Government Intervention in Historically Private Arrangements," 5 E. Min. L. Inst. ch.6 (1984).
33. former 52 P.S. § 1406.4.
34. former 52 P.S. § 1406.15.
35. 52 P.S. § 1406.5(e).
36. 52 P.S. § 1406.5(a)(emphasis supplied).
37. See Comment and Response Document, March 17, 1998 rulemaking (Comment and Response #74, p. 35): "Section 9.1 of BMSLCA does not provide for measures to minimize material damage to dwellings and noncommercial buildings. It limits damage minimization measures to situations where dwellings and agricultural structures are likely to experience irreparable damage."
38. 52 P.S. § 1406.9a(b). This resembles the federal regulatory requirement that planned subsidence operators take "necessary and prudent measures" to minimize material damage to dwellings and noncommercial buildings except where the cost of the measures exceeds the cost of repairs. 30 CFR 817.121(a)(2).
39. DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Interim Implementation of Act 54," Document No. 563-3900-404 (effective November 7, 1997). The same language appeared in the previous DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Water Supply Replacement and Subsidence Damage Repair Under Act 54 Amendments to the Bituminous Mine Subsidence and Land Conservation Act." I.04.04 (Sept. 19, 1994).
40. DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Interim Implementation of Act 54," Document No. 563-3900-404 (effective November 7, 1997). The same language appeared in the previous DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Water Supply Replacement and Subsidence Damage Repair Under Act 54 Amendments to the Bituminous Mine Subsidence and Land Conservation Act." I.04.04 (Sept. 19, 1994).
41. 52 P.S. § 1406.9a(a).
42. 52 P.S. § 1406.9a(a).
43. 52 P.S. § 1406.9a(c). Compare 30 CFR 817.121(d).

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44. 52 P.S. § 1406.9a(c). Compare 30 CFR 817.121(d).
45. DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Interim Implementation of Act 54," Document No. 563-3900-404 (effective November 7, 1997). The same language appeared in the previous DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Water Supply Replacement and Subsidence Damage Repair Under Act 54 Amendments to the Bituminous Mine Subsidence and Land Conservation Act." I.04.04 (Sept. 19, 1994).
46. 25 Pa. Code § 89.143(b)(1)(v)(1997).
47. 25 Pa. Code § 89.142a(c)(1998).
48. 25 Pa. Code § 89.143(a)(4)(1997).
49. 25 Pa. Code § 89.142a(a)(3).
50. 25 Pa. Code § 89.142a(g)(1)(1998); see former 25 Pa. Code § 89.143(c)(1)(1997).
51. former 25 Pa. Code § 89.143(c)(2)(1997).
52. *People United to Save Homes v. Commonwealth*, EHB Docket No. 95-232-R, 95-233-R (Nov. 27, 1996); on reconsideration (Dec. 23, 1996).
53. 25 Pa. Code § 89.142a(g)(2)(ii)(1998).
50. Preamble, March 17, 1998 final rulemaking, to be published in Pennsylvania Bulletin: "The Board agrees that the matter of who should bear the costs for taking precautionary measures should be primarily based on which party owns the right of support. In cases where the mine operator owns the right of support, his responsibilities may be limited to providing timely notice to the investor owned utility operator of imminent mining beneath the utility line...In cases where the investor owned utility possesses the right to support, a mine operator must provide support and bear the costs associated with providing support."
54. 35 Pa. Code § 89.142a(g)(3)(1998).
55. Preamble, March 17, 1998 final rulemaking, to be published in Pennsylvania Bulletin.
56. 25 Pa. Code § 89.141(d)(3)(1998).
58. 52 P.S. § 1406.14. Act 54 eliminated statutory support rights (thus leaving support rights only to those who never conveyed such rights, or who purchased them from mineral owners). The law also requires grantors to give notice of the ability of grantees to protect property by private contract with the coal owners; while the right to purchase support coal was eliminated in 1994, this notice is still valid as coal owners are free to enter into such agreements voluntarily.
59. 52 P.S. § 1396.4e; see § 1396.3.
60. 30 CFR 817.121(c)(1).
61. *NWF v. Hodel*, 839 F.2d 694, 741 (D.C. Cir. 1988).

