



4310-05-P

DEPARTMENT OF THE INTERIOR

Office of Surface Mining Reclamation and Enforcement

30 CFR Part 938

[SATS No. PA-160-FOR; Docket ID: OSM-2010-0019; SIDIS SS08011000 SX064A000 201S180110; S2D2S SS08011000 SX064A000 20XS5015201]

Pennsylvania Regulatory Program

AGENCY: Office of Surface Mining Reclamation and Enforcement, Interior.

ACTION: Final rule; approval, with one exception, of amendment.

SUMMARY: We, the Office of Surface Mining Reclamation and Enforcement (OSMRE), are approving, with one exception, an amendment to the Pennsylvania regulatory program (Pennsylvania program) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA or the Act). We are approving regulatory changes that involve the elimination of manganese from the list of pollutants tested for mining discharges when certain weather conditions exist. We are also approving statutory and regulatory changes, with one exception, that involve the treatment of post-mining pollutional discharges on regulated coal mining sites and include provisions involving passive treatment technologies and alternate effluent limitations.

DATES: Effective [Insert date 30 days after date of publication in the FEDERAL REGISTER].

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SUPPLEMENTARY INFORMATION:

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I. Background on the Pennsylvania Program

A. Pennsylvania 's Regulatory Program:

Section 503(a) of the Act permits a State to assume primacy for the regulation of surface coal mining and reclamation operations on non-Federal and non-Indian lands within its borders by demonstrating that its program includes, among other things, State laws and regulations that govern surface coal mining and reclamation operations in accordance with the Act and consistent with the Federal regulations. 30 U.S.C. 1253(a)(1) and (7). On the basis of these criteria, the Secretary of the Interior conditionally approved the program on July 30, 1982. You can find background information on the Pennsylvania program, including the Secretary's findings, the disposition of comments, and conditions of approval in the July 30, 1982, Federal Register (47 FR 33050). You can also find later actions concerning Pennsylvania's program and program amendments at 30 CFR 938.11, 938.12, 938.13, 938.15, and 938.16.

B. Pennsylvania 's National Pollutant Discharge Elimination System (NPDES) Program:

The Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) is based on the principle of federalism, with distinct roles for both the U.S. Environmental Protection Agency (EPA) and the states. The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The CWA generally focuses on two types of controls for point source (single identifiable source of pollution) discharges of pollutants to waters of the United States: (1) water quality-based controls, based on State water quality standards, and (2) technology-based controls, based on effluent limitations guidelines and standards (ELGS).

Effluent limitation guidelines, which are a subject of this notice, are regulatory standards established by the EPA as part of its NPDES program and apply to different categories of wastewater discharged to surface waters as authorized under section 304(b) of the CWA (33 U.S.C 1314). EPA promulgated regulatory standards for various industrial categories based on the performance of treatment and control technologies. Coal mining industry requirements are found at 30 CFR Part 434, *Coal Mining Point Source Category BPT, BAT, BCT Limitations and New Source Performance Standards*.

The EPA standards at part 434 establish limitations on the concentration or quality of pollutants or pollutant properties (i.e., total suspended solids, iron, manganese, and settleable solids), which may be discharged to surface waters as a result of coal mining activity. The parameters and limitations for pollutants differ depending on factors such as the type of site, type of control technology involved, type of drainage, mining status, and weather conditions. These parameters and limitations can be found at subparts B., *Coal Preparation Plants and Coal Preparation Associated Area, C., Acid or*

Ferruginous Mine Drainage, D., Alkaline Mine Drainage, E., Post-Mining Areas, and F., Miscellaneous Provisions.

Regarding limitations on post-mining areas, we note that in response to a request for clarification from Pennsylvania, EPA concluded in a January 28, 1992, Memorandum that the requirements of 40 CFR part 434 did not expressly apply to groundwater point source seeps discharged to navigable waters from a post-mining reclamation area (Administrative Record No. 853.16). EPA later stated that its position in 1992 does not reflect current EPA regulatory analysis. EPA stated that seepage at a reclamation site (surface mine in stage 2 reclamation as provided for in 30 CFR 800.40(c)(2)) *does* (emphasis added) include water that drains through waste rock, overburden, etc., rather than flows over the surface, and these seepages are subject to the effluent limit guidelines in 434 Subchapter E, *Post-Mining Areas*, which are a subject of this notice. See the *EPA Concurrence and Comments* section later in this notice.

For sources discharging directly to surface waters, permitting authorities must incorporate the EPA-promulgated limitations and standards into discharge permits, where applicable, as required by 40 CFR Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*. Effluent limitations serve as the primary mechanism in NPDES permits for controlling discharges of pollutants to receiving waters. When developing effluent limitations for an NPDES permit, a permit writer must consider limits based on both the treatment and control technologies available to control the pollutants (i.e., technology-based effluent limitations and standards (TBELS), which are addressed at 40 CFR part 434, and limits

that are based on risks or impacts upon the receiving water (i.e., water quality-based effluent limitations and standards (WQBELS)), which are addressed at 40 CFR Part 131, *Water Quality Standards*. WQBELS are included in NPDES permits if TBELS alone are not sufficient to ensure compliance with applicable water quality standards.

A State may assume the role of permitting authority if it has been authorized to administer the NPDES permit program under the authority of sections 318, 402, and 405(a) (National Pollutant Discharge Elimination System—NPDES) of the CWA. The Federal regulations at 40 CFR Part 123, *State Program Requirements*, provide the procedures EPA follows for approving, amending, and withdrawing a State program that has requested or assumed responsibility for administering the NPDES program under the CWA. Pennsylvania assumed responsibility for the administration of the NPDES program and its program regulations are found at 25 Pennsylvania Code (Pa Code) Chapter 92a, *National Pollutant Discharge Elimination System — Permitting, Monitoring and Compliance*. This regulation prescribes requirements necessary to implement the program under the CWA. Pennsylvania's NPDES regulations at 25 Pa Code § 92a.12, *Treatment Requirements*, at subsection (a)(1) refer to the ELGS established under chapters 87-90 of 25 Pa Code, which pertain to the ELGS for coal mining and are a subject of this notice. Pennsylvania's water resource regulations, which include regulations involving water quality standards and implementation, are found at chapters 91-111 of 25 Pa Code.

II. Submission of the Amendment

A. Statutory and Regulatory Program Changes:

By letter dated October 1, 2010, Pennsylvania submitted an amendment to its program under SMCRA (30 U.S.C. 1201 et seq.) (Administrative Record No. PA 854.03). We announced receipt of the proposed amendment in the March 25, 2011, **Federal Register** (76 FR 16714), (Administrative Record No. PA 854.08). In the same document, we opened the public comment period and provided an opportunity for a public hearing or meeting on the adequacy of the amendment. We did not hold a public hearing or meeting because none was requested. The public comment period ended on April 25, 2011. We received comments from a consulting company and an environmental organization, which are addressed in the Public Comments section found later in this **Federal Register** notice.

The amendment submitted to us involves two types of changes: (1) the elimination of manganese from the list of parameters tested for mining discharges when certain weather conditions exist, and (2) the addition of provisions that address the treatment of post-mining pollutional discharges on regulated coal mining sites, including provisions involving passive treatment technologies and alternate effluent limitations. Part of the amendment involves changes initiated by the State (elimination of manganese) and the other part involves changes submitted as a result of a request from us (passive treatment systems and ELGS). These changes are described below. We note that the term "post-mining pollutional discharges" is sometimes spelled in the Federal and State regulations with a hyphen and sometimes without a hyphen. In this document the use of "post-mining pollutional discharges" with a hyphen will represent both alternative spellings.

l. Regulatory Provisions Involving ELGS Applicable During Precipitation Events:

Pennsylvania submitted this change at its own initiative. It involves regulatory changes to the mining regulations at 25 Pa. Code subsections 87.102(a), 88.92(a), 88.187(a), 88.292(a), 89.52(c) and 90.102(a) related to ELGS. These subsections are nearly identical but are found at different parts of the Pennsylvania program as follows: surface coal mining at 87.102(a); anthracite coal mining activities at sections 88.92(a), 88.187(a), and 88.292(a); underground mining activities at 89.52(c); and coal refuse disposal areas at 90.102(a). These subsections address effluent criteria for discharges occurring or having occurred due to surface and anthracite coal mining activities, underground coal mining, and coal refuse disposal operations.

Pennsylvania's OSMRE-approved regulatory program incorporates all of the ELGS prescribed by EPA for coal mining point sources and incorporates them at 25 Pa Code chapters 87-91. Pennsylvania's program includes three groups of effluent criteria at these subsections and they are labeled Groups A, B, and C. Group A ELGS apply for pit water, during dry conditions for surface runoff from active surface mining areas, areas where stage 2 standards have been achieved (revegetation has been established), drainage from coal refuse disposal piles, drainage from underground mine workings, and all other discharges; Groups B and C ELGS apply to all of the above discharges except pit water and underground mine workings. Group B ELGS apply when there is an increase in the volume of a discharge caused by precipitation within any 24-hour period less than or equal to a 10-year, 24-hour precipitation event; and Group C ELGS apply to a mining discharge when there is a greater than 10-year, 24-hour precipitation event.

