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DEPARTMENT OF THE INTERIOR

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

30 CFR Parts 700, 710, 715, 716, 717, 718, 720, 721, 722, 723, 725, 740, 795, and 830
Surface Mining Reclamation and Enforcement Provisions

ACTION: Final rules.

SUMMARY: The regulations in this chapter set out the Department of the Interior's Surface Mining Reclamation and Enforcement program as required by the Surface Mining Control and Reclamation Act of 1977 (Act). The Act requires that the Secretary of the Interior publish initial environmental protection regulations that are applicable to all coal mining operations regulated by the States until a State has an approved regulatory program or a Federal regulatory program is implemented in that State.

EFFECTIVE DATE: December 13, 1977.

ADDRESSES: Director, Office of Surface Mining Reclamation and Enforcement, Department of the Interior, Washington, D.C. 20240, 202-343-4237.

FOR FURTHER INFORMATION CONTACT: Paul Reeves, 202-343-4237.

SUPPLEMENTARY INFORMATION:

The Surface Mining Control and Reclamation Act of 1977 (the Act), Pub.L. 95-87, requires the Secretary of the Interior to publish initial environmental protection regulations that are applicable to all coal mining operations on lands that are regulated by the States until a State has an approved regulatory program or a Federal regulatory program is implemented in that State. These regulations were developed in consultation with the Environmental Protection Agency, the Department of Agriculture and the Corps of Engineers. The Act also requires the Secretary to implement a Federal enforcement program by February 3, 1978, which lasts for the duration of the initial program in each State. Regulations for Federal financial assistance to States for reimbursement of incremental enforcement costs during the initial regulatory program and for development, administration and enforcement of permanent State regulatory programs for the control of surface coal mining and reclamation operations are also required by the Act. A brief discussion of the major parts in the regulations follows.

Part 700 is a general statement of the scope, objectives and applicability of these regulations. It also states the responsibilities of the Secretary, the Director and the States and defines terms used throughout the chapter. The authority of the Secretary, the Director of the Office of Surface Mining Reclamation and Enforcement (OSM or the Office) and other governmental bodies is described, their responsibilities distinguished and the Federal-State delegation of duties described.

Part 710 introduces the initial regulatory program and includes definitions, a statement of applicability and provisions for the special exemption for small operators.

Part 715 contains the general initial performance standards and includes regulations governing the operator's general obligation to comply with the initial standards requiring restoration of disturbed areas to suitable postmining use, backfilling and grading, off-site disposal of spoil and waste materials, topsoil handling, protection of the hydrologic system, construction, inspection and maintenance of dams, use of explosives, and revegetation.

Part 716 contains the special initial performance standards and includes regulations governing steep slope mining, prime farmlands, mountaintop removal, special bituminous coal mines, anthracite coal mines and Alaska coal mining operations.

Part 717 contains initial performance standards for underground mines and includes regulations governing the operator's general obligation to comply with the initial standards requiring signs and markers, backfilling and grading, protection of the hydrologic system, construction, inspection and maintenance of dams, topsoil handling and revegetation.

Part 718 contains procedures for adoption of State laws and regulations when they prescribe more stringent standards of performance than the general or special performance standards of this chapter provide.

Part 720 sets forth the regulations governing enforcement activities to be carried out by the States during the initial regulatory program.

Part 721 provides for Federal inspections on the basis of (1) at least two consecutive State inspection reports indicating a violation; (2) information provided by a State or person indicating a violation; (3) random inspections of each operation at least once each six months; and (4) the Secretary's own initiative.

Part 722 sets out the general procedures governing issuance by Federal inspectors of orders of cessation, notices of violation and orders to show cause why a permit should not be suspended or revoked.

Part 723 contains the regulations governing the assessment of civil penalties and prescribes the use of a mandatory point system in determining the amount of the penalty.

Part 725 sets forth the policies and procedures for reimbursements to States for the incremental costs of enforcing performance standards during the initial regulatory program.

Part 740 sets forth the policies and procedures for grants to States to develop, administer and enforce approved State programs for the control of surface coal mining and reclamation.

Part 795 provides for financial and other assistance to eligible small coal mine operators in determining the hydrologic consequences of mining and reclamation. The analyses are to be performed by qualified public and private laboratories and paid for by the regulatory authority.

Part 830 provides a procedure for dealing with acts of job discrimination due to exercise of rights under the Act.

CONCURRENCES

Section 501(a)(B) of the Act requires that the written concurrence of the Administrator of the Environmental Protection Agency be obtained with respect to regulations relating to air or water quality standards promulgated under the Federal Water Pollution Control Act and the Clean Air Act. By letter dated November 18, 1977, the Administrator of the Environmental Protection Agency has concurred with these regulations for the initial regulatory program.

Section 510(d)(1) of the Act states that the regulatory authority shall follow certain procedures in granting permits to mine on prime farmland. Among those procedures is a requirement that the permit shall be issued "pursuant to regulations issued hereunder by the Secretary of the Interior with the concurrence of the Secretary of Agriculture * * * ." Specifications for soil removal, storage, replacement and reconstruction for prime farmland have been developed by the Secretary of Agriculture in accordance with Section 515(b)(7) and are included herein. By letter dated November 16, 1977, the Secretary of Agriculture has concurred with the prime farmland provisions in these regulations.

Section 515(f) of the Act requires that regulations pertaining to coal mine waste piles and dams be promulgated with the written concurrence of the Chief of Engineers of the Corps of Engineers. By letter dated November 30, 1977, the Chief of Engineers has concurred with such regulations.

BACKGROUND

In anticipation of enactment, the Department of the Interior organized a task force composed of more than 90 people from nearly 20 Federal agencies to prepare for the initial regulatory program. Since its creation in April 1977, the task force has maintained a working relationship with the National Governors' Conference. Several general and workshop meetings with State officials were held. After public notice, general informational meetings were held in Washington, D.C. on August 9 and 10, 1977, for the public. Early task force drafts of the regulations were given wide circulation to the States and the public prior to publication of the proposed regulations. Numerous comments were received and were considered by the task force.

The Surface Mining Control and Reclamation Act of 1977 was signed into law on August 3, 1977. Proposed rules implementing the Act were published in the FEDERAL REGISTER on September 7, 1977 (42 FR 44920). Public hearings on the proposed rules were held on September 20-22, 1977, in Washington, D.C., Charleston, W.Va., St. Louis, Mo., and Denver, Colo. At the close of the comment period on October 7, 1977, over 300 commenters had submitted written comments, many of which were very lengthy. The transcripts of the public hearings, all written comments, many technical studies and manuals and generally accepted engineering practice have been considered in the development of these final regulations. A document that identifies the major technical publications, studies and manuals relied upon in developing these regulations has been prepared by the task force.

Comments pertaining to each part of this chapter or each section of the performance standards have been summarized and are stated below. In this way it is hoped that the public will understand the response to each comment and will therefore have a better understanding of the bases and purposes of the final regulations. General comments are treated below first, followed by specific comments directed to particular parts or sections of the regulations.

GENERAL COMMENTS

1. Several commenters objected that the public was not given enough time to adequately respond to the proposed regulations. The Act requires that the final rules for the initial program be published within 90 days of enactment. As a result of this statutory mandate, it was necessary to limit the comment period to the 30 days prescribed by the Act. Despite the relatively short comment period, public participation has been extensive and has covered nearly every aspect of the proposed regulations. Due to the enormous volume of comments to be considered and time required for review and concurrence by other agencies, it was impossible to extend the comment period and still adhere closely to the statutory deadline.
2. Many commenters objected to the absence of an economic impact analysis accompanying the regulations. The Office relied on a study compiled by the Congressional Budget Office, found in the April 22, 1977, Report of the Committee on Interior and Insular Affairs, House of Representatives. The Committee concluded that enactment of H.R. 2, will have virtually no inflationary impact on the American economy. Since the regulations closely comport with the Act, an economic impact analysis was not deemed necessary for the initial program. However, an economic impact analysis will be prepared for the permanent program regulations.
3. Several commenters objected that the regulations were unreasonably inflexible. These commenters argued that the proposed regulations did not adequately take account of regional differences. In response to this objection, a number of sections allow the regulatory authority the flexibility to approve alternative methods of compliance. However, the underlying policy to ensure a fair and generally applicable set of standards for all mining operations remains intact. Further, uniform standards ensure consistent enforcement and avoid conflicting interpretations of the regulations in different regions.
4. Several commenters expressed the fear that many mining operations would be forced to close as a result of what was believed to be overly strict regulations. These regulations fairly interpret the intent of Congress and the Act.
5. A number of commenters argued that existing State regulations are sufficient to ensure the purposes of the Act and therefore Federal regulations are unnecessary. This view was not accepted. A specific intent of the Act was to provide minimum uniform standards to regulate surface mining.

PART 700 - GENERAL

1. Sections 700.1 and 700.2 state the scope and objectives of the final regulations. Several commenters objected to the absence of an objective to balance the environmental protection standards with coal production goals. Section 102 of the Act lists 13 purposes, one of which is to "(f) assure that the coal supply * * * is provided and strike a balance between protection of the environment and agricultural productivity and the Nation's need for coal as an essential source of energy." This purpose and the 12 other purposes listed in Section 102 of the Act are indisputably the goals of the Act and the program administered by the Office of Surface Mining Reclamation and Enforcement.

Section 700.2 of these regulations states the four broad objectives of Chapter VII to establish a regulatory program to implement the Act. Therefore, this suggestion was not accepted.

2. Section 700.4(b) was added to the regulations to further define the role of the Director in relationship to the management of Federal land resources as a result of administering these regulations. This section is necessary to comply with the provisions of other laws which place responsibility in other Federal agencies for supervising the postmining use of Federal lands.
3. Several commenters suggested changes in the definitions of "Indian lands" and "surface coal mining operations" in Section 700.5. The proposed definitions have been retained to remain consistent with the Act.
4. Although the term "permit" was defined, the proposed rules did not contain a definition of the term "permittee." A definition of "permittee" has been added to correct this omission.
5. Several commenters noted that the definition of "state lands" conflicted with the commonly held meaning and was confusing. Accordingly, the term was deleted in the final regulations and the phrase, "operations on lands regulated by a state" was substituted.
6. The definition of "ton" found in Section 837.5 of the Abandoned Mine Reclamation Fund regulations has been included in Section 700.5 and is applicable throughout the chapter.
7. Several commenters suggested defining other terms such as "mining area," "mine property," "permit area," "renewal permit" and "interim regulatory authority." These suggestions were not accepted since many of the terms would overlap other definitions creating confusion, and others have commonly accepted meanings in the mining industry.
8. Several commenters requested that a definition of "professional specialist" be added to include registered land surveyors as well as registered professional engineers. This suggestion is rejected because Section 515 of the Act specifically requires that various duties be performed by registered professional engineers. Where the Act does not specify that the work be performed by a registered professional engineer, the regulations have been revised to permit some flexibility while maintaining high professional standards in the performance of the work.
9. Section 700.5 provides guidance for the proper interpretation of the key phrase "significant, imminent environmental harm." It is important to keep in mind that this section is not a true definition because in each instance the key words of both the phrase and the regulations are very general. Merely substituting one general word for another is not satisfactory as a definition.

Commenters objected that the concept of "reasonable time" in paragraph (b) of the definition of "significant, imminent environmental harm to land, air or water resources" was vague. The paragraph has been clarified so that the "reasonable time" is the same "reasonable time" used in Section 521(a)(3) of the Act. Thus, the environmental harm is imminent if it is occurring or if it may reasonably be expected to occur if the violation, condition or practice remains uncorrected until the end of the "reasonable time" for abatement referred to in Section 521(a)(3). Further, if the harm may not reasonably be expected to occur before the end of such "reasonable time," it is not imminent. In such a case, a notice of violation under Section 521(a)(3), rather than a cessation order under Section 521(a)(2), would be appropriate.

An example may further clarify this point. Twenty days may be a "reasonable time" for abatement of a particular spoil violation under normal operating conditions. If within that time "significant environmental harm" may reasonably be expected to occur from that mishandled spoil, then the "significant, environmental harm" is imminent, and a shorter time for abatement will be required. If, on the other hand, a significant environmental harm may not reasonably be expected to occur, then the normal abatement time would be allowed under Section 521(a)(3).

Comments were received that the definition of "significant" in paragraph (a) was improper in several respects. It was argued that the definition could result in the ordinary practices of mining being found to create a "significant, imminent environmental harm". While this definition and the statutory phrase itself could be so interpreted in unusual circumstances such as areas of unusual topography or geology where soil stability cannot be achieved, the proper interpretation of the statutory phrase and the definition in the regulations does not normally encompass mining practices in conformity with the Act and these regulations.

Comment was also received that the use of the word "appreciable" in the regulations is inconsistent with the word "significant" in the Act. By the use of the word "appreciable" the meaning of the statutory word "significant" is not prejudged in any particular factual setting. It is anticipated that practice and enforcement proceedings will eventually elaborate the meaning of this critical phrase.

10. Section 700.13 contains procedures for prior notice of citizen suits. Comments were received that OSM should require the notice to include the time and location of the alleged violation. The comments were accepted. Of course, all the complainant is required to do is to give the information available to him.

11. A comment was received that notification to a State under Section 700.13 should be to the Governor rather than the State regulatory authority. This comment was rejected because notice should be given to the agency most familiar with the circumstances.

12. Section 700.15, Computation of Time, was inserted to clarify the method of computing deadlines set out in various parts of the regulations.

PART 710 - INITIAL REGULATORY PROGRAM

Parts 710-725 contain the initial regulatory program regulations. Parts 700, 740 and 830 are included in this publication for reasons of convenience and ease of administration. The standards and procedures of the initial regulatory program should not be confused with the standards and procedures that will be promulgated for the permanent regulatory program. The initial regulatory program represents a phasing-in of the full standards and procedures of the permanent program consistent with the intent of Congress. The initial regulatory program standards do not implement the provisions of the Act in its entirety and will not prejudice the development of any standard in the permanent regulatory program. Permanent regulatory program standards will cover the full range of standards

and procedures required by the Act and may vary from those of the initial regulatory program depending on the requirements of the Act and experience gained during the initial program.

1. One commenter suggested that Section 710.4(b) be revised to require a State to issue permits and perform other duties during the initial program only if an adequate State staff exists. This suggestion is not accepted since it has no basis in the Act. Section 502 of the Act requires that if a State regulates surface coal mining operations, such operations must comply with the Act and regulations.

2. The requirements of Section 522(e) of the Act which prohibit mining on certain lands and were effective upon enactment have been referenced in Section 710.4(b).

3. Commenters suggested that proposed definitions be changed or definitions be added to Section 710.5. In response to these comments, definitions were added for terms that have been added or for technical terms that comment indicated required definitions. Those terms are: "essential hydrologic functions", "flood irrigation", "subirrigation", "valley fill and head-of-hollow fill" and "waste". A number of other definitions were modified in the interest of improving clarity. For example, "settling pond" was changed to "sedimentation pond". The definition of the term "safety factor" was incorporated here and deleted from Section 715.18(b). The principal sources of technical definitions were American Geological Institute, Glossary of Geology, 1972; American Society of Civil Engineers, Nomenclature for Hydraulics, 1962; U.S. Bureau of Mines, Dictionary of Mining, Mineral, and Related Terms, 1968; Bituminous Coal Institute, Glossary of Current and Common Bituminous Coal Mining Terms, 1947; Soil Science Society of America, Glossary of Soil Science Terms, 1970; and Soil Conservation Society of America, Resource Conservation Glossary, 1976. Numerous alternative definitions that were suggested were largely from standard reference works or made slight modifications that did not represent a substantive improvement or alleviate confusion.

4. Section 710.11 sets forth the general obligations under the Act of those mining coal, describes the application of those obligations on May 4, 1978, and for the application of those standards to certain structures and facilities. Numerous comments were received on this section, almost all addressing paragraph (d)(2) granting the limited extension of time beyond May 4, 1978, for pre-existing non-conforming structures and facilities.

A comment was received suggesting that paragraph (a) be changed to clarify that the interim standards do not apply in States in which only "collateral" regulation of mining occurs. As examples of such "collateral" regulation, the commenter cited minimum wage laws and water quality control. Regulation by the State minimum wage law does not constitute regulation in a State so as to make the interim standards applicable. However, regulation of water quality relating to mining does in fact constitute regulation of mining in a State so as to make all the initial standards applicable in that State. Under

Section 502 of the Act any regulation in a State within the scope of any of the initial performance standards is regulation that triggers the application of the Federal initial performance standards within that State.

5. A number of comments were received that the Act provided no legal basis for an extension beyond May 4, 1978, for complying with the performance standards. These comments suggested that the extension in Section 710.11(d)(2) should be deleted. A number of other commenters suggested the extension be expanded. Extensions were suggested as follows: (1) for the life of the structure or facility, (2) for as long as they meet State and Federal water quality standards and effluent limitations and have been approved by the regulatory authority, (3) for the life of the structure, if the regulatory authority determines that reconstruction would cause environmental harm, (4) for the life of the structure, if the regulatory authority determines that the structure or facility will not constitute an imminent danger to the health or safety of the public or a significant, imminent environmental harm, and (5) as long as a "good faith" effort to correct the problem is being made. After careful consideration of these comments and the Act and its legislative history, no change in the regulations has been made.

Section 710.11(d)(2) allows a limited exemption in specified circumstances. It is not a blanket invitation to delay the reconstruction of pre-existing structures and facilities. Structures and facilities which can be reconstructed by May 4, 1978, must be reconstructed by that date. Given the length of time between enactment of the Act and the May 4 deadline, the vast majority of the reconstruction can be accomplished by May 4, 1978.

In order to qualify for an extension, the operator must show that using his best effort and all resources available he cannot complete reconstruction by May 4, 1978. He must then submit a plan for reconstruction designed by a professional engineer. The requirement that a professional engineer design the plan is appropriate because it is anticipated that extensions will be justified for only the largest and most complex reconstruction jobs. The work on such a job must start as soon as possible after the issuance of these regulations. The Department believes this narrow approach is required by the Act. The 1974 surface mine reclamation bill contained a limited impossibility defense when it was introduced on the House floor and when it went to the Conference Committee. The Conference Committee deleted this defense, and it was never again inserted into the bill. Moreover, the nine-month (longer for small operators) delay in imposition of the initial performance standards is the time that Congress gave for the adjustment of existing mining practices and pre-existing structures and facilities. On the other hand, the Secretary has the duty, within the constraints of the Act, to resolve practical problems on a case-by-case basis. Thus, the regulations provide a limited extension of time in demonstrated cases of impossibility.

6. Comments were received that Section 710.11(d)(2) should be changed by explicitly requiring the operator to make a showing that a "good faith" attempt had been made to accomplish the reconstruction by May 4, 1978. No change was made as a result of this comment because, as explained above, the regulation already requires the appropriate showing.

7. A commenter suggested that the phrase "physically impossible" be clarified. This was not done because decisions will need to be made on a case-by-case basis, after considering all relevant facts.

8. A commenter requested clarification of the phrase "preexisting facilities and structures" in Section 710.11. It is impossible to give a definitive list. However, under present interpretation, sedimentation ponds, haul roads, off-site spoil storage facilities including head-of-hollow fills, and slurry ponds or waste impoundments are included. Facilities and structures not serving active mining areas after May 4, 1978, need not be reconstructed. An example is existing sedimentation ponds draining watersheds in which coal removal has ended, even though reclamation is continuing.

9. Section 710.12 provides for applications for and approval of exemptions for small operators as set forth in Section 502 of the Act. Several comments were received that the Act does not allow for a process of applications and Secretarial grants of the small operator exemption, but rather, creates the exemption by operation of law. Although the exemption is created by law, the Secretary is not prohibited from adopting an application and approval process. Failure to provide an application and approval process would lead to impossible enforcement problems in the field. It would be extremely difficult for an inspector to enforce standards until all claims of right to exemption were investigated and resolved. Such an investigation would be practically impossible inasmuch as most of the critical facts of interlocking ownership and coal production are beyond the inspector's reach. Therefore, the only effective and rational way to exercise the Department's obligations under the Act was to adopt an application and approval process.

10. Several comments were received that the Act does not allow the attribution of coal produced by other mines owned or controlled by the applicant. This argument is not accepted. The Act grants the exemption to "operators" not "operations", and the legislative history makes it clear that in determining eligibility all the various patterns of ownership are to be investigated so as to base the determination on the total production and resources of the applicant.

11. A comment was received that the procedures for obtaining an exemption were too complex for some small operators. It is believed that this is not the case, and the Office will continue to assist any operator who seeks advice.
12. A commenter requested that the definition of "permittee" be changed to incorporate the idea that there had been no change in ownership after May 2, 1977, so as to prevent the sale or transfer of a permittee's business organization from a large operator to a small operator in order to qualify for the exemption. This idea was accepted in part. Section 710.12(c)(2)(iii) was adopted to achieve that result for substantial changes in ownership, except for changes due to death of an owner.
13. A comment was received that Section 710.12 should require that a small operator's mine be in operation prior to August 3, 1977. No changes were made as a result of this comment because the regulations interpret Section 502(c) of the Act to also exempt operations which had permits but did not mine prior to August 3, 1977.
14. Comments were made that there should be a filing deadline for applications for the exemption in order to allow orderly consideration of the applications. This comment was accepted, and a filing date of February 3, 1978, was included.
15. Comments were received that attribution should be based on ownership as well as control of coal production. This comment was accepted. Ownership is a clear and measurable indication of economic benefit from the production.
16. Commenters suggested that a method should exist for the revocation of an exemption if it was erroneously granted or production during the year exceeded 100,000 tons. Language was added to make this explicit.
17. Comments were received that the regulations should grant exemptions only to mines operating under valid permits and should not allow exemptions to those who mined in 1976 without permits. No change was made as a result of this comment because the proper test under the Act is whether or not the current permit was issued prior to August 3, 1977.

PART 715 - GENERAL PERFORMANCE STANDARDS

NOTE. - The general performance standards in this part are applicable during the initial regulatory program. They are based on the standards referenced in Section 502(b) of the Act and include requirements which are necessary to meet those standards. Other performance standards in Section 515(b) of the Act have been used as a guide whenever possible in developing the standards to fully implement the initial program.

1. Several commenters objected to the requirement in Section 715.11(b) for all authorizations to permittees to be maintained at or near the mine site. They suggested that only the permit and related documents be made available at the site or at a central company office. These suggestions were not accepted. The Act requires compliance with applicable State and Federal laws and regulations, thus availability of other permits and related documents is essential in determining compliance with the Act. In order to ensure effective and efficient enforcement it is necessary for permits and related documents to be readily available to State and Federal officials in the course of their on-site inspections. However, the phrase "at or near the mine site" is intended to include offices in nearby towns.
2. Commenters objected to the scale requirements of the maps required by Section 715.11(c) as being unreasonable. In response to these objections, the scale requirement was changed to 1:6,000 (1 inch equals 500 feet) or larger scale. This scale is consistent with the smallest map scale for mine maps required by the Mining Enforcement and Safety Administration (30 CFR 77.1200).
3. Many commenters suggested that a 30-day deadline for submittal of certified mine maps required by Section 715.11(c) would overtax the available engineers and surveyors. The deadline is extended to 60 days in the final regulations to accommodate the anticipated increase in demand for engineers and surveyors.
4. A few commenters questioned the meaning of the phrase "where any element of the operations is regulated by a State" in Section 715.11(a). The phrase is rooted in Section 502(a) of the Act and is intended to be a general statement of applicability consistent with Section 710.11 of these regulations. The performance standards apply to coal mining operations currently regulated by a State under other State or Federal statutes, including the Federal Water Pollution Control Act and State laws governing mining.