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62. NWF v. Lujan, 928 F. 2d 453, at 458-459 (D.C. Cir. 1991).
63. 30 U.S.C. § 1309a(a)(1).
64. 30 U.S.C. § 1309a(a)(1). See 30 CFR 817.121(c)(2).
65. 30 CFR 817.121(c)(4)(i).
66. 30 CFR 817(c)(4)(ii).
67. A survey is required under 30 CFR 784.20(a).
68. 30 CFR 817.121(c)(4)(iii),(iv).
69. 30 CFR 817.121(c)(4)(v).
70. 30 CFR 817.121(c)(5).
71. 30 CFR 817.121(c)(3). This regulatory provision, which predates the 1992 EPA Act, was upheld in court. National Wildlife Federation v. Lujan, 928 F.2d 453 (D.C. Cir. 1991).
72. 52 P.S. § 1406.5(e)
73. 25 Pa. Code § 89.142a(e)(1998).
74. 25 Pa. Code § 89.145(a)(1997), 30 CFR 817.121(c)(1).
75. former 25 Pa. Code § 89.145(a)(1997).
76. 25 Pa. Code § 89.142a(h)(2)(1998).
77. 52 P.S. § 1406.5d(a).
78. 52 P.S. § 1406.5d(b).
79. 60 Fed. Reg. 18046, 18048 (April 10, 1995).
80. 60 Fed. Reg. 18046, 18048 (April 10, 1995).
81. Preamble to Final Rulemaking, 25 Pa. Code, Ch. 89 (March 17, 1998), to be published in Pa. Bulletin: The statute and regulations "are now being interpreted to require the operator to repair all dwellings in place at the time of underground mining and all permanently affixed appurtenant structures in place at the time of underground mining. This interpretation is based on the rule of statutory construction known as 'the rule of the last antecedent'....This rule provides that unless plainly meant otherwise a modifying clause operates only upon the phrase preceding it. This interpretation differs from the Department's previous interpretation in that the requirement to be in place on August 21, 1994, the date of first publication of the permit application, or date of first publication of a permit renewal application is no longer viewed as applicable to dwellings or permanently affixed appurtenant structures. Under the rule of the last antecedent, the requirement for being in place on one of the specified dates applies only to 'improvements'." Preamble at pp. 7-8; 29-30.

82. 52 P.S. § 1406.5f(c).

83. 52 P.S. § 1406.5e.

84. DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Interim Implementation of Act 54," Document No. 563-3900-404 (effective November 7, 1997). The same language appeared in the previous DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Water Supply Replacement and Subsidence Damage Repair Under Act 54 Amendments to the Bituminous Mine Subsidence and Land Conservation Act." I.04.04 (Sept. 19, 1994).

85. 52 P.S. § 1406.5e(b).

86. 52 P.S. § 1406.5e(c).

87. 52 P.S. § 1406.5e(d).

88. 25 Pa. Code §§ 89.141(d)(1998); see also 25 Pa. Code § 89.142a(c)(2)(vi)(1998).

89. former 25 Pa. Code § 89.141(d)(1997).

90. 52 P.S. § 1406.5e(e).

91. 52 P.S. § 1406.5e(f).

92. 52 P.S. § 1406.5d(c).

93. 52 P.S. § 1406.5e.

94. Preamble, March 17, 1998 final rulemaking, to be published in Pennsylvania Bulletin. The DEP program guidance manual also simply provides that the DEP will terminate investigation of a claim if it has been filed after the passage of two years. DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Interim Implementation of Act 54," Document No. 563-3900-404 (effective November 7, 1997). The same language appeared in the previous DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Water Supply Replacement and Subsidence Damage Repair Under Act 54 Amendments to the Bituminous Mine Subsidence and Land Conservation Act." I.04.04 (Sept. 19, 1994).

89. Act 54 § 1406.5e says that the owner "may" file a claim with DEP, and that "all claims under this subsection shall be filed within two years of the date damage to the building occurred." Because the owner's right to repair or payment is actually created by the preceding section (§ 1406.5d), what the statute cuts off after two years is only recourse to the DEP for investigation and determination (along with associated rights of appeal, escrow, orders, and permit revocations), not the liability of the operator. This interpretation is supported by the fact that in drafting the two-year provision, the Pennsylvania legislature did not use the same language as it did in § 1406.5a(b), which clearly does cut off liability for water replacement for failure to file a claim within two years.

96. 52 P.S. § 1206.6

97. See PUSH and Penn American Water Co. v. Commonwealth, EHB No. 95-232-R (Nov. 27, 1996), on reconsideration (Dec. 23, 1996).

