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DEPARTMENT OF THE INTERIOR

AGENCY: Office of Surface Mining Reclamation and Enforcement (OSM)

30 CFR Parts 780 and 784

Surface and Underground Mining Permit Applications; Probable Hydrologic Consequences Determination

ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSMRE) of the United States Department of the Interior is amending its permanent program regulations to specify the content and scope of the probable hydrologic consequences (PHC) determination required in an application for a permit to conduct surface coal mining and reclamation operations. This action is undertaken in response to a district court decision in litigation on OSMRE's permanent regulatory program. This final rule establishes the permit and adjacent areas as the scope of the PHC determination.

EFFECTIVE DATE: October 19, 1988.

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SUPPLEMENTARY INFORMATION:

- I. Background
- II. Discussion of Final Rule and Comments
- III. Procedural Matters

I. BACKGROUND

STATUTORY PROVISIONS

The Surface Mining Control and Reclamation Act of 1977 (the Act), *30 U.S.C. 1201* et seq., provides for the submission of specific hydrologic information and findings in permit applications for both surface and underground mining operations. Specifically, section 507(b)(11) of the Act, *30 U.S.C. 1257(b)(11)*, requires that each application contain, among other things, "a determination of the probable hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime, quantity and quality of water in surface and ground water systems including the dissolved and suspended solids under seasonal flow conditions and the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability: Provided, however, that this determination shall not be required until such time as hydrologic information on the general area prior to mining is made available from an appropriate Federal or State agency: Provided further, that the permit shall not be approved until such information is available and is incorporated into the application * * *."

Thus, section 507(b)(11) requires the applicant to submit a determination of the probable hydrologic consequences (PHC) of the proposed operation, and sufficient data to enable the regulatory authority to prepare a cumulative hydrologic impact assessment (CHIA). The purpose of these requirements is to ensure that the applicant has evaluated the impact of the proposed operation on existing hydrologic conditions, both on and off the mine site, and that the regulatory authority has sufficient information to assess the probable cumulative hydrologic impacts of all anticipated mining in the area.

HISTORY OF THE RULE

OSMRE has promulgated rules implementing section 507(b)(11) of the Act on two occasions. Permanent program rules for PHC determinations were first promulgated on March 13, 1979 (*44 FR 15360 and 15367*). Those rules used the

term "mine plan area" in defining the scope of the PHC determination. The rules, which required that the reclamation plan contain a PHC determination for the mine plan area and adjacent area, were found at 30 CFR 780.21(c) for surface mining activities and at 30 CFR 784.14(c) for underground mining activities.

In *In Re: Permanent Surface Mining Regulation Litigation (In Re: Permanent)*, No. 79-1144, slip op. at 35-36 (D.D.C. February 26, 1980), the use of the term "mine plan area" in section 780.21(c) was challenged on the grounds that it required mining companies to supply information for areas outside the permit boundary and to require information covering the entire life of the mining operation.

The district court concluded that section 507 of the Act consistently referred to "specific land mined or the immediate permit area," and that "Congress articulated with specificity those instances in which information outside the permit area was necessary." The court remanded the definition of mine plan area, suspended the term as found in Parts 779, 780, 783 and 784, and directed the Secretary of the Interior to revise the definition in accordance with the informational requirements of the Act.

The Secretary sought clarification of the court's February 26, 1980, opinion with respect to whether the suspension of the term mine plan area affected those provisions of the rules containing informational requirements whose statutory basis required information either: (1) both on and off the mine site; or (2) extending over the estimated life of the mining operation. The court noted in its May 16, 1980, opinion that it was fully cognizant that section 507(b)(11) requires information both on and off the mine site and recognized the possibility that some of the regulations using the term mine plan area may derive authority for expansive information requirements from this section of the Act. However, rather than rule on the merits of this possibility, the court referred the question to OSMRE for further rulemaking and the process of public notice and comment. *In Re: Permanent*, No. 79-1144, slip op. at 57-58 (D.D.C. May 16, 1980).

To comply with the court's decision and to reorganize and consolidate hydrologic requirements scattered throughout the rules, OSMRE promulgated new hydrology rules for surface and underground operations (*48 FR 43956*, September 26, 1983). The rule at 30 CFR 780.21(f) for surface mining permits and at 30 CFR 784.14(e) for underground mining permits used the term "permit and adjacent areas" in lieu of the suspended term "mine plan area" in defining the scope of the PHC determination to implement the statutory phrase "both on and off the mine site" found in section 507(b)(11).

Plaintiffs in *In Re: Permanent Surface Mining Regulation Litigation (II), Round III (In Re: Permanent II)*, No. 79-1144, slip op. at 9-16 (D.D.C. July 15, 1985), challenged the Secretary's 1983 rules on PHC determination contending that they were wrongly limited to activities occurring during the "life of the permit" as opposed to the "life of the mine." The plaintiffs contended that unless the PHC determination contained a life-of-mine analysis, as opposed to a life-of-permit analysis, the regulatory authority would be unable to develop an adequate CHIA.