Section 715.12 Signs and markers.

1. Section 715.12, signs and markers, specifies requirements for identifying and warning signs and for markers of permit perimeters and buffer zones within the permit area. The marking of permit boundaries, blasting areas, and other special activity areas where caution must be exercised by the permittee and other personnel is common in many States. In response to the many comments received, these regulations are simplified in the interest of consistency with State rules during the initial program.

The regulations seek to balance the desire to reduce cost and bother to the permittee against the need for ample identification in the interest of citizen participation, inspection by the regulatory authority, employee guidance and protection of the public. Proper marking of perimeters and working areas will be particularly valuable in preventing equipment operators from inadvertently entering areas not authorized for disturbance and should help eliminate arguments over location of perimeters. Many commenters objected to the number of markers required and the specificity of spacing requirements. Others generally supported the proposed regulation in the interest of citizen monitoring of coal mining operations. A third principal group of commenters generally argued for giving greater latitude to regulatory authorities in sign and marker requirements.

2. Commenters objected to the requirement in Section 715.12(b) that identification numbers of other authorizations to mine be shown on the grounds that if all such numbers were shown signs would be very large. In response, that section has been revised to require only the current mining and reclamation permit number issued by the regulatory authority applying to the posted permit.

3. There was general agreement among commenters that more latitude should be allowed in the type of markers and minimum spacing for perimeter markers. Section 715.12(c) has been modified to provide for markers as deemed appropriate by the regulatory authority. Many commenters questioned the practicability of maintaining markers after May 3, 1978, in an active pit showing the boundary of coal mined. This requirement has been deleted in view of the availability of a certified map as required in Section 715.11(c).

{62643} 4. Comments on buffer zone markers, Section 715.12(d), were similar to those on perimeter markers, mainly arguing for greater flexibility in type and minimum spacing. This requirement has been revised to make it consistent with those relating to perimeter markers. Further, it should be noted that the requirement for buffer zone markers does not preclude mining through streams where specifically approved by the regulatory authority under the controlled conditions established by Section 715.17.

5. A number of commenters suggested that blasting signs should only be required at the blasting areas. This suggestion was rejected on the grounds that all persons entering a property where blasting is carried on should be informed of the potential hazards.

6. Many commenters objected to the requirement in Section 715.12(f) for topsoil markers because topsoil storage areas are well known to employees and disturbance of topsoil storage areas is not currently a significant problem. These comments were rejected because these regulations require more care in topsoil handling and storage than has previously been the practice, and the requirement represents a minor burden to the operator. Markers, rather than specific signs, will be required.

Section 715.13 Postmining use of land.

Section 715.13, Postmining use of land, establishes criteria and procedures to determine the postmining use of the land. An achievable postmining land use within a permit area is essential to achieving the purposes of the Act. The regulations are intended to supplement existing land planning capabilities of States and local governments.

1. Comments objecting to the word "promptly" in paragraph (a) have resulted in a change to "in a timely manner." The Act clearly intends for reclamation work to be carried out as an integral part of the mining operation. Section 515(b)(16) of the Act requires that under the permanent program reclamation efforts must proceed "as contemporaneously as practicable." The words, "in a timely manner" are intended to fulfill the intent of the Act without going as far as the permanent program requirement.

2. Some commenters suggested that a higher and better use cannot be the objective of reclamation. These comments were not accepted. Section 515(b)(2) of the Act requires that this objective be met when the land is not returned to its premining use. A higher and better use determination based on the landowner input and local capability of the land for a higher or better use is paramount in reclaiming mined lands when the land is not returned to its premining condition.

3. Commenters suggested that areas within a region should be referenced as a means of approving a postmining land use even if such use is not necessarily compatible with those of the immediately surrounding area. The intent of the proposed regulations was to allow consideration of land uses in areas of similar terrain and climate within the surrounding region. In considering a wider area, many differing postmining land uses could come into play thereby not restricting the landowner and the regulatory authority to a set of predetermined uses for the land where, for example, homesite development is needed. Regardless of the reference area used, it is essential that the postmining use be compatible with the immediately adjacent areas. Changes have been made in Section 715.13(b) to incorporate reference to the surrounding area.

Under Section 715.13(b)(3), the historic use of the land must be considered in certain circumstances. Historic use should usually be determined by reference to the dominant use during the preceding 20 years, or longer period if the dominant use cannot be determined for that 20 year period.

4. Comments suggesting that the permittee should not be held responsible for inadequate reclamation of lands by other mine operators implies that the standard for determining the postmining land use is the use of the land immediately before the current mining. Section 515(b)(2) makes clear that the intent of the Act is for lands to be restored to the capability of supporting uses which it could support prior to any mining. The regulations require that such lands be returned to the highest and best use possible that is compatible with surrounding areas. Since much of the land that previously had been mined was left in extremely poor condition and the Act does not intend this use to be the basis for determining the postmining land use, it is intended that lands that previously had been mined will have a postmining use that is equal to or higher or better than it was before any mining occurred. This objective will be based on land uses in the surrounding area.

5. Commenters noted that the proposed regulations did not allow impoundments of water to remain in the postmining land use. It is recognized that such impoundments may be a beneficial part of the postmining use and should be permitted. The regulations have been changed to include impoundments of water in the categories of alternative land uses.

6. Some commenters objected to the requirement in Section 715.13(d)(6) that plans be designed by "a registered professional engineer, or other professional, who is knowledgeable about the proposed land-use category * * *". The intention was to insure that the plans are designed by a competent person in accordance with high professional standards. The regulations have been changed slightly to permit some flexibility but maintain the high standard by also allowing the design to be made under the supervision of the professional person.

7. Other comments objecting to the requirement in Section 715.13(d)(4) and (5) for letters of commitment have been considered. Some clarifying language has been added, but the basic intent of the regulations remains that firm assurances must be given before approval of the mining application that the postmining use will be successfully completed. Such assurances are necessary to show that there is "reasonable likelihood" of the proposed use being achieved as required by Section 515(b)(2) of the Act.

Section 715.14 Backfilling and grading.

1. A few commenters argued that permittees should be allowed to distribute box cut spoils on other than the mined area and grade these spoils to blend in with the surrounding original contour. This type of operation is permissible under the regulations if: (1) it conforms to the other requirements such as topsoil removal and grading of the mined area to approximate original contour; (2) the box cut spoils are also graded to approximate original contour or to the lowest practicable grade; (3) the reclamation achieves an ecologically sound land use compatible with the surrounding region, and (4) other provisions pertaining to spoil handling in all types of mines are met.

Section 515(b)(3) of the Act requires that operations be conducted in a manner that restores the approximate original contour of the land except in mountaintop removal operations or in operations involving thick or thin overburden. Section 515(b)(3) of the Act requires any excess overburden to be graded and compacted (where advisable) to attain the lowest grade possible but not exceeding the angle of repose of the spoil. However, the natural angle of repose of certain types of natural materials may be too steep to control erosion and increases in total suspended solids. Thus, the postmining slopes

are likely to be reduced below the angle of repose in many situations. The disposal of excess material is addressed in Section 715.15.

Box cut spoils should be limited in amount and in land area affected and should be graded to blend into the surrounding terrain. The concept of approximate original contour allows return of all spoils to a mined area even when the result is a higher elevation that blends with the surrounding terrain.

2. Several commenters suggested that the proposed regulations so restricted disturbance of land above the highwall as to restrict the construction of support facilities above the highwall. Since the purpose of the standard was to minimize the area disturbed and not to limit the placement of support facilities in other than steep slope mining (where Section 515(d)(3) of the Act further limits the disturbance of land above the top of the highwall), the section has been revised to allow construction of mine support facilities above the highwall. This change is necessitated by the use of the term highwall in area mining as well as in steep slope situations.

{62644} 3. A large number of comments reflected confusion with the determination and use of slope measurements. Several commenters argued that the section was overly restrictive in requiring a return to specific slopes rather than to the approximate original contour as defined in Section 710.5. Many commenters expressed uncertainty as to the meaning of "average natural slope" and "average maximum natural slope". Some commenters indicated that attempts to describe natural slopes over a large area by use of a single average slope would be difficult.

In view of the confusion generated by the proposed regulations, the sections dealing with slope measurements have been revised to remove the word "average". The regulations require that the reclaimed areas must be graded to slopes equal to or less than "approximate premining slopes", which are those slopes determined by the regulatory authority to be stable slopes that provide a land surface capable of supporting the approved postmining land use. The term "approximate premining slopes" is meant to indicate that such slopes must be selected according to the following criteria: (1) they do not appreciably exceed the maximum slopes measured for the premining surface; (2) they may be less steep than the natural slopes by that amount necessary to prevent slides, erosion and water pollution, to provide adequate drainage, to cover all acid forming and other toxic materials, to permit revegetation, and to achieve the approved postmining land use.

The "final graded slope", that measured after mining and grading, is not necessarily a uniform slope but is often an overall average slope. Therefore, terraces, roads and diversion ditches may be included within the slope measurement path provided the overall final graded slope meets the criteria set out above. Long, uniform, uninterrupted slopes are not generally desirable since they tend to erode more readily than do rolling, nonuniform slopes. Therefore, Sections 715.14(a)(2) and 715.14(a)(3) have been revised accordingly.

The final regulations also reflect the fact that premining slope measurements must take into account natural variations in slopes. In many cases it would be appropriate for the permittee to develop accurate topographic maps for an area prior to any mining and to develop an overlay of the proposed postmining topography where that topography blends in with the surrounding terrain, reestablishes the surface drainage system, and serves the approved postmining land use. Then the final graded slopes will be specifically defined on the approved postmining topographic contour maps, where they may be reviewed as a whole.

4. A few commenters noted that measurement of final graded slopes after topsoil had been replaced would require another removal of the topsoil prior to regrading if the slopes did not meet the criteria of this section. This comment has been accepted and the section revised.

5. A number of commenters recommended that the regulations allow the use of topographic maps, aerial photography, and other photogrammetric methods to measure premining and postmining slopes. Such methods are appropriate only when the topographic maps and photographically-produced maps are of sufficient accuracy to ensure adequate measurements. Thus, while maps and photographs may be used in addition to or in place of field measurements, the maps and photographs must be established as accurate by the permittee. Commonly used professional engineering practices are suitable for slope measurements. While the word "surveyed" has been deleted in the final version of the regulation to make clear that other means may suffice for slope measurement, surveys may still be required by the regulatory authority.

6. Several commenters argued that any restrictions on terraces exceeded the rulemaking authority under the Act. This comment is not accepted. Terraces should have a well-defined role in supporting the approved postmining land use and should not simply be left because a permittee decides that regrading is onerous. If improperly constructed, such terraces may impound water, provide unnecessary access to fragile areas, and cause an aesthetic blight on slopes.

7. Commenters noted the desirability of allowing terraces on slopes less than 20 degrees to break up runoff over long and otherwise uninterrupted slopes. Although the practice of constructing diversion ditches in the form of small terraces on moderate slopes is not uncommon, it is not appropriate to leave wide terraces on any slopes unless the access afforded by such terraces is supportive of the approved postmining land use.

8. Additional commenters stated that the 20 foot terrace width and the terrace face slope of 1v:2h (50 percent) were so restrictive as to preclude mining on steep slopes since the prescribed width was unreasonably small and the regraded slope would make it impossible to achieve the approximate original contour in steep terrains. The absolute limit on terrace faces (the outslope of the terrace bench) has been modified to allow the alternative use of a stability calculation recommended by a number of commenters. However, since stability factors can change according to the method of calculation, all calculations are to be based on commonly accepted professional engineering practices. If it becomes necessary to specify methods, the Department will do so. Width limitations have been retained in order that terraces will not serve as access roads unless special consideration is given to retention or construction of roads to support the postmining land use and the roads are included in the approved postmining land use plan.

The definition of approximate original contour in the Act supports the concept of not restricting terraces to steep slopes so long as the terrace is not used as an inappropriate substitute for construction of lower grades. Thus the distinction between grading on steep and moderate slopes has been discarded. The need to restrict terraces to those situations where such level breaks in the terrain are truly necessary must be emphasized. Smaller diversion ditches are often more suitable than terraces to achieve these purposes. Further, the terraces discussed in the regulation are those to be left after mining and regrading are completed. During operation of the mine steeper outslopes and wider benches may be temporarily constructed if they are safe and in compliance with the Act and regulations.

9. The term "cut-and-fill terrace," was unclear to a number of commenters. Cut terraces are those formed by excavation into undisturbed strata while fill terraces are those formed by placing and compacting earth materials.

10. A limited number of comments recommended retention of portions of the highwall. The recommendation was not accepted since the Act and the legislative history indicate that no highwalls are to be left after mining is completed. Highwall elimination is mandated in Section 515(b)(3) of the Act as is attainment of the "lowest practicable grade" in cases of inadequate overburden to fully grade to approximate original contour. Return to the "appropriate original contour" to "cover completely the highwall" is required in Section 515(d) of the Act for steep slope areas.

11. One commenter noted the need to ensure that regraded drainage areas be returned to stable conditions. It is the intent of this section, Section 715.17 and Section 715.20 to require that disturbed watersheds, including all areas disturbed by temporary diversion, be reclaimed to conditions that approximate premining hydrologic conditions with minimal change in water flow and water quality.

12. A number of commenters proposed that spoil placement on the downslope of areas with slopes less than 20 degrees should be prohibited or controlled. Section 515(d) of the Act and Section 716.2 of the regulations allow the regulatory authority to apply steep slope controls to slopes less than 20 degrees. Such controls would include prohibition of placement of spoil on the downslope.

13. Some commenters suggested that the criteria specified in Section 515(d)(4) of the Act for determination of "any lesser slope" as a steep slope should be related to the region or State rather than to the "surrounding area". In Section 515(d) of the Act, the term "region or State" is used. The intent of the section is to provide the regulatory authority a basis for selecting lower slopes that complement the land use, blend in with surrounding terrain and minimize erosion in highly erodible soils. In light of this, the proposed phrase is retained since it appears to better suit the site-specific requirements important to identifying lesser slopes. In response to comments, the word "geology" has been added to the factors to be considered when determining less steep slopes.

14. The terrace section has been revised to add the criteria of stability and minimization of erosion to the proposed paragraph. It is recognized that the stability provided by a bench is not truly mass stability but rather temporary drainage and erosional stability. One commenter recommended that culverts be allowed temporarily for vehicular traffic. This comment again points out that many people view terraces as a means of access rather than for temporary control of erosion. Such measures as the use of terraces to control drainage are permitted when approved by the regulatory authority.

{62645} 15. A number of recommendations were received to add a section that addressed the backfilling and grading requirements for previously mined lands. The commenters suggested that such a section was necessary to address the

problem of grading to approximate original contour when much of the previous mining deposited spoil and wastes on the downslope and insufficient material is available for grading. Commenters indicated that in such cases it would be desirable to encourage re-mining of poorly reclaimed areas since the current regulations would ensure an improvement of land quality, and perhaps water quality, over and above that left by the previous mining. Arguments for an additional section have merit in view of one of the purposes of the Act, to promote the reclamation of mined areas left without adequate reclamation. The regulations have been revised to reflect the reality that sufficient spoil or topsoil may not be available to achieve postmining conditions which meet all the land configuration and revegetation requirements. Such operations are required to retain all overburden and spoil material on the bench and to grade completely to eliminate the highwall and maintain a stable slope. The entire mining area must be stabilized and revegetated. The provision has been added to Section 715.14(b)(1).

16. Several commenters argued that the proposed mountaintop removal provisions would permit midwestern operations to remove an entire coal seam from a hill and not return the land to the approximate original contour. Such changes in land form and use are allowed only when the provisions of Section 515(c) of the Act are met. In accordance with the Act, the paragraph has been amended to indicate that the exception is given only in cases where certain land planning requirements and stringent performance standards are met. It may be authorized in lieu of the approximate original contour.

17. Comments were received indicating that in mountaintop removal operations the slopes were too restrictive. Other commenters objected that the static safety factor of 1.5 was an uncertain measure of mass stability. The safety factor is an appropriate measure of mass stability that has been accepted by the Corps of Engineers, MESA, and other agencies. Greater slopes may be used if the safety factor is achieved and erosional stability is assured. Regulatory authorities may specify higher safety factors when necessary, and permittees will be responsible for design and construction that provides more stability.

18. Extensive comments indicated concern over the apparent restrictions on large impoundments in Section 715.14(e). In view of the numerous comments in favor of such impoundments, the Department has taken guidance from the Act for review of proposals for impoundments and placed the language of Section 515(b)(8) of the Act in Section 715.13 because it involves hydrologic criteria. Further reference is made to large impoundments both in this section and in Section 715.13 of this part. The revised portion makes clear that it will be necessary to grade areas involved in such impoundments to an appropriate contour and that all highwalls must be eliminated. Section 715.17(i) includes water quality and other criteria that must be met. It also makes clear, as a few commenters pointed out, that acid-forming and toxic-forming materials cannot be inundated by waters in these impoundments without first independently meeting the requirements for burial or neutralization of paragraph (j) of this section.

19. Comments received on the proposal for small depressions generally expressed the concern that the one cubic yard limitation was overly restrictive. Since a paragraph addressing permanent impoundments is now incorporated in the regulations, the limit remains appropriate to distinguish between surface manipulations that assist with revegetation and erosion control by impounding small amounts of water in confined areas and those impoundments that may adversely affect the area and which must therefore receive special consideration by the regulatory authority. Contour furrowing, chiseling, and other normal agricultural methods of manipulating the surface are permitted even if the long linear furrow exceeds 1 cubic yard in size. This section does not refer to depressions that may be caused by subsidence of underground mines. Subsidence will be addressed in the permanent regulatory program.

20. Several comments related to Section 715.14(f)-(h) dealing with thin and thick overburden. A few commenters suggested the word "transport" be deleted to avoid movement of material such as first cut spoils back into the mine area. It is appropriate to indicate that materials may have to be transported to achieve backfilling and grading.

21. Some concern was expressed over the distinction between thin and thick overburden. In particular, reviewers were concerned that not all operations meeting the criteria for thick and thin overburden needed a modification of the requirement to achieve the approximate original contour. The regulations have been revised to require that whether thin or thick overburden conditions exist, operations must achieve approximate original contour whenever possible.

22. A number of commenters indicated that the angle of repose is not always stable. It is recognized that the average angle of repose of earth material is not always stable in terms of erosion. Thus, a minor change in wording has been made to clarify that the objective is mass and erosion stability. The word "reshaping" has been changed to the phrase "grading or backfilling" to conform to the Act. A few commenters said the 1v :2h (50 percent) slope requirement for highwall slopes in areas of thin overburden was too steep and recommended 1v :3h. Regulatory authorities are encouraged to require more stringent grades wherever necessary.

23. One commenter recommended substitution of the phrase "postmining land use" for "ecologically sound land use". Since the latter phrase is from the Act, and implies more than "postmining land use", it has been retained. In response to a request to permit offsite disposal of spoil, it is noted that such disposal is governed by Section 715.15 and may be done only when the disposal area is under the appropriate control of the regulatory authority.

24. Many requests were received to increase the 6-inch criterion for regrading rills and gullies to 12 inches, to delete the requirement entirely, or to provide substitute language indicating regrading would be required when the gully was of sufficient size to preclude successful establishment of the postmining land use. Other commenters sought assurance that regrading would not be the only means of satisfying the requirement. Many argued that returning to regrade would increase erosion. In view of the difficulty of distinguishing between a natural rill or shallow channel through which overland flow is conducted, the requirement is revised to 9 inches which is an acceptable measure of difference between small rills and gullies requiring stabilization. However, the regulatory authority may reduce the size criterion where shallower gullies are disruptive to the postmining land use or if they cause excessive erosion and sedimentation. The value of 9 inches has been successfully used in at least one State to distinguish between those erosional features requiring repair and features that approximate natural drainage channels in highland (divide) areas. The intent of the provision is to allow stabilization through means other than regrading if such methods promise equal or better results. Thus the use of straw, or the use of small equipment to fill and regrade in a manner that disturbs little additional area may be permissible. This intent has been clarified by changing the title of this section to Regrading or stabilizing rills and gullies. Rills and gullies formed along disturbed and reclaimed drainage ways will be permitted if vegetation has first been established.

25. Several commenters suggested that the treatment and burial requirements of Section 715.14(j)(1) were duplicative since treatment to neutralize potential toxicity did not necessarily have to be followed by burial. The regulation has been modified to require treatment to neutralize when necessary. Materials that are adequately treated need not be buried. Others commented that treatment was difficult and burial should suffice. Still others commented that burial with impermeable materials would not permit compliance with the requirement of Section 715.17 to restore the approximate premining recharge capacity. The two requirements are compatible in most instances.

{62646} 26. Substantial comment related to the specific burial depth for acid-forming, toxic-forming or combustible materials. Recommendations ranged from the deletion of a specific value to substitution of a depth of 10 feet. A number of commenters cited a report that concluded that 2 feet was an adequate burial depth. However, investigation of that conclusion indicated that burial at 2 feet represented a minimum amount of material over coal wastes and had not been tested for success over time. Review of State requirements indicates that 4 feet is usually considered adequate to cover toxic or acid-forming materials. There is limited research which shows 4 feet to be inadequate to prevent upward migration of salts in the semi-arid to arid climates or to protect deep rooting plants which are part of the revegetation plan. The regulation has been revised slightly to reduce the amount to 4 feet. A qualifying phrase has been placed in the regulation to address thicker amounts where necessary to guard against salt migration and against exposure by erosion and to provide an adequate plant growth substrata. Minor editing has been done to facilitate references to the minimization of water pollution while addressing the covering of wastes.

27. A number of commenters suggested that coal preparation wastes or coal conversion facility wastes should be excluded from consideration in this paragraph of the regulation. Concern was expressed that the regulation might require routine treatment and burial of such materials. This is not the case unless such materials are used in backfilling and grading operations conducted on a mined site. Thus, the proposed requirements to analyze, and treat or bury such wastes is appropriate. Existing analyses and permits showing proof of compliance with the requirements of this section would be acceptable demonstrations for the purposes of paragraph (j)(3) (as proposed) as a few commenters recommended. It is necessary to ensure that waste disposal in mine areas are handled in a manner that does not adversely affect the hydrologic balance, especially as the balance relates to water quality. Thus, wastes have not been deleted from this section.

28. In response to several comments, the purposes of covering acid-forming and toxic-forming materials have been clarified to conform to Section 510(b)(10) of the Act. Water contact with toxic producing deposits must be prevented as must sustained combustion, and adverse effects on vegetation must be minimized. Thus, impoundments may not be used to neutralize acid-forming or toxic-forming materials by inundation.

29. Commenters on proposed Section 715.14(k) on grading along the contour felt that the use of bulldozers running perpendicular to the slope created sufficient cleat marks to retain water and minimize erosion and topsoil slippage. Such treatments are valid on steep slopes where contour furrowing is not possible. However, contour furrowing is preferred if physically safe. In accord with recommendations received, the requirement to obtain approval from the regulatory authority

is deleted. The permittee is allowed to use an alternative method of operation if he can show (1) that work along the contour would be hazardous to equipment operators and (2) that erosion is minimized.