All three groups include discharge limitations that require alkalinity to be greater than acidity and the pH to be greater than 6 but less than 9. The groups differ, however, regarding other parameters. Group A ELGS include iron, manganese, and suspended solids. Group B ELGS include iron, manganese, and settleable solids. Group C does not include any other limitations.

Pennsylvania seeks to revise its regulations by removing manganese from Group B effluent criteria to be consistent with EPA standards at 40 CFR 434.63, *Effluent limitations for precipitation events*, which provide alternate ELGS for discharges during precipitation events. These alternate ELGS are less stringent than those prescribed for discharges during dry conditions and vary depending on factors such as the mining status (active or post-mining), volume of precipitation, type of discharge (alkaline or acid or ferruginous mine drainage), and the type of mine operation or facility that is involved. Because Pennsylvania's regulatory program includes a manganese limitation for discharges during precipitation events at Group B and EPA does not include manganese as a limitation in its regulations at 40 CFR 434.63, Pennsylvania seeks to remove manganese from the list of pollutant limitations required for these discharges.

Pennsylvania states its regulations at 25 Pa Code, Chapter 87, *Surface Mining of Coal*, Chapter 88, *Anthracite Coal*, Chapter 89, *Underground Mining of Coal and Coal Preparation Facilities*, and Chapter 90, *Coal Refuse Disposal*, are consistent with EPA regulations at 40 CFR part 434. Pennsylvania states that its revised regulations are consistent with EPA's regulations under the CWA and that because SMCRA and its implementing regulations require compliance with the CWA, the revised regulations should be approved.

2. *Statutory and Regulatory Provisions Involving Treatment of Post-mining Pollutational Discharges:*

Pennsylvania submitted additional program provisions in response to a letter from us on July 7, 2010. In the letter, we notified the State that we became aware that the provisions in 25 Pa. Code § 87.102(e), Hydrologic balance: effluent standards, Post-mining pollutational discharges, while enacted and codified by the State in 1997, had not been submitted to us for approval (Administrative Record No. PA 854.24). In response, Pennsylvania submitted statutory and regulatory changes that address the treatment of post-mining pollutational discharges.

Pennsylvania seeks to revise its program by adding the statutory provisions at section 4.26) (52 P.S. § 1396.4b(j)) of Pennsylvania's Surface Mining Conservation and Reclamation Act (PA SMCRA), 52 P.S. §§ 1396.1-1396.19. Pennsylvania also seeks to revise its program by adding the implementing regulatory provisions at 25 Pa. Code §§ 87.102(e), 88.92(e), 88.187(e), 88.292(e), and 90.102(e) as adopted by Pennsylvania's Environmental Quality Board (EQB) on November 19, 1997. The provisions are nearly identical, but are found at different parts of the Pennsylvania program as follows: surface coal mining at 25 Pa. Code § 87.102(e); anthracite coal mining activities at 25 Pa. Code §§ 88.92(e), 88.187(e), and 88.292(e); and coal refuse disposal areas at 25 Pa. Code § 90.102(e).

In summary, these new provisions define a post-mining pollutational *discharge* and a *passive treatment system*; establish eligibility criteria for using passive treatment systems to address post-mining pollutational discharges; provide alternate ELGS for

qualifying discharges; and prescribe passive treatment design requirements. The changes are described below.

a. *Statutory Changes*: Pennsylvania seeks to add section 4.2(j) of PA SMCRA, which provides for the following:

- (1) authorizes the EQB to revise existing regulations and establish TBELS for classes or categories of post-mining polluttional discharges from surface mining activities that have achieved stage 2 reclamation standards and that the Pennsylvania Department of Environmental Protection determines can be adequately treated using passive treatment systems;
- (2) establishes two classes/categories of post-mining polluttional discharges deemed suitable for using passive treatment systems as identified below:
 - (a) discharges that have a pH which is always greater than 6.0 and an alkalinity which always exceeds the acidity; or
 - (b) discharges that have an acidity which is always less than 100 mg/L, an iron content which is always less than 10 mg/L, a manganese content which is always less than 18 mg/L, and a flow rate which is always less than three gallons per minute (gpm);
- (3) requires regulations to contain TBELS established using best professional judgment (BPJ);
- (4) requires post-mining polluttional discharges to comply with 25 Pa. Code Chapters 92 and 93, relating to NPDES and water quality standards, respectively; and

(5) allows a person to petition the EQB for rulemaking under this subsection.

b. *Regulatory Changes*: Pennsylvania seeks to add regulatory provisions at 25 Pa. Code that address the treatment of post-mining pollutional discharges. These new provisions include: definitions; eligibility criteria for determining discharges that are suitable for the use of passive treatment technologies; alternative ELGS; and passive treatment design requirements. We have summarized these provisions below.

(1) *Definitions*: Pennsylvania seeks to revise section 86.1 by adding two definitions (passive treatment system and post-mining pollutional discharge) to the list of definitions pertaining to the coal mining program.

(a) *Passive Treatment*: Pennsylvania defines passive treatment as a mine drainage treatment system that does not require routine operational control or maintenance. It includes biological or chemical treatment systems, alone or in combinations, as approved by the State, such as artificially constructed wetlands, cascade aerators, anoxic drains, or sedimentation basins.

(b) *Post-mining Pollutional Discharge*: Pennsylvania defines a *post-mining pollutional discharge* as a discharge of mine drainage emanating from or hydrologically connected to the permit area, which may remain after coal mining activities have been completed and which does not comply with the applicable effluent limit requirements of 25 Pa. Code §§ 87.102, 88.92, 88.187, 88.292, 89.52, or 90.12. The term includes

"minimal-impact post-mining pollutional discharges" as defined in section 3 of PA SMCRA (52 P.S. § 1396.3).

(2) *Treatment of Post-mining Pollutional Discharges*: Pennsylvania seeks to add subsections 87.102(e), 88.92(e), 88.187(e), 88.292(e), and 90.102(e), which address the treatment of post-mining pollutional discharges. We have summarized these provisions below.

(a) *Effluent Limitation Guidelines and Standards*: The provisions at subsections (e)(1) and (e)(2) require the discharger to provide treatment of post-mining pollutional discharges to meet Group A standards, the most stringent standards, and take any measures that are available and necessary to abate the discharge, including modifying the operation and reclamation plan. If, after this interim period, the discharge still exists, the operator must arrange for sound future treatment that will achieve compliance with Group A standards, which involve iron, alkalinity, suspended solids, and manganese. However, if the discharge can be adequately treated using a passive treatment system, alternate standards involving iron and alkalinity apply.

(b) *Eligibility Criteria of Suitable Discharges for Passive Treatment Systems*: The provisions at subsections (e)(2) establish classes or categories of post-mining pollutional discharges deemed suitable for using passive treatment systems. They include, but aren't limited to:

(i) where pH is always greater than 6.0 and alkalinity always exceeds acidity;

- (ii) where acidity is always less than 100 mg/L, iron is always less than 10 mg/L, manganese is always less than 18 mg/l, and flow is always less than 3 gpm; and
- (iii) where net acidity is always less than 300 mg/L. Net acidity is calculated by subtracting the alkalinity of the discharge from its acidity.

(c) *Alternate ELGS*: The provisions at subsections (e)(3) prescribe alternate ELGS if the untreated discharge can be adequately treated using a passive treatment system. The following effluent limitations apply in lieu of those in Group A:

- (i) reduce the iron concentration by at least 90 percent or by the percentage necessary to achieve Group A effluent requirements, whichever percentage is less; and
- (ii) produce an effluent alkalinity which exceeds effluent acidity.

(d) *Passive Treatment System Design*: The provisions at subsections (e)(4) and (e)(5) require that passive treatment systems be designed to prevent leakage of mine drainage into the groundwater system; prevent groundwater and surface water runoff Lin-impacted by mining from entering the treatment system; hydraulically handle the highest average monthly flow-rate which occurs during a 12-month period; have inlet and outlet structures which allow for flow measurements and water sampling; prevent to the maximum extent possible physical damage and associated

loss of effectiveness due to wildlife and vandalism; and be of a capacity so that they will operate effectively and achieve the required effluent quality for 15 to 25 years before needing to be replaced. The provisions require the system to be designed by and constructed under the supervision of a qualified professional knowledgeable in the subject of passive treatment of mine drainage.

Pennsylvania contends that these changes are consistent with EPA's 1992 guidance memorandum (see discussion below). Specifically, Pennsylvania references the 1992 EPA memorandum relating to the applicability of 40 CFR part 434 to post-mining discharges from surface mines and points out that the memorandum confirmed that certain post-mining discharges are not addressed in 40 CFR 434. Pennsylvania states its provisions are consistent with the memorandum because the memorandum provides that in the absence of established ELGS, technology-based limits are developed on a best professional judgment (BPJ) basis.