The court remanded the rules on procedural grounds. *In Re: Permanent II*, slip op. at 16. In its 1985 decision, the court stated that: "First, the court does not conclude that the regulation is inconsistent with the plain language of the Act * * *. Nor, however, does the court find that the language of the Act requires that the operator's analysis be limited to activities conducted during the permit period." *Id.* at 14. The court concluded that the preamble to the final rule did not explain why a life-of-mine analysis was not required. The court found that including a life-of-mine analysis in the PHC determination was not precluded by the Act, and invited the Secretary to explain why the life-of-mine analysis should be in the CHIA as opposed to the PHC determination. *Id.* at 16.

As a result of the court's decision, OSMRE suspended the PHC rules at 30 CFR 780.21(f) for surface mining permit applications, and at 30 CFR 784.14(e) for underground mining permit applications (*51 FR 41957*, November 20, 1986). OSMRE reexamined these rules in light of the court's decision, as well as the legislative history of the Act and comments on rule options from citizen and environmental groups, industry trade associations, and State regulatory authorities, and proposed rules identical to those that were suspended (*52 FR 32764*, August 28, 1987). OSMRE discussed in the notice of proposed rule why it was appropriate to limit the PHC determination to the permit and adjacent areas. A 70-day period for public comment was provided, ending November 6, 1987, and the public was given the opportunity to request public hearings. No public hearing was requested and none was held.

II. DISCUSSION OF FINAL RULE AND COMMENTS

The final rule at 30 CFR 780.21(f) governs the probable hydrologic consequences (PHC) determination for surface coal mining and reclamation activities, and the final rule at 30 CFR 784.14(e) governs the probable hydrologic consequences determination for underground mining activities. The rules for surface and underground mining activities are identical, except that there is no underground mining counterpart to Section 780.21(f)(3)(iii), which requires applicants for surface mining permits to make a finding on whether the proposed operation may proximately result in the contamination, diminution or interruption of an underground or surface source of water. Unless otherwise noted in this discussion, all references to section 780.21(f), the surface mining rule, also apply to the underground mining rule at section 784.14(e).

The final rule adopted here is identical to the rules promulgated on September 26, 1983 (*48 FR 43956*), suspended on November 20, 1986 (*51 FR 41957*), and repropounded on August 28, 1987 (*52 FR 32764*). Except as clarified or modified herein, OSMRE incorporates by reference in this rule the statement of basis and purpose for the corresponding provisions of the September 26, 1983 rule. In reaching a decision to make no changes in the rule governing PHC determinations, OSMRE carefully considered the comments submitted and reviewed the legislative history.

OSMRE received comments on the proposed rule from three coal industry associations, four state regulatory authorities, three citizen and environmental groups, and one Federal agency. The comments received from the coal industry associations and State regulatory authorities supported the proposed rule and provided reasons why the scope of the PHC determination should be limited to the permit and adjacent areas. In contrast, the citizen and environmental groups argued that the final rule should expand the scope of the PHC determination to include the life-of-mine area.

A. GENERAL DESCRIPTION AND PURPOSE OF RULE

There are four paragraphs in the PHC determination rule. Paragraph (f)(1) requires the applicant for a surface coal mining and reclamation permit to determine the probable hydrologic consequences (PHC) of the proposed operation upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas.

Paragraph (f)(2), requires this estimate of the potential impacts on the hydrologic balance to be developed from baseline hydrologic, geologic and other information collected for the permit application. Data statistically representative of the permit area may be used.

Paragraph (f)(3) specifies that the PHC determination shall contain certain minimum findings on whether there may occur adverse impacts to the hydrologic balance, whether acid-forming or toxic-forming materials are present that could result in the contamination of water supplies, and what impact the proposed operation will have on sediment yield, water quality, flooding or stream-flow alteration, water availability and other characteristics of hydrologic systems required by the regulatory authority. As previously indicated, applicants for surface mine permits must also make a finding on whether their proposed operation may result in the contamination, diminution or interruption of certain water uses. Paragraph (f)(4) requires the regulatory authority to review applications for permit revisions to determine whether a new or updated PHC determination is needed.

The PHC determination is an estimate of the consequences to the hydrologic regime, both on and off the proposed permit area, resulting from the proposed operation, including any mitigating measures to be taken during mining and reclamation. The PHC determination is closely linked to the other hydrologic permitting requirements in Section 780.21, including the hydrologic reclamation plan, surface and ground-water monitoring plans, and supplemental baseline information.

Existing Section 780.21(h) requires that each application for a surface coal mining and reclamation permit include a hydrologic reclamation plan with maps and descriptions of how the hydrologic performance standards in Part 816 will be met. The plan must include preventative and remedial measures that specifically address the potential adverse impacts to the hydrologic balance.