30. Several commenters suggested that a section be added on keeping regrading operations current. The requirement to insure that all reclamation efforts proceed as contemporaneously as practicable with the surface coal mining operations is part of the permanent regulatory program under Section 515(b)(16) of the Act and has not been included in the initial regulations. However, State requirements still apply and the provision of Section 715.13(a) to restore disturbed areas in a timely manner must be complied with.

31. A reviewer noted that the section should address the need to return the topography to total stability in the erosional sense. That requirement is embodied in the definition of approximate original contour and Section 715.17 on hydrologic balance.

32. One comment included a query as to the meaning of the phrase "unacceptably steep" slopes used in Section 715.14(a)(2). The measure of unacceptability is to be related as a minimum to the requirements of this part regarding land use, postmining slopes, erosion, and revegetation.

Section 715.15 Excess spoil and wastes.

Comments on this section were directed at three principal issues the reviewers felt had not been adequately resolved. Those issues are the applicability of the proposed section to operations other than steep slope and mountaintop removal operations during the initial regulatory program, the inclusion of coal refuse in the proposed regulations, and details contained in the regulations regarding the valley or head-of-hollow fills.

1. Commenters suggested that during the initial program the regulation of excess spoil placement should be limited to mountaintop removal operations under the terms of the Act. Proper placement of excess spoil is critical to achieving the environmental protection standards that are a part of the initial regulatory program specified in Section 502(c) of the Act. If excess materials are improperly placed across drainage channels and provide inadequate drainage and stability, disturbance to the hydrologic balance may be great. The legislative history of the Act does not indicate that excess spoil regulations are to be divided into mountaintop or steep slope areas and other areas of more moderate slopes. Therefore, in order to properly implement Section 515(b)(10) of the Act, excess spoils must be regulated in the initial program, regardless of their origin. Further, excess wastes and spoils are also regulated under Section 515(b)(3) of the Act. This, the initial program must provide regulatory control over their placement.

2. A large number of commenters recommended that waste materials be defined and removed from the section because they believe waste material handling is regulated separately in the permanent program. The commenters further recommended that disposal of waste materials and preparation plant refuse be subject to MESA regulations in 30 CFR 77.214 and 77.215, indicating in their comments that various sections of the Act "require" incorporation by reference of existing regulations. [*] These recommendations are accepted in part, and wastes have been deleted from Section 715.15(a). The initial regulatory program still only regulates toxic-forming and acid-forming wastes and proper reclamation of wastes produced from coal preparation facilities where they are used in backfilling or grading of mined areas, placed in impoundments or used in construction of dams. However, complete controls over placement of mine wastes, tailings, coal processing wastes, and other wastes excess to achieving the approximate original contour will not be addressed until the permanent regulatory program with the exception that they are not allowed in valley or head-of-hollow fills. A definition of wastes that are to be controlled under the provisions of this part has been added to Section 710.5. This prohibition is necessary to keep such materials out of drainage channel in situations other than those covered in Section 715.18.

3. Commenters reviewing Section 715.15 were dissatisfied with the detailed nature of the regulations, preferring instead regulations that set objectives or final quantitative standards. The comments addressed Section 715.15 as a whole but were particularly directed at paragraph (b), valley and head-of-hollow fills. Specifications for rock underdrains and the 4-foot thickness of individual lifts were objected to. Many commenters referred to consultant studies, a number of which were provided to the Department. Most commenters wanted the flexibility to be able to meet objectives by designing structures suitable to their specific sites.

The Department has reviewed the studies and plans submitted and consulted with those who have made studies of head-of-hollow fills and has determined that:

(a) Main underdrains are safe when they are sized, at a minimum, to the proposed criteria.

(b) Head-of-hollow fills should be constructed to keep water out of the system since significant drainage into the fills will ultimately cause clogging of drains. When upstream drainage is directed into a fill constructed with a drain through the entire height of the fill, the stream gradient may increase through the upstream portion of the fill and decrease in the downstream portion. If there is an area where the gradient is decreased, the sediment transport capacity will also be decreased resulting in settling of fines within the drain. More importantly, if water infiltrates into the fill, and then flows toward the rock drain, sediment in proximity to the rock drain will be moved to clog the drain. Obviously, the more water transported into the drain, the greater likelihood for clogging. Therefore underdrains are generally for emergency, not routine, use.

(c) To meet the requirement of placement in a controlled manner for concurrent compaction, spoil must be placed in lifts, or reworked to form lifts that provide for visual inspection for voids, inspection for intrusion of improperly sized material into drains, and for compaction.

The regulations are adequately supported by ongoing studies. Detailed regulations specifying the method of construction are necessary if completed head-of-hollow fills are to meet all the requirements of the Act and regulations. It should be noted that brief inspections of large fills cannot begin to serve as proof of long-term stability. Such proof will come only with time and further inspections.

{62647} 4. Paragraphs (a) and (b) of Section 715.15 have been reorganized in order to avoid cross references between paragraphs and to attempt to have the requirements follow a time sequence. A few of the specific paragraphs moved are discussed later in this section.

5. Comments were received regarding the minimum size of the underdrain and the restrictions on the size of rock in the underdrain. No alternative sizes were offered. The recommendations were to delete the table and rely on site specific engineering designs, or to add the alternative of allowing the permittee to submit engineering data that substantiate an alternative underdrain system provides adequate drainage to attain a minimum static stability safety factor of 1.5. Other commenters provided similar recommendations for language such as allowing an alternative of "sound engineering practice" or using "recognized hydraulic and hydrologic criteria," and using safety factors of 1.5 for static conditions and 1.0 for earthquake loading. A few commenters recommended that the rock core be constructed through the entire fill, in an attempt to drain the upstream water through the rock core and the fill. One commenter recommended that all types of materials are acceptable for use in drains.

The rock drain criteria in the proposed regulations do represent the sound engineering practice currently found to result in what appear to be stable, well drained head-of-hollow fills. The methods used to obtain and place the materials are left to the permittee. The sizes specified are not particularly large considering the amount of material involved in the fill. While a larger core can be constructed, subsequent portions of the regulation forbid reliance on this core to transmit water from upstream drainage areas through the pile. As noted earlier, such practices tend to wash fine materials into and plug the rock drains which, in time, will lead toward failures unless remedial measures are taken. The rock drain criteria have been amended slightly to prohibit the use of acid-forming or toxic-forming materials in the rock drain as was recommended by a few commenters. Similarly, the concern expressed that shales may not be durable is addressed by the addition to the paragraph. Obviously, it is necessary to construct a rock drain that is expected to perform properly for as long as the fill is in place.

6. Many commenters indicated that the 4-foot lift requirement was excessive and represented a proposal that went far beyond normal regulations in specifying engineering methods. As in the case of underdrains, the recommended alternatives to specifying a 4-foot lift were principally those of allowing sound engineering practices to be applied on a site-by-site basis. Proposals for valley fills and head-of-hollow fills were submitted showing that a few operators wished to allow the end dump procedure of constructing valley fills. They felt the 4-foot lift requirement prevented this. One commenter requested that the end dump method be specifically prohibited. One commenter suggested that the fills be divided into structural components and fill components, each with a different stability safety factor.

The purpose in proposing the 4-foot lift was: (1) To ensure that spoil is transported and placed in a controlled manner for concurrent compaction in order to assure mass stability and to prevent mass movement, (2) to ensure that the rock underdrain was not contaminated by fines as occurs when fill materials are merely dumped in an uncontrolled manner, and (3) to provide for inspection and elimination of large voids. The 4-foot lift method requires either initial placement in lifts of approximately 4 feet thickness or redistribution of fill materials after placement in thicker lifts. Some compaction will be

provided by the selective dumping procedures and the redistribution procedures. When directed by site specific designs to achieve proper stability, thinner lifts and additional compaction may be required. Large fills on otherwise undisturbed land have too great a potential for failure to allow for uncontrolled placement. The purpose of careful construction of valley and head-of-hollow fills is to produce a fill that will not require maintenance. Other such fills constructed for highways, railroads, and buildings are not only carefully engineered, but also watched and maintained for their lifetime. On the other hand, fills of spoil from coal mines are the long-term responsibility of the landowner who may not have equipment available for long-term maintenance or repair, and thus it is reasonable to establish the key design criteria for such fills. Permittees may use more stringent design criteria as well as differing types of procedures and equipment to achieve the drain size and to place fill in not more than 4-foot lifts. Material larger than 4 feet will be permitted, provided that such material does not constitute a significant percentage of the fill.

The lift section has been revised slightly to make clear that the function of construction in lifts is to avoid contamination of the rock drains, to prevent formation of voids, and to achieve the appropriate design density. The section has been further modified to insure that all excess spoil material will not be randomly placed.

The Department will continue to cooperate with industry, consultants, and Federal and State agencies to monitor the long-term stability of valley and head-of-hollow fills so as to refine the criteria for their construction. Further, the Department has the authority, under Section 711 of the Act to concur with recommendations of regulatory agencies for departures in individual cases, on an experimental basis, from the performance standards of this chapter.

7. A few commenters either objected to the size limits for terraces or recommended the addition of an alternative allowing the regulatory authority discretion to approve design criteria that would produce fill terraces with a minimum static safety factor of 1.5. One commenter recommended that terraces be allowed only when approved by the regulatory authority. One commenter stated that terraces are not stabilizing features but rather assist with erosion control. One commenter stated that a 1v :2h slope could cause significant erosion problems and recommended that the slopes should be based on site specific calculations taking into account runoff and flow velocity instead. Another commenter proposed that permittee innovation be allowed. One commenter recommended use of a slope of 1v :5h for drainage.

The purposes of the dimensional limits on terraces were to create a reasonably accessible land form that supported postmining land uses and to provide erosional stability. Since terraces themselves are not stabilizing features in terms of mass stability of the entire fill, application of stability safety factors to them should not be a substitute for determining the stability of the fill material as a whole. The recommendation to substitute a minimum factor of safety to control these terraces has not been accepted. Terraces are often used on valley fills and head-of-hollow fills to break up otherwise uninterrupted slopes. Nonetheless, terraces, and the other types of fills addressed in this section, should be reviewed for suitability by the regulatory authority so as to avoid construction in a manner incompatible with the postmining land use approved under Section 715.13.

8. Many comments were received regarding the proposed diversion of water from above and around head-of-hollow and valley fills. Commenters suggested that drainage need not be diverted away from the valley or head-of-hollow fill. Some pointed out that if water were diverted, additional disturbance of land would take place. A few commenters recommended requiring the underdrains to extend through the fill to the top and thus direct drainage to and through the rock core. Commenters pointed out that disposal sites near the ridge top of a valley did not necessarily increase stability and were not necessary to reduce the drainage area upstream of the fill. One comment on paragraph (a) recommended that water should be allowed to infiltrate and percolate through fills so as to filter the water. One commenter asked that water be allowed to be impounded above the fill areas.

It is inappropriate to promote drainage through infiltration into a large fill area which is placed off the mined area, especially when the fill is located in an area that is naturally more susceptible to erosion than other areas such as a stream channel. Direction of water into head-of-hollow and valley fills can only result in future instability of the fill and will eventually clog the rock drain causing overland flow or will cause infiltration of runoff water into the pile followed by piping and outslope erosion along the face of the fill. Head-of-hollow sites are to be selected as high as possible in the drainage watershed to reduce the need for large diversions. It is correct that such areas may not be the most stable of all areas in the drainage channel. If stability considerations force the location of the fill down the stream channel such that a valley fill is required, the diversions must be relatively larger.

{62648} Infiltration of water through fills will not improve water quality. Impoundments of water above large fills could, if breached, cause serious infiltration and erosion problems if diversion structures are not adequate to handle the flow. In some instances, it may be appropriate for a regulatory authority to approve such impoundments. With the exception of adding

some clarifying examples to paragraphs relating to siting of fills in the form of language obtained from the Act, the regulations have not been modified in regard to drainage requirements.

9. Comments on the 1v :2h slope requirements for out slopes of fills were generally directed at increasing the slope wherever a minimum static stability safety factor of 1.5 could be met or allowing a steeper slope where consistent with physical conditions, climate, or variables other specified variable. On the other hand, one commenter recommended that the slope be reduced to about vv :4h to prevent slides. Based upon the results to date of ongoing assessments of head-of-hollow and valley fills, it is believed that the proposed regulations appropriately specify the maximum slope permissible for such fills based on erosion, access, and secondary stability factors.

10. Some comments were received on the proposed Section 715.15(a)(3) regarding the 1v :5.5h slope criteria for, as well as the use of, keyway cuts and rocktoe buttresses. Commenters indicated that the 1v :5.5h slope was too gentle to automatically require keyway cuts or rocktoe buttresses and that 1v :2h was a more appropriate criterion. A few commenters stated that keyway cuts did not necessarily add to stability and that bedrock could be quite deep on occasion. Others recommended substitution of the minimum static stability safety factor of 1.5 as the criterion. Another commenter stated that the keyway cuts and rocktoe buttresses were uneconomical.

The proposed slope is overly restrictive as an absolute requirement that rocktoe buttresses must be employed. However, there are inadequate data to show that a 1.5 factor of safety for stability will ensure both the mass stability and erosional stability of the fill or that such a factor can be translated into a land use evaluation. The slope value of 1v :2.8h in the final regulations was derived from the use of the word downslope in the Act in Section 515(b)(2) and Section 515(d) (steep slope). The keyway cuts and rocktoe buttresses were given as examples of methods, and the permittee was given the option of choosing other structures that would stabilize fills.

11. A major difficulty in the proposed regulations was identified by commenters since no definition of valley or head-of-hollow fill was provided. As a result, it was reasoned, what was basically a head-of-hollow fill could be constructed in compliance with paragraph (a) of the proposed section and without regard for the requirements of paragraph (b). In order to clarify the intent of the section, definitions of "valley fill" and "head-of-hollow fill" have been added to Section 700.5. The intent of the regulation is to require that all fills that encroach upon or obstruct any natural stream channel, other than those channels on highland areas such as natural rills and gullies, meet the requirements of Section 715.15(b). Further, the proposed regulations inadvertently omitted the requirement for removal of organic material and topsoil, the requirement for rocktoe buttresses and the requirement for design by a registered professional engineer.

12. A few commenters recommended that the requirement to remove all organic material and to remove topsoil should be limited to removal of that necessary to ensure stability, and they recommended that variances to the requirement to remove organic material and topsoil should be granted in mountainous terrain. Variances to the requirement are not appropriate since organic material does not promote stability of the fill if it is left along the boundary between the fill and the natural surface. The Act also requires removal of topsoil in separate layers unless "other strata" are shown to be more suitable. To clarify the topsoil removal requirement, the reference to topsoil in Section 715.15 has been amended to refer to Section 715.16 to make clear that the "other strata" provisions of Section 715.16 do apply to areas receiving fill material. However, the completed fill area is like any other mined area and must be topsoiled and revegetated in compliance with the regulations.

13. One commenter inquired as to what the criteria for approval of disposal areas by the regulatory authority were. The criteria include those standards listed in those sections following Section 715.15(a)(1) and (b)(1). These standards include considerations of stability, the existence of stream channels, the relationship of the disposal area to the mine area in terms of requirements for haul roads and resulting land disturbance. Clarifying language has been added to the final regulations.

14. One commenter recommended that "moderate slope" be defined as any slope less than about 9 percent. Stability, in this case, is related to a combination of slope, geologic climate and hydrologic conditions and therefore particular slope limitation has not been identified except that the steep slope concept has been used for toe stabilization.

15. A number of commenters recommended that compaction be required "as necessary." Compaction may not be required in cases involving selected materials placed on low slopes and graded to approximate original contour. In cases of valley and head-of-hollow fills, some compaction is necessary. The language of the proposed regulations has been slightly amended to reflect the fact that compaction is required to the degree necessary to assure mass stability and to prevent mass movement in the case of fills that do not encroach upon or obstruct drainage. Such language, in part, is compatible with Section 515(b)(3) of the Act for fills in other than valleys and head-of-hollows. These latter fills must undergo the concurrent compaction appropriate for each site.

16. A few commenters indicated that the requirement for control of total suspended solids should be rephrased to minimize increases in accordance with Section 515(a)(10) of the Act. The requirement has been rephrased to eliminate hydrologic requirements since all activities must comply with Section 715.17 which adequately controls total suspended solids from disturbed areas.

17. A few commenters recommended that other qualified personnel in addition to the registered professional engineer should be authorized to provide certification. One commenter recommended that quarterly certification not be required. Certification of the design of the spoil disposal area by a registered professional engineer is required because of the engineering aspects of the design problem. Sections 715.15(a)(6) and (9), as proposed, have been modified in the final regulations to show that the registered professional engineer must provide certification of the design while inspections may be made and certified by registered engineers or other qualified professional specialists. The quarterly inspection requirements during construction have been reduced for fills other than valley and head-of-hollow fills.

Section 715.16 Topsoil handling.

1. Several commenters questioned whether the general requirement to remove the topsoil from areas to be mined meant that even topsoil on undisturbed lands must be removed. The section has been revised to clarify the intent to require topsoil removal prior to disturbance of an area. Thus, prior to operations listed in paragraph (a), topsoil must be removed.

2. Some commenters argued that in cases where removal of topsoil results in erosion that may cause air or water pollution, the regulatory authority should not be allowed to limit the size of the area from which topsoil is removed. The size of the area must be considered as one variable that may be controlled to minimize disturbance to the hydrologic balance. Therefore, the requirement has been retained.

{62649} 3. Several commenters suggested that Section 715.16(a)(2) be clarified. One commenter argued that the requirement to separate and segregate soil horizons is beyond the scope of Section 515(b)(5) of the Act. The final regulations require removal of at least the A-horizon or at least 6 inches of soil where the A-horizon is less than 6 inches thick. This is necessary for the land to be restored to a condition at least capable of supporting its premining use. The regulatory authority may require separation of the B-horizon if necessary to obtain soil productivity.

4. Pursuant to several comments, Section 715.16(a)(3) has been added to provide guidance in obtaining soil productivity consistent with postmining land uses and to require adequate depth to ensure proper root development of vegetation. This is appropriate to be included under the mandate to maintain land capability and productivity.

5. Numerous commenters suggested selected overburden materials rather than all overburden should be recognized as permissible substitutes for topsoil. This suggestion was accepted and the section revised. Some commenters suggested that mixing topsoil and overburden sometimes produces a soil medium more suitable for land use capability and productivity than topsoil. This suggestion was adopted and the section modified to permit such mixing in proper cases. Alternative strata may be used when topsoil is either of inadequate quality or quantity.

6. Several commenters argued that if available topsoil is inadequate, the use of overburden should be allowed without being subject to all the analyses required by Section 715.16(a)(4)(i). It is not the intent of the regulations to require the analyses to be performed again if they have been previously performed. With the exception of the potential acidity analysis, all measurements are necessary for soil analyses. Thus, with the deletion of acidity, all analyses must be represented in the supporting data submitted to the regulatory authority. Demonstrations of suitability may be based on previously performed analyses and field trials if they are adequate.

7. Numerous commenters argued that it is sometimes unnecessary to scarify regraded land before the topsoil is replaced to prevent slippage, and therefore the proposed regulation should be amended. Although such treatment is generally the most effective, the section has been changed to eliminate the need to scarify in all instances. However, measures necessary to eliminate slippage must be undertaken in all cases.

8. Several commenters suggested that topsoil should not be redistributed at a uniform thickness in all cases. They argued that topsoil should be redistributed in a manner that creates a thickness suitable for the approved postmining land use. This comment has been accepted and the section has been revised accordingly.

9. Commenters suggested that the fixed 30 day standard for additional protection of topsoil stockpiles did not provide sufficient flexibility for varying climatic and operational conditions. The suggestion has been accepted and the section revised. It is essential to minimize loss of the stored topsoil from erosion by providing continuing protection of the stockpiles, and thus initial placement must protect against wind and water erosion. For example, a vegetative cover may be required immediately after a portion of the topsoil pile is in place, if the growing season permits or if required for stability.

10. Several commenters suggested that Section 715.16(a) should be modified to allow removal of topsoil that is in storage before redistribution occurs. Although the removal prohibition tends to protect the soil from contamination and destruction of soil texture, it is recognized that in some cases soil removal may be necessary. Therefore, the section has been revised to allow removal before redistribution if prior regulatory authority approval is obtained. However, such redistribution should be minimized since it should be possible to replace soil material on disturbed areas and to stockpile new soil to avoid excessive handling.

Section 715.17 Protection of the hydrologic system.

1. Many commenters were in disagreement with the level of detail proposed in the regulations. These commenters recommended the detail be deleted in favor of statements of objectives. In light of the testimony presented before Congress during deliberations over the Act, the requirements of the Act and State regulations on the subject, some details are required to ensure that all surface coal mining and reclamation operations are conducted in an environmentally acceptable manner. The fact that a standard can be met easily is not cause to delete it. Thus, national standards are set which may be easily met in some operations than in others. Further, State regulatory agencies can set more stringent standards to suit site specific situations.

2. Comments on the introductory paragraph to the hydrologic provisions consistently argued that the phrase "prevent long-term changes in the hydrologic balance" was not consistent with the Act. A few commenters pointed out that the definition of "hydrologic balance" in Section 710.5 could be combined with the proposed requirements of Section 715.17 to require a permittee to prevent long-term changes to precipitation and evaporation as well as changes brought about by operations not related to mining. In view of these comments, the language in the first paragraph of the hydrologic balance section has been modified to require that permittees plan and conduct operations in order to prevent adverse changes in the hydrologic balance as a result of their operations. Thus, the definition of hydrologic balance remains as that proposed, but changes in the hydrologic balance demonstrated to not be a result of the mining and reclamation operation are not the responsibility of the permittee under Section 715.17.

The objective of this section is to have the permittee research and understand the hydrologic balance in the affected area as well as to understand the effect of mining on that balance so that operations are planned and conducted to minimize disturbances both on- and off-site. Since the hydrologic balance may be restored only after long periods of time, it is necessary for the permittee to project long-term trends toward restoring the balance. For example, ground water quality may deteriorate as water infiltrates spoils but such ground water will not be discharged until a gradient is reestablished towards points of discharge. It may take many years to reestablish the gradient. Thus the permittee must plan operations to control ground water quality and flow, to minimize the impact on the hydrologic balance, and to prevent adverse changes over the long term.

3. Commenters recommended the deletion of the references to the types of changes in the hydrologic system that were to be regulated. They argued that the introductory paragraph of Section 715.17 should be limited to the specific language of the Act. However, to inform the permittee of his responsibilities, it is necessary to provide examples of those types of changes to the hydrologic system that are to be regulated. Section 515(b)(10)(G) of the Act provides adequate authority for establishing additional standards necessary to protect the hydrologic balance.

4. Many commenters addressed the relationship of the proposed quantitative limits on discharges to existing point source discharge standards promulgated by the EPA. Commenters proposed incorporation by reference of EPA's National Pollutant Discharge Elimination System (NPDES) regulations, arguing that Section 702 of the Act does not allow more stringent standards, that the proposed standards lack technical justification, and that there should be only one set of regulations for water discharges from coal mines. Other commenters expressed strong support for the proposed limitations and, in several instances, recommended broadening the standards to include sulfate, total dissolved solids, settleable solids, alkalinity-acidity, selenium, zinc, sodium, and arsenic. Several commenters indicated disagreement with the proposed regulations in terms of the implied responsibility of permittees to treat discharges that contain concentrations in excess of required limits as a result of natural or manmade conditions existing upstream from the permit area.