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98. 52 P.S. § 1406.5f(a).
99. 52 P.S. § 1406.5f(b),(d).
100. 52 P.S. § 1406.5e.
101. Preamble, March 17, 1998 final rulemaking, to be published in Pennsylvania Bulletin.
102. 52 P.S. § 1406.18a.
103. 52 P.S. § 1406.19.
104. 52 P.S. § 1406.7(b).
105. Exec. Order 1996-1 (Feb. 6, 1996), 1.e. (emphasis supplied).
106. Pa. Const. art I, § 27.
107. *Payne v. Kassab*, 11 Pa. Commw. 14, 29-30, 312 A.2d 86 (1973), *aff'd*, 468 Pa. 226, 361 A.2d 263 (1976).
108. 52 P.S. § 1406.3
109. 30 U.S.C. § 1258(a)(13)
110. 30 U.S.C. § 1266(b)(9); see also 30 CFR 817.41(a).
111. 30 U.S.C. §§ 1266(b)(9)(A),(B).
112. 30 U.S.C. § 1260(b)(3); see also 30 CFR 817.41(a).
113. 30 CFR 817.121(d).
114. 30 CFR 817.121(d).
115. 25 Pa. Code § 89.52(a)(1998).
116. 25 Pa. Code § 89.58(1998).
117. 25 Pa. Code § 89.142a(h)(1)(1998). Compare former 25 Pa. Code § 89.143(d)(1)(1997).
118. 52 P.S. § 1406.9a(c) (emphasis supplied).
119. 52 P.S. § 1406.9a(c).
120. *National Wildlife Fedn. v. Hodel*, 839 F. 2d 694 (D.C.Cir. 1988).
121. 30 U.S.C. § 1309a.
122. 30 CFR 701.5.

123. 30 CFR 817.41(j), cross-referencing 30 CFR 780.21 and 784.22.

124. 30 CFR 701.5.

125. 30 CFR 701.5.

126. 30 CFR 817.121(c)(5).

127. 52 P.S. § 1406.5a(a)(1).

128. 52 P.S. § 1406.5a(a)(2).

129. 52 P.S. § 1406.5a(a)(3).

130. *Id.*

131. 60 Fed. Reg. 18046, 18048 (April 10, 1995). Nor does it cover replacement of water supplies damaged by anthracite mining. *Id.* The Commonwealth also noted that Act 54 does not cover cases where a post-1992 drinking, domestic, or residential water supply is used to support an irrigation system constructed after Aug. 21, 1994.

132. 52 P.S. § 1406.5b(a)(1).

133. 52 P.S. § 1406.5b(a)(3).

134. 52 P.S. § 1406.5b(a)(2).

135. 52 P.S. § 1406.5b(a)(3).

136. 52 P.S. § 1406.5b(b)(2).

137. 52 P.S. § 1406.5b(b)(2).

138. 52 P.S. § 1406.5b(k).

139. 52 P.S. § 1406.5b(c).

140. 52 P.S. § 1406.5b(d).

141. 52 P.S. § 1406.5b(e).

142. 52 P.S. § 1406.5a(b).

143. Preamble, March 17, 1998 final rules, to be published in Pennsylvania Bulletin. See description of 25 Pa. Code §§ 89.145a and 89.152 (linking water supply impacts to "underground mining activities" rather than "underground mining.").

144. DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Interim Implementation of Act 54," Document No. 563-3900-404 (effective November 7, 1997). The same language appeared in the previous DEP Bureau of Mining and Reclamation, Program Guidance Manual, "Water Supply Replacement and Subsidence Damage Repair Under Act 54 Amendments to the Bituminous Mine Subsidence and Land Conservation Act."

