FEDERAL REGISTER: 52 FR 45920 (December 2, 1987)

DEPARTMENT OF THE INTERIOR
AGENCY: Office of Surface Mining Reclamation and Enforcement (OSM)

30 CFR Parts 784 and 817
Permanent Regulatory Program Performance Standards for Underground Coal Mining Activities;
Hydrologic-Balance Protection Recharge Capacity

ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSMRE) is amending its regulations with respect to restoration of recharge capacity for underground mines. This final rule will modify paragraph 30 CFR 784.14(g) by removing the requirement for underground mine operators to handle earth materials and runoff in a manner which will restore approximate premining groundwater recharge capacity when reclaiming the mine face-up area at the conclusion of mining. The final rule will also remove a similar requirement from the performance standards at 30 CFR 817.41(b)(2).

EFFECTIVE DATE: January 4, 1988.

FOR FURTHER INFORMATION CONTACT: Raymond E. Aufmuth, Division of Technical Services, OSMRE, Department of the Interior, 1951 Constitution Avenue, NW., Washington, DC 20240; Telephone: (202) 343-7952.

SUPPLEMENTARY INFORMATION:

I. BACKGROUND

The Surface Mining Control and Reclamation Act of 1977, *30 U.S.C. 1201* et seq., (the Act) sets forth general regulatory requirements governing surface coal mining operations and the surface impacts of underground coal mining. OSMRE has by regulation implemented or clarified many of the requirements of the Act and set performance standards to be achieved by surface coal mining and underground mining activities. See 30 CFR Parts 816 and 817.

In proposed permanent program regulations at *43 FR 41780* (September 18, 1978), OSMRE explained why it did not believe it appropriate to propose a regulation concerning the restoration of recharge capacity for underground mines and solicited comments on this topic. A single comment was received which supported OSMRE's position. Consequently, no such requirement was promulgated in the final permanent program regulations. However, a different requirement to replace the water supply of an owner of real property affected as a result of underground mining activities was promulgated at *44 FR 15430* (March 13, 1979).

The Court in In Re: Permanent Surface Mining Regulation Litigation No. 79-1144 (D.D.C. May 1980) (In Re: Permanent (I)), held that there was no statutory jurisdiction for this water replacement requirement as applied to underground mining operations. This ruling was reaffirmed in the court's subsequent opinion in In Re: Permanent Surface Mining Regulation Litigation (II), No. 79-1144, Slip Op. At 20-23 (D.D.C. July 15, 1985) (In Re: Permanent (II)).

On June 25, 1982, OSMRE proposed revised regulations on hydrology at *47 FR 27712.* On September 26, 1983 *(48 FR 43956)* OSMRE published final rules on hydrologic-balance protection, taking into consideration comments received on the proposed rule. The rule at 30 CFR 784.14(g), which was applicable to underground mine operators, required that a permit application include a hydrologic reclamation plan indicating how the relevant requirements of 30 CFR Part 817, including Sections 817.41 to 817.43, would be met. The rule further required the plan, among other provisions, to include the measures to be taken to restore approximate premining recharge capacity.

Similarly, the performance standards for underground mining activities in 30 CFR 817.41(b)(2) provided that ground-water quantity had to be protected by handling earth materials and runoff in a manner that would restore

approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground-water system.

In In Re: Permanent (II), Slip Op. at 3-4, the requirement to restore approximate premining recharge capacity was challenged on the basis that it was inconsistent with the Act and violated the District Court's May 1980 ruling in In Re: Permanent (I) that underground mine operators are not required to replace water supplies.