The Department has discussed the pertinent regulations and statutes with the Environmental Protection Agency and has received that Agency's written concurrence with the sections of these regulations which relate to water quality standards promulgated under the authority of the Federal Water Pollution Control Act as amended (33 U.S.C. Sections 1251-1378). Both agencies will strive to minimize duplicative efforts in standards setting, permit issuance, inspections, and enforcement. Therefore, these regulations incorporate those effluent limitations currently promulgated by the EPA and further refine the standards to meet the requirements of the Act to minimize disturbances to the prevailing hydrologic balance. Because the Surface Mining Control and Reclamation Act of 1977 is broadly intended to protect society and the environment from the adverse effects of coal mining, these regulations must address the complete set of impacts on the hydrologic system brought about by mining. This set consists of changes to all water flow and quality, and the location and role of water, regardless of how it may be affected by coal mining. Contrary to the claim of some commenters, Section 702 of the Act does not prohibit more comprehensive or stringent standards when needed to carry out the purposes of the Act. The purpose of Section 702 is to avoid weakening existing standards.

{62650} The extension of effluent limitations to discharges from disturbed areas after final grading is necessary to ensure protection of the hydrologic balance, including the quality and quantity of surface water, until reclamation is completed. There is no basis in the Act to distinguish between phases in mining and reclamation operations for the purpose of justifying less stringent requirements. Much work has been done by EPA to identify effluent limitations for coal mines, and it is believed that these limitations presently reflect an initial evaluation of the best technology currently available to prevent additional contributions of suspended solids to streamflow or to runoff outside the permit area. If, during the initial stages of reclamation, contaminants increase in runoff from a mine site, the Act provides a strong mandate to protect the hydrologic balance. If, on the other hand, contaminants decrease during reclamation, the permittee should have no problem in meeting the effluent limitations.

In developing the standards for discharges from the disturbed areas of a surface mining operation, various State regulatory agencies were consulted as to their practices and professional judgments concerning the extension of effluent limitations to discharges from lands that had been regraded and planted but which had not yet been released from bond obligations or other permit requirements. It was found that States extend effluent limitations or water quality criteria to all phases of coal mining and reclamation operations. The termination of such requirements is normally tied to release of further permittee responsibility for mining and reclamation and this is often at the time of final bond release. The effluent limitations will apply to all surface mining operations conducted within "disturbed areas" until such time as the requirements of this chapter are met for achieving successful reclamation.

It is recognized that additional field data are necessary before any additional quantitative water effluent limits which may be necessary to meet the requirements of the Act are established. The Office will cooperate with interested persons and agencies in obtaining these data as expeditiously as possible.

The proposed table for effluent limitations has been modified by adding one footnote which makes clear the intent to allow permittees to raise the pH of certain discharges to facilitate meeting the manganese standards. Since the higher pH will be quickly reduced by receiving waters, there will be no harm to water uses. In addition high concentrations of manganese will generally occur in areas where streams are not excessively alkaline, and thus adverse impacts from excessive alkalinity are not likely to occur. If this practice is found to have adverse impacts on water quality the standard will be changed.

5. A number of recommendations were made to better clarify footnote 1 of the table in Section 715.17(a). The footnote has been revised to read "based on representative sampling" since it is impractical to further specify the number of samples or duration of sampling appropriate for each discharge. Sampling, as used in this context, refers to the process of acquiring an example of the effluent and is not to be interpreted in a statistical sense. Sample frequency can range from a single grab sample to a composite sample that extends over a number of hours depending on the discharge characteristics and the purpose of the sample. Enforcement actions can be brought on the basis of a single sample.

6. Several commenters asked that the terms "maximum allowable" and "consecutive discharge days" used in the table of effluent limitations in Section 715.17(a) be clarified. "Maximum allowable" is to be determined from a representative sampling as discussed above which accurately represents the character of the discharge and the potential adverse effects of the discharge on the receiving waters and on use of the water both on-site and off-site. "Consecutive discharge days" is intended to provide a measurement of the actual impact of discharges rather than an average of discharge quality which may be reduced by having no discharge on certain days. The footnote reference to "representative sampling" again allows the actual sampling schedule to range from a single sample to continuous samples, whichever is necessary to accurately characterize the discharge.

7. Many commenters questioned the technical justification for the more restrictive total suspended solids standard for mines in the interior western United States. Other commenters supported this standard. It is recognized that the EPA has proposed more stringent effluent limitations for total suspended solids than those required by these regulations on September 19, 1977. While the proposed EPA limitations have not been formally adopted, the regulations in Section 715.17 are technically defensible based on self-monitoring data reported to the EPA. Therefore, the footnote has not been changed. The self-monitoring data show that the industry can meet these requirements. As noted in the preamble to the proposed regulations, these controls on total suspended solids are necessary to minimize overall disturbances of the hydrologic balance in areas where erosion is extensive, water quality is critical, and soils are irreplaceable.

Commenters suggested other reasons for changing the proposed effluent limitations. Some comments stressed the desirability of a single permit. Some industry comments stated that EPA was adequately regulating point source discharges and that there was no basis in the Act for effluent limitations in OSM regulations. A number of commenters indicated a desire to allow States the flexibility to establish other standards. One commenter indicated the effluent limitations were unrealistic, and another suggested that the effluent limitations should be mandatory only in the western United States. All comments have been considered. The regulations published today are supported by the discussion in previous paragraphs. Reduction of the number of permits is desirable whenever permissible.

It is the intent of the regulations to encourage monitoring only those parameters determined by the regulatory authority to be present in concentrations that may exceed the applicable Federal or State regulations. As an example, manganese is less often expected to occur in high concentrations in alkaline discharges. However, since manganese does occur in some alkaline discharges, and, in fact, may be more likely than iron, it is listed as an effluent limitation. It is the intent of the regulations to allow the permittee to provide data to the regulatory authority to show that manganese is naturally and consistently below the effluent limitations and to then allow the regulatory authority to reduce monitoring requirements for manganese to whatever frequency it deems necessary to ensure compliance.

8. Two commenters recommended that alternatives to discharges through settling ponds should be provided. This recommendation has not been accepted, but provisions dealing with diversions and sedimentation ponds have been revised to provide acceptable alternatives to large sedimentation ponds. The general requirement to discharge through ponds is retained in order to ensure that the standards of Section 515(b)(10)(B) of the Act are met, and to facilitate monitoring of operations and the determination of reclamation success. One commenter asked if water pumped from a pit is a discharge subject to these regulations. These regulations apply to any water discharge from the mine pit.

9. Many comments were directed to the proposal in Section 715.17(a)(1) to require treatment of runoff from precipitation events equal to and less than the 25-year 24-hour precipitation events. These comments generally recommend a reduction in the precipitation event to that of the 10-year 24-hour event, as required by the EPA, although other commenters suggested the use of other precipitation events. Because more recent designs of water pollution control facilities have been based on a 10-year 24-hour event, the section has been revised. It should be noted that this requirement may be revised in the permanent regulatory program if it is found that the hydrologic balance is not adequately protected by stream dilution or other factors occurring at flows from larger storms. Retention of the current EPA requirement will however facilitate a "phase-in" period for mine operations.

{62651} 10. In response to several comments, the regulations require application of the effluent limitations only to discharges from the disturbed area and not to discharges from areas the permittee has not disturbed through mining and reclamation. The term "disturbed area" used in Section 715.17 has been carefully defined to exclude areas in which the disturbance is limited to diversion ditches, sedimentation ponds, or access and haul roads when they are constructed, operated, and maintained in accordance with these regulations. Effluent limitations do not apply to discharges from undisturbed areas. However, permittees will be required to remove temporary structures in the "nondisturbed" areas and to reclaim the affected land.

11. A number of comments objected to the proposed provisions of Section 715.17(a)(2). Several argued that the tonnage limit was too high. Others recommended that treatment facilities should be required where water discharges may violate applicable standards. One commenter suggested that manual treatment procedures be allowed as well as automatic devices. Automatic neutralization processes are necessary where discharges of acid water are likely. The requirement for automatic neutralization devices remains also for purposes of avoiding untreated discharges during nonworking hours. Manual systems are appropriate only for small and infrequent discharges as may occur from the disturbed area of small mines. However, the section has been revised to allow manual treatment if the regulatory authority finds that manual treatment will ensure consistent compliance with the applicable effluent limitations and with the water quality standards of the receiving stream.

12. A number of comments objected to the proposed requirements of Section 715.17(b) for surface-water monitoring. Some commenters noted that the requirement for daily sampling exceeds current EPA standards. Other commenters suggested requiring samples at weekly or quarterly intervals. Some commenters proposed more stringent or different requirements than those proposed. These included recommendations that the ability to require lesser measurements be deleted, that the results be recorded, and that the permittee provide a description of the surface waters. Finally, other comments expressed unqualified support for the monitoring section.

Section 715.17(b) was intended to allow the regulatory authority sufficient latitude to approve and require monitoring standards according to the requirements of a specific discharge. Because the comments indicate that the intent of the monitoring section was unclear, this section has been revised. The final regulations clarify that monitoring requirements must be tailored to the discharge. A surplus of data will not serve any purpose. The section continues to require the permittee to prepare and implement a plan that adequately monitors all surface water discharges from the disturbed area. Discharges from mines which have highly variable concentrations of potential contaminants should be monitored on a daily basis. Similarly, discharges with highly variable flows must be routinely monitored. On the other hand, discharges which are shown to naturally have constant or low levels of contaminants may be monitored on a weekly, biweekly, or monthly basis.

Based on comments from reviewers, a paragraph has been added to the regulations to address monitoring requirements that will reflect the expected quality and quantity of surface water flow from a disturbed area after grading and stabilization. Commenters have argued that measurement of water quality and flow downstream of a water treatment facility such as a sedimentation pond will not necessarily reflect the postmining character of the flow. After revegetation it may be desirable, especially in the western States, to maintain total suspended solids concentrations equal to those measured prior to mining, but higher than those required by the effluent limitations, in order to lessen the potential for stream channel scour. Such scour is possible when the carrying capacity of discharged water is increased. The permittee is encouraged to monitor inflow to treatment facilities in order to measure the efficiency of the facilities and to ensure meeting the requirements regarding minimization of the disturbance to the prevailing hydrologic balance. Monitoring of undisturbed reference basins may also be useful for providing a basis for general comparison of water quantity and quality measured on the disturbed area.

13. Several commenters argued that monitoring requirements should be limited to discharges from the active pit. This comment has been rejected because of the statutory obligation to minimize adverse environmental impact from all phases of mining. Other commenters argued that use of the term "equipment" in Section 715.17(b)(1) suggested an "instream" monitoring device requirement. It is recognized that the use of such devices is sometimes inappropriate. While in some cases staff gauge readings can adequately measure small flows, recording flumes will be necessary at other locations. In-stream probes will be adequate only when analytical accuracy and precision requirements are met. Submissions of data will be no less frequent than 60 days after sample collection in order to adequately represent water quality and quantity to the regulatory authority.

14. Numerous commenters suggested that the requirement of Section 715.17(c) for diverting and conveying overland flow away from the disturbed area was inappropriate. One commenter pointed out that in some cases diversions themselves can be more harmful to the environment than allowing overland flow to enter the disturbed area. Many recommended that the construction of diversions should be required at the discretion of the regulatory authority. A few commenters suggested that this requirement should be eliminated. Because diversions represent an important environmental protection tool, they are appropriately included in the regulations; however, diversions may not be required in all cases, and, therefore, the regulations have been revised. Use of diversions will be required where necessary to prevent water pollution. Diversions must be properly constructed so as to remain stable during runoff events. To further encourage the proper use of diversions, other portions of this section have undergone minor revisions.

15. A number of commenters argued that the requirement in Section 715.17(c) to "prevent" acid and other toxic mine drainage should be modified since Section 515(b)(10) of the Act requires only that disturbances to the prevailing hydrologic balance be minimized. In light of this, the regulations have been revised to directly correspond with Section 515(b)(10)(B) of the Act.

16. Commenters recommended that the 10-year recurrence interval design criteria required by Section 715.17(c)(1) for temporary diversions was inappropriate. Recurrence intervals of 1 year and 5 years were suggested as were other criteria. The requirement to safely pass the peak runoff from a 10-year precipitation event, or larger event where appropriate, is not unreasonable and represents an acceptable level of environmental protection and safety for temporary diversions of overland flow. Use of a recurrence interval unmodified by a time factor reflects the fact that runoff amounts can be larger from 6-hour storms occurring when the ground is frozen than the runoff amounts caused by a 12-hour storm after a summer drought.

Depending upon the intensity, form, and duration of the precipitation, and the condition of soils, runoff may not increase directly with the size of the precipitation event.

17. Many commenters questioned the reasonableness of requiring that permanent diversions of overland flow be capable of safely passing the peak runoff from a precipitation event with a 100-year recurrence. Some recommended that a shorter recurrence interval be used or flexibility be maintained to cope with diverse conditions as long as diversion designs are approved by the regulatory authority. Permanent diversions are of sufficient long-term concern that a requirement to size such diversions to safely pass the peak runoff from a 100-year precipitation event, or larger event as necessary, is reasonable because of the measure of environmental protection and public safety this design provides. One commenter suggested that a specific storm duration be attached to the 100-year precipitation event. Based on the long-term concerns associated with permanent diversions, the requirement to safely pass the peak runoff is again justified. It is recognized that the calculation of channel gradient, roughness, size, and routing to safely pass flows will be based on the premining capacity of the natural system to pass flows. The permittee will not be expected to divert flows in a manner that necessarily reduces natural flooding downstream.

{62652} Two commenters argued that permanent diversions of overland flow should not be allowed. Their recommendation was to assure that the design of the mine operation minimize the need for permanent diversions. Temporary diversions are preferable to permanent diversions in the vast majority of cases; thus, permanent diversions must be approved by the regulatory authority.

18. Some commenters argued that Section 715.17(c)(3) was not consistent with the Act. In light of this, the section has been revised to more closely reflect the requirements of the Act with regard to additional contributions of suspended solids to streamflow and runoff outside the permit area. The intent of the requirement remains to minimize additional contributions of suspended sediment to the surface water system. Under Section 715.17(b)(1)(iii) it may be necessary for the regulatory authority to require monitoring to determine seasonal variations in suspended solids prior to construction of a diversion or upstream from a diversion.

Section 715.17(c) is expanded to further delineate sediment-control and erosion-control measures that might be used with the overland flow diversion structures. One commenter suggested that in addition to total suspended solids, total dissolved solids in diverted overland flow should also be controlled. This suggestion is not accepted. The principal water quality parameter of concern with respect to such diversions is the total suspended solids, and if designed, constructed, and maintained properly such diversions do not represent a significant additional source of total dissolved solids.

19. Commenters recommended deleting any reference in Section 715.17(c)(4) to required compliance with applicable water quality standards or effluent limitations as outlined in paragraph (a). The principal concern of the commenters was the appropriateness of applying effluent limitations to diverted but uncontaminated overland flow and also to the potential inequities of forcing a permittee to treat upstream water pollution for which the permittee is not responsible. This point is well made, and Section 715.17(c)(4) is deleted.

20. Several commenters argued that in no case would it be advisable to divert surface water into underground mine workings in the interest of abating water pollution or eliminating public hazards resulting from underground mining. This comment is accepted, and Section 715.17(n) has been added to prohibit diversion of surface waters into underground mine workings. It is recognized that flooding of underground mines has the potential to reduce the formation of acid and the subsequent formation of iron and other metallic compounds. If such flooding is appropriate, adequate water can be obtained from sources other than another mine. The permittee has the responsibility of minimizing disturbances not only to water quality but also water flow and must comply with these requirements at the permit area.

21. A number of commenters indicated that no permanent diversions of intermittent or perennial streams should be allowed. There appears to be no adequate basis for establishing such a nationally applicable regulation to that effect, but the regulatory authority shall assess the appropriateness of such diversions and shall restrict them when necessary. Since the Department wishes to encourage the use of diversions of overland flow away from the disturbed area to the highest degree environmentally acceptable, ephemeral streams have been deleted from Section 715.17(d)(1). Imposition of overly restrictive design criteria on temporary diversions of ephemeral streams is not compatible with the more important need to control discharges from the disturbed area.

22. Commenters objected to the requirement in Section 715.17(d)(1)(i) to maintain the average stream gradient. Although it is not necessary to maintain the exact gradient of an entire stream channel, it is, however, necessary to reproduce the combination of the average gradient, channel configuration, channel roughness, and channel bank stability in order to

minimize disturbances to the sediment transport process. In effect, the gradient must be reestablished to the degree necessary to allow natural fluvial processes to continue as one commenter recommended. Thus, the requirement to maintain the average stream gradient for diversions that are to remain in place after operations are completed was retained. Section 715.17(d) reflects the relationship between the channel gradient and control of total suspended solids by requiring maintenance of the gradient to the extent necessary to ensure compliance with the Act.

23. One commenter suggested that the design criteria for diversions proposed in Section 715.17(d)(i), (ii) and (iii) were not appropriate for the western States since natural erosional processes there were sufficiently active to make such control unnecessarily strict. This comment is not accepted. Design criteria are equally appropriate for western mines where erosion potential is high. One reviewer indicated that control over total suspended solids given by Federal and State standards referred to in the proposed regulations should be adequate and that further statements relating to construction and operation of diversions is not necessary. Total suspended solids are not adequately addressed in all cases by existing regulations, nor did the Congress indicate such a belief. Therefore, control over total suspended solids in diversions is retained.

24. A number of comments were received on the 10-year and 100-year recurrence interval configurations proposed for temporary and permanent diversions, respectively. The terms "peak runoff" and "recurrence interval" are retained as opposed to specifying a time period since the intent of Section 715.17(d)(1)(ii) is to design the diversion channels to safely pass maximum runoff amounts that may occur in one region perhaps as a 6-hour storm and other areas as a 24-hour storm. It will be necessary for a permittee to identify the peak runoff expected in a 10-year and 100-year period either from extrapolation of flow records or of rainfall records and accepted runoff estimates. The 10-year and 100-year intervals for design are retained since the 10-year limit is consistent with general practice and affords an effective level of environmental protection, and the 100-year period is generally accepted as a basis for design of permanent diversions of intermittent and small perennial streams. One recommendation to employ "prudent and sound engineering" as a substitute for design criteria was not adopted since the design criteria given by the regulations are minimal and sufficient incentives are available to promote additional prudent and sound engineering.

25. Numerous commenters objected to the appropriateness and dimensions of a buffer zone. Strong support for the requirement was voiced by some commenters. Many commenters expressed concern that the sign requirements for buffer zones would create a visual eyesore. Proposed Section 715.17(d)(3) provided exceptions to buffer zones when mining in intermittent or perennial streams was approved by the regulatory authority. Thus, existing rights to mine coal as evidenced in approved permits will not be adversely affected. Sign requirements have been reassessed in this section and in Section 715.12 by allowing a permittee to use means of marking buffer zones other than signs. The paragraph has been amended slightly to take into account the approval authority of the regulatory authority to specifically review and evaluate proposals to conduct any operations within 100 feet of a perennial or intermittent stream. Thus, if operations can be conducted within 100 feet of a stream in an environmentally acceptable manner, they may be approved. This concept does permit the use of erosion and drainage control measures near the stream channel if approved by the regulatory authority. These exemptions are necessary if the environmental impacts are to be minimized or prevented. The 100-foot limit is based on typical distances that should be maintained to protect stream channels from abnormal erosion. Site-by-site distance determinations would be impractical and very difficult to enforce.

26. A few commenters recommended that the provisions for protection of fish and wildlife habitat be strengthened. Fish and wildlife resources are protected by these regulations during the initial program. Additional measures will be considered for the permanent program under the authority of Section 515(b)(24) of the Act.

{62653} 27. The proposed regulations pertaining to criteria for settling ponds received considerable public comment. Many commenters felt that settling pond criteria should not be specified and that flexibility should be maintained with respect to requiring settling ponds and "credits" for the use of other sediment control technologies. The "credits" refer to demonstrations that alternative means of sediment control and pond design could be substituted. Sedimentation ponds represent the best technology currently available to control suspended solids as required in the Act. However, as addressed in the final regulations, the required sediment storage volume of 0.2 acre-feet for each acre disturbed within the upstream drainage area may be reduced in an amount equal to the sediment removed by alternate sediment management practices. Other comments questioned the requirement to construct settling ponds prior to any mining in a given drainage area. This requirement has been maintained based on the statutory requirement of Section 515(b)(10)(B)(ii) of the Act. Sections 715.17(a) and 715.17(e) have been reorganized to clarify the required timing for construction of settling ponds. One commenter suggested that an exemption to the requirements of Section 715.17(e) be granted for drainage areas less than 100 acres. Although no acreage limitation is specified, a small area exemption does appear in Section 715.17(a). It is, however, unlikely that exemptions would be given for drainage areas as large as 100 acres. It is also unlikely that any single,

contiguous permit area, regardless of size, would be allowed to use the exemption. Use of the exemption does not reduce requirements for compliance with the effluent limitations.

28. One commenter noted that confusion exists with regard to the application of Section 715.17(e) to coal waste slurry ponds. The final regulations have sought to clearly specify the application of the criteria in Section 715.17(e) to sediment control ponds. Coal waste slurry ponds are regulated by Section 715.18; hence Section 715.17(e) does not provide design criteria or operational requirements for coal waste slurry ponds. Disposal of coal waste slurry also is regulated by other provisions of this title which are the responsibility of the Mining Enforcement and Safety Administration.

29. With regard to Section 715.17(e)(1), considerable comment was received that the storage volume requirements of sedimentation ponds were inflexible and arbitrary. A frequent comment was that settling pond sizing should be based on recognized design criteria approved by the regulatory authority and also on expected site-specific erosion rates. Although the storage volume requirement section has been revised in the final regulations, specific minimum storage volume requirements are necessary in order to minimize the disturbance to the hydrologic system, to provide the industry with specific minimum requirements for acceptable sediment control, and to facilitate determinations of compliance on the part of the regulatory authority. It may be necessary to apply better technology under site-specific conditions.

30. Numerous commenters suggested that the minimum storage volume of settling ponds as required by Section 715.17(e) was excessive and that the summing of volumes to control drainage from the 10-year 24-hour precipitation event, plus 0.2 acre-feet of storage for each acre of upstream disturbed area, plus storage necessary to meet effluent standards, was inappropriate. Settling pond volume, which includes both a settling volume and a sediment storage volume, is appropriate for these regulations. As the regulations have been revised, a minimum pond surface area, a settling volume with a minimum retention time, and a sediment storage volume have been specified.

31. The requirement in the proposed regulations for additional settling pond storage as necessary to meet effluent standards has been deleted from Section 715.17(e). However, discharges from settling ponds used to control runoff from the disturbed area must meet the effluent limitations specified in Section 715.17(a). Numerous comments dealt with the appropriateness of the requirement for providing a sediment storage volume of 0.2 acre-feet for each disturbed acre within the upstream drainage area. Some commenters suggested that this specific sediment storage volume requirement be deleted entirely because it does not reflect regional diversity or best mining practices. Other commenters recommended specific changes in the sediment storage volume, in some cases inversely relating sediment storage volume to the steepness of slopes in the disturbed area.