The surface and ground-water monitoring plans required by existing Sections 780.21(i) and 780.21(j) are based on the PHC determination and the baseline hydrologic data. These data and the PHC determination may serve as the basis for

the regulatory authority to grant a ground-water monitoring waiver or to require the applicant to submit supplemental baseline hydrologic information as provided for in existing Section 780.21(b)(3).

Under existing Sections 773.15(c)(5) and 780.21(g), which are not affected by this rule, the regulatory authority is required to make an assessment of the probable cumulative impact of all anticipated mining and prepare a written finding that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area before a permit can be issued.

There are important differences between a PHC determination and a cumulative hydrologic impact assessment (CHIA). The PHC determination is prepared by the permit applicant whereas the CHIA is prepared by the regulatory authority. The PHC determination must predict the wide range of hydrologic impacts that could result from a proposed mining and reclamation operation. In contrast, the CHIA focuses on those specific hydrologic impacts (e.g., acid mine drainage, water availability, flooding) over which there are regional concerns as determined by the regulatory authority. The PHC determination aids the regulatory authority in identifying local concerns which may become the subject of the CHIA. A PHC determination is judged by whether it contains sufficient technical analysis to support the findings required under Section 780.21(f)(3).

B. COMMENTS RECEIVED ON THE SCOPE OF PHC DETERMINATION

In considering the comments received on the proposed rule, OSMRE divided them into two groups -- those addressing the scope of the PHC determination and those addressing its content. The majority of the comments concerned the scope.

Section 780.21(f)(1) of this rule specifies the scope of the PHC determination as the "permit and adjacent areas," as these terms are defined at 30 CFR 701.5. The permit area generally is the area of land upon which the operator proposes to conduct surface coal mining and reclamation operations, and has so indicated on a map submitted with the application to mine. Adjacent area in the context of a PHC determination means the area outside the permit area where surface or ground-water resources are or reasonably could be expected to be adversely impacted by the proposed mining activities within the permit area. This reference in Section 780.21(f)(1) to the "permit and adjacent areas" is based on section 507(b)(11) of the Act, which in specifying the area for which an applicant must provide a PHC determination uses the phrase "on and off the mine site." Thus, section 507(b)(11) sets the scope of the PHC determination in terms of land area.

This rule uses the phrase "permit and adjacent areas" to specify the scope of the PHC determination because the phrase has spatial significance equivalent to the language of the Act. It was noted in the preamble to the proposed rule that the phrases "life of permit" and "life of mine" have a temporal connotation that is inconsistent with the wording of section 506(b)(11).

Several commenters endorsed this interpretation of section 507(b)(11). One commenter concluded that the proposed rule adhered to the clear statutory language that focuses the relevant analysis to "on and off the mine site." The commenter stated that the alternative of the PHC determination occurring in a temporal context, e.g., "life-of-mine," has no basis in the statute.

In contrast, other commenters contended that the agency erred in making a distinction between temporal and spatial limits for the hydrologic analyses required by the Act, and that both the PHC determination and the CHIA required by section 507(b)(11) inevitably involve both temporal and spatial aspects. In further explanation of this point, one commenter stated that "both the CHIA and PHC will have spatial limits -- i.e., the area where the activity occurs and the area impacted by these activities -- and temporal limits or how long the activity will occur in the area -- i.e., over what period of time the actions occur in the spatial area involved."

OSMRE disagrees with the commenter's assertion that the PHC is required to have temporal limits. In the final rule, the PHC determination applies to the permit area as described on maps in the permit application, and to adjacent areas where surface or ground-water resources are or reasonably could be expected to be adversely impacted by all proposed mining that would be authorized if the permit were issued, irrespective of whether that mining occurs during the permit term or subsequent renewals. The permit application describes certain proposed mining activities that would occur within a proposed area of operation. The PHC will assess the probable consequences of all those proposed activities, not just

those that would occur during the initial permit term. Thus, the PHC is not a "life of permit" assessment. This concept is recognized by section 506 of the Act, which provides for a right of automatic renewal, but requires that any extensions of the area authorized for mining activities shall be subject to the full standards applicable to a new application, which would include a new PHC for that additional area. Also, the requirement for a CHIA in section 510(b) applies to new permits and revisions, but not to renewals, which are only subject to the public notice portion of section 510(a) of the Act. OSMRE's decision to adopt the term "permit and adjacent areas" reflects the language chosen by the Congress in section 507(b)(11) to describe the scope of the PHC in areal terms. The phrase "permit and adjacent areas" is consistent with the statutory language "on and off the mine site."

Two commenters focused on the provision of section 507(b)(11) which requires "the collection of sufficient data for the mine site and surrounding areas so that an assessment can be made by the regulatory authority of the probable cumulative impacts of all anticipated mining in the area upon the hydrology of the area and particularly upon water availability * * *." In their reading of section 507(b)(11), the commenters concluded that data collected to satisfy this provision should be included as part of the PHC determination.