B. Supporting References and Documents

In addition to the statutory provisions and revised regulations submitted for approval, Pennsylvania also provided an Analysis Document to assist with our review. It includes citations of OSMRE regulations at 30 CFR 816.42 and 817.42 (*Hydrologic balance: Water quality standards and effluent limitations*, for surface mining and underground mining respectively) and EPA regulations at 40 CFR Part 434, *Coal Mining Point Source Category BPT, BAT, BCT Limitations and New Source Performance Standards*. It also references the following documents:

1. *EPA Memorandum dated January 28, 1992, addressed to Pennsylvania Department of Environmental Resources, and entitled "Application of 40 CFR Part 434 to Post-Mining Ground Water Point Source Seeps from Surface Mines"*

The EPA, in response to a request for clarification from Pennsylvania, concluded in this memorandum that the requirements of 40 CFR Part 434 do not expressly apply to groundwater point source seeps discharged to navigable waters from a post-mining reclamation area. The EPA suggested that Pennsylvania establish TBELS for post-mining groundwater seeps from reclamation areas using BPJ, provided sufficient facts support control of the discharge by an NPDES permit and provided it is appropriate to impose TBELS, rather than WQBELS.

2. *Pennsylvania Report dated 1994, entitled "Best Professional Judgment Analysis for the Treatment of Post-mining Discharges from Surface Mining Activities,"*

This report is used to support Pennsylvania's reliance on BPJ, in the absence of EPA-prescribed TBELS, to establish the treatment requirements for post-mining pollutional discharges.

C. Supplemental Information:

As required by Federal regulations at 30 CFR 732.17(h)(11)(ii), we are required to obtain written concurrence from EPA for those provisions of the program amendment that relate to air or water quality standards issued under the authority of the CWA (33 U.S.C. 1251 *et seq.*) or the Clean Air Act (CAA) (42 U.S.C. 7401 *et seq.*). The revision that Pennsylvania proposes to make in this amendment pertains to water quality standards. Therefore, we asked EPA to comment and provide concurrence regarding the amendment.

During the amendment review process, we communicated with EPA and Pennsylvania on several occasions. The information obtained through the interaction between us, EPA, and Pennsylvania is germane to our findings. We summarize the communications in the *EPA Concurrence and Comments* section found later in this **Federal Register** document. Our findings should be read along with that section in order to fully understand the rationale that led to our decision.

III. OSMRE's Findings

The following are the findings we made concerning the amendment under SMCRA at 30 U.S.C. 1253 and the Federal regulations at 30 CFR 732.15, *Criteria for*

approval or disapproval of state programs, and 30 CFR 732.17, *State program amendments*. We are approving, with one exception, the amendment as described below.

A. Effluent Limitations Applied During Precipitation Events

Federal SMCRA at subsections 515(b)(10) and 516(b)(9) (30 U.S.C.1265(b)10) and 30 U.S.C. 1266(b)(9)) and the Federal regulations at 30 CFR 816.41 and 817.41, *Hydrologic-balance protection*, for surface mining and underground mining respectively, require that surface coal mining and reclamation operations be conducted to minimize disturbance to the prevailing hydrologic balance and to the quantity and quality of water in surface water and groundwater systems, both during and after mining and during reclamation. In addition, subsections 510(b)(2) and (3) of SMCRA (30 U.S.C. 1260(b)(2) and (3)) and 30 CFR 773.15, *Written findings for permit application approval*, subsections (b) and (e) prohibit the regulatory authority from approving a permit application unless the applicant has demonstrated that reclamation can be accomplished and that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

The regulations at 30 CFR 816.41 and 817.41 require that, among other things, mining and reclamation practices that minimize water pollution and changes in flow must be used in preference to water treatment. Consistent with this approach, subsection (b)(1) and (d)(1) of 816.41 and 817.41 require that surface water and ground water quality must be protected by handling earth materials and runoff in a manner that minimizes the formation of acid and toxic forming materials. However, when water treatment is unavoidable, sections 816.42 and 817.42 specify that discharges must be

made in compliance with applicable State and Federal water quality laws, regulations, and effluent limitations. These effluent limits and water quality standards include all applicable State and Federal water quality laws and regulations, including the ELGS for coal mining as promulgated by EPA and set forth in 40 CFR part 434.

The EPA regulations at section 40 CFR 434.63 provide alternate limitations for discharges during precipitation events and they apply to discharges involving surface mining, coal prep plants, coal refuse disposal areas, and reclamation areas. This section does not apply to discharges from underground workings of an underground mine, unless comingled with other eligible discharges. We note that section 434.63 does not provide a manganese limitation for any precipitation event.

There are no specific OSMRE regulations addressing effluent limitations; however, we note that OSMRE regulations included ELGS for surface coal mining and reclamation operations at one time. On October 22, 1982, these standards were removed and replaced with a reference in 30 CFR 816.42 and 30 CFR 817.42 to EPA's effluent limitation standards. *See* 47 FR 47216, October 22, 1982, and 48 FR 44006, September 26, 1983. This was done to eliminate unnecessary duplication and confusion between EPA's and OSMRE's standards and establish EPA as the responsible Federal agency for developing ELGS as they relate to coal mining activities. We note that Pennsylvania did not submit the proposed ELGS changes to EPA for approval. Because Pennsylvania's regulatory program incorporates, rather than references, ELGS in its coal mining regulations at 25 Pa Code Chapters 87-91, we received this amendment for processing. We sought EPA's concurrence on the changes during the review process. (*See* the EPA Concurrence and Comments section later in this notice.)

OSMRE Finding: EPA's regulations at 40 CFR 434.63 do not require a manganese limitation for any precipitation event. Pennsylvania's elimination of manganese from Group B ELGS is consistent with EPA's requirements. For this reason and given EPA's concurrence, we find that the proposed revisions at 25 Pa. Code §§ 87.102(a), 88.92(a), 88.187(a), 88.292(a) 89.52(c), and 90.102(a) are consistent with the Federal regulations at 30 CFR 816.42 and 30 CFR 817.42, which require compliance with EPA effluent standards. Therefore, we are approving them.

B. Treatment of Post-Mining Pollutational Discharges

There are no provisions or comparable definitions included in Federal SMCRA or OSMRE's regulations that address the treatment of post-mining pollutational discharges or the use of passive treatment systems. However, mechanisms to address unexpected post-mining pollutational discharges are necessary because it is beyond dispute that, despite best management practices, post-mining pollutational discharges may occur. Varying methods of treatment are employed to treat these unexpected discharges, including passive treatment systems. Passive treatment systems require ongoing operation and maintenance activity, but less frequent monitoring and continuous management than active treatment systems. Our policy directive, OSMRE Directive TSR-10, *Use of Wetland Treatment Systems for Coal Mine Drainage*, explains our position regarding the use and benefits of wetland treatment systems, a form of passive treatment, for coal mine drainage. In TSR-10, we explain that because neither SMCRA nor its implementing regulations place limitations on the methodology used to treat acid or ferruginous discharge, we will neither promote nor discourage the use of constructed

wetlands for treatment of mine drainage. This includes mine drainage that may or may not be net acidic.

Pennsylvania's statutory provisions of section 4.2(j) of PA SMCRA, authorize Pennsylvania to: revise existing regulations and establish TBELS for classes or categories of post-mining polluttional discharges that have achieved stage 2 reclamation standards and that Pennsylvania determines can be adequately treated using passive treatment systems; prescribe two categories of discharges deemed suitable for such treatment; require regulations to contain TBELS established using BPJ; require post-mining polluttional discharges to comply with NPDES and water quality standards; and allow a person to petition the EQB for rulemaking.

We are approving the statutory language along with the implementing regulations, with one exception, for the reasons described below.

1. *Definitions:*

There are no comparable definitions of post-mining polluttional discharge or passive treatment system in Federal SMCRA or its implementing regulations. The definition of minimal-impact post-mining discharge, which is incorporated into Pennsylvania's definition of post-mining polluttional discharge at PASMCRPA (52 P.S. § 1396.3), has not been approved as part of the Pennsylvania program.

We previously reviewed statutory and regulatory changes effected by Act 173, which included changes to 52 P.S. 1396.3, Definitions. We addressed the definition of minimal-impact post-mining discharge in a May 13, 2005, **Federal Register** notice (70 FR 25474) (Administrative Record No. 853.53). In that notice, which documented our findings pertaining to Pennsylvania Program Amendment No. PA-124, we summarized

the statutory provisions of sections 4(g.1), (g.2), and (g.3) of PA SMCRA (52 P.S. §§ 1396.4(g.1), (g.2), and (g.3)). These sections pertain to bond release at sites with post-mining pollutional discharges, and bond release at sites with minimal-impact post-mining discharges.

In a letter dated December 23, 2003, Pennsylvania requested that we remove the statutory provisions of 1396.4(g.1), (g.2), and (g.3) from the PA- 124 program amendment submission because its statutory definition of *minimal-impact post-mining discharge* at 52 P.S. § 1396.3 and the regulations for post-mining pollutional discharges were not included in the proposed program amendment (Administrative Record No. 853.23). We granted that request and did not take any action with respect to proposed sections 4(g.1), (g.2), and (g.3).