The recommendations for other sediment storage volumes have been considered. However, it should be noted that no water quality data demonstrating an ability to meet the requirements of the Act was submitted to support recommendations for alternative sediment storage volumes. Further, results of a recent survey n1 indicate that settling ponds with other sediment storage volumes are not functioning in a manner consistent with the requirements of the Act. The study n2 which recommended a sediment storage volume of 0.2 acre-feet per upstream acre disturbed utilized settling ponds at surface coal mines not following current best mining practices. This sediment storage volume is considered to be valid and to represent a reasonable sediment storage volume to minimize disturbance of the hydrologic balance because reductions in the required sediment storage volume may be allowed where other sediment control measures are utilized. It is emphasized that the effectiveness of control measures must be demonstrated using water quality, quantity and other appropriate data. As in the case of other requirements for data prescribed in this part, the data may be derived from operations other than those under the control of the permittee.

n1 Simpson, David G, U.S. Bureau of Mines, Morgantown, Pa., "West Virginia Evaluation Tour, Water Quality Committee Report," September 1977.

n2 Curtis, Willie R., "Sediment Yield from Strip Mine Watersheds in Eastern Kentucky," Second Research and Applied Technology Symposium on Mined Land Reclamation, National Coal Association, Louisville, Ky., October 1974.

The majority of comments supported the required settling volume equal to the volume of runoff from the drainage area above the settling pond that results from a 10-year 24-hour precipitation event. However, a number of comments also addressed the need for a specified detention time for drainage entering settling ponds. The requirement for providing one square foot of settling pond surface area for each 50 gallons per day of inflow from the 10-year 24-hour precipitation event is based upon the objective to settle out suspended particles greater than 0.01 mm in mean diameter. In addition, a retention time of at least 24 hours is needed to permit settling. The inflow rate may be calculated from runoff data while the detention time must be achieved by pond size, flow through characteristics of the pond, inlet and outlet locations and wind currents.

As noted earlier, this design is effective, available and requires good control technology for the purposes of minimizing disturbances to the prevailing hydrologic balance. In addition, the regulations have been revised to reflect the ability to reduce the amount of runoff to be controlled in the drainage area above the settling pond by diverting runoff across the undisturbed area away from the disturbed area. Appropriate reductions in pond size based on the use of chemical treatment measures have also been allowed. A few commenters suggested that the 10-year 24-hour settling volume was not of sufficient size to meet the intent of the Act. Based on information available to the Department, this settling volume requirement appears reasonable and adequate to meet the statutory requirement that disturbance of the hydrologic balance be minimized. One commenter suggested that such settling ponds should be sealed, however, no information or operating experience suggest that all ponds of this type should be lined and sealed.

It is noteworthy that the revision of the sizing criteria for sedimentation ponds allows credits for both upstream reductions in sediment delivery and diversions of water from the upstream watershed. The 10-year 24-hour precipitation event runoff is compatible with the requirements of paragraph (a) and provides for consistency during the initial regulatory program. Since dam heights are generally limited by construction and safety considerations, the inflow rates and related area requirements to settle suspended material approximate those required to retain the runoff from a 10-year 24-hour precipitation event if no additional treatment other than settling is provided. The low dams effectively produce ponds with the larger area required to effect sedimentation.

{62654} 32. Numerous comments were received, with respect to the requirement in Section 715.17(e)(2) to provide spillways to safely discharge the peak runoff from a precipitation event with a 25-year recurrence interval, or larger event as specified by the regulatory authority. A number of commenters suggested that a 10-year precipitation event or larger event if specified by the regulatory authority was a more reasonable minimum precipitation event for spillway sizing. A few commenters suggested that spillway requirements for sedimentation ponds be deleted entirely from the regulations.

Spillway requirements are necessary because they represent an integral part of sedimentation ponds. The inclusion of spillway design criteria for settling ponds ensures a necessary degree of safety. The safe discharge of the peak runoff from a 25-year precipitation event through spillways is more appropriate than the 10-year precipitation event because it provides a more acceptable level of protection against failure. One commenter suggested that a spillway design which would safely pass the 40-year precipitation event would be advisable. When settling ponds are planned for lifetimes exceeding 25 years or where safety is of special concern, the regulatory authority should require that spillways be designed to safely pass larger precipitation events as appropriate.

A large number of commenters recommended that instead of placing requirements on an appropriate combination of principal and emergency spillways that such requirements apply to spillway "systems." This recommendation for more generic spillway language has been accepted, and the regulations have been revised accordingly. However, this modification has not been adopted for larger sedimentation ponds.

One commenter suggested that settling ponds less than 1 acre in surface area and less than 15 feet deep be exempted from the spillway design criteria. There is no basis for such an exemption and the importance of maintaining an acceptable level of safety outweighs such special exemptions. It should be noted that this portion of Section 715.17(e) has been revised to require proper spillway location to maximize detention time and also to permit siphon-type pond dewatering methods or other methods as approved by the regulatory authority. These discharge structures must be designed to prevent slug-like discharges of suspended material.

33. Commenters suggested that the criteria for the MESA inspection requirement in 30 CFR 77.216-3 should apply to Section 715.17(e) and that settling ponds with embankments of 20 feet or less in height and with volumes of less than 20 acre-feet, should not be inspected. MESA recommended that the inspection requirements of paragraph (e)(3) apply to all settling ponds, regardless of embankment heights or volume. In the interest of settling pond safety and on the basis of MESA's recommendation, Section 715.17(e)(3) has been revised to require inspections of all settling ponds regardless of embankment heights or volume. Thus, no distinction remains between pond sizes in these regulations. It is essential to ensure that all ponds constructed to meet the requirements of the Act be constructed and operated in a safe manner from the standpoint both of environmental quality and safety.

34. Some commenters found Section 715.17(e)(4) confusing. This paragraph has been clarified by requiring that pond removal be contingent upon appropriate compliance with the revegetation requirements of Section 715.20 and the other paragraphs of Section 715.17. Although all references to bonds in the proposed regulations were modified by the adjective "applicable," it is apparent that many reviewers misinterpreted the regulations as deriving authority from Section 515(b)(20)

of the Act. Since this section of the Act is not directly included in the initial regulatory program, the Department has taken steps to avoid further misinterpretation by deleting references to bonds.

A few commenters recommended that removal of settling ponds be mandatory. In the vast majority of cases, settling ponds should be removed when the disturbed areas are reclaimed and stabilized. However, it is recognized that some cases may exist where the environmental degradation that may result from removing a sedimentation pond as well as the land use opportunities supported by that pond may outweigh the environmental and safety implications of leaving the settling pond in place. When ponds are left, the provisions of Section 715.17(k) for permanent impoundments must be met.

35. Numerous comments objected to the requirement of Section 715.17(e)(5) for removal of sediment from a sedimentation pond where the volume of sediment accumulates to 50 percent of the required sediment storage volume. It is recognized that the 50 percent accumulation criterion for pond cleaning was conservative. However, some specified sediment accumulation criteria for cleaning should be required to ensure acceptable pond operation and maintenance practices. Therefore, the regulations have been revised to require sediment removal from settling ponds when the volume of sediment accumulates to 80 percent of the required sediment storage volume. This new criterion is thought to be more reasonable and is based on the assumption that adequate settling pond surface area and detention time will be retained as the pond fills. One commenter raised the concern that the sediment removal requirement would be applied to coal preparation plant slurry ponds. As noted previously, the criteria for slurry ponds are addressed by Section 715.18. Another commenter suggested that sediment removed from settling ponds should be disposed of in a way that "minimizes" rather than prevents it from entering surface water, contaminating subsurface water, and causing adverse effects on infiltration, vegetation, or water quality. "Minimizes" is more appropriate given the language of Section 515(b)(10) of the Act, but such material, if toxic, must be prevented from coming into contact with water.

36. Commenters objected to the requirement in Section 715.17(e)(6) that discharges from sedimentation ponds must meet the water-quality and effluent requirements of paragraph (a) of this section. It is superfluous to require compliance with the requirements of paragraph (a) of this section twice. Therefore, Section 715.17(e)(6) has been deleted. Discharges from those sedimentation ponds draining disturbed areas remain subject to the effluent limitations contained in paragraph (a).

37. A number of comments on Section 715.17(e)(7) dealt with the appropriateness of including special design criteria for large settling ponds and also the compatibility of such criteria with MESA requirements for structures of this size. The size and capacity of such settling ponds is sufficiently large to warrant special design criteria. The proposed design criteria did in one instance conflict with MESA guidelines. Therefore, these regulations have been revised to incorporate the MESA requirement that a spillway for settling ponds of this larger size be designed to pass, at a minimum, the 100-year frequency, 6-hour duration storm. The permittee may be required to provide a spillway structure to pass a larger storm if specified by the regulatory authority. As noted previously, reviewers recommended that an "appropriate combination of principal and emergency spillways" should be replaced by an "appropriate spillway system." Such a modification conflicts with MESA requirements, which categorize spillways in a more restricted sense (e.g., a paved apron or overflow channel). Therefore, for large settling ponds, the proposed language is maintained.

38. One reviewer recommended that safety factors with quantitative values be deleted from Section 715.17(e)(7). This portion of paragraph (e)(7) is not revised and still requires that ponds be designed and constructed with an acceptable safety factor of 1.5 to ensure embankment slope stability. One commenter recommended deleting paragraphs (iii) and (iv) of Section 715.17(e)(7) which deals with minimum top width of embankments and seepage control, respectively, because such design criteria would be assured by the requirement for large ponds to be designed under the supervision of a registered professional engineer. Such elements of design criteria should be specified as necessary to set requirements for the industry and facilitate enforcement by the regulatory authority. One commenter recommended that the special settling pond design criteria of Section 715.17(e)(7) should apply in all steep slope areas. Settling pond design criteria, as specified in paragraphs (e)(1) and (e)(2), are adequate to minimize disturbances to the hydrologic balance in steep slope operations.

39. Commenters objected to the unnecessary expense of requiring a registered professional engineer to supervise the design and construction of settling ponds and to inspect and certify settling ponds after construction. In addition, the application of this requirement to all settling ponds was questioned. One commenter suggested that this requirement apply only to large settling ponds which MESA currently inspects. Another commenter recommended that the requirements apply only if the settling pond was larger than 1 acre in surface area and greater than 15 feet deep. Another commenter suggested that in addition to the requirement for inspection and certification by a registered professional engineer, a requirement be added for inspection and certification by a land surveyor. The comments have been considered, and based on the requirement of Section 515(b)(10)(B)(ii) of the Act, the regulation, as modified for clarity, is appropriate.

{62655} 40. One comment was received on Section 715.17(f). The commenter suggested that discharge structures be used where necessary. This was the intent of the section and the necessary clarifying language has been added.

41. Many commenters objected to the requirement of Section 715.17(g) regarding burial and treatment of toxic spoil and waste material. Comments were also directed to the depth of nontoxic material to be used. A number of commenters recommended reduction from 5 feet to 2 feet of nontoxic material, a few recommended 3 feet, and some recommended deletion of the numerical standard and substitution of the phrase "sufficient cover." Numerous recommendations were made to increase the cover requirements from 5 feet to 8 and 10 feet based on western experience with upward salt migration. A few commenters noted that burial of material was also covered in Section 715.14(j). Section 715.17(g)(1) is shortened by referring to Section 715.14(j) for specific burial and treatment requirements. Within that other section the amount of cover has been specified as a minimum of 4 feet unless, a greater amount is required by the regulatory authority to prevent adverse upward migration of salts, to establish a deeper root zone to promote vegetation, to meet local requirements, or to protect the hydrologic balance.

42. A few commenters suggested that the word "prevented" in Section 715.17(g) went beyond the intention of the Act to "minimize" disturbances. Accordingly, the regulation has been modified to indicate that drainage from acid- or toxic-forming wastes and spoil must be minimized. The word "prevent" is still used in a new subsection which paraphrases Section 515(b)(10)(A)(i) of the Act since prevention of water contact is required.

43. Comments on proposed Section 715.17(g)(1) indicated concern that materials that "were" actually toxic or otherwise harmful should be those subject to the requirements rather than those that "can" be toxic. It is necessary to treat and bury materials that may become toxic if not treated as well as those that are already toxic. The final regulations continue to express this need though the word "can" has been changed to "will" to reflect a need for an appropriate degree of certainty.

44. Many comments on the time limit proposed in Section 715.17(g)(2) recommended that the requirement be deleted or that the time requirement was unreasonable for coal waste slurry ponds. The time frame is necessary whenever a danger of wind or water erosion exists. The regulations have been modified to recognize that coal waste slurry ponds will be covered in a somewhat different manner by requiring treatment or burial after filling of the slurry disposal area or when the area is no longer in active use.

45. A few reviewers of Section 715.17(g)(3) recommended complete cementing of holes, deletion of the proviso for mixing, and deletion of the regulatory approval phrase. Cementing for the entire length of the hole is not justified in all cases and, thus, the regulatory authority should approve site-specific methods of plugging. No instances are known where mixing of ground waters through drill holes has improved water quality, and thus that proviso has been eliminated. One commenter asked that an exception be added to permit bore holes to be used for monitoring ground water. This use remains permissible under the discretionary powers of the regulatory authority.

46. Those few reviewers commenting on Section 715.17(g)(4) were unanimous in their position that the statement, "other action as required by the regulatory authority," was too vague. However, this phrase is used in Section 515(b)(10)(G) of the Act and remains in the regulations.

47. Numerous commenters objected to the reliance on infiltration rates as the measure of recharge capacity under Section 715.17(h), pointing out that recharge capacity is a complex system comprised of a combination of precipitation, runoff, evaporation, infiltration, transmissability, ground water storage, and water levels. Many alternatives were suggested. It is agreed that recharge is achieved through a complex set of variable hydrologic functions, most of which have been identified in many of the comments. Infiltration rate was initially chosen to provide an easy method of measuring a critical factor affecting recharge. Because recharge capacity is a function of many variables, the recommendations have been accepted to expand the definition. The ground water monitoring paragraphs of the section have been revised to reflect the monitoring requirements necessitated by the change. The reorganization of the ground water section addresses a number of the other comments made. Sections 715.17(i) and 715.17(k) are reorganized into Section 715.17(h), entitled, "Ground Water."

Comments that recharge capacity should be restored only to the degree required by the postmining land use cannot be accepted since Section 515(b)(10)(D) requires restoration of recharge capacity to approximate premining conditions and since changes in recharge could adversely affect areas off the mine site.

48. All comments received on the proposal to require selective placement of backfill materials indicated that the intent of the Department to require selective placement when necessary to reestablish a ground water system to approximate premining conditions was not clear. The wording of the proposed Section 715.17(i) has therefore been revised as Section

715.17(h)(2). Placement of spoils with draglines is generally known to recreate aquifers without special selection and thus is permitted to continue if otherwise in compliance with the regulations. However, random placement of spoils will not recreate relatively impermeable strata. In such cases where impermeable strata serve an important role in retarding water flow and supporting vegetation or separating aquifers they must be reformed and selective placement and treatment may be appropriately required. Aquifers with no value for vegetation, agriculture or other uses will not have to be reestablished. Where a major disruption in the regional ground water flow system adversely affecting water quality and flow may be caused by not selectively placing materials, then selective placement may be required.

The objective of this paragraph is to minimize disturbance to the hydrologic balance as that balance is reflected in the ground water system. This will be particularly important when mining may affect off-site areas as well as on-site areas. Changes in a ground water system caused by mining cannot be constrained only by the postmining use of the mined land or permit area as has been recommended by some. Rather the requirements should reflect the high potential for the on-site effects on ground water to affect off-site areas. If there are longterm effects on-site, there are likely to be equally long-term effects off-site. Mining of aquifers is not banned. Field data show that mined areas can often transmit water as well as premined areas. n3 Careful assessment of the role of aquifer systems is required, and careful recreation of such systems under certain circumstances may be required.

n3 Rahn, P.H., 1976. "Potential of Coal Strip Mine Spoils as Aquifers in the Powder River Basin: Project Completion Report." Old West Regional Commission.

49. A number of commenters recommended strengthening proposed Section 715.17(k) by deleting the apparent requirement to monitor ground water only when mining below the water table, adding specific analytical requirements for lead, sulfate, hardness, cadmium, copper, zinc, arsenic, and pH, or by requiring continuous monitoring when mining aquifers. Other commenters felt the requirements were unnecessary, or were useful only in alluvial valley floors, or should have provided for regional differences, or required environmentally unsound wells and would be an unrepresentative method of monitoring. A few commented to the effect that monitoring should be discretionary. Others felt ground water monitoring should be mandatory.

{62656} Ground water monitoring will be necessary at many operations throughout the Nation, and the requirements are not regionalized. The regulations allow appropriate variations by the regulatory authority. The potential for adverse effects on water levels and water quality are high, and therefore ground water monitoring is required to both warn of problems and ensure that problems are not inadvertently created. Properly drilled and completed wells are not environmentally unsound, and there is not a feasible alternative to monitoring ground water in many cases. To wait for ground water to reappear as surface water may be acceptable under selected geohydrologic conditions, but these conditions are not universal. Further, the potentials for adversely affecting ground water exist in coal regions throughout the Nation and are not limited to mines in or adjacent to alluvial valley floors. Ground water monitoring will not be required at a mine site where there is no possibility of disruption of the ground water system.

These monitoring procedures are the general responsibility of the permittee since monitoring of progress will be necessary to warn of impending problems and to signal impending success. Monitoring will be required to measure progress toward restoration of recharge capacity. Some comments suggested that monitoring should be limited to a case when mining in the saturated zone. However, mining in the unsaturated zone has the same opportunity to affect ground water quality and recharge under selected geohydrologic conditions. A few reviewers recommended that monitoring was necessary only when there was a potential to involve regional ground water flow systems. It is difficult to draw such a distinction nationwide, and sufficient latitude exists in the final regulations to require monitoring when mining can affect the ground water system and to vary the degree of monitoring according to the significance of the potential impact.

One commenter noted that blasting effects on the ground water system should be monitored. The final regulations appropriately specify in Section 715.19 that the effects of blasting on the ground water system must be considered and minimized.

50. Comments were received regarding the apparent omission in the proposed regulations of any provisions to assist a water user whose supply is adversely affected. Section 717 of the Act provides for such situations, and this section is in force from the date of enactment of the Act. Therefore, a new Section 715.17(i) has been added to the regulations to reflect this requirement. The language of the Act has been used as much as possible.

51. A number of comments on alluvial valley floors indicated concern with the wording of the proposed Section 715.17(j) to preserve "essential elements" of the hydrologic functions. The commenters argued that the wording in the Act was "essential

hydrologic functions" and thus the regulations made excessively stringent requirements for restoration. Further, the commenters argued, the reestablishment criteria were not properly related to their relative importance to the essential functions of the alluvial valley floor. For example, the commenters felt they should not be required to maintain or establish aquifers or aquicludes if these elements were not important to the essential hydrologic functions and postmining land use. A large number of comments were received regarding the need to assure that this section addresses the obligations of the Department to include mines in adjacent areas that could materially damage the quantity or quality of surface and ground water that supply alluvial valley floors.

Section 715.17(j) has been modified to better reflect the requirement of the Act to minimize disturbances to the prevailing hydrologic balance by preserving the essential hydrologic functions of alluvial valley floors throughout the mining and reclamation process. The term "essential hydrologic functions" has been defined and added to Section 710.5 to state the relationship between functions and hydrologic and biologic variables. The final regulations attempt to make certain that the roles of these variables or characteristics are properly understood and defined prior to mining and reclamation. The permittee must demonstrate that those characteristics that support the essential hydrologic functions will be preserved. Though the proposed regulations contained language which protected alluvial valley floors from adverse impacts of adjacent mines, the language in the final regulations has been modified to more specifically address this concern.

52. Recommendations were also made to refine the essential characteristics of alluvial valley floors to include more detailed items. The recommendation has been adopted since it serves to further clarify the requirements of this section. However, none of the requirements have been changed.

53. A few commenters indicated that it was their opinion that existing mines which were "grandfathered" under the Act, did not have to meet the provisions of Section 515(b)(10)(F) of the Act. This is an incorrect interpretation of the Act. Mines within alluvial valley floors that are permitted to continue operations by virtue of meeting the provisions of the Act in terms of current permits and production, or new operations which are allowed to operate in or adjacent to alluvial valley floors located west of the 100th meridian, must comply with the performance standards of this part including Section 715.17(j)(1).

54. Two commenters recommended that the reference to "regular cropping of hay" in proposed Section 715.17(j)(2) was too strict an interpretation of the Act's reference to farming and, although vigorous growth of hay is a partial indicator of alluvial valley floors, it does unduly restrict the meaning of alluvial valley floors, and the phrase has been deleted.

55. A number of commenters offered the opinion that Section 715.17(j)(2) as proposed was an incorrect extension of the provisions of Section 510(b)(5) of the Act in the initial program. The commenters further noted that if the provisions of paragraph (j)(2) were applied, the remaining exchange provisions of Section 510(b)(5) should be implemented. The Department has the authority to provide exchanges of Federal coal leases for other Federal coal leases or a fee interest in Federal coal for private coal in alluvial valley floors provided the requirements for substantial financial and legal commitments have been met prior to January 1, 1977. Detailed regulations implementing the exchange provisions will be developed.

56. One commenter asked to what extent existing mines are allowed to continue operation on or adjacent to alluvial valley floors. The intent of the regulations is to allow such continuances in those areas that have been adequately investigated, on which impacts have been assessed, and which are included as areas to be mined and reclaimed in plans approved by the regulatory authority in support of the existing State permit. Such continuations must comply with the performance standards of Section 715.17(j)(1) according to the time schedule contained in Section 710.11 for new and existing mines.

57. Two commenters requested no mining be allowed on alluvial valley floors until such areas had been scientifically mapped. Another suggested a need for regulatory procedures to determine the existence of alluvial valley floors. Still another commenter indicated that the section appeared too strict and that such determinations should be governed by a landowner-permittee agreement. With regard to the last comment, the Act does not provide for such case-by-case arrangements for reclamation based on landowner-permittee agreements other than those changes in land use approved under the procedures specified in Section 715.13. The potentially adverse effects of mining in or adjacent to alluvial valley floors may all too readily affect offsite areas as well as the long-term agricultural economy of a region. Thus, the Act is specific on the degree to which mining is or is not allowed in the vicinity of alluvial valley floors and as to the environmental protection standards that must apply.

Changes in land use in alluvial valley floors may be considered, but the essential hydrologic functions must still be preserved to have the capacity to serve as they did prior to any mining. With regard to recommendations for mapping and additional regulatory procedures, it must be emphasized that while the Department feels it has adequately provided the

necessary regulatory basis for national determinations of alluvial valley floors, States and regulatory authorities are encouraged to refine the performance standards to meet regional and local situations. If, for example, it is necessary to more accurately identify the role of alluvial valley floors in the agricultural economy of a region, the appropriate regulatory agency may develop such a requirement, perhaps through amendment of existing statutes or regulations or exercise of existing authorities.

58. One commenter recommended that if the intent of the proposed regulation was to ban mining on alluvial valley floors, then the intent should be made clear. There is no basis in law to ban all mining on alluvial valley floors if the criteria for permit issuance are met and if the reclamation requirements to preserve essential functions are met.

59. Numerous comments were received from reviewers of Section 715.13 (postmining land use) and Section 715.14 (backfilling and regrading) regarding permanent impoundments. The recommendations generally favored incorporation of specific requirements for large, permanent impoundments in the initial regulatory program even though Section 515(b)(8) of the Act covering permanent impoundments was not specifically designated for the initial program. Public comments support inclusion of provisions for permanent impoundments in the initial program as an approved postmining land use. This change has been made in Section 715.13 in order to assure public safety and the protection of the hydrologic balance including protection of water quality. Requirements similar to those in Section 515(b)(8) of the Act have also been included in Section 715.17(k).