In response to this challenge, the Secretary in a brief filed December 21, 1984, indicated that he would suspend 30 CFR 817.41(b)(2) pending a new rulemaking that would develop a more complete administrative record concerning the complex legal and policy issues associated with the requirement for underground mines to restore hydrologic recharge capacity. On February 21, 1985, OSMRE published a notice suspending Section 817.41(b)(2) in its entirety. *(50 FR 7274).*

OSMRE published a proposed rule on December 11, 1986 *(51 FR 44742)* concerning the restoration of recharge capacity for underground mines. The proposed rule was available for public comment until February 19, 1987. In the notice of proposed rulemaking, two options were proposed: Option 1 consisted of retaining 30 CFR 784.14(g) and 817.41(b)(2) in their entirety as published on September 26, 1983 *(48 FR 43956);* Option 2 consisted of modifying the permitting requirement at 30 CFR 784.14(g) to remove the phrase "restore approximate premining recharge capacity" and of removing 30 CFR 817.41(b)(2) from the regulations entirely.

In the notice of proposed rulemaking, OSMRE provided an opportunity for the public to request hearings on the issue. No hearings were requested, and none were held. Twelve comment letters were received prior to the end of the comment period -- two from State regulatory authorities, two from environmental organizations and eight from the coal mining industry. These comments have been analyzed and the results are summarized in the following section.

II. RULES ADOPTED AND RESPONSES TO PUBLIC COMMENTS

1. PART 784: UNDERGROUND MINING PERMIT APPLICATIONS -- MINIMUM REQUIREMENTS FOR RECLAMATION AND OPERATION PLAN.

SECTION 784.14 - HYDROLOGIC INFORMATION

This section contains the permitting requirements for sampling and analysis; baseline information on ground and surface water; baseline cumulative impact area information; modeling; probable hydrologic consequences determination; cumulative hydrologic impact assessment; hydrologic reclamation; and ground and surface water monitoring plans. Specifically, paragraph 784.14(g) requires an application to include a hydrologic reclamation plan. The existing regulations at 784.14(g) require that the hydrologic reclamation plan include the measures to be taken to "restore approximate premining recharge capacity." In this final rule, OSMRE is implementing Option 2 of the proposed rule by removing the phrase "restore approximate premining recharge capacity" from 30 CFR 784.14(g). The reasons for this change are given in the following discussion of a corresponding change in 30 CFR 817.41.

2. PART 817: PERMANENT PROGRAM PERFORMANCE STANDARDS -- UNDERGROUND MINING ACTIVITIES.

SECTION 817.41 - HYDROLOGIC BALANCE PROTECTION

This section contains performance standards requiring underground coal mining and reclamation activities to be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area, and to support approved postmining land uses.

The suspended paragraph 817.41(b)(2) provided groundwater quantity protection by requiring the handling of earth materials and runoff in a manner that would restore the approximate premining recharge capacity of the reclaimed area. In this final rule OSMRE is removing Section 817.41(b)(2) from the regulations.

The proposed rule asked for public comment on any legal and technical issues that might be pertinent to the restoration of approximate premining recharge capacity at underground mines. Comments were received on both types of

issues.

After reviewing these comments, as well as the Act, its legislative history, and the remainder of the administrative record for this rule, OSMRE has concluded that nothing in the Act requires OSMRE to promulgate a rule requiring the restoration of approximate premining recharge capacity at underground mines. Moreover, potential impacts on hydrologic recharge capacity deriving from surface operations incidental to underground mining are insignificant. Therefore, OSMRE has concluded that a rule requiring the restoration of premining recharge capacity at underground mines is neither needed nor required. A detailed discussion of the reasons for these conclusions follows.

General performance standards for surface coal mining and reclamation operations appear in section 515(b) of the Act, *30 U.S.C. 1265*(b). Corresponding performance standards governing the surface effects of underground coal mining operations appear in section 516(b) of the Act, *30 U.S.C. 1266*(b).

The performance standards for surface operations include in section 515(b)(10)(D), "restoring recharge capacity of the mined area to approximate premining conditions * * *." While the corresponding performance standards for the surface effects of underground operations in section 516(b)(9) generally require the operator to "minimize the disturbances * * * to the quantity of water in surface ground water systems" they include no such specific requirement concerning the restoration of premining recharge capacity.