OSMRE disagrees, and interprets this provision as a separate requirement to support the regulatory authority's assessment of probable cumulative hydrologic impacts. Section 507(b)(11) imposes two separate requirements for permit applicants: (1) a determination of the probable hydrologic consequences of the proposed mining and reclamation operations; and (2) sufficient data for the mine site and surrounding areas so that the regulatory authority can make an assessment of the cumulative hydrologic impacts of all anticipated mining in the area.

OSMRE agrees with the commenter that the PHC determination may serve as input for the cumulative analysis of the hydrologic impact of existing and anticipated mines by the regulatory authority. However, the PHC determination was not intended to entirely satisfy the regulatory authority's needs, and therefore the additional requirement was added by the Congress to section 507(b)(11) for the collection of sufficient data from the mine site and surrounding area so the regulatory authority can conduct the CHIA. As the legislative history shows, however, the Senate and House were not in full agreement on the applicant's responsibility to collect data for the CHIA. Thus, the Senate included in section 507(b)(11) a proviso that the CHIA would not be required until hydrologic information on the general area was available from an appropriate Federal or State agency. And the House responded with the further proviso that the permit could not be approved until such information was available and incorporated into the application. S. Rep. No. 95-337, 95th Cong., 1st. Sess. 103 (1977).

One commenter cited the district court's July 15, 1985, decision in *In Re: Permanent II remanding Sections 780.21 and 784.14* as support for broadening the scope of the PHC determination to include the life-of-mine area. The commenter stated that the district court made two major points: (1) the Act does not require the PHC determination to be limited to activities conducted during the permit period; and (2) the Secretary failed to articulate a rationale for limiting the PHC determination to activities during the permit term.

The commenter has misconstrued the proposed rule. As noted above, the PHC determination is not limited to activities conducted during the permit term, but includes the hydrologic impacts both on and off the site of all proposed operations that would be authorized under the permit, irrespective of whether or not they would be conducted during the permit term. Thus, the concerns raised by the district court were addressed in the preamble to the proposed rule and are expanded on here.

The United States Court of Appeals for the District of Columbia Circuit repeatedly has recognized the discretion vested in the Secretary of the Interior to use reasoned and expert judgment in interpreting the Act. *NWF v. Hodel*, No. 84-5743, slip op. at 43 (citing *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)), 59 (citing *Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837, 844-45 (1984); and *Chemical Mfrs. Ass'n v. NRDC*, 470 U.S. 116, 125 (1985)), 80-81, 104-105, 107, 133-134, and 137-138 (D.C. Cir. January 29, 1988).

In the context of deciding the extent of the information required for a CHIA, the court of appeals in *NWF v. Hodel* refused to second-guess the Secretary's decision "to avoid the difficulty of requiring data * * * which might render the regulator's assessments speculative and meaningless." Slip op. at 133-134. OSMRE has concluded that because of operational uncertainties a PHC determination for the life-of-mine area, including the impact of possible mining activities not proposed or described in the permit application, also would be speculative and meaningless. Thus, under *NWF v. Hodel* it is reasonable to limit the PHC determination to the permit and adjacent areas. This is particularly true since

sections 506(d)(2) and 510(b)(3) of the Act make it clear that another PHC determination would have to be prepared, and new findings made, before additional mining activities could be conducted in areas not authorized under a permit.

OSMRE's interpretation of section 507(b)(11) is consistent with related provisions in sections 507 and 508 of the Act. Generally, section 507 specifies the content of a surface coal mining and reclamation permit application, including in paragraph (d) a reclamation plan. Section 508, *30 U.S.C. 1258*, specifies the content of the reclamation plan. As noted by the district court in *In Re: Permanent*, slip op. at 57 (D.D.C. May 16, 1980) and slip op. at 35 (D.D.C. Feb. 26, 1980), in these two sections the sole reference to the life-of-mine activities and area appears in section 508(a)(1), which requires that the reclamation plan include "the identification of the lands subject to surface coal mining operations over the estimated life of those operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought."

This reference to a so-called "life-of-mine" area in section 508(a)(1) and its absence from the section 507(b)(11) requirement for a PHC determination indicate that the Congress was aware of the distinction between the life-of-mine activities and area, and the activities and area covered by the permit, and deliberately refrained from requiring a PHC determination for the activities and areas for which permit authorization was not being sought. In deferring to the Secretary's interpretation of the Act, the court of appeals in *NWF v. Hodel* has recognized this principle of statutory construction, that "[w]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion[.]" In *In Re: Permanent II*, slip op. at 137-138 (quoting district court, citations omitted).

The previously discussed legislative history of the first proviso in section 507(b)(11) indicates that the Congress was sensitive to the burden that providing hydrologic information would impose on the permit applicant. The first proviso in section 507(b)(11) shifts the burden of providing hydrologic information on the general area from the applicant to the "appropriate Federal or State agency." It would be unreasonable to conclude that the Congress on the one hand added this explicit proviso to section 507(b)(11) to limit the hydrologic information burden imposed on the applicant, but on the other hand intended that OSMRE would expand this burden by reading into that same section a requirement that the PHC determination cover the anticipated mining activities beyond the boundaries authorized under the permit. This leads OSMRE to conclude that the Congress deliberately intended to restrict the scope of the PHC determination.