The original definition of approximate original contour in Section 710.5 noted that water impoundments could be permitted if they complied with Section 715.17. Thus, the inclusion of standards for permanent water impoundments is a modification of the proposed regulations by expansion of that reference. The final regulations require all impoundments, if left after reclamation, to be of proper size, safety, and utility to serve the approved postmining land use.

60. Some commenters were concerned over the application of the proposed standards to haul roads and access roads existing prior to enactment and wished to exempt such roads from compliance. As noted in Section 710.11 and Section 502(c) of the Act, all existing surface coal mining operations regulated by a State must comply with the environmental protection performance standards of the initial regulatory program on and after May 3, 1978, with respect to lands from which overburden and the coal seam being mined have not been removed. Thus, activities included under the definition of "surface coal mining operations," such as access and haul roads, must comply with the standards. Section 701(28)(B). of the Act includes within the definition of surface coal mining operations "all lands affected by the construction of new roads or the improvement or use of existing roads to gain access to the site of such activities and for haulage * * * ." Thus, any existing roads used to gain access to or to haul coal or other materials in support of the extraction of coal after May 3, 1978, or in support of reclamation of lands from which coal was extracted after May 3, 1978, must comply with the environmental performance standards according to Section 710.11. Section 710.11(d) specifically addresses the situation the commenters noted.

61. A number of commenters pointed out that Section 715.17(l) did not adequately address the expressed intent of the Congress to completely reclaim coal access roads when they may remain major sources of sedimentation and have little continuing social or economic value. The need for design and construction standards and the useful functions of properly constructed roads to break up drainage on long slopes and to protect the outslope from spoil placement was also recognized. Limited provisions for roads have been incorporated in the initial program because of the potentially major impact haul roads and access roads may have on the prevailing hydrologic balance. Since improperly abandoned roads have been identified as a major source of sediment, it is appropriate to modify the regulations to take into account reclamation requirements for roads. Therefore, Section 715.17(l)(1) has been modified to require reclamation of roads that are not necessary to support the postmining land use, are not necessary to control drainage, or will not be maintained in an appropriate manner.

62. One comment received suggested it was unwise to reclaim roads to the approximate original contour since it removed beneficial areas. Not all roads that many wish to leave as reclaimed areas are "beneficial." Thus, the criteria for approving the retention of roads remain.

63. One set of comments indicated that the initial regulatory program should be more closely aligned with the specific language of Section 515(b)(17) of the Act. Only those elements of road construction and maintenance that are closely related to the requirement of Section 515(b)(10) to minimize disturbances to the hydrologic balance are addressed, and, therefore, those portions of Section 515(b)(17) relating to fish or wildlife, and public and private property are reserved for the permanent regulatory program.

64. One commenter recommended deletion of the encouragement given in the proposed regulation to locate roads on benches, and ridges. The objective of this proposal was to keep roads out of valley areas to minimize disturbance to the hydrologic balance, and this remains a valid objective. The problem apparently was one of semantics; certain benches which are covered with exposed clay are not suitable for use as roads, and, consequently, the word "bench" has been deleted.

65. Many commenters strongly recommended reducing the proposed 100-year flood plain criteria to 25 years, and changing or modifying the word "restrict" in proposed Section 715.17(l)(2). The 100-year flood plain criteria was overly restrictive because it was developed to protect roads and other structures from damage, not to protect downstream areas from erosion and significant changes in flow. Therefore, its application is unwarranted until further information is received that identifies an adequate standard. The proposed regulation contained a qualifying phrase which would allow road construction in the flood plain if the base flood was not restricted and if sedimentation, erosion and flooding were not significantly increased. The revised regulation emphasizes the minimization of sedimentation, erosion, and flooding rather than specifying a flood plain size.

66. Many commenters suggested that the 25-year 24-hour design criteria in Section 715.17(l)(2)(iii) for water control structures was excessive and that the annual recurrence interval should be 1 year, 5 years, or 10 years or should comply with local standards. In the interest of instituting an initial regulatory program that phases in permittee responsibilities, the design criteria has been reduced to the 10-year 24-hour design to be compatible with the remainder of this section. It should be noted that the design criteria will be reevaluated for the permanent program to ensure adequate protection of water quality and quantity during precipitation and runoff events likely to occur during use and reclamation of roads. Where more stringent local standards are needed, the regulatory authority must require them.

67. One commenter suggested that use of maximum road grades would increase the total surface area and therefore would increase the potential for erosion. However, the road grade specification are necessary to control erosion from the roads, and are currently used by a number of regulatory authorities.

68. Several reviewers suggested that application of effluent limitations to discharges from roads was not appropriate because roads were nonpoint sources and since roads may have numerous point source discharges. There is difficulty in applying discharge limits to drainage from roads extending far from the actual area to be mined. Therefore, the proposed regulation has been revised to allow some roads within the permit area to be exempt from the effluent limitations and the monitoring requirements during the initial regulatory program unless the regulatory authority determines that application of the effluent limitations is necessary to protect the hydrologic balance. However, haul roads and portions of access roads in proximity to mining and reclamation operations where control of water from roads can easily be combined with control of water from land disturbed by mining and reclamation must be controlled.

69. One commenter objected to the use of the word "durable" in Section 715.17(l)(2)(iv). It is necessary to use material that resists disintegration in road construction in order to minimize erosion. This should not be construed as an inflexible requirement to pave roads.

70. A few commenters objected to the specific design criteria for roads as unnecessary. These specific criteria are necessary since effluent limitations will not apply to all roads. Therefore, design and construction specifications are necessary to control erosion and ensure successful reclamation.

{62658} 71. Some commenters recommended prohibition of stream crossings. Other commenters said the constraints on stream fords were too severe. The constraint is both necessary and stringent enough to protect flowing streams. Stream channels may be crossed without special precautions if water is diverted away in a temporary or permanent manner. However, uncontrolled crossing of flowing streams is a major source of increased sediment and therefore must be controlled. Further, this regulation does not prohibit the use of properly designed culverts.

72. One commenter recommended that the grade provisions of Section 715.17(l) be waived for roads within open pit mines. The definition in Section 710.5 excludes coal haulage roads within the working pit area.

73. One commenter suggested that the phrase, "toxic- or acid-forming substances" used in reference to road surface materials in Section 715.17(l)(2)(iv) should be modified by the phrase, "water soluble." Addition of this phrase would be somewhat restrictive, but it is understood that the materials must be toxic-or acid-forming in relationship to some other medium such as water or soil and must have a potential to cause adverse impacts in order to require special controls.

74. A number of comments regarding the applicability of Section 715.17(l) to infrequently used roads to underground mine facilities were received. This aspect of road reconstruction and reclamation is further discussed under Part 717.

75. A few commenters encouraged the control of fugitive dust from roads. This subject is properly left for inclusion in the permanent regulatory program.

76. One commenter asked that Section 715.17(m) controlling hydrologic impacts of other transport facilities be more stringent. It is more appropriate to cover other aspects of transport facilities in the permanent regulatory program. In response to a few comments, the Department has used the language of Section 516(b)(10) of the Act to clarify the need to control the placement and design of other transport facilities.

77. Section 715.17(c)(5) on diversion of overland flow has been deleted and a new Section 715.17(n) added. The wording has been modified to reflect the opinion of many technical reviewers that benefits from discharge of surface waters into underground mines were so limited as to negate the need to allow such discharges.

Section 715.18 Dams constructed of refuse material.

1. Commenters suggested that Section 715.18 should be deleted since it duplicated regulation of the same structures by the Mining Enforcement and Safety Administration (MESA). This view is rejected. These regulations are required by the Act and compliment MESA's authority which is limited to that needed to protect employee health and safety. On the other hand, OSM jurisdiction extends to public safety and protection of the environment. Congress specified that standards and criteria covering design, construction, operation, maintenance, modification and removal or abandonment of all existing and new dams or embankments constructed of or impounding coal mine waste used either temporarily or permanently as dams or embankments, are to be promulgated by the Secretary in cooperation with the Chief of Engineers, U.S. Army. Section 715.18 reflects coordination between the agencies and provides minimum design criteria consistent with criteria governing similar structures built by the Corps of Engineers.

2. Several commenters suggested that the meaning of refuse material be clarified. The word "waste" has been substituted for "refuse" and defined in Section 710.5 to mark the distinction between waste materials and spoil. Additionally, Section 715.18 has been modified to include dams impounding waste since Section 515(b)(13) of the Act requires control of "coal mine waste piles."

3. As a result of several comments, Section 715.18 has been modified to more closely conform to the Act and provide for abandonment or removal of all dams constructed of or impounding waste materials.

4. Some commenters objected to the proposed criteria for drawdown, freeboard, and inspection required in Section 715.18(c). These criteria have been retained for compliance with Corps of Engineers safety criteria for similar structures.

5. Commenters requested the minimum safety factors proposed for dams be related to methods of calculation through references to appropriate technical manuals. Since the calculation procedures for stability are widely practiced, references were not added. In calculating safety factors, the permittee must use accepted methods such as those used by the Corps of Engineers. n4 The permittee must carefully consider the nature and placement of materials in the dams so as to ensure achievement of the specified minimum safety factors.

n4 Corps of Engineers, Engineering and Design Stability of Earth and Rock-Fill Dams, EM 1110-2-1902 (1970).

Section 715.19 Use of explosives.

1. Several commenters suggested that the minimum weight of explosives subject to the regulations should be increased. This suggestion was rejected because Section 715.19(a) is needed to provide the citizen protection mandated by the Act.

2. Many commenters objected to the requirement for a preblasting survey on the grounds that current technology is neither capable of predicting the weights of individual charges that would prevent damage to structures nor of determining the condition of structures in terms of resistance to vibration of structural and nonstructural elements. As a result, the regulation was modified to require the survey to determine the condition of relevant structures and to document any preblasting damage. While the assessment of wells and other water systems is limited to surface conditions and other readily available

data, they are to be given special attention. Depth to water table, flow and water quality are among those easily measurable characteristics. In addition, based upon the survey report, the regulatory authority can require redesign of the blasting plan. Other revisions have been made to Section 715.19(b) to make the survey less formal. One of the major advantages the preblasting survey is intended to have is increased communication between the permittee and the public about the blasting program. The less formal requirements are intended to foster such communication while still meeting the specific requirements of the Act.

3. Numerous commenters argued that the notice requirements of Section 715.19(c) require the permittee to make impractical predictions about blasting schedules. Other commenters argued that the notice should be more specific as to blasting times. Other comments stated that it is not possible to predict all emergency conditions that can occur when blasting, and that the weight and type of explosives used will vary with each blast. Accordingly, while the requirements for public notice of the date and time of blasting and the description of possible emergency conditions that could result in schedule alterations have been retained, the requirement for the weight and type of explosives to be used has been deleted in Section 715.19(c) and (d). In addition, since the Act requires notification by mail, the certified mail requirement was deleted.

4. Many commenters objected to the requirement in Section 715.19(e)(1)(i) restricting blasting to 1 hour after sunrise until 1 hour before sunset, and cited the safety problems that could ensue from the

shorter time. In response, the requirement has been changed to allow the blasting increment of 4 hours to be scheduled at any period during the daylight hours.

5. A number of commenters argued that the requirement to prevent wildlife from entering the blasting area was impractical. As a result, Section 715.19(e)(1)(iv) has been revised.

6. Many objections were raised to the provision that all primed blast holes be detonated within 24 hours. Since this provision affects the safety of the worker as well as the safety of the public, the provision was changed to follow the provisions of the Mining Enforcement and Safety Administration regulations.

7. Commenters objected that compliance with the stemming requirement would be impossible under many conditions. The regulation was changed to require that air blast be controlled so that it does not exceed 128 dB linear peak at any inhabited area surrounding the blast site. A decibel standard was recommended by several commenters and is supported by Bureau of Mines studies as one method of air blast control.

8. Numerous commenters objected to the proposed Section 715.19(e)(1)(vii)(A) and (B) regarding the distance limitation and owner consent. Commenters argued that the only statutory authority for limiting mining near occupied buildings and facilities is the 300-foot limitation in Section 522(e) of the Act designating lands unsuitable for surface coal mining. It should be recognized that the requirements of this section do not prohibit mining but require that blasting in populated areas be treated differently. Further, a purpose of the Act is to protect the health and safety of the public, and it is believed this section may minimize the likelihood of property damage. Commenters also argued that the requirement for owner consent before blasting within 1,000 feet of a residence would prevent mining in many areas. Blasting is essential to surface mining in many areas and it is possible that property owners without an economic interest would not consent to blasting. The provision for owner consent was deleted because adequate protection is afforded by the preblasting survey and the other blasting requirements. The distance limitation in Section 715.19(e)(1)(vii)(c) pertaining to underground mines is required by Section 515(b)(12) of the Act and is included in the initial program because of the requirements in Section 515(b)(15)(C).

{62659} 9. Many comments were received on the provision of Section 715.19(e)(2)(i) restricting the peak particle velocity of the ground motion to 2 inches per second at specified locations. Some commenters favored retaining the 2-inch per second peak particle velocity, while others supported a reduction to 0.5-inch per second peak particle velocity. The regulation was changed to restrict the maximum peak particle velocity of the ground motion in any direction to 1 inch per second. The revision was based on reevaluation of published U.S. Bureau of Mines studies, discussion with Bureau of Mines personnel, studies of urban blasting by the British National Coal Board and research papers published by faculty members of several universities. The equation that determines the weight of explosives that can be detonated within any 8 millisecond period was changed to reflect the reduction in the allowable peak particle velocity of the ground motion and the table for distances between 350 and 5,000 feet was revised. Changes were made in subsequent provisions where necessary to reflect the new standard for peak particle velocity.

Section 715.20 Revegetation.

1. Some commenters suggested that vegetation cover should be capable of stabilizing the soil surface to at least premining conditions. Since stability of the soil with respect to erosion is ensured under the proposed regulation, no changes were made.
2. One commenter pointed out that Section 715.20(a)(2) was too broad since it would require seeding of roads and water areas. The section has been revised to eliminate this obvious incongruity.
3. Commenters suggested that the field trial requirement for introduced species be eliminated. Several commenters pointed out that many plants commonly used, such as tree species in the Great Plains, have been in common usage and are considered naturalized. The requirement for appropriate field trials has been retained. However, "field trials" is interpreted broadly to include successful experience with the species in the area mined or a similar area. Thus, naturalized species will generally have been demonstrated to be acceptable.
4. Many commenters suggested that Section 715.20(c) be modified since it limited "seeding and planting to land that has been regraded and topsoil replaced". To eliminate confusion, the section has been revised to require the seeding and planting of all "disturbed areas."
5. Many commenters argued that the mulching requirements of Section 715.20(d) were unnecessarily specific and should be modified to allow the regulatory authority and permittees greater flexibility. The requirement specifying minimum amounts of mulch to be applied to the land was modified in favor of flexibility in the amount of mulch to be applied as approved by the regulatory authority. The paragraph does allow use of alternatives to vegetative mulch or annual grains.
6. Comments suggested that a pattern of distribution may provide a higher or better use than when plant species are distributed more uniformly. This suggestion was accepted and Section 715.20(e)(2) revised.
7. Many commenters argued that it would be unreasonably difficult to prevent hooved wildlife from damaging vegetation. Further, the commenters argued that it was impossible to determine when an area is ready to sustain natural wildlife grazing. Accordingly, this requirement has been eliminated from Section 715.20(e)(2). Elimination of the requirement does not relieve the permittee of his responsibility to achieve acceptable revegetation which may, in some cases, require control of wildlife.
8. Section 715.20(e)(3) was deleted since it is covered under Section 715.17.
9. A significant number of commenters argued that it would not always be appropriate to require immediate revegetation where the postmining land use was for industry, public services, or residential use. This suggestion was adopted and Section 715.20(f)(2)(ii) establishes requirements for temporary revegetation for areas that are to be converted to industrial or residential use within two years of regrading. Revegetation must be adequate to control erosion until the final use is achieved.
10. Many commenters suggested that proposed Section 715.20(f) was unnecessarily inflexible and that a range of standards for measuring revegetation success should be considered. They argued that the criteria did not take into account variability of precipitation amount, time of occurrence, intensity and form; topography; slope; aspect; growing seasons and soil conditions. Some commenters expressed concern that the standards were too low. In response to the comments, this section has been revised to provide standards that: (1) incorporate site-specific variation within the permit area, (2) utilize reference areas, (3) evaluate a permanent vegetation cover capable of regeneration and plant success, (4) consider site condition of previously mined areas, and (5) ensure a ground cover for controlling erosion. Since the seeding procedures are to be approved by the regulatory authority, the measure of ground cover density by accepted methods should provide an adequate standard of compliance.

In response to comments, the section has been modified to provide that reference areas must be managed and not protected from use over a long period of time. It is believed that a 2-year minimum time base is required to adequately assess whether a permanent vegetation cover is capable of regeneration and plant success, since otherwise excessive fertilization may give the appearance of success prematurely. It is believed that further refinement of revegetation success measurements is needed. Therefore, the Department will continue to collect data necessary to revise the standards initially proposed or to develop a substitute method for the permanent regulatory program.

11. Several commenters objected to the requirement in Section 715.20(g) to seed stockpiled topsoil if it is not redistributed within 30 days. It was pointed out that the provision ignored regional climatology and seeding season differences. The suggestion for deleting the 30-day requirement and substituting the first normal period for favorable planting conditions was adopted.

PART 716 - SPECIAL PERFORMANCE STANDARDS

Section 716.2 Steep slopes.

1. Comments were directed to the proposed paragraph that prohibited the placement on the downslope of material cleared or gubbed from an area to be disturbed. Commenters recommended that placement of vegetative material cleared from the area to be disturbed should be allowed on the downslope since it would serve to filter acid seepage and silt-laden runoff. To accommodate this practice, one commenter recommended that the regulatory authority be given the discretion to allow such placement. However, Section 515(d) of the Act prohibits the placement of any debris on the downslope below the bench or mining cut. Debris is normally considered to include vegetation cleared from an area prior to further disturbance. Thus, no wood or vegetative materials are to be placed below the downslope in steep slope operations. Drainage within the disturbed area should be treated by using stabilizing techniques such as vegetation. Barriers to flow, such as terraces and "riprap", must be considered as temporary measures that assist in reestablishing vegetation. If the vegetative filter is effective and otherwise acceptable to the regulatory authority, it may be used above the downslope or bench.

2. One commenter suggested the addition of the word "geology" to the list of variables which the regulatory authority would consider when designating "steep slopes." Geology is an important variable and has been added to the regulations.

{62660} 3. One commenter on proposed Section 716.2 (a)(1) recommended that the reference to Section 715.14 be deleted in favor of the phrase "grade to the approximate original contour." The commenter also argued that the proposed regulation exceeds the requirements of Section 515(d) of the Act in that it imposed additional performance requirements on steep slope operations. Section 515(d) of the Act requires that the special performance standards be met in addition to the general performance standards required by Section 515(b). Therefore, the performance standards of Section 716.2 must be complied with on steep slopes in addition to the general performance standards of Part 715.

4. A few commenters pointed out that a 30-day period was extremely short to establish vegetation on stockpiled spoil. Since all steep slope operations must comply with the provisions of Part 715, the proposed Section 716.2(a)(2) has been deleted.

5. One commenter recommended that first-cut overburden should also be allowed to be permanently stored in an approved off-site disposal area. Since such activities are covered in Section 715.15, there is no need to cover them here, and the paragraph is deleted.

6. Commenters recommended that proposed Section 716.2(a)(3) be deleted to prevent disturbance of additional areas by construction of "stable drainage channels" to which drainage was to be discharged. The requirements for diversion ditches are contained in Section 715.17 and are discussed in the appropriate part of this preamble. Further, since terraces are addressed in Part 715, and since operations conducted on steep slopes must comply with the provisions of that part, the proposed Section 716.2(a)(3) is deleted as redundant.

7. Commenters indicated uncertainty as to where woody materials could be placed. Proposed Section 716.2(a)(4) states that woody materials must not be placed in backfilled areas if that would cause instability. Therefore, woody materials may be placed in backfilled spoil if the spoil remains stable. If woody material can be distributed through the fill or perhaps buried on the solid bench away from the outslope, and the backfill remains stable, such disposal is allowable. Section 716.2(a)(4) has been revised for clarity and to note that chipping of the woody materials to produce mulch or soil amendment for the backfilled area may be acceptable.

8. Three of the comments received recommended the addition of a requirement to retain an unmined coal and overburden barrier 15 feet wide at the outcrop as a restraint to slides. This procedure is overly conservative if applied without adequate discretion and is likely to remove extensive coal reserves from production. Section 515(b)(25) of the Act, to be implemented in the permanent regulatory program, addresses natural barriers. Regulations to implement this provision of the law will be proposed for the permanent regulatory program. The coal seam barrier is further discussed under Section 716.3.

9. The proposed regulations failed to inform the permittee that he must meet the requirements of Section 515(d)(3) of the Act. That subsection limits disturbance of land above the highwall to that necessary to facilitate compliance with the special performance standards applicable to steep slope mines. The language of the Act has been added to the regulations.

10. Some commenters requested variances to the requirement to return land to the approximate original contour in steep slope operations. Variances are provided under Section 515(e) of the Act and will be treated in the permanent regulatory program.

Section 716.3 Mountaintop removal.

1. Comments relating to Section 716.3 dealt principally with the requirements for retaining an outcrop barrier at least 15 feet wide to prevent slides and erosion. The majority of commenters questioned the desirability of specifically delineating an outcrop barrier width. It was suggested by many commenters that the outcrop barrier width be determined on a case-by-case basis by the regulatory authority, considering coal seam thickness and site-specific terrain conditions. A number of comments were received which questioned the need for an outcrop barrier to prevent slides and erosion in all cases. The concern was raised that the mandatory requirement for outcrop barriers conflicts with Section 102(f) of the Act which relates to conservation of the nation's coal resource. The comments have been considered, and Section 716.3(b)(1) has been revised. We concur with the concerns expressed relating to the difficulties of setting a minimum outcrop barrier width. The minimum outcrop barrier width has not been specified so that site-specific conditions may be taken into account in barrier design.

2. One commenter raised the issue of whether 1v:2h is an appropriate maximum slope for outcrops of the final graded plateau, particularly with regard to erosion control. This slope (or steeper slope if a minimum static safety factor of 1.5 is attained) is acceptable for such outcrops since, as specified in Section 716.3(b)(3), all drainage from the final graded plateau must drain inward from the outcrop except at specific points where it is allowed to drain over the outcrop in protected, stable channels. In addition, the outcrops of the plateau must satisfy all other applicable requirements of Part 715.

3. Another commenter suggested that the cumulative hydrologic impacts of numerous mountaintop removal operations on a single watershed has not been adequately considered in Section 716.3. Hydrologic impacts of mining are addressed in Section 715.17.

4. With respect to Section 716.3(c)(1), a few commenters suggested that permits approving mountaintop removal operations be reviewed not more than 1 year after the date of permit issuance. Section 515(c)(6) of the Act requires that such reviews take place not more than 3 years from permit issuance. The final regulations provide flexibility by retaining the language of the Act. Further, as a result of other comments, Section 716.3(c) (1) and (2) have been modified to make review unnecessary if the permittee adequately demonstrates that all operations are proceeding in accordance with the terms of the permit and applicable requirements of the Act and the regulations. The terms of the permit must be in accordance with the requirements of the Act and the regulations. Section 716.3(c)(2) is retained to notify permittees that performance standards may be revised to provide more stringent controls. There is implied authorization for the regulatory authority to include less stringent controls in a revised permit only to the extent that such less stringent controls conform to these regulations.