Section 201(c)(2) of the Act, *30 U.S.C. 1211*(c)(2), requires OSMRE to "publish and promulgate such rules and regulations as may be necessary to carry out the purposes and provisions of this Act * * *." In the absence of a specific provision in section 516(b)(9), a rule on the restoration of premining recharge capacity at underground mines is required under section 201(c)(2) only if it is necessary to carry out the purposes of the Act. Based on technical considerations, OSMRE has concluded that such a rule is not necessary.

OSMRE received comments both supporting and challenging its authority to promulgate a rule requiring the restoration of recharge capacity at underground mines. The same provisions in the Act and its legislative history were used to support comments both pro and con.

Seven commenters stated that section 516(b)(9) of the Act does not authorize a requirement for operators of underground mines to restore recharge capacity. These commenters note that the language of section 516(b)(9)(A) (i) through (ii) and section 516(b)(9)(B) is virtually identical to that of section 515(b)(10)(A) (i) through (iii) and section 515(b)(10)(B), while the additional requirements in section 515(b)(10) (C) through (G), which includes the groundwater recharge capacity requirement, do not appear in section 516. OSMRE believes that the differences pointed out by the commenters support the conclusion that the office is not obligated by the Act to address premining groundwater recharge capacity at underground mines.

Five commenters found additional support for this conclusion in the legislative history of section 516 concerning the surface impacts of underground mines. House Report No. 95-218 discusses concerns with acid and toxic discharges from underground mines. H. Rep. No. 95-218, 95th Cong., 1st Sess. 127 (1977). This section of the report concludes by stating, "The standards included in the bill pertaining to minimizing the disturbances to the prevailing hydrologic balance both during and after coal mining operations, section 516(b)(9), are intended to meet the problem of continuing pollutional discharges after mining has ceased." There is no mention of "recharge capacity" in this reference to section 516(b)(9).

In contrast, two other commenters stated that House Report No. 95-218 supports a recharge capacity requirement for underground mines. They referenced a passage which discusses the short- and long-term disruptive impacts of mining on the ground water supply, and states that "Restoring recharge capacity does not mean restoring the aquifer, but rather that the capability of an area to recharge an aquifer be restored." Id. at 116. This passage continues by stating that those mining operations which "singularly or in combination would * * * seriously affect large aquifers * * * should be predicated on the ability of the operator to replace to the extent possible the groundwater storage and recharge capability of the site * * *." OSMRE believes that this referenced section of the report is applicable only to those operations that seriously affect large aquifers and that, ordinarily, such operations would not include the surface operations and surface impacts incident to underground mines.

Five commenters stated that section 516 applies specifically to surface impacts of underground mines, and that under section 516(b)(10), section 515 only applies with respect to surface impacts not specified in subsection 516(b). They contended that effects on recharge capacity are not surface impacts, and therefore a requirement for an underground mine to restore recharge capacity cannot be supported by either section 516(b)(10) or 515(b)(10). Another commenter stated that the language in section 516(b)(10) makes it apparent that the section 515(b) standards, specifically section 515(b)(10)(E), were intended to apply to underground mining operations, with such modifications as are necessary to accommodate the distinct difference between surface and underground mining.

Five commenters advanced the argument that principles of statutory construction dictate that specific provisions control when both general and specific provisions exist in the same statute. *United States v. Cihal, 336 F. Supp. 261 (1972).* On this basis, these commenters stated that since section 516(b)(9) imposes specific hydrologic requirements, not including a recharge capacity provision, then section 516(b)(7), which addresses general issues, cannot be interpreted as applying to hydrologic issues. Another commenter stated that remedial statutes should be construed broadly to effectuate congressional intent, with all ambiguities resolved in favor of coverage.

Four commenters discussed the requirement in section 510(b)(3) that the regulatory authority conduct an assessment of the probable cumulative impact of all mining on the hydrologic balance, and that the proposed operation be designed to prevent material damage to the hydrologic balance outside the permit area. One commenter concluded that since this section deals with permit approval or denial it does not support a performance standard concerning recharge capacity. The commenter pointed out that the language of section 510(b)(3) has been repeated verbatim in the permitting regulations at 30 CFR 784.14(g), as has the language from section 516(b)(9). Another commenter believed that section 510(b)(3) provides the authority to go "beyond minimization of impacts under section 516 and to adopt further regulations * * *."