In addition to concluding, based on the language of the Act, that the Congress intended to limit the scope of the PHC determination to the permit and adjacent areas, OSMRE believes there are sound technical reasons for such a limitation. The existing regulations require an applicant to submit a detailed description of the proposed mining operations in a hydrologic reclamation plan. (30 CFR 780.21) The findings in a PHC determination are highly site-specific and are based on the detailed information contained in this plan. It would be difficult, if not impossible, to accurately determine the impact of so called life-of-mine operations beyond the boundaries of the proposed activities on such hydrologic factors as sediment yield from disturbed areas, water quality and availability, and flooding potential, for example, without detailed information on the number and location of sediment-control structures and permanent impoundments and constructed and natural drainways.

As explained above, the PHC determination is related to permit application requirements, such as those in the hydrologic reclamation plan, that pertain to the permit area. This plan is limited to hydrologic predictions and findings that apply to the proposed activities associated with the proposed permit area. Aggregate values of important hydrologic parameters in the larger life-of-mine area, including the anticipated mining activities for which detailed plans are not available, may mask or fail to bring into focus adverse impacts which are local in nature. Such localized hydrologic problems are most likely to come to the attention of the permit applicant and the regulatory authority when the unit of analysis for the PHC determination is the permit and adjacent areas, and the review is limited to the mining activities described in the permit and covered by the reclamation plan.

Several commenters agreed with OSMRE that the PHC determination should be based upon the maps, engineering designs and narrative information in the proposed operation and reclamation plan. One commenter stated that generally the information in the operation and reclamation plan covers only the permit and adjacent areas. The commenter said that extending the PHC determination to areas that may not be mined would dilute the accuracy of predictions because of the absence of relevant operational data. A second commenter added that the PHC determination requires extensive baseline data and a careful analysis of the effects of specific mining plans on the hydrologic system. The commenter noted that in some cases minor changes in plans, such as the location of drainage ditches or the sequence of operations, have

significantly different effects on surface and ground-water systems. This commenter stressed that accurate PHC determinations require plans that are in sufficient detail to show the precise nature of the proposed mining and reclamation operations.

OSMRE agrees. PHC determinations encompass the dual functions of impact identification and mitigation applied in an interactive fashion. The PHC determination process involves identifying the potential adverse impacts of the proposed operation on the hydrologic balance, developing a hydrologic reclamation plan to minimize these impacts, and reevaluating the impacts after incorporating the preventative and remedial measures found in the hydrologic reclamation plan, and finally, developing the estimate of impacts required for the PHC determination. OSMRE believes that this process of making a PHC determination can be effectively applied only when a proposed operation and reclamation plan is available for the mining operation. The Act requires these plans for the permit area, not the life-of-mine area.

Other commenters cited what they termed "practical considerations" as to why they believed the PHC determination should include only the permit and adjacent areas. One commenter stated that the life-of-mine area cannot always be determined accurately by either the operator or the regulatory authority because of factors such as the economy, and changes in State and Federal law and property ownership. A second commenter noted that life-of-mine areas change with property holdings and economic conditions, and that if "life-of-mine area" were used the boundaries of the PHC determination could change markedly prior to such areas being permitted. This was said to be unworkable for both operator and regulatory authority. The commenter added that if additional areas were proposed for mining in the future, the regulatory authority could require a PHC determination for the new areas under the proposed rule.

Likewise, a third commenter indicated that future mining, especially in the eastern coal fields where most lands are held by private interests, is speculative at best and that predictions of hydrologic impacts from future mining cannot be made accurately, if at all. The commenter concluded that the scope of the PHC determination should be limited to the area proposed to be permitted and mined so that accurate hydrologic predictions can be made.

OSMRE agrees that accuracy is an important consideration in establishing the scope of the PHC determination. As the commenters indicated, future operations in the life-of-mine area often depend on unpredictable events which are beyond the control of the permit applicant and the regulatory authority. OSMRE believes that such error is minimized when the PHC determination is limited to the permit and adjacent areas where detailed operational plans are available and which are less likely to change or be affected by non-mining activities.

Some commenters said that the Congress intended the CHIA to build on the PHC determinations submitted for specific mines, and that limiting the PHC determination to the permit term left a major gap in the analysis of hydrologic impacts. Requiring a PHC determination for the life-of-mine area purportedly made sense because the mine operator was in the best position both to collect the hydrologic data for the proposed mine site and to conduct the initial analysis of the impact that mining would have on the hydrologic system.