Section 716.4 Special bituminous coal mines.

1. One commenter recommended deletion of the reference to the State of Wyoming, noting that multiple coal seams in the Roslyn field of Washington dip as steeply as 45 degrees. Since Section 716.4 applies only to situations described in Section 527 of the Act, that is, where at least one mine pit has been mined in the open pit manner since January 1, 1972, it is not necessary to address all areas in which coal seams have an inclination of 15 degrees or more. Only one operation has been identified, and it is located in Wyoming. Therefore, Wyoming is explicitly listed. The appropriate elements of Wyoming's regulations are adopted pursuant to Section 527(b) of the Act which requires that new mines meet all requirements of State law.

2. One commenter made recommendations for specific word changes to the section limiting the exemption to operations in the mine pit. Through investigation of the legislative history, testimony before the Congress, and review of the Kemmerer, Wyo., operations, it has been determined that the exemption to grading to approximate original contour for special bituminous mines applies to the actual mine pit and not to associated spoil areas outside the pit. Leaving those spoil areas

ungraded is not an essential exemption to open pit mining. The exemption applies only to the grading of the mine pit walls and the spoil within that pit and is not viewed as relieving the mine operator from making every attempt to return all spoil to the pit or as allowing excess spoil to be dumped at the angle of repose with no consideration of prior topsoil removal, stabilization, grading, or postmining land use.

3. The commenter also recommended that stable highwalls should be allowed, that backfilling be removed from the requirement of Section 716.4(c)(2)(i), that terraces be allowed if they produce the desired results rather than requiring contouring methods first, and that the requirement to riprapping the exposed mine pit areas as proposed in Section 716.4(c)(3)(i) be changed to a discretionary requirement on the part of the permittee. Other changes were requested in Section 716.4(c)(3)(ii). All such changes are not possible since they would be contrary to Wyoming law and regulations.

{62661} 4. Two commenters interpreted Section 527 (b) of the Act as providing an exemption to backfilling and grading requirements for open pit mines that initiated mining after January 1, 1972, and prior to August 3, 1977. They correctly noted that the proposed regulations did not provide an exemption for such operations. The regulations have been slightly revised in Section 716.4(a)(3)(i) in order to more closely follow the language of the Act. However, no change is intended in the meaning of the section. Development of a mine refers to those activities that precede mining. Therefore, to qualify for an exemption to the backfilling and grading requirements, a special bituminous coal mine that did not actually produce coal prior to January 1, 1972, must be classified with those new mines that begin to produce coal after August 3, 1977. Further, if a new mine is developed after August 3, 1977, and the mine is to qualify for an exemption to the requirements of Section 715.14, the new mine must be located immediately adjacent to operations in production since January 1, 1972.

Section 716.5 Anthracite coal mines. This section implements Section 529 of the Act, which provides that the permittee of anthracite surface coal mines in States which regulate such activities shall be subject to the State environmental protection standards in effect on August 3, 1977 rather than Part 715. It also provides that in the event the pertinent State standards are amended, the Secretary shall amend Section 716.5 accordingly. As Pennsylvania is the only State with surface anthracite mines, this section applies only to that State. No comments were received on this section of the proposed rules and no revisions have been made.

Section 716.6 Coal mines in Alaska. This section implements the authority of the Secretary to suspend the performance standards of Parts 715, 716, and 717 if it is determined necessary to ensure continued operation of a coal mining operation in Alaska. This section provides for consultation with the Governor of Alaska prior to any such modification, provides the mechanism for petitioning for changes, and provides for public notification and comment prior to implementation of modifications. Two comments were received on Section 716.6. One commenter recommended that the wording of Section 716.6(a) be changed so that the section applies to all performance standards rather than to the general performance standards. This recommendation was accepted. The other comment argued that no special procedure for petitions is needed since the procedures of Section 514 of the Act are sufficient in this situation. The comment was rejected because the procedures provided in Section 514 of the Act are for appeals from decisions of the regulatory authority and thus would be inappropriate in the circumstance of an operator requesting suspension of performance standards.

Section 716.7 Prime farmland.

A significant number of comments were received on this section. Comments centered on five issues: (1) the statutory justification for adoption of prime farmland regulations in the initial program, (2) the validity of the "grandfather clause", (3) the definition of "prime farmlands", (4) the requirements for restoration of prime farmlands, and (5) the identification of prime farmlands.

1. Prime farmland performance standards are part of the initial program applicable to any permit issued on or after August 3, 1977. The basis for this requirement is Section 510(d) of the Act which states that prime farmland provisions shall " * * * apply to all permits issued after the date of enactment of this Act." In addition, the Congressional conferees agreed that the protection for prime farmland should apply to all permits issued after enactment and expected the Secretary to issue regulations to implement the prime farmland provisions as soon as possible [123 Cong. Rec. H696, (daily ed. July 12, 1977)].

Numerous commenters argued that the prime farmland requirements set forth in the Act are not operative until a State or Federal Program for a State is adopted pursuant to Section 503 and 504 of the Act and therefore, not until a "regulatory authority" exists. It is believed that the term "regulatory authority" refers to the agency administering the program under the initial program as well, and the term has been so defined in the regulations. Further, Section 510(d)(1) of the Act explicitly

incorporates the prime farmland performance standards of Section 515(b)(7) of the Act into the permit process. Therefore, it is appropriate to include prime farmland standards in the initial program, and the States should modify their permit process to include consideration of the prime farmland requirements.

2. Several commenters argued that the "grandfather" provisions of proposed Section 716.7(a)(2) exceeded the authority provided under the Act. Accordingly, this section has been modified to allow permit renewals or revisions to include expansions of existing operations that (i) were in the original permit area or in an approved mining plan prior to August 3, 1977, or (ii) are contiguous and under existing State regulations or practice would have normally been considered as a renewal or revision of a previously approved plan.

3. Section 701(20) of the Act defines prime farmland as having the same meaning as that previously prescribed and published by the Secretary of Agriculture on the basis of specific technical criteria and which historically have been used for intensive agriculture purposes. Several commenters expressed concern that the proposed definition of prime farmland extended beyond the Congressional intent and is not the definition set forth in 123 Cong. Rec. S8109 (daily ed. May 20, 1977).

The Secretary of Agriculture responds that the technical criteria for prime farmland contained in 7 CFR 657.5(a) (2) and published in the FEDERAL REGISTER on August 23, 1977, does not differ substantially from that in the May 20, 1977, Congressional Record. Minor changes were made in the wording in order to remove from the older definition procedural guidelines and other sentences that did not relate specifically to scientific criteria for prime farmland. 7 CFR 657 is not intended to be utilized only for the purposes of implementing this Act. It establishes an important farmland inventory that covers four categories of important farmlands. These regulations require that only the specific criteria of the prime farmland category have applicability to implementation of this Act. These specific technical criteria are contained in the regulations for convenience and will be used with the historical and intensive agriculture use requirements of Section 716.7(a)(1) to determine prime farmland.

4. Several commenters suggested that the historical use clause in Section 716.7(a)(1) should be revised. Suggested changes ranged from 1 year out of 20 to 14 years out of 20. The Department has retained the 5 years out of 20 standard because it is a reasonable and practical application of the historical use clause, as contained in Section 701(20) of the Act.

5. Numerous commenters argued that the requirement in Section 716.7(e)(6) to "prove" that an equivalent or higher yield will be achieved was unrealistic and inappropriate. Accordingly, the provision has been revised to allow the operator to "demonstrate" through appropriate means that equivalent or higher yields will be achieved after mining. The comparison is to be made with the same area before mining or on similar soils that have not been mined.

6. Several commenters thought Section 515(b)(7) of the Act required the Secretary of Agriculture to publish in the FEDERAL REGISTER criteria for soil profile reconstruction, as set forth in the special requirements of Section 716.7(g). The Department of Agriculture has developed the requirements which are included in this section.

7. Commenters argued that materials proven to have equal or better properties for productive capacity than the available A-horizon may be available, and their use should be allowed. Appropriate sections of the regulations have been modified to recognize this concern.

8. Several commenters expressed concern over the amount of prime farmland that could reasonably and practically be identified by soil surveys and suggested that an acreage limitation should be included. The detail and associated scale of soil surveys is based on user needs and variability of soil pattern. The minimum size delineation for soil mapping units which can be interpreted as prime farmland ranges from 2 to 10 acres. Section 716.7(c) remains unchanged, and soil surveys have been retained as the basis from which the minimum acreage of prime farmland can reasonably and practically be identified.

PART 717 - UNDERGROUND MINING

{62662} NOTE: Part 717, Underground Mining appeared in the proposed regulations as Section 716.8.

1. A number of commenters argued that underground mining operations should not be regulated during the initial program. Commenters indicated that it was more important to regulate surface mining than underground mining during the initial program since the alleged abuses of surface mining were considered more important by Congress. The view that regulations for underground mining should be deferred is not accepted. Section 502 of the Act applies the initial standards to "surface

coal mining operations." That term is defined in Section 701 of the Act to include the surface effects of deep mining, "subject to the requirements of Section 516." This reference to Section 516 in the definition was not intended to exclude underground mining operations from the initial program, but rather to limit the scope of the regulations to those activities referred to in Section 516 of the Act. Controls over subsidence and a few other effects of underground mining with a high potential to cause environmental damage will not be addressed until the permanent regulatory program.

2. Several commenters argued that extensive use of cross-references in proposed Section 716.8 caused unnecessary confusion. Many commenters, while expressing their reservations as to the inclusion of underground mining operations in the initial regulatory program, gave some examples of why they considered that the proposed regulations did not adequately consider the distinct differences between surface and underground mining alluded to in the Act. The examples given included roads, placement of earth materials on the downslope, blasting, and ground water. As a result, the proposed regulations have been modified. Certain phases of operations conducted as part of an underground coal mine are best regulated by somewhat different regulations than those necessary for surface mining. Underground mining regulations now appear in a separate Part 717 and contain a minimum number of cross references. The regulations reflect the level of control necessary to minimize environmental impacts of the operations characteristic of underground mining. The final regulations define "surface operations" and "underground operations." These terms have been defined to clarify the applicability of the requirements pursuant to Section 516(b)(10) of the Act.

3. The general obligations provisions of Section 715.11 have been made explicitly applicable to underground mines by repeating them in Section 717.11. The requirements of Section 717.11 relating to permits remains equally valid for underground mines. The requirement for a map of the undisturbed coal resources has been deleted.

4. The regulations now appearing in Section 717.12 have been revised in a form that is consistent with that of Section 715.12. Perimeter markers may be required by the regulatory authority if needed, but these signs are not specified in the regulations. The regulations do not require the use of topsoil markers, though topsoil will likely be stored for long periods of time and will therefore be susceptible to unauthorized disturbance, contamination, and removal. However, surface activities will likely be limited and will not have a high probability of disturbing the stockpiled topsoil. Blasting signs are not required by the final regulations since blasting near the surface will be infrequent.

5. Requirements of Section 515(b)(2) of the Act for achieving an equal or higher postmining use of disturbed land was not included in the initial regulations for underground mining since Section 516 of the Act does not specifically list land use considerations. However, since Section 516(b)(10) requires conformance with Section 515 of the Act for surface operations, the Department will evaluate further controls for the permanent regulatory program.

6. A number of commenters questioned whether roads and other facilities that support underground mining operations must be reclaimed, and argued that the backfill and regrading standards should apply only to new operations. Section 516 of the Act requires that areas disturbed by surface operations be reclaimed to the standards authorized by the Act. Therefore, Section 717.14 and Section 717.20 of the final regulations require that disturbed areas caused by surface operations must be reclaimed. Specifically, Section 717.14 and Section 717.20 require that all new roads be reclaimed in a manner consistent with the backfill and grading and revegetation standards of those sections. However, because of the difficulty of backfilling existing older roads and support facility areas after mining has been completed, it is expected that regulatory authorities will be flexible in administering these requirements. Many cases exist where the excavated material has been discarded over the outslope or hauled an appreciable distance away from the cut making it very difficult to backfill and grade. While it may be necessary to remove unsuitable drainage systems and to restrict future access, the degree of regrading required of older roads may likely be determined according to site-specific circumstances. Nevertheless, new facilities must be designed, constructed, and fully reclaimed as required by these sections. Further, roads may be retained after mining has been completed only when in support of the postmining land use.

7. The backfilling and grading requirements have been further tailored to underground mining practices. Provisions relating to extensive slope measurements, grading exemptions for mountaintop removal, and criteria for distinguishing thin and thick overburden have been removed from the underground regulations since they relate to more extensive land disturbances where detailed regulations are required.

8. Several commenters argued that underground mines should not be subject to the spoil and waste disposal requirements of Section 715.15. As discussed in paragraph 1 above, adequate authority exists to provide the necessary regulations for this area. Many of the requirements of Section 715.15 appear in this section in the final regulations. Since the hazards from improper waste rock disposal are similar for underground operations to those of surface mining, the same environmental standards should apply. Further, selective controlled placement, compaction, and careful consideration of the drainage

characteristics of these materials remain necessary. The disposal of wastes or excess coal that could cause acid drainage, instability, or unwanted burning is prohibited in valley and head-of-hollow fills. Waste materials, especially those slurred from cleaning plants and those containing large amounts of pyrite and other sulfide materials, should not be placed in or near drainage channels. The final regulations allow careful placement of first cut materials from the site of an initial entry or faceup of a mine to be placed on the downslope (immediately below the projected outcrop of the coalbed being mined) if the appropriate safety factor is achieved. Materials placed below mine workings must be stabilized consistent with Section 715.15. However, the final regulations allow that where the volume of excess rock or earth materials is small and where the materials' chemical and physical characteristics do not pose a threat to either public safety or the environment, the regulatory authority may modify the requirements of Section 715.15 relating to such disposal.

9. As suggested by one commenter, requirements for topsoil removal, segregation, and replacement now appear in the revegetation section and have been simplified to ease distinguishing between the A- and B-horizons. Since most topsoil will be stockpiled for a long period, protective stockpiling is most important. However, since the area affected by surface operations of underground mines is small, the more detailed topsoil requirements for surface coal mines have been eliminated from this section. Topsoil removal, however, is included as a requirement to be adhered to for all surface operations.

10. The hydrology section for underground mines in the final regulations is much the same as that section for surface mines. Some modifications of Section 715.17 were necessary to allow proper application to both the surface and subsurface operations of an underground mine. In the case of underground mines, the surface operations should affect relatively little land and thus compliance with standards designed to minimize disturbances to the hydrologic balance should be facilitated. On the other hand, discharges from underground mines have a high potential to pollute surface and ground waters. Thus, the majority of Section 715.17 has been retained as Section 717.17 for underground mines and to distinguish between requirements to minimize disturbances caused by surface operations and those caused by underground operations.

{62663} 11. One commenter suggested that the term "disturbed area" be more clearly defined for underground operations and that the section reflect different requirements for discharge from underground mines than those for surface mines. The "disturbed area," the critical area of land surface for which surface water treatment must be provided, has been defined for purposes of this part as excluding surface areas overlying the underground workings unless those areas are disturbed by support activities for the underground mining operation which create a risk of pollution. However, "disturbed areas" include excess mine rock fills, roads near buildings or storage areas supporting the mine, ventilating facilities, conveyors or other coal haulage facilities near support structures such as tipples and loadout facilities. Surface runoff from these disturbed areas is to be treated in the same manner as from surface mining operations. Temporary diversions from the disturbed area are permissible when they are safely constructed and maintained.

12. Several commenters suggested that the final regulations should more clearly specify underground mining requirements to protect the ground water system. Other commenters argued that the requirements of Section 715.17(i) were overly restrictive. The ground water requirements have been tailored to underground operations since it is expected that surface operations of underground mines will minimally affect ground water. Since the Act requires that disturbances to the hydrologic balance be minimized, underground mining operations must be planned and conducted accordingly. As suggested by one commenter, monitoring requirements now appear in this section to ensure compliance with the standards. Further, the section requires treatment of all waters discharged from underground workings prior to discharge to surface waters where necessary to meet effluent limitations. If treatment facilities are used for discharges from underground operations and also collect surface runoff from disturbed areas, the facilities must be designed to effectively meet the sedimentation pond requirements. Diversion of water away from the disturbed areas is encouraged. However, stream diversions should be avoided for surface operations of underground mines, and underground operations should be planned and conducted to minimize changes in the flow of streams. If, however, perennial or intermittent streams must be diverted, the diversions are to be constructed in accordance with Section 715.17.

13. Acid and toxic materials require treatment regardless of whether they are exposed by surface or underground mining operations. Potential problems that may be caused by exposure of such materials from underground mines to water are controlled by the requirements of Section 717.17(g).

14. As a result of comments, inclusion of the requirement contained in Section 516(b) (12) of the Act was considered to ensure that new drift mines are constructed to prevent uncontrollable gravity discharge of water from the mine. However, this requirement is not in the initial standards required by Section 502 of the Act. Since it is contained in Section 516, it will be included in the permanent program.

15. Provisions for haul and access roads have been included in this part since proper design, construction, and maintenance of those roads is critical to successfully regulate the potentially adverse impacts of underground mining. Roads currently used for hauling and access to underground mines are subject to the requirements of this part because of Section 710.11. Although it is expected that some existing roads will not meet the grade requirements of this part, the practicability of regrading these roads will be considered in applying the grading requirements to existing and nonconforming structures. However, roads will not be left unreclaimed as a matter of course and therefore, backfilling, grading and revegetation will be required. Permittees who wish to leave roads after mining operations are complete must demonstrate that, among other requirements, retention of the access roads is necessary for the postmining land use and that necessary maintenance will be provided.

Several commenters suggested that some roads constructed and used for infrequent passage should be exempt from the requirements of this part. Since adverse impacts are less likely, infrequently used roads are exempt from the construction standards when erosion is adequately controlled by alternative practices such as vegetation to comply with the remaining provisions for sediment control.

16. A few commenters interpreted the proposed regulations as requiring blasting schedules for underground mining operations. Others argued that a blasting schedule requirement for construction of surface facilities at an underground mine is impracticable. Because the use of explosives for the construction of surface facilities will be infrequent and short-lived, no standards have been included at this time.

17. As previously noted, the topsoil handling provisions for underground mines have been simplified and combined with the revegetation requirements in Section 717.20. The revegetation requirements have also been simplified for underground mining operations. The revegetation requirements apply, for the most part, to areas disturbed by surface operations. Areas in need of revegetation should be relatively small and should not have received a degree of disturbance as great as that caused by surface coal mining. Nonetheless, it is imperative that a diverse, permanent vegetative cover capable of self-regeneration and plant succession and providing a cover equivalent to premining conditions be established.

18. Several commenters requested that subsidence control regulations be included in the initial program. Subsidence control is not covered by the initial standards of Section 502 of the Act. The Department will address subsidence control in the permanent regulatory program.

PART 720 - STATE ENFORCEMENT ACTIVITIES

Section 720.11 limits preemption of State laws and regulations and present State enforcement to instances in which compliance with the State law, regulations, or any permit condition would preclude compliance with the Federal standard. Otherwise, State law and enforcement remains intact. It is believed all States should and will enforce the more stringent Federal standards in the interim period, but this section recognizes the importance of maintaining the existing State programs as a floor of regulation by a State which cannot enforce some of the more stringent Federal standards in the interim period.

1. Comments were received objecting to the power of preemption and seeking a change in Section 720.11(b) to require involvement of State agencies before publication of those State laws or regulations which have been preempted. The provision was removed because it was unnecessary. Before any action is taken under the Secretary's statutory authority under Section 505(b) of the Act, the State will be consulted.

2. Proposed 720.12 stated that the Act "contemplates" that States will enforce Federal standards during the interim program. This method of stating the duty on the States was chosen in recognition of the 10th Amendment to the Constitution. Comments were received that this section added or subtracted nothing from the duty of the States. This comment is accepted; and, because the section is unnecessary, it was deleted.

3. New Section 720.12, which was Section 720.13 as proposed, requires the issuance of permits in conformity with the Act by States that are enforcing more stringent Federal standards in the interim period. States that are not enforcing more stringent Federal standards are not covered by the section. If there are any such States, the State and OSM will work out a method, perhaps related to the permit issuance, to notify permittees that by operation of law he is bound by the Act and these regulations.

4. Comments were received on new Section 720.12 that pre-existing mines issued renewed or revised permits after February 3, 1978, were not properly subject to the initial standards until May 4, 1978. The legislative history speaks of the standards

applying 6 months from enactment to new mines. The division of Section 720.12 into two subsections is in recognition of the merit of this comment. Of course, substance rather than form is the test; if the operation to which the permit is issued is in fact a new mine, the standards will apply regardless of whether the permit is labeled "revised" or "renewed".

5. A comment was received that the use of the word "develop" in new Section 720.12 implied that States were allowed to put off incorporating the necessary permit conditions until some unspecified time after February 4, 1978. This was not the intent. Rather, by the use of the word "develop" it was intended to emphasize the duty of the State to go through the process of translating the Act and regulations into permit terms for every permit issued after February 4, 1978. Since this process is logically required without specific reference, the word "develop" was removed in order to avoid any misunderstanding that States covered by this section have a duty to incorporate permit conditions in all permits issued on or after February 4, 1978.

6. New Section 720.13, which was Section 720.14 as proposed, provides for State submission to OSM of all inspection reports and certain permits and permit applications. Comments were received that the 5-day period for submission of State inspection reports is too short given certain States' procedures. The 5-day period was retained, but it must be emphasized that the 5-day period is calculated to take into account State procedures, including filing several days after field trips. The mechanics of this and other cooperative efforts between State and Federal offices will be worked out to mutual satisfaction by each State and the Regional and District offices of OSM.

PART 721 - FEDERAL INSPECTIONS

{62664} 1. Several commenters suggested that Section 721.11(a) should be specifically limited to violations of Section 502(b) and (c) of the Act to conform with the language of Section 502(e)(2) of the Act. Recommended language was offered to authorize Federal inspections of surface coal mining operations subject to interim regulations to determine "compliance with sections (b) and (c) of Section 502 of the Act." This change was not adopted. While it is clear that Federal inspectors will inspect only for those parts of the Act which are in force in the interim period, it is unnecessary to state that the inspections are limited to "interim regulations". In addition, Federal inspections in the interim period will not be exclusively tied to Section 502 of the Act. In any event, Section 721.11 is an inspection section relating to when Federal inspections shall occur and is not intended to confer independent enforcement authority upon the Secretary.

2. Several comments requested that Section 721.11(a) should specify more clearly that violations indicated by consecutive State inspection reports must have occurred at the same mining operations and not at different operations of the permittee. This additional language is considered unnecessary because it seems clear from a reading of Section 502(e)(2) of the Act that the reports must indicate that any "surface coal mining operation" has been found in violation during not less than two consecutive State inspections.

3. It was requested in one comment that there be a mandatory Federal inspection after four consecutive State inspection reports indicated a violation. The proposed regulation provides that on the basis of "not less than two" consecutive State inspection reports indicating a violation, the Secretary shall conduct an inspection. The recommended language in the comment was not adopted and the final regulation remains unchanged in order to generally track the language contained in Section 502(e)(2) of the Act. It should be emphasized, however, that the Office of Surface Mining intends to inspect on the basis of State inspection reports indicating violations during two consecutive State inspections.

4. Section 721.11(b) was found deficient by one commenter because it was felt that the regulation does not require inspection when conditions or practices create an imminent danger to private property interests. While no change was made in the language of Section 721.11(b), it is believed that threats to private property would almost certainly be a violation of the Act, regulations or permit conditions required by the Act which would require a Federal inspection.