OSMRE Finding: Based on Pennsylvania's earlier request that we not take any action with respect to proposed statutory provisions of 52 P.S. §§ 1396.4(g.1), (g.2), and (g.3), we never approved the definition of *minimal-impact post-mining discharge*. For the reasons mentioned above and because it is not inconsistent with SMCRA and the implementing Federal regulations, we are approving the regulatory definition of *post-mining pollutional discharge* at 25 Pa. Code § 86.1, except for the reference to *minimal impact post-mining discharges*. We are deferring our decision on the inclusion of minimal impact post-mining discharges in the definition of post-mining pollutional discharge until such time as the State submits the definition of minimal-impact post-mining discharge to us as a proposed program amendment. We are also

approving the regulatory definition of *passive treatment system* at 25 Pa. Code § 86.1 because it is not inconsistent with SMCRA and the implementing Federal regulations.

2. Statutory Provisions and Eligibility Criteria for Suitable Discharges for Passive Treatment Systems:

As stated above, there are no direct Federal counterparts to these amendments, either in SMCRA or in its implementing regulations. However, neither SMCRA nor its regulations prohibit the use of passive treatment on bonded sites with post-mining pollutional discharges. Moreover, SMCRA and its regulations are devoid of any threshold criteria authorizing the use of passive treatment systems on these sites.

We note that while the statutory provisions at 4.2(j) of PA SMCRA identify two categories of discharges suitable for passive treatment, the regulatory provisions identify three categories as noted under the description of the regulatory changes at 25 Pa. Code §§ 87.102(e), 88.92(e), 88.187(e), 88.292(e), and 90.102(e) above. The third category, which is included in the regulations, requires net acidity to always be less than 300 mg/L. In its program amendment submission letter, Pennsylvania states that its 1994 BPJ analysis supports the addition of the third category. In addition, the regulations allow Pennsylvania to extend the passive treatment authority to other discharges it deems appropriate.

We asked Pennsylvania about the discrepancy between the statutory and regulatory provisions. In an email correspondence to us from Pennsylvania dated November 10, 2014, Pennsylvania stated that all of the regulations included in this amendment were adopted under the rulemaking authority of section 4.2(a) of the PA

SMCRA (52 P. S. § 1396.4b(a)); section 5(b) of The Clean Streams Law (CSL) (35 P. S. § 691.5(b)); section 3.2(a) of the Coal Refuse Disposal Control Act (CRDCA) (52 P. S. § 30.53b(a)); and section 1920-A of the Administrative Code of 1929 (71 P. S. §§ 510-20) which authorizes the EQB to adopt regulations necessary for the Department to perform its work. (Administrative Record No. PA 854.23).

OSMRE Finding: There is no prohibition of the use of passive treatment technologies on bonded sites with polluttional discharges, in either SMCRA or its implementing regulations. Pennsylvania's provisions prescribing criteria for post-mining discharges deemed suitable for passive treatment are consistent with the conclusions of its 1994 BPJ analysis. With regard to the eligibility criteria and the discrepancy between the two statutory provisions and the three regulatory provisions, we find that Pennsylvania has demonstrated it has the general statutory authority to augment its regulations, and that it properly exercised that authority. We find the statutory and regulatory provisions, will result in construction of treatment systems for post-mining polluttional discharges, which minimize disturbance of the hydrologic balance within the permit and adjacent areas, and prevent material damage to the hydrologic balance outside the permit area as required by 30 CFR 816.41(a). For the reasons mentioned above, we find the statutory provisions at section 4.2(j) of PA SMCRA and the regulatory provisions at subsection (e)(1) and (e)(2) of sections 87.102, 88.92, 88.187, 88.292, and 90.102 are not inconsistent with SMCRA and its implementing regulations, and, therefore, we are approving them.

3. Alternate ELGS:

Pennsylvania's provisions at subsections (e)(3) of sections 87.102, 88.92, 88.187, 88.292, and 90.102 provide for alternate ELGS that apply to post-mining pollutional discharges when passive treatment systems are authorized and Group A standards cannot be achieved. These alternate provisions do not involve limitations for manganese and suspended solids as required under Group A standards. When authorized, these ELGS apply to these post-mining pollutional discharges in addition to the ELGS prescribed by the EPA. EPA regulations at 40 CFR 434.52, *Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control*, provide an effluent requirement for discharges emanating from post-mining areas (reclamation areas until the performance bond issued to the facility by the appropriate SMCRA authority has been released). The regulation at subsection (a) of this section requires that the discharge have no more than 0.5 ml/L of settleable solids and a pH of between 6 and 9. We noted that Pennsylvania does not have ELGS involving settleable solids or pH for post-mining pollutional discharges from surface reclamation areas in its program submission.

When we asked EPA about this omission, EPA responded that all discharge limits must be consistent with the CWA regardless of SMCRA or other applicable regulations. This means that, in accordance with section 301 of the CWA (33 U.S.C. 1311) and 40 CFR 122.44, *Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs)*, the more stringent of TBELS or QBELS must be used to control point source discharges. Regardless of whether a TBEL or QBEL is applied, any discharge must still meet all water quality standards.

EPA advised that any NPDES permit issued by PADEP for post-mining pollutional discharges must still address pH and settleable solids limits. EPA advised that NPDES permits require pH discharges at levels between 6.0 and 9.0 unless a variance is granted pursuant to 40 CFR 434.62. This variance allows the pH level to exceed 9.0 to a small extent, where the application of neutralization and sedimentation technology that slightly elevates the pH also results in the ability to comply with the manganese limitations. Similarly, settleable solids must meet applicable TBELS or WQBELS, even if there is no specific limit identified in 25 Pa. Code Chapters 87, 88, 89, and 90. The NPDES settleable solids permit limit is a maximum being implemented of 0.5 ml/L. Therefore, we understand that NPDES permits issued for post-mining pollutional discharges subject to subsections 87.102(e), 88.92(e), 88.187(e), 88.292(e), and 90.102(e) from surface reclamation areas must meet the ELGS of 40 CFR 434.52(a) in addition to requirements of the chapters cited above. Pennsylvania's program requires strict adherence to the applicable ELGS contained in 25 Pa. Code §§ 87.102(a), 88.92(a), 88.187(a), 88.292(a), and 90.102(a) until the construction of a passive treatment system is approved, at which time the requirements of subsections (e), which involve alternate limitations, apply.

OSMRE Finding: Pennsylvania's regulations authorizing alternate limitations using passive treatment systems to address post-mining discharges at subsections (e)(3) are consistent with the conclusions of its 1994 BPJ analysis. The EPA has concluded and Pennsylvania has confirmed, that EPA's ELGS involving pH and settleable solids are still required under NPDES permits. In addition to the NPDES program requirements,

Pennsylvania is required to meet all Federal and State water quality requirements. Therefore, given that EPA has provided concurrence for the amendment and for the reasons mentioned above, we find that the provisions at subsections (e)(3) of sections 87.102, 88.92, 88.197, 88.292, and 90.102 are not inconsistent with SMCRA and the implementing Federal regulations, and we are approving them.

4. Passive Treatment Design:

As mentioned previously, there are no direct Federal counterparts to these amendments, either in SMCRA or in its implementing regulations that address passive treatment system, including design requirements for the construction and performance of such systems. Pennsylvania advises that regulatory design and performance standards at subsections (e)(4) and (e)(5) of 25 Pa. Code §§ 87.102, 88.92, 88.187, 88.292, and 90.102 will help ensure appropriate treatment systems are authorized. Pennsylvania has provided assurances that decisions regarding treatment of post-mining pollutional discharges will be made using current knowledge of passive treatment technology tools for evaluating the use of passive treatment and limitations of passive treatment technologies. Also, permit revision applications to construct passive treatment systems for post-mining pollutional discharges will be subject to the review of qualified agency staff with experience in passive treatment. For the reasons mentioned above, we find the provisions at subsections (e)(4) and (e)(5) of 25 Pa. Code §§ 87.102, 88.92, 88.187, 88.292, and 90.102 are not inconsistent with SMCRA and the implementing Federal regulations, and we are approving them.

IV. Summary and Disposition of Comments

Public Comments

In the March 25, 2011, **Federal Register** notice announcing our receipt of this amendment, we asked for public comments (76 FR 16714). The comment period closed on April 25, 2011. No requests for public meetings or hearings were received. We received comments from a consulting firm (Hedin Environmental) on April 24, 2011, (Administrative Record No. PA 854.11). We also received public comments from one environmental organization, Citizens for Pennsylvania's Future (PennFuture), on two occasions (April 25, 2011, Administrative Record No. PA 854.09, and January 18, 2012, Administrative Record No. PA 854.14). We discuss these comments below.

Hedin Environmental: Hedin Environmental (Hedin), which specializes in the passive treatment of contaminated coal mine drainage, commented that experience and data demonstrates that when passive systems are properly designed, acidity, iron, and aluminum contaminants are reliably decreased to concentrations compliant with the proposed effluent standards. Hedin stated that passive treatment techniques are available for manganese removal; however, this treatment is less reliable.