OSMRE agrees with the commenters' assertion that the results of PHC determinations for specific mines be useful to the regulatory authorities in developing CHIA's and that the operator is in the best position to collect hydrologic data for the proposed mine site as defined by the permit area. However, the commenters' view that a gap in the analysis of hydrologic impacts would occur if the PHC determination were limited to the permit term is incorrect since it misconstrues the regulation. First, the proposed rule requires a PHC determination for all proposed mining and reclamation activities associated with the permit and adjacent areas and not for the "permit term" as stated by the commenter. The permit term is a period of time, usually five years, that is not applicable to a PHC determination. The "permit and adjacent areas," as previously discussed, include the permit area, which is described on maps in the permit application, and adjacent areas where surface and ground-water resources are or reasonably could be expected to be adversely impacted by the proposed mining operation. As previously noted, if the permit were renewed, only those operations authorized under the original permit could continue and would be limited to the area previously covered by the PHC determination. Because the PHC determination must consider hydrologic impacts of all activities to be authorized by the permit, without regard to the time when they occur, all impacts would be evaluated prior to permit issuance.

Second, the commenters have overlooked the requirement in section 507(b)(11) of the Act that there be sufficient data for the mine site and surrounding areas so that a CHIA can be made by the regulatory authority. Thus, if insufficient hydrologic information exists for preparing a CHIA, then the regulatory authority must delay issuance of a permit until

either the necessary information is available from an appropriate Federal or State agency or is collected and incorporated into the permit application by the applicant.

Another commenter said that the proposed rule was impractical because the Act requires the permit applicant, as part of the application, to submit all data necessary to make a PHC determination, while the burden of data development for the CHIA rests with the regulatory authority. The commenter concluded that CHIA's will be based on whatever data happens to be available because the applicant is not required, and the regulatory authority does not have the resources, to collect hydrology data. The commenter wanted OSMRE to broaden the scope of the PHC determination to the life-of-mine area to ensure that there would be sufficient data for making a CHIA.

First, the scope of a CHIA is not an issue in this rule. The issue is whether or not an adequate PHC can be prepared without addressing future mining activities which are not described in the permit application, which would occur beyond the boundary of the permit, and for which approval is not being sought. Second, OSMRE does not agree with the commenter's reasoning. Section 507(b)(11) of the Act prohibits a regulatory authority from issuing a permit until it has sufficient data to assess the cumulative hydrologic impacts of the proposed operation. As previously discussed, data needed by the regulatory authority for the CHIA can either be supplied by an appropriate Federal or State agency or collected by the permit applicant.

Relative to information useful for a CHIA, approximately 40 million dollars have been appropriated by the Congress and used by the United States Geological Survey (USGS) since the passage of the Act to collect geologic and hydrologic data, and to prepare special hydrologic reports for all coal mining areas in the United States. Hydrologic reports No. 1 through No. 24 cover the Eastern Coal Province; hydrologic reports No. 25 through No. 35 cover the Interior Coal Province, Eastern Region; hydrologic reports No. 35 through No. 42 cover the Interior Coal Province, Western Region; and hydrologic reports No. 43 through No. 62 cover the Northern Great Plains and Rocky Mountain Coal Province. These reports, which were funded to aid mine operators and state regulatory authorities in complying with the Act, include information on geology, physiography, surface drainage, soils, climatology, water use, hydrologic networks, surface water quantity and quality, ground water sources, recharge areas, ground water yields and quality, and the location and magnitude of acid mine drainage and other mine related pollutants. These reports are included in the administrative record for this final rule.

One commenter advocated requiring the PHC determination for the life-of-mine area because a CHIA was insufficient to adequately assess the long-term impacts of surface mining. The commenter said that the Act directs the inclusion of sufficient data in the permit application to enable the regulatory authority to make an assessment of the probable cumulative hydrologic impacts of "all anticipated mining in the area." This analysis, the commenter believed, could not be done piecemeal with five-year permit applications unless the permit area included all of what is in the life-of-mine area. From the commenters viewpoint, a PHC determination could only be useful if it included enough data to allow an estimate of the cumulative hydrologic impacts over the entire life of the mine.

OSMRE disagrees. The PHC determination is not an analysis of cumulative impacts of anticipated mining activities. That is precisely what the CHIA is for. To argue that the PHC determination should analyze the cumulative long-term impacts of anticipated life of mine activities beyond the permit area because the CHIA analysis otherwise would be inadequate is to attack the scope of the CHIA which is outside the scope of this rule.

Another commenter said that, as a technical matter, there was little value to submitting data for areas that might not be mined for 10, 20 or 40 years, since non-mining activities might occur in the meantime which would affect the hydrologic regimes and thus the value of the data. From the commenter's viewpoint, potential hydrologic impacts could be more accurately measured when future operations reached these areas. This commenter also pointed out that an operator may not have access to the surface for the purpose of collecting data in areas beyond the initial permit area.

OSMRE agrees in part. Non-mining activities could significantly affect the hydrologic regime and reduce the accuracy of a PHC determination. As the commenter suggests, operators might also experience difficulty in gaining access to areas beyond the initial permit area, which would make a life-of-mine PHC determination difficult or impossible to produce. Under the final rule, these problems will be minimized because the scope of the PHC determination is limited to the permit and adjacent areas. However, while the mining to which the PHC determination applies is most likely to occur during the immediate rather than the distant future, the PHC determination must address all mining activities associated with the permit area for which authorization is sought, irrespective of whether it will occur within 5 years.