One commenter stated that section 510(b)(3) was "essential in determining the cumulative impact on the groundwater recharge capacity for any affected aquifer". This section is a general requirement that relates to approval or denial of a permit and identifies written findings to be made by the regulatory authority. It does not stipulate specific recharge capacity requirements.

After consideration of the technical differences between surface and underground mining (described below), OSMRE believes that a rule requiring the restoration of premining recharge capacity at underground mines is not needed. Thus, resolving these opposing views of the statute is not required for OSMRE's disposition of this issue.

Technical concerns were also addressed by the comments. Eight commenters addressed the extremely small surface areas disturbed to facilitate underground mining operations when compared to the vast surface areas of recharge generally available to an aquifer. These commenters pointed out that in many instances the overburden is impacted only to a shallow depth, and does not intercept the coal seam. Furthermore, face-up areas for drift mines are generally located along the slopes of hills, which do not provide significant catchment areas for infiltration of precipitation. Surface facility areas associated with underground mines exist for the life of the mine, which is generally measured in decades. Consequently, even if recharge capacity is minimally impacted, it will re-adjust naturally during the life of the mine. Any change which may occur will be so small as to be unnoticeable because of the small size of the recharge area disturbed relative to the total recharge area for the aquifer and the shallow depth of disturbance. OSMRE agrees with these comments, and has concluded that the technical differences between the surface effects of surface and underground mining operations on recharge capacity are of sufficient magnitude to justify the removal of Section 817.41(b)(2) and the corresponding reference in Section 784.14(g).

The limited effect of underground operations on surface recharge capacity has been recognized from the outset of regulation under the Act. Thus, the 1979 permanent program rules did not include a provision requiring the restoration of premining recharge capacity at underground mines. While OSMRE had considered proposing such a rule, it concluded that

Since the structural integrity of water bearing formations should not be significantly affected by underground mining, the recharge capacity of the formations should be maintained without any special precautions.

43 FR 41780 (Sept. 18, 1978). Upon further analysis, OSMRE agrees with this earlier conclusion.

As noted in the legislative history of the Act:

"Recharge capacity refers to the ability of an area to replenish its ground water content from precipitation and infiltration from surrounding lands. Restoring recharge capacity does not mean restoring the aquifer, but rather that the capability of an area to recharge an aquifer be restored. Spoil handling and placement and grading operations should be designed to enhance and [sic] recharge potential of the site. It is anticipated that in those mining operations which singularly or in combination would mine [sic] seriously affect large aquifers, mining should be predicated on the ability of the operator to replace to the extent possible the ground-water storage and recharge capability of the site by selective spoil material segregation and handling."

H.R. Rep. No. 95-218, 95th Cong., lst Sess. 116 (1977) (emphasis added).

As this legislative history indicates, what Congress intended by use of the phrase "restoring recharge capacity" in Section 515(b)(10)(D) did not entail restoring the aquifer, but only the handling of spoil materials and regrading of the surface, which are relatively insignificant activities at underground mines. Moreover, the Congress was concerned primarily with operations which would seriously affect large aquifers. Even at underground mines with surface facilities spread over a relatively large area, such facilities would not seriously affect large aquifers and neither spoil handling techniques nor regrading are likely to have any significant effect on recharge capacity.

One commenter suggested that the requirement to restore recharge capacity, as applicable in the East, may actually be undesirable. The commenter pointed out that steep slopes and shallow depth to bedrock results in recharge to shallow groundwater systems in weathered zones.

The commenter also pointed out that restoring minesites to premining recharge capacity would involve compaction of impermeable materials back to "rock-like porosity," which would result in precipitation runoff to the surface water system rather than to the aquifer. This comment is not pertinent to this rulemaking because the rule does not require compaction of spoil materials to "rock-like porosity."