Hedin further commented that all treatment technologies, including passive treatment technologies, fail when improperly designed. Even though the proposed amendment requires that treatment systems be designed by qualified personnel, Hedin proposes that OSMRE consider strengthening this requirement. Hedin stated that ineffective passive treatment systems have been designed by professional engineers without adequate experience and knowledge of passive technologies and design

principles. Hedin opined that the problem is due, in part, to inexperienced engineer's improper use of the OSMRE's AMDTreat software program, a computer program developed to estimate treatment costs for mining discharges. Hedin noted that neither OSMRE nor Pennsylvania has a program that trains professionals in the design of passive treatment systems or provides accreditation for qualified professionals and that this should be corrected.

OSMRE's Response: We agree with the comment that there are no Federal regulations pertaining to the design of passive treatment systems. Likewise, the Federal regulations do not prohibit the use of passive treatment systems on bonded sites with post-mining polluttional discharges. OSMRE concludes that the regulation requiring that the treatment system be designed by and constructed under the supervision of a qualified, professional knowledgeable in the subject of passive treatment of mine drainage is within the discretion of the PADEP. Additionally, if the passive treatment system fails to maintain a discharge within applicable water quality standards or effluent limits, the permittee will be subject to enforcement actions by PADEP and be required to modify the treatment system to ensure that it satisfies the established effluent limits in the applicable NPDES permit.

Pennsylvania has provided assurances that decisions regarding treatment of post-mining polluttional discharges will be made using current knowledge of passive treatment technology tools for evaluating the use of passive treatment and limitations of passive treatment technologies. Also, permit revision applications to construct passive treatment systems for post-mining polluttional discharges will be subject to the review

of qualified agency staff with experience in passive treatment. Pennsylvania advises that regulatory design and performance standards will help ensure appropriate treatment systems are authorized. Those standards are discussed in Technical Guidance Directive 563-2112-608, *Constructed Wetlands for Mine Drainage Treatment*, and Technical Guidance Directive 563-0300-101, *Engineering Manual for Mining Operations*; Chapter 6, *Mine Drainage Treatment Facilities*.

We agree with the commenter that an improperly designed passive treatment system substantially increases the likelihood of partial or total system failure. Flawed designs can occur for any number of reasons including insufficient or inaccurate baseline data (flow rates and/or geochemistry), changed flow conditions, construction modifications, constrained site conditions, and poor engineering decisions. However, Pennsylvania regulations have safeguards in place to protect against passive treatment system failures. For example, the Pennsylvania regulation at 25 Pa. Code § 87.117, *Hydrologic Balance: surface water monitoring*, requires a permit holder to monitor and accurately measure and record the water quantity and quality of surface water to accurately assess discharges from the permit area and the effect of the discharge on the receiving waters. The monitoring of the flow and chemistry of post-mining pollutional discharges must be sufficient to enable the making of informed decisions regarding the type and scale of treatment to be implemented. The Pennsylvania program requires that surface water be monitored for parameters that relate to the suitability of the surface water for current and approved post-mining land uses and to the objectives for protection of the hydrologic balance. Furthermore, module 8 of the permit application

dictates how the baseline surface waters information is to be collected and the frequency.

Moreover, we note that OSMRE's AMDTreat software has been recognized as an industry standard for estimating all types of long-term mine drainage treatment costs. It provides for comparison of treatment costs for multiple systems and facilitates the development of long-term financial forecasting so that practical funding decisions can be made. AMDTreat is just one tool to be used for engineering design by experienced practitioners. Like any engineering tool, AMDTreat can be misapplied or used improperly. To avoid misapplication or improper use, OSMRE provides on-line tutorials for AMDTreat users, makes itself available for user questions, and provides outreach to users through various technical forums. OSMRE also provides training on the use of AMDTreat and on the theory and application of passive treatment technologies to regulatory authority personnel through its National Technical Training and Technical Innovations and Professional Services programs (TIPS).

We disagree with Hedin's assertion that OSMRE does not train professionals in the design of passive treatment systems. Through its TIPS training program, OSMRE offers a course for State and Tribal employees entitled "Passive Treatment: Theory and Application Workshop." This course provides information and exercises that are highly interactive and can be used to evaluate the characteristics of coal mine drainage and guide the selection and application of various passive treatment technologies designed to mitigate the impacts of discharges. For individuals or firms in the private sector, numerous educational programs on passive water treatment design are available from higher-education institutions or private entities. While we acknowledge the

commenter's suggestion related to establishing an accreditation for the training of professionals in the design of passive treatment systems, neither SMCRA nor the Federal regulations currently provide for such a requirement. We conclude that the State program has the discretion to determine the design of any passive treatment system, which includes the selection of a qualified professional engineer to design and implement passive treatment systems.

PennFuture: PennFuture's comments were limited to the provisions relating to the establishment of TBELs for post-mining polluttional discharges using BPJ. PennFuture provided the following two comments for our consideration:

a. *EPA Approval:* PennFuture stated that to avoid creating a conflict, OSMRE should not approve the provisions at issue as an amendment to the State regulatory program unless EPA first (or simultaneously) approves them as a revision to Pennsylvania's NPDES program. PennFuture cited EPA regulations governing state NPDES permitting program approvals and contends that EPA must first approve this change because it involves NPDES requirements; therefore, OSMRE, approval should only take place after this has occurred. PennFuture states that when it comes to approving regulations that implement BPJ, EPA should provide approval first because BPJ determinations are required by and governed by the CWA and EPA's NPDES program regulations. As such, PennFuture states Pennsylvania should not implement its post-mining polluttional discharge regulations until they have been approved by EPA as a revision to its approved NPDES program under the CWA. PennFuture contends that

unless and until EPA grants approval of Pennsylvania's proposed, categorical BPJ determinations through a formal approval of them as part of the Pennsylvania's NPDES program, OSMRE should not confuse the issue by approving them as part of Pennsylvania's approved regulatory program under SMCRA.

OSMRE's Response: In its May 20, 2014, response to us, EPA noted that there had been numerous amendments to Pennsylvania's water quality chapters in Pa. Code Title 25, *Environmental Protection*, many of which would require EPA approval to become effective under the CWA. EPA, nevertheless, gave OSMRE its concurrence on August 20, 2013, in accordance with 30 CFR 732.17(h)(11)(ii). The question of whether the State's effluent limitations are effective under the CWA must be addressed to, and answered by, the EPA.

Regarding approval of the 1994 BPJ analysis, EPA's clarification of its 1992 Memorandum essentially moots this point. EPA stated that all post-mining discharges from a permitted surface mine reclamation area must have an NPDES permit and meet the effluent limits of 40 CFR 434.52(a), which require limitations involving pH and settleable solids for permitted reclamation areas. Pennsylvania has provided assurances that its implementing regulations will protect the hydrologic balance as required by 30 CFR 816.41 (a) and satisfy all the requirements of State and Federal water quality laws and regulations and comply with ELGS promulgated by EPA under 40 CFR part 434.

b. *Categorical Treatment Requirements and BPJ:* PennFuture states "[b]inding, categorical treatment requirements of indefinite duration based on an analysis performed nearly two decades ago conflict with the [F]ederal and [S]tate water quality

regulations governing BPJ." PennFuture contends that, because EPA does not apply ELGS to post-mining pollutional discharges from surface mines, Federal and State water quality laws and regulations governing BPJ can be complied with by Pennsylvania coal operators if limits are established on a permit-by-permit basis, rather than by standardized, categorical treatment requirements. The regulations proposed by Pennsylvania fail to meet this requirement, according to PennFuture, because they "conflict with the four fundamental attributes of BPJ determinations under EPA's NPDES regulations." These attributes, PennFuture states are: (1) BPJ is case-by-case, not categorical; (2) BPJ is flexible, not fixed and binding; (3) BPJ determinations are updated regularly, and not of indefinite duration; and (4), "BPJ is up to the minute, not stuck in the 1990s."

OSMRE's Response: We disagree with the comment. An underlying assumption upon which all of PennFuture's arguments are based is that EPA has no ELGS that apply to post-mining pollutional discharges from surface mines. That was the case when EPA's 1992 Memorandum was released, but it is not the case now. EPA has since stated that mine drainage includes "any drainage and any water pumped or siphoned, from an active mining or a post-mining area." (emphasis added) (Administrative Record No. 854.17, citing 40 CFR 434.11 (definition of "*mine drainage*")). The specific ELGS applicable to post-mining areas may be found at the CWA regulation, 40 CFR 434.52. This provision establishes the ELGS for discharges from reclamation areas until the performance bond has been released. Because the effluent limits of 40 CFR 434.52 apply to post-mining pollutional discharges, use of the 1994 BPJ is no longer applicable

except as a basis for the Pennsylvania Legislature's direction to allow passive treatment for a certain type of post-mining discharge. PADEP has committed to following the ELGS of 40 CFR 434.52 for post-mining discharges through the proposed amendments to its regulations and NPDES permits for the treated discharges.