The U.S. Environmental Protection Agency (EPA) suggested that OSMRE augment the preamble with a reference to both the wellhead protection areas developed under EPA's approved State programs, and EPA's ground-water classification guidelines. No explanation was provided as to why the commenter thought this would be appropriate.

OSMRE believes existing environmental laws and applicable programs of EPA are referenced, and thus already covered, by section 702(a) of the Act. As set forth in section 702(a), nothing in the Act or the rules promulgated thereunder shall be construed as superseding, amending, or repealing the Federal Water Pollution Control Act, State laws enacted pursuant thereto, or other Federal laws relating to the preservation of water quality.

Four State regulatory authorities commented in support of the proposed rule. One regulatory authority said that by defining the PHC determination to include the permit and adjacent areas the rule allowed sufficient flexibility for regulatory authorities to consider the specific characteristics of each coal mining region. OSMRE agrees. Section 201(c)(9) of the Act requires OSMRE to assist States in developing regulatory programs which satisfy the Act, and reflect local requirements and local environmental and agricultural conditions. OSMRE believes that the final rule is structured in a way that reflects the diverse characteristics of mining and environmental conditions in the various coal mining regions and is sufficient to produce adequate PHC determinations.

Another regulatory authority cautioned OSMRE not to promulgate a rule which would needlessly cause operators to incorporate costly and perhaps unnecessary controls in their permit applications in attempts to minimize cumulative impacts associated with speculative future mining. This regulatory authority maintained that as additional mining is proposed hydrologic impacts should be analyzed in the PHC determination for that permit area and controls put in place as appropriate.

The final rule requires the PHC determination for the proposed permit and adjacent areas. Because operation and reclamation plans and performance bonds must be filed for the permit area, mining that is proposed in this area is not speculative in nature. OSMRE believes the final rule achieves what the commenter is seeking, namely limiting the scope of the PHC determination to the permit and adjacent areas and requiring successive PHC determinations with each new permit application.

A final consideration in establishing the scope of the PHC determination is whether the requirements adopted are enforceable. In this regard the court in *NRDC V. OSM (Mt. Gunnison decision)*, Recommended decision at 33 (June 24, 1983), *aff'd in part, 89 IBLA 1* (September 27, 1985), recognized that a coal company's plans to mine beyond the permit area were simply a matter of intentions and that if excessive information requirements were imposed upon a company for stating its long-term intention, it would assure that coal companies would keep these intentions to themselves. OSMRE concludes that the PHC determination is best limited to the permit and adjacent areas because these areas are better defined than the life-of-mine area and do not rely on intentions which may be speculative and not clearly identifiable.

In sum, based on the legislative history and the plain language of the Act the PHC is linked with proposed activities within the permit area. Therefore, in order to expand the PHC beyond this area, OSMRE would need clear and compelling technical rationale. After closely examining the comments on the proposed rule in this light, OSMRE concludes that no persuasive legal or technical arguments have been offered that would necessitate or even justify expanding the scope of the PHC beyond the permit and adjacent areas, especially when the court has found that the more limited scope was not inconsistent with the Act.

C. CONTENT OF THE PHC DETERMINATION

In the final rule Section 780.21 (surface mining) and section 784.14 (underground mining) are identical, with one exception. Section 784.14 does not have a counterpart to Section 780.21(f)(3)(iii), which requires the permit applicant to include in the PHC determination a finding on whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose.

One commenter recommended that OSMRE adopt a companion provision for underground mining that tracks Section 780.21(f)(3)(iii). The commenter based his recommendation on sections 717(b) and 508(a)(13) of the Act. Section 717(b) requires surface mine operators to replace water supplies that they damage, and section 508(a)(13) specifies the

hydrologic information that must be included in the reclamation plan submitted as part of a permit application for a surface or underground mine.

Section 784.14 of the final rule does not contain the recommended provision. The United States Court of Appeals for the District of Columbia Circuit has affirmed the district court's decision that section 717(b) does not apply to underground mines, and that the permitting requirements of section 508(a)(13) do not provide a separate statutory basis for requiring underground mine operators to replace damaged water supplies. *NWFV v. Hodel*, slip op. at 121-127. The appeals court concluded "from the text as well as the legislative history of the water replacement provision, and from other provisions distinguishing between surface and underground mining, that Congress explicitly recognized the difference between surface and underground mines; that it deliberately chose to apply some environmental safeguards to one and not the other; and that water replacement is a provision it explicitly required only of surface mine operators." Slip op. at 124-125. In accordance with this decision, the final rule does not require applicants for underground mining permits to make a finding in the PHC determination on whether the proposed underground mine may proximately result in contamination, diminution or interruption of an underground or surface source of water.