One commenter pointed out that in addition to all the other differences between section 515(b)(10) and section 516(b)(9), the provision in section 516 eliminates the reference to "quality" that is found in section 515. The commenter believes that this distinction, in addition to the others enumerated above, provides clear indication that Congress intended that the underground coal mine operator not be subject to the same requirements as the surface coal mine operator. OSMRE does not believe that omission of this term in itself justifies not addressing the recharge issue for underground mining operations. However, the technical differences between surface and underground mining as discussed above, provide the basis for removing this requirement.

One commenter stated that the Congress specifically intended that all mining activities be conducted in a manner that minimizes disruption of the hydrologic regime on-site and off-site. This commenter stated that restoring approximate premining recharge capacity is one of the measures necessary to fulfill the intent of the Congress. OSMRE disagrees with this conclusion with respect to underground mining operations because this measure is not specifically identified by Congress in the Act. The conclusion also fails to recognize the regulatory consideration which the Act requires be given to the distinct differences between underground and surface mining operations. These aspects were discussed previously in this preamble.

This same commenter stated that technical literature makes it clear that underground mining in aquifer recharge zones in the Appalachian coal region may have a significant impact on the recharge capabilities of the area. The commenter, however, did not provide any technical references in support of the comment and OSMRE knows of no literature which addresses the issue of the effect of underground mine face-up areas on the recharge capacity of an area. OSMRE does not disagree with the comment. Considering the short time that these requirements have been in effect it is unlikely that there have been studies conducted to evaluate this situation properly. The removal of a coal seam may indeed have an impact on aquifer recharge; however, the net contribution to this impact from the surface facilities and face-up areas of underground mines is insignificant. When evaluated with respect to the small areas impacted by surface activities of underground mines, and the long duration of these activities, the impact to aquifer recharge zones is minimal.

One commenter addressed the regulatory history of the recharge capacity issue, citing several passages from the proposed and final permanent program preamble, and from the 1983 rulemaking. The commenter concluded that surface

impacts of underground activities on the recharge capability of an area are indistinguishable from the surface effects of surface mining activities. OSMRE disagrees. There is no technical basis for equating the face-up area of an underground mine designed to provide mine access with either the open pit of an area mine or a contour mining operation that is designed to mine as far into the hillside and remove as much overburden as is economically practicable. The area and contour surface mines have a far greater impact due to their larger size and depth of overburden removal.

The same commenter also noted that a large underground mine face-up area may have a far greater impact on recharge than many small contour seam or auger stripping operations. OSMRE acknowledges that, given a specific set of circumstances, this may be true. However, as pointed out in discussions above, the recharge impact, which would be minimal, would mitigate itself over the life of the underground mine. The possibility of the situation the commenter describes actually occurring to an extent which would "seriously affect large aquifers" (H.R. Report 95-218, supra, at 116 (1977)) is very unlikely.

The commenter provided several technical references on the effects of stress-relief fracturing on groundwater as evidence that underground mine face-up areas significantly impact groundwater recharge. Several quotations from these references were cited with respect to the impacts that may occur when a certain type of stress-relief fracturing (onion-skin) takes place. The commenter states that these impacts will be accentuated by an underground face-up area. OSMRE has reviewed these documents and does not believe that they are relevant to the issue of aquifer recharge capacity at underground mine face-up areas. The effects identified in the references are near-surface impacts and may actually be eliminated during mining. There are major differences between the magnitude of the impacts resulting from an underground face-up area which occurs over a very short lateral area, and a contour mine which may wrap around an entire hillside. Contour mines could effectively cut off surface water infiltration to large portions of an aquifer as a result of impacting the stress-relief fracturing system whereas the small area of an underground mine face-up would have only limited local impact.

III. PROCEDURAL MATTERS

Effect in Federal Program States and on Indian Lands

The final rule applies through cross-referencing in those States with Federal programs. This includes Georgia, Idaho, Massachusetts, Michigan, North Carolina, Oregon, Rhode Island, South Dakota, Tennessee, and Washington. The Federal programs for these States appear at 30 CFR 910, 912, 921, 922, 933, 937, 939, 941, 942, and 947 respectively. The final rule also applies through cross-referencing to Indian lands under the Federal program for Indian lands as provided in 30 CFR 750.