The CWA regulations, at 40 CFR 125, *Criteria and Standards for the National Pollutant Discharge Elimination System*, establish the standards and criteria for the imposition of technology-based treatment systems. These requirements represent the minimum level of control that must be imposed on NPDES permits. It is only in the absence of such ELGS that BPJ-based, permit-specific limits may be imposed. 40 CFR 125.3(c)(2). Because ELGS are in place for post-mining polluttional discharges from surface mines, BPJ determinations are not required. However, Pennsylvania may promulgate permit-specific, BPJ-based discharge limitations, so long as they supplement, rather than supplant, the ELGS promulgated by the EPA. The statutory portion of this program amendment authorizes the PADEP to do precisely that. 52. P.S. § 1396.4b(j). Post-mining polluttional discharges that qualify for passive treatment must comply with the applicable Federal ELGS for post-mining discharges at 40 CFR 434.52(a), and with the additional requirements imposed by 25 Pa. Code § 87.102(e)(3), and with applicable water quality standards, where those standards are more stringent than the Federal ELGS.

Finally, as noted above in response to another comment, Pennsylvania has provided assurances that decisions regarding treatment of post-mining polluttional discharges will be made using current knowledge of passive treatment technology tools for evaluating the use of passive treatment, and limitations of passive treatment

technologies. Also, permit applications to construct passive treatment systems for post-mining pollutional discharges will be subject to the review of qualified agency staff with experience in passive treatment. Pennsylvania advises that regulatory design and performance standards will help ensure appropriate treatment systems are authorized and covered by bond or other financial assurance.

Federal Agency Comments

On October 15, 2010, under 30 CFR 732.17(h)(11)(i) and section 503(b) of SMCRA, we requested comments on the amendment from various Federal agencies with an actual or potential interest in the Pennsylvania program (Administrative Record No. PA 854.04). The summary of the responses are described below.

The Mine Safety and Health Administration (MSHA), District 1, in a letter dated November 9, 2010, responded that it does not have any comments or concerns with this request (Administrative Record No. PA 854.05).

The U.S. Fish and Wildlife Service (USFWS), in a letter dated April 27, 2011, provided comments regarding the proposed amendment (Administrative Record No. PA 854.10). Its comments were limited to the establishment of limitations addressing manganese in post-mining pollutional discharges. The USFWS noted that technology based treatment requirements using BPJ are prescribed when EPA ELGS do not exist. The USFWS provided comments involving manganese and the effects on fish and wildlife resources.

The USFWS stated that tolerance limits for fish and macroinvertebrate populations reported in the literature vary widely for manganese and are dependent on

the individual test organism. According to the USFWS, less information was available, at least as of 2011, on the effects of elevated manganese concentrations on aquatic life than the effects of other metals associated with acid mine drainage, such as iron and aluminum. Research has found correlations between dissolved metals that are at or near toxic levels for fish and invertebrates and the associated levels of these metals in tissues of fish and invertebrates. These levels are shown to have impacts on populations of trout and invertebrates. The USFWS stated that, based on the limited literature available at that time, manganese toxicity appears to have the potential to negatively impact the aquatic life in receiving streams of discharges that would fall under this amendment.

USFWS questioned whether factors such as maintaining the biological integrity of the receiving stream have been considered on these sites where Pennsylvania is using BPJ, which, according to the USFWS, must be used when setting a limit for manganese because manganese is a non-priority pollutant under section 304(a) of the CWA, (33 U.S.C. 1314), and has no ELGS in fresh water.

OSMRE's Response: We forwarded the question about the biological integrity of the stream from manganese discharges to EPA by letter dated January 20, 2014 (see summary of the letter under the EPA Concurrence and Comments section below). EPA responded by letter dated May 20, 2014 (discussed in the section that follows). The EPA response stated that under 40 CFR 122.44(d)(1)(ii), Whole Effluent Toxicity (WET) testing can and should be used to ensure discharges are not toxic and dangerous to aquatic life. EPA also noted 25 Pa. Code § 93.6, General Water Quality Criteria, which states in

part, "[w]ater may not contain substances attributable to point or nonpoint source discharges in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life." As such, this regulation requires protection of the biological integrity of receiving streams. EPA further advised that it is in discussions with Pennsylvania about the need to include WET testing requirements in mining NPDES permits. However, Pennsylvania does not use WET testing on mine permits. Instead, at the approval of the EPA, Pennsylvania uses Osmotic Pressure to assess impacts of mine discharges on receiving streams.

Further, by letter of July 2, 2014 (discussed in the section that follows), EPA clarified that all Pennsylvania streams are designated potable water supply (PWS) and that, pursuant to 25 Pa. Code § 96.3(c), manganese is a PWS standard and subject to compliance with in-stream water quality criteria of a maximum of 1 mg/L, to be measured at the point of discharge. Although there is no manganese effluent limit for post-mining discharges from surface mines under 40 CFR 434.52, Pennsylvania regulations at 25 Pa. Code § 96.3, *Water quality protection requirements*, and, by reference, 25 Pa. Code § 93.7(a), *Specific water quality criteria*, are governing. PADEP has committed to requiring a post-mining pollutional discharge to be treated sufficiently by the discharger to meet the more stringent of the applicable technology-based effluent limits or the water quality standards in Chapters 91-96, including the iron and manganese criteria for aquatic life and potable water supply use protection in Chapter 93 through its coal mining regulatory program. Because EPA has classified all streams in Pennsylvania as PWS, thus subject to the 1 mg/L manganese standard, we conclude that compliance with these standards will meet the requirements of SMCRA and the CWA, regarding

protection of the biological integrity of streams from manganese effluent from surface mining post-mining discharges. Based on the fact that Pennsylvania conducts testing in streams for monitoring biodiversity, we find Pennsylvania's implementing policies to protect the biological integrity of the streams.

Environmental Protection Agency (EPA) Concurrence and Comments

Under 30 CFR 732.17(h)(11)(ii), we are required to obtain written concurrence from EPA for those provisions of the program amendment that relate to air or water quality standards issued under the authority of the CWA (33 U.S.C. 1251 et seq.) or the CAA (42 U.S.C. 7401 et seq.). The revision that Pennsylvania proposes to make in this amendment pertains to water quality standards. Therefore, we asked EPA to concur on the amendment in a letter dated October 13, 2010 (Administrative Record No. 854.04). The EPA provided its conditional concurrence on August 20, 2013, and clarification on May 20, 2014, and March 26, 2015 (administrative record numbers are identified below). Prior to providing its concurrence, EPA had communicated with us on several occasions and we and/or Pennsylvania responded to their concerns and comments. The entire content of the letters and communications can be found in the administrative record. We summarize the communications below:

1. *OSMRE's First Letter to EPA*: We submitted the proposed program amendment to EPA for review, comment, and concurrence on October 13, 2010 (Administrative Record No. PA 854.04).

EPA sent us its first response to the proposed amendment on February 10, 2011, (Administrative Record No. PA 854.07), and concluded that it could not provide concurrence because of insufficient information contained in the submission. In order to provide concurrence, EPA requested additional information regarding: the definitions of passive treatment and post-mining polluttional discharge; classes/categories of discharges suitable for passive treatment; NPDES modifications; Pennsylvania's use of BPJ as documented in 1994; and manganese/water-quality based ELGS. The letter reaffirmed that compliance with the CWA is an integral part of SMCRA, and that Pennsylvania's permitting program must comply with regulations implementing the NPDES program and compliance with the CWA before approval or denial of new, modified, amended, or renewed permits.

Pennsylvania responded to EPA's February 10, 2011, letter by sending us a letter on December 9, 2011 (Administrative Record No. PA 854.12). Pennsylvania stated that subsection 87.102(e) establishes treatment standards for post-mining polluttional discharges from surface coal mining operations that are designed to supplement the ELGS established by EPA. Pennsylvania pointed out that the only EPA-established ELGS for post-mining areas on surface mines are that discharges may not exceed 0.5 ml/L maximum for settleable solids and pH must be maintained in the range of 6.0 to 9.0 at all times.

Pennsylvania also stated that dischargers are required to provide interim treatment to comply with Pennsylvania's Group A effluent requirements. These requirements include limits for iron, manganese, suspended solids, and alkalinity. In addition, Pennsylvania stated that a post-mining polluttional discharge must be treated

sufficiently by the discharger to meet the more stringent of either the applicable TBELS or the WQBELS in Pennsylvania's program (at Chapters 91-96), including the iron and manganese criteria for aquatic life and PWS use protection in Chapter 93, *Water Quality Standards*.

Regarding passive treatment systems, Pennsylvania clarified that the three subsets of discharges with defining criteria allowing for the use of passive treatment are a starting point and are not a substitute for actual performance of the passive treatment system. Pennsylvania stated the discharges must also meet in-stream numeric criteria for iron and manganese established in Chapter 93. Pennsylvania also mentioned that in addition to establishing TBELS for post-mining pollutional discharges, 25 Pa. Code § 87.102(e) prescribes design and construction requirements for passive treatment systems that Pennsylvania determined would be necessary to adequately treat the identified subset of post-mining pollutional discharges. Further, it stated that this section and its counterpart sections supplement existing NPDES requirements and are not intended to implement the NPDES regulations for case-by-case development of TBELS requirements in permits.