III. PROCEDURAL MATTERS

Effect in Federal Program States and on Indian Lands

The final rules apply 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 Parts 910, 912, 921, 922, 933, 937, 939, 941, 942, and 947 respectively. The final rules also apply through cross-referencing to Indian lands under the Federal Program for Indian lands as provided in 30 CFR Part 750. OSMRE has proposed (52 *FR* 39594, October 22, 1987) to implement a Federal Program for the State of California. When the program has been implemented these rules would apply through cross reference.

Federal Paperwork Reduction Act

The information collection requirements of Parts 780 and 784 have been approved by the Office of Management and Budget as required by 44 *U.S.C.* 3501 et seq. The following clearance numbers were assigned: 30 CFR Part 780 (OMB Control No. 1029-0036); and 30 CFR Part 784 (OMB Control No. 1029-0039). The information is needed to meet the requirements of section 507(b)(11) of Pub. L. 95-87, and will be used by the regulatory authority to assess the impact of the proposed mining operation on the hydrologic balance. The obligation to respond is mandatory.

Executive Order 12291 and the Regulatory Flexibility Act

The Department of the Interior has determined that this document is not a major rule under Executive Order 12291 and certifies that it will not have a significant effect on a substantial number of small entities under the Regulatory Flexibility Act (5 *U.S.C.* 601 et seq.). The rule does not distinguish between small and large entities, and will make no change in the threshold for determining whether to approve permits for surface coal mining operations because of hydrologic consideration. No incremental economic effects are anticipated as a result of the rule.

National Environmental Policy Act

OSMRE has prepared an environmental assessment (EA) of the impacts of this final rule and has made a finding that it will not significantly affect the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969, 42 *U.S.C.* 4332(2)(C). The EA and finding of no significant impact are on file in the OSMRE Administrative Record Room 5131, 1100 L Street NW., Washington, DC.

Author

The principal author of this rule is Dr. Charles Wolf, Office of Surface Mining Reclamation and Enforcement, Eastern Field Operations, Ten Parkway Center, Pittsburgh, PA 15220; Telephone (412) 937-2897 (FTS 726-2897).

LIST OF SUBJECTS

30 CFR Part 780

Coal mining, Reporting and recordkeeping requirements, Surface mining.

30 CFR Part 784

Coal mining, Reporting and recordkeeping requirements, Underground mining.

For the reasons set out in this preamble, 30 CFR Parts 780 and 784 are amended as set forth below.

Date: July 20, 1988.

James E. Cason, Acting Assistant Secretary -- Land and Minerals Management.

PART 780 -- SURFACE MINING PERMIT APPLICATIONS -- MINIMUM REQUIREMENTS FOR RECLAMATION AND OPERATION PLAN

1. The authority citation for Part 780 is revised to read as follows:

Authority: *30 U.S.C. 1201* et seq., as amended; Pub. L. 100-34; and *16 U.S.C. 470* et seq.

2. Section 780.21 is amended by revising paragraph (f) to read as follows, and lifting the suspension to that paragraph, as noted in the editorial note at the end of the section:

SECTION 780.21 - HYDROLOGIC INFORMATION.

* * * * *

(f) Probable hydrologic consequences determination.

(1) The application shall contain a determination of the probable hydrologic consequences (PHC) of the proposed operation upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas.

(2) The PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site.

(3) The PHC determination shall include findings on:

(i) Whether adverse impacts may occur to the hydrologic balance;

(ii) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface or ground water supplies;

(iii) Whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose; and

(iv) What impact the proposed operation will have on:

(A) Sediment yields from the disturbed area;

(B) acidity, total suspended and dissolved solids, and other important water quality parameters of local impact;

(C) flooding or streamflow alteration;

(D) ground water and surface water availability; and

(E) other characteristics as required by the regulatory authority.

(4) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated PHC determination shall be required.

* * * * *

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

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

Authority: 30 U.S.C. 1201 et seq., as amended; Pub. L. 100-34; and 16 U.S.C. 470 et seq.

4. Section 784.14 is amended by revising paragraph (e) to read as follows, and lifting the suspension to that paragraph, as noted in the editorial note at the end of the section:

SECTION 784.14 - HYDROLOGIC INFORMATION.

* * * * *

(e) Probable hydrologic consequences determination.

(1) The application shall contain a determination of the probable hydrologic consequences (PHC) of the proposed operation upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas.

(2) The PHC determination shall be based on baseline hydrologic, geologic, and other information collected for the permit application and may include data statistically representative of the site.

(3) The PHC determination shall include findings on:

- (i) Whether adverse impacts may occur to the hydrologic balance;
- (ii) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface or ground water supplies; and
- (iii) What impact the proposed operation will have on:
 - (A) Sediment yield from the disturbed area;
 - (B) acidity, total suspended and dissolved solids, and other important water quality parameters of local impact;
 - (C) flooding or streamflow alteration;
 - (D) ground water and surface water availability; and
 - (E) other characteristics as required by the regulatory authority.

(4) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated PHC shall be required.

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