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- I.04.04 (Sept. 19, 1994).
145. 52 P.S. § 1406.5b(g).
146. 52 P.S. § 1406.5b(h).
147. 52 P.S. § 1406.5c(a).
148. 52 P.S. § 1406.5c(b).
149. 52 P.S. § 1406.5c(a).
150. 52 P.S. § 1406.6.
151. Preamble, March 17, 1998 final rules, to be published in Pennsylvania Bulletin (discussing §89.145a(b)).
152. 52 P.S. § 1406.5c(c).
153. 52 P.S. § 1406.2 (emphasis supplied).
154. 52 P.S. § 1406.5(c).
155. 52 P.S. § 1406.5(g).
156. 25 Pa. Code § 86.32.
157. 25 Pa. Code § 86.34.
158. 52 P.S. § 1406.5; 25 Pa. Code §§ 89.33, 89.34, 89.35, 89.36, 89.141, 89.154 (1998). Compare 30 U.S.C. § 1257; 30 CFR Parts 777, 778, 783, 784.
159. 25 Pa. Code § 89.141(d)(1998).
160. 25 Pa. Code § 89.141(d)(1998).
161. 25 Pa. Code § 89.141a(d)(2)(1998).
162. 25 Pa. Code §§ 89.141(d)(8)-(10)(1998). See Preamble, March 17, 1998 final rule, to be published in Pennsylvania Bulletin. Federal requirements are at 30 CFR 784.20(a)(2); and see definition of "renewable resource lands" at 30 CFR 701.5.
163. 25 Pa. Code § 89.142a(b)(1)(ii)(1998).
164. 25 Pa. Code § 89.142a(b)(1).
165. 25 Pa. Code § 89.142a(b)(1)(iii)(1998). Federal regulations also require provision of the results to the owner and the regulatory agency. 30 CFR 784.20(a)(3).
166. 25 Pa. Code § 89.142a(b)(1)(iv).

167. 30 CFR 784.20.

168.25 Pa. Code § 89.142a(b)(1)(ii)(1998).

169. Indeed, OSM's comments on the proposed regulations noted this inconsistency. Comment and Response Document, March 17, 1998 final regulations.

170. 30 CFR 784.20(b)(7).

171. 30 CFR 784.20(b)(8).

172. 25 Pa. Code § 89.141(d)(5).

173. 25 Pa. Code § 89.141(d)(3)(1998).

174. Preamble, March 17, 1998 final regulations, to be published in Pennsylvania Bulletin.

175. 52 P.S. § 1406.5d(c); 25 Pa. Code § 89.142a(b)(2)(1998).

176. 30 CFR 784.20(a)(3); see discussion of rebuttable presumption, *infra*.

177. 25 Pa. Code § 89.141(d)(2).

178. 25 Pa. Code § 89.35(1998).

179. 52 P.S. § 1406.5b(j).

180. 25 Pa. Code § 89.36(c)(1998); see § 89.31 for timing.

181. 30 CFR 784.20(a)(3).

182. 25 Pa. Code § 89.145a(a)(1)(1998).

183. 25 Pa. Code § 89.145a(a)(1)(1998).

184. 25 Pa. Code § 89.145a(a)(2)(1998).

185. 25 Pa. Code § 89.145a(a)(3)(1998).

186. 25 Pa. Code § 89.35; § 89.141(d)(2)(1998).

187. 25 Pa. Code § 89.34(a)(1)(i)(1998).

188. 25 Pa. Code § 89.36(c)(1998).

189. 52 P.S. § 1406.10. Compare 30 CFR 817.122.

190. 52 P.S. §§ 1406.10, 1406.8.

191. 25 Pa. Code § 89.154(1998).

192. 52 P.S. § 1406.13.

193. 52 P.S. § 1406.11.

194. 52 P.S. § 1406.13(b),(d),(e).

195. 52 P.S. § 1406.12.

196. 52 P.S. § 1406.17.

197. 52 P.S. § 1406.5e(f),(g).

198. 30 U.S.C. § 1271(a).

199. Federal regulations define a valley fill as "a fill structure consisting of any material, other than organic material, that is placed in a valley where the side slopes of the existing valley, measured at the steepest point, are greater than 20 degrees, or where the average slope of the profile of the valley from the toe of the fill to the top of the fill is greater than 10 degrees." 30 CFR 701.5.

200. 52 P.S. § 30.51 et seq.

201. 52 P.S. §30.56a(h)(5)(1993).

202. 52 P.S. §30.56a (h)(5)

203. 63 Fed. Reg. 19802-10821 (April 22, 1998).

204. The Environmental Quality Board voted to propose these changes at its Feb. 18, 1997 meeting, and they were subsequently published in the Pennsylvania Bulletin (May 3, 1997) for public comment; the final changes were adopted by the Board at its January 20, 1998 meeting and they were published in the Pa. Bulletin on May 9, 1998.

205. 52 P.S. § 30.53b(b).