Pennsylvania responded to EPA's request for clarification of the definitions of *passive treatment* system and *post-mining pollutional discharge* by clarifying that passive treatment systems require ongoing operation and maintenance activity, but less frequent monitoring and continuous management; and that a post-mining pollutional discharge is a discharge emanating from, or hydrologically connected to, the permit area which remains after coal mining activities have been completed and does not meet effluent requirements in 25 Pa Code § 87.102 or its parallel counterparts.

Regarding EPA's concerns about NPDES permit modifications, Pennsylvania emphasized that PA SMCRA explicitly requires compliance with the regulations in Chapter 92a related to NPDES permitting and Chapter 93 related to water quality standards.

Pennsylvania acknowledged that its BPJ guidance was finalized in 1994 and that advances have been made over the past two decades but stated its staff is aware of technological improvements and has been applying this knowledge in practice for many years at specific sites.

OSMRE submitted Pennsylvania's December 9, 2011, letter to EPA for review and response on January 4, 2012 (Administrative Record No. PA 854.13).

2. *EPA's Second Letter to OSMRE*: EPA responded to Pennsylvania's December 9, 2011, letter by sending us a letter dated August 20, 2013 (Administrative Record No. PA 854.15). EPA noted Pennsylvania's responses and provided its concurrence based on Pennsylvania's assertion that the more stringent of either TBELS or WQBELS will be used to determine the appropriate discharge limit from all outfalls subject to the referenced proposed revision. EPA also noted that its concurrence is contingent on Pennsylvania's assertion that Pennsylvania will not be using passive treatment regulatory standards for discharges emanating from underground mining operations. EPA recommended that Pennsylvania review its BPJ guidance for this proposed set of regulations and modify the guidance with any new information (including EPA's Acid Mine Drainage program implementation guidance) gained from studies performed by Pennsylvania and OSMRE.

3. *OSMRE's Third Letter to EPA*: By letter dated January 20, 2014, (Administrative Record No. PA 854.16), we sought clarification from EPA regarding several issues and comments submitted during the public comment period. The issues involved: clarification regarding a January 28, 1992, Memorandum from EPA to Pennsylvania that concluded post-mining ground water seeps from reclaimed surface mines are not subject to the requirements of 40 CFR 434.52(a) (ELGS for post-mining areas); clarification from EPA regarding a public comment that EPA must first, or simultaneously, approve the changes in Pennsylvania's NPDES program; additional direction from EPA regarding use of the 1994 BPJ analysis for post-mining pollutional discharges; information regarding application of WQBELS for streams not designated as a PWS; and information regarding application of provisions of the CWA that protect the biological integrity of receiving streams from chemical or organic constituents of water discharged.

4. *EPA 's Third Letter to OSMRE*: EPA responded to our letter of January 20, 2014, by sending us a letter dated May 20, 2014 (Administrative Record No. PA 854.17). In response to the issues and concerns identified in our January 20, 2014, letter, EPA responded with the following explanation:

Regarding EPA's position as presented in the January 28, 1992, Memorandum to Pennsylvania regarding treatment of post-mining discharges, EPA stated the position taken by EPA in 1992 does not reflect current EPA regulatory analysis. EPA responded that seepage at a reclamation site (surface mine in stage 2 reclamation) *does* (emphasis added) include water that drains through waste rock, overburden, etc., rather than flows

over the surface, and these seepages are subject to the effluent limit guidelines in 434 Subchapter E, *Post-mining Areas*.

Responding to a public comment that EPA must approve the proposed revisions as part of a revision to Pennsylvania's NPDES program, EPA requested that OSMRE identify those sections of the Pennsylvania program for which this would be necessary.

Regarding Pennsylvania's use of 1994 BPJ information, EPA responded that it was, at the time, in discussions with Pennsylvania regarding its BPJ process.

Regarding in-stream manganese WQBELS, EPA stated that in Pennsylvania, all streams are designated as PWS critical use and that, pursuant to 25 Pa. Code § 96.3(c), manganese is a PWS standard. According to this letter, compliance must be evaluated at the nearest downstream drinking water intake from the discharge. As noted in EPA's fourth letter to OSMRE, however, this statement is erroneous.

Regarding the protection of the biological integrity of receiving streams, EPA noted that under 40 CFR 122.44(d)(1)(ii), WET testing can and should be used to ensure discharges are not toxic and dangerous to aquatic life. EPA also noted 25 Pa. Code § 93.6, which states in part, that, "[w]ater may not contain substances attributable to point or nonpoint source discharges in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life."

5. *EPA 's Fourth Letter to OSMRE*: EPA sent us a letter on July 2, 2014, (Administrative Record No. PA 854.18), to correct a response that was given by EPA in its May 20, 2014, letter to us that addressed WQBELS for manganese in streams that

are not designated PWS, critical use. EPA stated that, contrary to what it said in its May 20, 2014, letter, manganese is monitored at the point of discharge, rather than at the nearest downstream drinking water intake from the discharge.

6. *OSMRE's First Letter to Pennsylvania:* By letter dated August 7, 2014, (Administrative Record No. PA 854.20), we requested additional information from Pennsylvania and notified Pennsylvania of EPA's change in interpretation regarding ground water seeps and the applicability of the limitations provided in 40 CFR part 434. We questioned Pennsylvania on its position of including 25 Pa. Code § 87.102(e)(2)(iii), which is the third criterion involving permitted use of passive treatment for post-mining pollutional discharges involving a discharge with a net acidity always less than 300 mg/L, as a discharge criterion that is suitable for passive treatment. Further, we questioned the inclusion of the phrase "but are not limited to" in 25 Pa. Code § 87.102(e)(2) because it would allow approval of the use of passive treatment on other discharges not specified. We also noted the passage of 20 years since the BPJ analysis was issued and the emergence of more recent studies and other more recent experience demonstrating the limitations of passive treatment technologies. We questioned how the provisions of 25 Pa. Code §§ 87.102(e)(3) and (4) would be enforced; how the reclamation needs will be bonded or otherwise financially secured; and who would be responsible for operation and maintenance of the treatment systems. We also noted that Pennsylvania's regulations do not address the 40 CFR 434.52 effluent requirement that the discharge have no more than 0.5 ml/L of settleable solids.

7. *Pennsylvania's Second Letter to OSMRE*: Pennsylvania responded to our August 2014, letter on October 9, 2014, (Administrative Record No. 854.21), with the following responses:

Regarding our concern with the third category of discharges suitable for passive treatment (less than 300 mg/L of acidity) and the open-ended nature of the regulation that could lead to approval of passive treatment systems that cannot maintain effectiveness, Pennsylvania responded that the totality of the regulations prevents approval of a system that will not function well. Further, Pennsylvania asserted that only those passive treatment systems that can achieve the effluent requirements and can be designed and constructed to meet the performance requirements can be approved by Pennsylvania.

Pennsylvania asserted that 25 Pa. Code § 87.102(e)(3) and comparable sections in the other chapters are performance standards which must be met, and effluent limits will be determined and included in the NPDES permit that accompanies the SMCRA permit. Both the NPDES and SMCRA permits will be maintained as long as the post-mining pollutorial discharge continues to require treatment. Pennsylvania advised that treatment systems will be bonded or otherwise financially secured in accordance with the approved program.

Pennsylvania asserted that there are no Federal counterparts to the provisions in 25 Pa. Code § 87.102(e) and comparable subsections, and, therefore, they are as effective as and no less stringent than the Federal requirements. Pennsylvania asserted it uses all the tools available in its technical review to ensure treatment of post-mining

pollutional discharges is consistent with current scientific knowledge and uses the best system of performance.

Regarding our concerns about the absence of a settleable solids limit in the Pennsylvania regulations for post-mining pollutional discharges, and recognizing that the EPA standards at 40 CFR 434.52(a) for post-mining areas require no more than 0.5 ml/L in the discharge, Pennsylvania responded that the narrative water quality standards at 25 Pa. Code 93.6(b), Water quality criteria, addresses pollutants, turbidity, or settle-to-form deposits. Pennsylvania stated turbidity addresses suspended solids, while settle-to-form deposits address settleable solids and that NPDES permits for individual coal mining permits will properly address settleable solids.

Regarding system performance monitoring and maintenance, Pennsylvania responded that the operator is responsible for compliance with the monitoring schedule in the NPDES permit and for operation and maintenance of the treatment systems.

Regarding financial assurances for reclamation needs, Pennsylvania stated that the treatment systems will become part of the SMCRA and NPDES permits and will be bonded in accordance with financial assurance requirements approved by OSMRE on August 10, 2010. (78 FR 48526).