Federal Paperwork Reduction Act

The information collection requirements in this rule have been approved by the Office of Management and Budget under *44 U.S.C. 3507* and assigned clearance number 1029-0039.

Executive Order 12291

The Department of the Interior has examined the final rule according to the criteria of Executive Order 12291 (February 17, 1981) and has determined that it is not a major rule and does not require a regulatory impact analysis. This determination is based on the finding that the regulatory revisions finalized by this rule will not impose any costs on the coal industry since the rule is removing a permitting requirement and a related performance standard. Therefore, the rule will not add to the cost of operating a mine in compliance with an approved regulatory program.

Regulatory Flexibility Act

The DOI has determined, pursuant to the Regulatory Flexibility Act, *5 U.S.C. 601* et seq., that the final rule will not have a significant economic impact on a substantial number of small entities for the same reasons discussed in the preceding paragraph.

National Environmental Policy Act

OSMRE has prepared an environmental assessment (EA) of the impacts of this rule on the human environment. This EA is on file in the OSMRE Administrative Record at the address listed in the "ADDRESSES" section of this preamble. Based upon this EA, OSMRE has made a Finding of No Significant Impact (FONSI) in accordance with OSMRE procedures under the National Environmental Policy Act of 1969 (NEPA), *42 U.S.C. 4332*(2)(C).

Author

The principal author of this rule is Raymond E. Aufmuth, Division of Technical Services, Office of Surface Mining Reclamation and Enforcement, 1951 Constitution Avenue, NW., Washington, DC 20240, Telephone: 202-343-7952.

LIST OF SUBJECTS

30 CFR Part 784

Reporting and recordkeeping requirements, Underground mining, Surface mining.

30 CFR Part 817

Environmental protection, Reporting and recordkeeping requirements, Underground mining.

For the reasons set forth in this preamble, 30 CFR Parts 784 and 817 are amended as set forth below.

J. Steven Griles, Assistant Secretary for Land and Minerals Management.

Dated: November 3, 1987.

PART 784 -- UNDERGROUND MINING PERMIT APPLICATIONS -- MINIMUM REQUIREMENTS FOR RECLAMATION AND OPERATION PLAN

1. The authority citation for Part 784 is revised to read as follows:

Authority: Pub. L. 95-87, 91 Stat. 445 *(30 U.S.C. 1201* et seq.), Section 115, Pub. L. 98-146, 97 Stat. 938 *(30 U.S.C. 1257),* and Pub. L. 100-34, unless otherwise noted.

2. Paragraph (g) of Section 784.14 is revised to read as follows:

SECTION 784.14 - HYDROLOGIC INFORMATION.

* * * * *

(g) Hydrologic reclamation plan. The application shall include a plan, with maps and descriptions, indicating how the relevant requirements of Part 817 of this chapter, including Sections 817.41 to 817.43, will be met. The plan shall be specific to the local hydrologic conditions. It shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbance to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; and to meet applicable Federal and State water quality laws and regulations. The plan shall include the measures to be taken to: avoid acid or toxic drainage; prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow; provide water treatment facilities when needed; and control drainage. The plan shall specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under paragraph (e) of this section and shall include preventive and remedial measures.

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PART 817 -- PERMANENT PROGRAM PERFORMANCE STANDARDS -- UNDERGROUND MINING ACTIVITIES

3. The authority citation for Part 817 is revised to read as follows:

Authority: Pub. L. 95-87, 91 Stat. 445 *(30 U.S.C. 1201* et seq.), Section 115, Pub. L. 98-146, 97 Stat. 938 *(30 U.S.C. 1257),* and Pub. L. 100-34, unless otherwise noted.

SECTION 817.41 [Amended]

4. In Section 817.41, paragraph (b)(2) is removed.

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