206. Coal Refuse Disposal - Site Selection, 563-2113-660, Feb. 23, 1998, BMR/PGM Section II, Part 6, Supart 60.

207. Personal communication, Joel Koricich, Pennsylvania Department of Environmental Protection.

208. See 30 U.S.C. §1272(e); 52 P.S. §30.56a(h).

209. 30 U.S.C. § 1272(e); 52 P.S. §30.56a(h)

210. 30 U.S.C. § 1272(e); 52 P.S. §30.56a(h)

211. 30 CFR 816.57(a), 817.57(a).

212. 52 P.S. §30.56a (h)

213. 30 CFR 816.57(a), 817.57(a) (emphasis supplied).

214. 52 P.S. § 54a(b).

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215. 52 P.S. §30.54a(c),(d).
216. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation
217. 52 P.S. § 30.54a(a)(1)-(5).
218. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation.
219. 52 P.S. § 30.54a(a).
220. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation, p.4; implementing 52 P.S. § 30.54a(a),(c),(d).
221. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation
222. Interview, Pennsylvania Department of Environmental Protection.
223. 52 P.S. § 30.54a(c),(d).
224. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation.
225. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation.
226. 52 P.S. § 30.55.
227. 25 Pa. Code §§ 86.32, 86.34.
228. 52 P.S. § 30.55; See 25 Pa. Code Chap. 86, Chap. 90.
229. 25 Pa. Code § 86.35.
230. 52 P.S. § 30.56a(i).
231. 52 P.S. §§ 30.56a(i), 30.55(3); 25 Pa. Code Chap. 90.
232. 25 Pa. Code § 86.34(f).
233. 52 P.S. §30.56(a).
234. 52 P.S. §30.56(a).
235. Interview, DEP Bureau of Mining and Reclamation.
236. 52 P.S. § 56(a).

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237. 52 P.S. § 30.56(c).
238. 52 P.S. §30.56(c)
239. 52 P.S. § 30.55(i).
240. Coal Refuse Disposal - Site Selection, 563-2113-660, Department of Environmental Protection Bureau of Mining and Reclamation; see also 52 P.S. § 30.56a(h)(5) for the statutory variance requirements.
241. 63 Fed. Reg. at 19813 (April 22, 1998).
242. 52 P.S. §30.56a(h)(5).
243. 52 P.S. § 30.56b.
244. 52 P.S. § 30.56b(c)(2).
240. 52 P.S. § 30.56b(g)(1)(I); see 63 Fed. Reg. at 19809-19810 (April 22, 1998).
246. 52 P.S. § 30.56b(c)(3),(4).
247. 52 P.S. §30.56b(m)
248. 52 P.S. § 30.56b(g).
244. 52 P.S. § 30.56b(l).
245. 63 Fed. Reg. at 19811, 19820-21 (April 22, 1998).
251. 33 U.S.C. § 1344.
252. 33 U.S.C. § 1342.
253. 40 CFR 230.10.
254. 40 CFR 230.10.
255. Memorandum of Agreement between the U.S. Environmental Protection Agency and U.S. Department of the Army, Determination of Mitigation Under the Clean Water Act § 404(b)(1) Guidelines (eff. Feb. 7, 1990).
256. 33 U.S.C. § 1344(c).
257. See 61 Fed. Reg. 65874 (1996).
258. Moreover, NWP 21 now requires the discharger's notification to the Corps to contain a state-approved mitigation plan, in any event, so that even if it applied, mitigation would be required. Nationwide Permit Conditions, 13(c)(5) (1996).
259. 63 Fed. Reg. at 19813 (April 22, 1998).

260. E.g., *Raymond T. Proffitt Foundation v. Pennsylvania Dept. of Environmental Protection*, (W.D. Pa., filed Feb. 11, 1998).

261. 52 P.S. §30.57

262. 52 P.S. §30.57

263. 52 P.S. § 30.59.

264. 52 P.S. §30.58

265. 52 P.S. § 30.60.

266. 52 P.S. §30.62

267. 52 P.S. § 30.62.

268. 52 P.S. §30.64

269. 52 P.S. §30.63(a)

270. 52 P.S. §30.63(c),(d).

271. 52 P.S. § 30.63(b).

272. 52 P.S. § 30.65.

273. 33 U.S.C. §§ 1344(s), 1319.

274. 33 U.S.C. § 1365.

275. 52 P.S. § 30.56a(a)-(g).

276. 52 P.S. § 30.56a(a).

277. 52 P.S. § 30.56a(b).