8. *EPA 's Fifth Letter to OSMRE*: On March 26, 2015, (Administrative Record No. PA 854.22), EPA sent us a letter referencing its August 20, 2013, concurrence letter and its January 20, 2014, follow-up letter. It reiterated its conditional concurrence that made clear its approval is contingent upon Pennsylvania's assertion that the more stringent of either TBELS or WQBELS will apply to any NPDES

discharge regardless of SMCRA obligations; that the provisions of 30 CFR 816.42, requiring that all applicable State and Federal water quality laws and regulations along with EPA effluent limitations in 40 CFR part 434 will apply; and neither SMCRA nor its implementing regulations supersede, modify, or repeal the CWA and its implementing regulations. EPA also stated that NPDES permits for post-mining pollutional discharges require the pH to be between 6.0 and 9.0 unless there is a variance and require that settleable solids not exceed 0.5 mg/L.

V. OSMRE's Decision

Based on the above findings, we are approving the Pennsylvania amendment that was sent to us on October 1, 2010, with one exception. We are deferring our decision on the inclusion of minimal impact post-mining discharges in the definition of *post-mining pollutional discharge* until such time as the State submits the definition of *minimal impact post-mining discharge* to us as a proposed program amendment.

To implement this decision, we are amending the Federal regulations, at 30 CFR Part 938, that codify decisions concerning the Pennsylvania program. In accordance with the Administrative Procedure Act (5 U.S.C. 500 et seq.), this rule will take effect 30 days after the date of publication. Section 503(a) of SMCRA requires that the State's program demonstrate that the State has the capability of carrying out the provisions of the Act and meeting its purposes. SMCRA requires consistency of State and Federal standards.

VI. Statutory and Executive Order Reviews

Executive Order 12630 — Governmental Actions and Interference with Constitutionality Protected Property Rights

This rule would not effect a taking of private property or otherwise have taking implications that would result in public property being taken for government use without just compensation under the law. Therefore, a takings implication assessment is not required. This determination is based on an analysis of the corresponding Federal regulations.

Executive Order 12866 - Regulatory Planning and Review and 13563 — Improving Regulation and Regulatory Review

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget (OMB) will review all significant rules. Pursuant to OMB guidance, dated October 12, 1993, the approval of State program amendments is exempted from OMB review under Executive Order 12866. Executive Order 13563, which reaffirms and supplements Executive Order 12866, retains this exemption.

Executive Order 13771 — Reducing Regulation and Controlling Regulatory Costs

State program amendments are not regulatory actions under Executive Order 13771 because they are exempt from review under Executive Order 12866.

Executive Order 12988 - Civil Justice Reform

The Department of the Interior has reviewed this rule as required by section 3(a) of Executive Order 12988. The Department has determined that this **Federal Register** notice meets the criteria of section 3 of Executive Order 12988, which is intended to ensure that the agency review its legislation and proposed regulations to eliminate drafting errors and ambiguity; that the agency write its legislation and regulations to minimize litigation; and that the agency's legislation and regulations provide a clear legal standard for affected conduct rather than a general standard, and promote simplification and burden reduction. Because section 3 focuses on the quality of Federal legislation and regulations, the Department limited its review under this Executive Order to the quality of this **Federal Register** notice and to changes to the Federal regulations. The review under this Executive Order did not extend to the language of the State regulatory program or to the program amendment that the Commonwealth of Pennsylvania drafted.

Executive Order 13132 - Federalism

This rule has potential Federalism implications as defined under Section 1(a) of Executive Order 13132. Executive Order 13132 directs agencies to “grant the States the maximum administrative discretion possible” with respect to Federal statutes and regulations administered by the States. Pennsylvania, through its approved regulatory program, implements and administers SMCRA and its implementing regulations at the state level. This rule approves an amendment to the Pennsylvania program submitted

and drafted by the State, and thus is consistent with the direction to provide maximum administrative discretion to States.

Executive Order 13175 - Consultation and Coordination with Indian Tribal Government

The Department of the Interior strives to strengthen its government-to-government relationship with Tribes through a commitment to consultation with Tribes and recognition of their right to self-governance and tribal sovereignty. We have evaluated this rule under the Department's consultation policy and under the criteria in Executive Order 13175, and have determined that it has no substantial direct effects on federally recognized Tribes or on the distribution of power and responsibilities between the Federal Government and Tribes. Therefore, consultation under the Department's tribal consultation policy is not required. The basis for this determination is that our decision is on the Pennsylvania program that does not include Tribal lands or regulation of activities on Tribal lands. Tribal lands are regulated independently under the applicable, approved Federal program.

Executive Order 13211 — Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use

Executive Order 13211 requires agencies to prepare a Statement of Energy Effects for a rulemaking that is (1) considered significant under Executive Order 12866, and (2) likely to have a significant adverse effect on the supply, distribution, or use of energy. Because this rule is exempt from review under Executive Order 12866 and is not significant energy action under the definition in Executive Order 13211, a Statement of Energy Effects is not required.

Executive Order 13045 — Protection of Children from Environmental Health Risks and Safety Risks

This rule is not subject to Executive Order 13045 because this is not an economically significant regulatory action as defined by Executive Order 12866; and this action does not address environmental health or safety risks disproportionately affecting children. *National Environmental Policy Act*

Consistent with sections 501(a) and 702(d) of SMCRA (30 U.S.C. 1251 (a) and 1292(d), respectively) and the U.S. Department of the Interior Departmental Manual, part 516, section 13.5(A), State program amendments are not major Federal actions within the meaning of section 102(2)(C) of the National Environmental Policy Act (42 U.S.C. 4332(2)(C)).

National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (15 U.S.C. 3701 *et seq.*) directs OSMRE to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. (OMB Circular A-119 at p. 14). This action is not subject to the requirements of section 12(d) of the NTTAA because application of those requirements would be inconsistent with SMCRA.

Paperwork Reduction Act

This rule does not include requests and requirements of an individual, partnership, or corporation to obtain information and report it to a Federal agency. As this rule does not contain information collection requirements, a submission to the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) is not required.

Regulatory Flexibility Act

This rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The State submittal, which is the subject of this rule, is based upon corresponding Federal regulations for which an economic analysis was prepared and certification made that such regulations would not have a significant economic effect upon a substantial number of small entities. In making the determination as to whether this rule would have a significant economic impact, the Department relied upon the data and assumptions for the corresponding Federal regulations.

Small Business Regulatory Enforcement Fairness Act

This rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This rule: (a) Does not have an annual effect on the economy of \$100 million; (b) will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; and (c) does not have significant adverse effects on competition,

employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. This determination is based on an analysis of the corresponding Federal regulations, which were determined not to constitute a major rule.

Unfunded Mandates Reform Act

This rule will not impose an unfunded mandate on State, local, or Tribal governments, or the private sector of more than \$100 million in any given year. The rule does not have a significant or unique effect on State, local, or Tribal governments or the private sector. This determination is based on an analysis of the corresponding Federal regulations, which were determined not to impose an unfunded mandate. Therefore, a statement containing the information required by the Unfunded Mandates Reform Act (2 U.S.C. 1531 et seq.) is not required.

List of Subjects in 30 CFR Part 938

Intergovernmental relations, Surface mining, Underground mining.

Thomas D. Shope, Regional Director

North Atlantic – Appalachian Region

For the reasons set out in the preamble, the Office of Surface Mining Reclamation and Enforcement amends 30 CFR part 938 as follows:

PART 938 — PENNSYLVANIA

1. The authority citation for part 938 continues to read as follows:

Authority: 30 U.S.C. 1201 *et seq.*

2. Section 938.12 is amended by adding paragraph (f):

§ 938.12 State regulatory program and proposed program amendment provisions not approved.

(f) We are deferring our decision on the inclusion of *minimal-impact post-mining discharge* in the definition of *post-mining polluttional discharge* until such time as the State submits the definition of minimal-impact post-mining discharge to us as a proposed program amendment.

3. In § 938.15 amend the table by adding under "Date of Final Publication" an entry for "Section 4.2(j) of PASMCRRA (52 P.S. §1396.4bG)) at the end of the table to read as follows

§ 938.15 Approval of Pennsylvania regulatory program amendments.

* * * * *

Original amendment Submission date	Date of final Publication	Citation/description

October 1, 2010	[Insert date of publication in the Federal Register]	<p>Section 4.2(j) of PASMCR 52 P.S. §1396.4bj);</p> <p>25 Pa. Code § 86.1, Definitions, the definitions of the following terms:</p> <p>"passive treatment system " and "post-mining pollutional discharge, except for the inclusion of "minimal impact post-mining discharge " in the definition of "post-mining pollutional discharge "</p> <p>25 Pa Code 87.102(a) and (e), Hydrologic balance: effluent standards; 88.92 (a) and (e); Hydrologic balance: effluent standards; 88.187 (a) and (e), Hydrologic balance: effluent standards;</p> <p>88.292 (a) and (e), Hydrologic balance: effluent standards; 89.52 (c), Water quality standards, effluent limitations, and best management practices; and 90.102 (a) and (e), Hydrologic balance: water quality standards, effluent limitations, and best management practices.</p>
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