5. One commenter requested the right to contest State inspection reports which allegedly indicate violations of the Act prior to triggering a Federal inspection under Section 502(e)(2) of the Act. The justification given for this request was that without necessary safeguards, arbitrary reports incorrectly indicating a violation would mandate a Federal inspection.

This comment was not adopted because no such right was given under the Act nor was any such review believed contemplated by Congress. If the State inspection reports incorrectly reflect that a violation of the Act has occurred, a Federal inspection will result in no more than a verification of that fact, unless other violations of the standards are found.

6. The same commenter indicated that it was not clear from a reading of Section 721.11 of the regulations what is meant by a State inspection report. No additional language was inserted in Section 721.11 to cover this point because Section 720.14(a) of the regulations describes the types of reports which are to be submitted by the States to the appropriate district managers of the Office.

7. The recommendation was made in one comment to add the words "any person having an interest which is or may be adversely affected" to Section 721.11(b). It was suggested that allowing the submission of information by any person would invite submission of frivolous claims. This recommended language was not adopted because the Act and the legislative history are clear that receipt of any information may trigger a Federal inspection in the initial regulatory period, if it provides a reasonable belief that the Act is being violated.

8. Several commenters recommended that Section 721.11 make clear that the information received must be verified before it can provide the basis for a Federal inspection in the initial regulatory period. The justifications for these recommendations are that written and verified charges will prevent needless and superfluous inspections and that Federal inspectors will be better able to form a "reasonable belief" that a violation occurred if the charges are in writing. It was additionally argued that Section 517(h)(1) of the Act provides for written notice to the Secretary and that the legislative history refers to documentary evidence such as photographs.

These comments are treated with the comments on Section 721.13 dealing with inspections based on citizen requests.

9. Several commenters objected to the definition of complete inspection contained in Section 721.11(c). The gist of the comments was that the words "onsite review" is too vague and that the definition must ensure that the inspection determines the extent of the permittee's compliance with all relevant performance standards. Additional language was inserted in Section 721.11(c) to reflect these comments, since a complete inspection should be a review of compliance with all applicable standards.

10. One commenter suggested inclusion of a provision to create adequate checks and balances on any uninformed or overzealous inspectors. While no language was inserted in Section 721.11 regarding this suggestion, inspectors will be monitored by the Office of Surface Mining to prevent, as far as possible, abuses of conduct from occurring. Additionally, Section 521(a)(5) of the Act and Section 722.15 of the regulations provide for informal minesite hearings to review cessation orders within 30 days of their issuance. It is anticipated that this review plus internal control and monitoring on the part of the Office will prevent abuses from occurring. Notwithstanding these precautions, if some abuses occur, formal administrative review is available to the permittees under Section 525 of the Act.

11. Finally, one commenter urged that a new paragraph (d) be added to Section 721.11 to provide that all inspections are to be done at reasonable times, within limits, in a reasonable manner and conducted to preclude unreasonable disruption of business operations. It was stated that such a provision exists in the regulations of the Occupational Safety and Health Administration. While no additional language has been added to the regulation, it is the intention and expectation of the Office that no unreasonable inspections will occur in a manner that unnecessarily interferes with mining operations. However, the Act requires inspections without notice and in any area of the operation necessary to determine compliance with the Act and regulations.

It is not intended that inspections be restricted to "normal business hours" if the exigencies or violations justify inspection at other times. An example would be attempts to detect illegal discharges or other night-time activities which are prohibited by the Act or regulations.

12. Several commenters objected to the language contained in Section 721.12(b) as to access to and copying of "any records." It was recommended that only those records which are required to be maintained under the regulations or the permit should be inspected or copied. This comment has merit, but it is not necessary to change the language of Section 721.12 to reflect this comment since this section is taken directly from the Act. It is true however, that the authorized representatives will only inspect and copy those records required to be maintained under the Act, regulations or permit.

{62665} 13. Several commenters requested deletion of the words "without a search warrant" contained in Section 721.12(a). The suggestion was also made to add a new paragraph to Section 721.12 to require the Secretary to give a specific written order for an inspection where it is contemplated that a criminal penalty might result. Such order would set forth the basis upon which it was being issued, the matters to be inspected and the provisions of Section 502(b) and (c) allegedly violated. Additionally, it was suggested that the regulations provide that no such inspection could be made without

the issuance of a valid search warrant and that no criminal penalty may result from an inspection conducted without a search warrant.

This comment was rejected. With regard to a specific written order by the Secretary to inspect, such requirement is considered unworkable and without justification under the Act. The comments regarding search warrants are rejected because the Act contemplates warrantless inspections and because present law authorizes warrantless searches in circumstances such as those under which the Office of Surface Mining's inspections will be conducted. Furthermore, if inspections occur where criminal activity is suspected, these can be dealt with on a case-by-case basis.

14. A number of commenters objected to the words "suspects" in Section 721.13(a) regarding citizen reports to the Office of Surface Mining. It was generally argued that suspicion is insufficient and that the citizen should know or at least have a reasonable belief that the violation has occurred. The suggestion was made that disgruntled landowners, improperly motivated environmentalists or competitors would be able to prompt a Federal inspection without sufficient grounds. The idea of the agency flooded with spurious complaints was further raised as justification for the removal of the term "suspects." These comments were considered along with the Act and legislative history. It is believed that spurious, vindictive and groundless complaints would not become the source of harassment or financial loss to surface coal operators. On the other hand, the Act and legislative history make clear the Office's duty to respond to any information furnished by any person which gives rise to a reasonable belief that the Act or regulations are being violated. To accommodate this duty, yet to discourage and prevent frivolous or vindictive complaints, the word "suspects" has been deleted and the word "believes" inserted in its place. Therefore, if one "believes" a violation has occurred, the Office would then determine whether the information gives rise to a reasonable belief that a violation has occurred.

15. A number of commenters objected to the provisions requiring written citizen complaints. The comments generally stated that this requirement was both unworkable and potentially dangerous where imminent dangers or significant, imminent environmental harms were concerned. Additionally, it was argued that the writing requirement would seriously limit citizen access to the Act's enforcement procedures which is contrary to the clear intent of Congress.

Several comments received regarding Section 721.11 recommended that this section should make clear that citizen information should be in writing. The justification given was that written and verified charges prevent needless and superfluous inspections and more adequately enable the Office to form a reasonable belief as to the occurrence of a violation.

It is believed that an inflexible requirement of written information is unworkable in many situations such as where imminent hazards exist. Even if one could normally drive to the local OSM office to deliver a written complaint, this may be impractical in some instances, particularly where transportation or roads may be inadequate, or distances great. Thus the regulations allow for oral reports to be followed by a written and signed report.

In addition, the same tests of reasonable belief would continue to apply whether the complaints were oral or written. Even when written complaints are received they must be accompanied by a telephone number, and inspectors will routinely call the citizen to discuss the details of the complaint

so that it can be evaluated. Therefore, no additional abuse will occur from the receipt of oral complaints.

16. Several commenters suggested that a complaint should be considered as having a reasonable basis if it alleges facts "and states the basis for such facts" which, if proven to be true, would show a violation. The commenters reasoned that the Secretary would be better able to judge the complaints and that there would be no additional burden on the citizen.

The recommended language was not adopted although the Office intends to inquire of citizens as to the basis of their complaints. On the other hand, a rigid rule regarding necessity of documentary proof in every case seems totally contrary to the intent of Congress. Such documentary evidence as photographs, while desirable and preferable, obviously cannot

always be available if for no other reason than citizens would have no legal right of access onto mine property to photograph violations.

17. Numerous commenters objected to the lack of a specific time period in which a Federal inspection must be conducted under Section 721.13(a). This section was amended to provide that inspections are to occur within 15 days of receipt of the complaint or promptly if an imminent hazard is reasonably believed to exist. Such language is appropriate in order that alleged violations and imminent hazards which are reasonably believed to exist are checked and, where appropriate, remedied rapidly.

18. Several commenters requested that the cost to the government of a Federal inspection or any losses in time or production incurred due to unsubstantiated complaints by citizens be borne by these citizens. These comments are not adopted because there appears to be no basis in the Act for such a remedy.

19. One commenter recommended that citizens be required to send carbon copies of their reports or complaints to the permittee about whom they were reporting. This comment is rejected because it would notify a permittee who may be violating the Act that a Federal inspection may be about to occur.

20. Numerous commenters objected to the provisions of Section 721.13(a)(2) regarding the confidentiality of persons supplying information to the Office relating to possible violations or imminent hazards. The comments argued that the Act makes no provision for maintaining the anonymity of citizens and that the concept of a "secret informant" is abhorrent to a fair administration of the Act. Also, it was argued that because criminal sanctions may be imposed under the Act, the permittee has a right to be informed of the nature and cause of the accusation and to be confronted by the witnesses against him. Another argument was that the Office may unwittingly be allowing coal operators to direct Federal enforcement away from themselves and toward their competitors. Several commenters stated that bona fide complainants would not hesitate to have their identities disclosed and that there is no legitimate purpose to be served by concealing a citizen's identity.

The provision in issue does not enable a citizen to keep his identity from the Office when supplying information. It merely allows the citizen to request that his name not be disclosed to the public and requires the Office to honor that request. When receiving and analyzing information from citizens, the Office will ascertain the identity of the citizen, where he lives and what his relationship is, if any, to the permittee so that the information can be properly weighed and evaluated.

On the other hand, it is believed that citizens who desire not to have their identity known to the general public have a right to expect that this request will be honored. Such confidentiality outside the Office of Surface Mining would not impinge on any rights of mine operators. The right to face one's accuser under the Sixth Amendment to the Constitution relating to obtaining the identity of an informant or other accuser is available after a criminal indictment or information is brought against an accused. No such right exists prior to such indictment or information.

In addition, citizens reporting violations of the Act are not in the same category as accusers of criminal conduct. If a violation is observed by an inspector following a complaint by a citizen, it is the inspector who would be confronting the operator and who would provide the basis for obtaining a penalty against the permittee. The citizen supplying information is merely the person who brought the violation to the attention of the Office.

{62666} The need for confidentiality upon request is grounded on a belief that many citizens will be reluctant to come forward if they are concerned about harassment, black-listing, or physical abuse even if such concern is generally groundless. Additional language was inserted, however, to clarify that disclosure would not be made unless required under the Freedom of Information Act or by other Federal law.

21. Several commenters requested that the appropriate permittee should be contacted when the Office notifies a person who supplied information that an inspection is to occur. Other commenters requested that the State regulatory authority be notified at the same time a citizen is notified. The operator is not to be notified prior to an inspection because the Act requires that inspections be conducted without advance notice. While no change in language was made in Section 721.13(b)(1), it is understood that the Office will keep the State regulatory authority apprised of Federal enforcement activities so that proper coordination and exchange of information can occur.

22. Numerous commenters objected to the citizen's right of entry provision. Some commenters felt that the provision was not sufficiently specific to prohibit the citizen from examining cost and sales records of a permittee. Citizens do not have such a right and inspectors will be instructed to prevent such an occurrence.

Other commenters requested a provision requiring the inspector to obtain a written release from the citizen for any injuries suffered by the person while on mine property and to indemnify and hold harmless the Secretary and the permittee from damages or injuries caused by the citizens during an inspection. It was also suggested that no person should be allowed entrance if his presence is in violation of the Coal Mine Health and Safety Act of 1969.

These changes were not adopted in the regulations. The regulations provide that a citizen accompanying a Federal inspector must remain in the presence of and is under control, direction, and supervision of the inspector while on mine property. It is expected that internal guidelines will be published specifying what an inspector can allow a citizen to do while

under his direction and control. It is further the intent of the Office to ensure that persons accompanying inspectors will be allowed to enter only those areas which are considered safe and that required protective equipment will be worn during inspections. It is not believed, however, that these restrictions and provisions should be included in the enforcement regulations. These would appear to be internal rules that guide inspectors in their duties. With regard to releases, indemnity, and "hold harmless" agreements, permittees have a right to expect a certain degree of protection from liability or damage caused by citizens on mine property. However, there is no authority contained in the Act or legislative history to authorize the Secretary to require citizens to execute such documents.

Several commenters requested that the permittee receive copies of reports specified in Section 721.13(c)(1) and (2) relating to the results of investigations by Federal inspectors or reasons for not inspecting following a complaint. In reaction to these comments, a new paragraph (c)(4) has been added to provide that permittees shall receive copies of all such reports which have not already been given to the permittee, except that the name of the person who supplied information will be removed.

23. Several commenters requested that permittees be notified of the scheduling of informal review proceedings outlined in Section 721.13(d) and permitted to participate in such conferences. These comments were not adopted because the informal review rights created by the Act relate specifically to a citizen's right to determine why his complaint was not acted upon or why certain action was taken. There is no reference in the Act or legislative history to participation in this process by the permittee. If any enforcement action occurs which is adverse to the permittee, he is fully entitled to participate in informal and formal review of these actions under Section 521(a)(5) and Section 525 of the Act.

24. One commenter suggested that a time limit be placed upon review under Section 721.13(d). This comment was adopted to require notification of the results of the review within 30 days and that informal review would not affect any rights to formal review or a citizen's suit.

25. Section 721.14 provides that a notice of violation or cessation order otherwise proper may not be invalidated because of errors by OSM in giving notice prior to the inspection or by reason of a subsequent determination that, prior to the inspection, OSM did not have information sufficient to create a reasonable belief that a violation had occurred. Comments were received that this section is improper and will insulate unlawful conduct by OSM. The Act and the regulations require notice to a complainant to allow him to accompany an inspector. The Act and the regulations also require an OSM inspection when it receives information which creates a reasonable belief that a violation has occurred. These activities are not relevant to the question of whether a violation has occurred once an inspection is made. The Act applies certain standards to mining and authorizes inspections at any and all times in the discretion of OSM. If an inspection is made and a violation discovered, the activity preceding the inspection should not be relevant to the treatment of the violation, much less be grounds for vacating any enforcement action taken. Of course, activity inconsistent with the regulations by OSM personnel is to be avoided and should be called to the immediate attention of OSM.

PART 722 - ENFORCEMENT PROCEDURES

1. One commenter suggested that the regulations regarding the issuance of cessation orders for imminent hazards (imminent danger to public health or safety or significant, imminent environmental harm) should provide for reimbursement to a permittee for lost productivity and related expenses incurred as a result of the cessation of mining or from any additional personnel and equipment required by the Secretary if the order was subsequently determined to be unjustified. This comment was rejected as being unsupported by the Act or the legislative history. If a cessation order is vacated by the Office or by an administrative law judge, there would be an appropriate impact on any assessment of civil penalty. The Act provides no basis, however, for financial reimbursement to a permittee for lost production or other expenses.

2. Another commenter argued for precessation order review proceedings including a hearing or consultation with mine management and for approval of any cessation orders by the District Manager prior to issuance. This comment was rejected because the Act mandates the issuance of a cessation order if the Secretary or his authorized representative determines that an imminent hazard exists. To delay issuance of the order pending a hearing would be inconsistent with the concept of imminent hazard. While consultation with mine management and the appropriate District Manager is to be encouraged, the Act clearly requires the issuance of a cessation order when an authorized representative of the Secretary has concluded that an imminent hazard exists.

Regarding the comment as to a precessation order hearing, the only hearings specified by the Act regarding notices and orders are to occur following the issuance of notices or orders.

3. Several commenters suggested deleting references in Section 722.11(a) and (b) to ordering cessation of surface coal mining and reclamation operations leaving reference only to cessation of the portion of the operations relevant to the condition, practice, or violation. The suggested language was not adopted because the wording used in the regulations tracks the wording of Section 521(a)(2) of the Act.

4. One commenter requested that there be guidelines regarding the determinations as to the issuance and termination of cessation orders. It is believed that guidance is provided by the definitions of imminent danger and significant, imminent environmental harm contained in Section 701(8) of the Act and Section 700.5 of the regulations. Additional guidance to inspectors is expected to be provided in inspector training, manuals, and memoranda to be developed by the Office. This material will be available to the public.

5. A commenter suggested adding the words "prior to the time the condition, practice, or violation can be abated" in Section 722.11(b) to bring the section in line with the definition of imminent danger as contained in Section 701(8) of the Act. No change of this nature was made since Section 722.11(b) basically tracks the language of Section 521(a)(2) of the Act. Furthermore, the definition of significant, imminent environmental harm contained in Section 700.5 of the regulations adequately conveys, it is believed, the concept of imminence to guide inspectors in the issuance of cessation orders under Section 722.11(b).

6. One commenter urged that only the Secretary of the Interior, and not his "authorized representative", impose affirmative obligations on a permittee. While the language of the Act uses "Secretary" regarding affirmative obligations, such a limitation would be totally unworkable and would frustrate the intent of the Act as to enforcement. Furthermore, there is no reason or support for the conclusion that Congress intended the Secretary personally to visit mine sites throughout the country to impose affirmative obligations in cessation orders. In any case, delegation of authority by the Secretary is an appropriate exercise of his authority to assign work and responsibility.

{62667} 7. An additional suggestion with regard to Section 722.11(c) was to delete the words "condition, practice, or violation" in the first paragraph and the words "or eliminate the practices or conditions that contributed to the imminent danger or significant, imminent environmental harm" in Section 722.11(2). This comment was occasioned by the belief that the Act does not authorize the imposition of affirmative obligations to eliminate conditions, practices, or violations which merely contribute to the imminent danger. This comment was not adopted because it is believed to be an unduly restrictive interpretation of the Act and because adoption of the suggested language would create an unworkable enforcement mechanism which would frustrate efficient enforcement of the Act which was deemed by Congress to be central to the success of the surface mining control program. There appears to be no basis for concluding that Congress intended inspectors to issue cessation orders citing imminent, hazards resulting from various conditions, practices or violations without a further duty to impose affirmative obligations to eliminate those conditions, practices or violations. The right to impose affirmative obligations, to abate imminent hazards carries with it the obligation on the permittee to abate the condition, practices or violations which contributed to the imminent hazard.

Additionally, it would be totally unworkable and illogical to have some of the conditions, practices or violations contributing to the imminent hazard abated by affirmative obligations and others, contained in the same cessation order, abated in another fashion. The confusion to permittees and inspectors alike from such a procedure would cripple the affirmative obligation provisions and frustrate the intent of Congress.

8. One commenter suggested that more specific language be inserted in the affirmative obligation section to include the use of extra shifts and workers and the acquisition of necessary equipment. The language in the proposed regulation is believed to be adequate to include the types of activity listed in the comment.

9. It was suggested in several comments that when imposing affirmative obligations, abatement be accomplished in the most expeditious "and economically feasible" manner physically possible. The concept of economic feasibility is considered inappropriate and unsupported by the Act or legislative history. Another commenter suggested that use of existing or "reasonably available" personnel and equipment be required rather than existing or additional personnel and equipment. This comment was rejected because of the belief that Congress intended the affirmative obligation concept as being sufficiently broad to include whatever additional to avoid and equipment are required to avoid undue continuation of imminent hazards or violations. It is not expected, however, that arbitrary or unreasonable actions will be taken by inspectors regarding affirmative obligations.

10. Three commenters requested that Section 722.11(f) be changed to require inspectors to terminate cessation orders upon abatement of the conditions, practices or violations which caused the danger. The proposed regulation states that an authorized representative may terminate a cessation order upon abatement. This requested change was made so as to comport with the wording of the Act. Additionally, it was requested that authorized representatives be required to check on abatement if requested by an operator. Such language was not deemed to be necessary although the Office expects that permittees may request inspections to check abatement of cessation orders and that inspectors will terminate cessation orders promptly upon satisfying themselves that complete abatement has occurred.

11. Another commenter urged that the phrase "cultural and historic resources" be added whenever referring to the environment in Section 722.11(e) as well as in paragraphs (b) and (c). This language was not adopted in order to have the regulations track the language of the statute. However, the Office does not wish to preclude the possible inclusion of cultural and historic resources within the broader concept of environmental harm.

12. One commenter suggested the addition of a new paragraph (f) in Section 722.11 giving the right to permittees to obtain temporary injunctions against enforcement of cessation orders until a minesite review is held and a ruling made under Section 722.15. This comment was rejected because the informal minesite hearings under Section 722.15 of the regulations and Section 521(a)(5) of the Act are clearly not intended to stay the effect of a cessation order, but rather a cessation order expires if such a hearing is not held unless the hearing is waived. Furthermore, temporary relief against enforcement is provided for in Section 525 of the Act and will be dealt with in procedural regulations in 43 CFR Part 4.

13. Numerous comments were received regarding the prohibition contained in Section 722.12(c) of the proposed regulations against extending beyond 90 days the time for abatement as originally fixed and subsequently extended. It was stated that the 90-day limit will create unnecessarily harsh results especially when considered with the provisions of Section 722.16 relating to inability to comply. The occurrence of such events as labor disputes, unavailability of equipment, acts of God and other acts of force majeure should be considered, it is argued, in extending the 90-day period. Several commenters urge that such a result is authorized by Section 521(a)(3) of the Act.

Other comments address the same issue but have different suggested language such as changing the 90 days to 180 days and extending the abatement time for "good faith shown" without a hard-and-fast number of days as a maximum.

These comments were rejected because Section 521(a)(3) is interpreted as prohibiting the setting of an abatement time, initially or as extended, beyond 90 days. Section 521(a)(3) does provide for extending the period of abatement for good cause shown, but such authority does not create an argument for abatement beyond 90 days. Additionally, the legislative history of the Act clearly states that while an inspector may extend the initial abatement period, the total abatement period cannot exceed 90 days.

14. One commenter recommended amending Section 722.12 to set out clearly that the Secretary can establish interim steps on an abatement period, and that failure to meet these interim steps may result in the issuance of a cessation order. This suggestion was adopted and a new paragraph (c) was inserted. While it seems clear that the Secretary has such authority under the provisions of Section 521(a)(3) of the Act, specifically providing for the right to establish interim steps seems appropriate to advise industry as to the methods which may be used in issuing notices of violation.

15. One commenter requested that the proposed Section 722.13 be amended to delete reference to the imposition of affirmative obligations in a cessation order issued for failure to abate and to state instead that steps necessary to abate the violation shall be included in the order. It is argued that such language directly tracks the language of Section 521(a)(3) of the Act and conveys a different meaning from the concept of the imposition of affirmative obligations.

The suggested language change was not adopted in this instance. While Section 521(a)(3) does not contain the words "affirmative obligations" relative to the issuance of cessation orders, Congress intended that the authorized representatives of the Secretary should impose affirmative obligations when issuing cessation orders under Section 521(a)(3) of the Act. Such an interpretation is reasonable considering that this remedy is available for cessation orders under Section 521(a)(2) of the Act regarding imminent hazards and since the words "determine the steps necessary to abate" are wholly consistent with the concept of affirmative obligations. Moreover, the legislative history uses the words "affirmative obligations" and "steps necessary to abate" interchangeably when discussing Sections 521(a)(2) and 521(a)(3) of the Act. Accordingly, it is apparent that Congress intended that affirmative obligations be used under Section 521(a)(3) of the Act

{62668} 16. One commenter wished to limit cessation of surface coal mining and reclamation operations to the portions relevant to the violation and to restrict the use of the affirmative obligations power to the Secretary of the Interior himself

and not to his authorized representatives. These issues were likewise raised in the comments to Section 722.11 of the proposed regulations and were addressed in the discussion of comments to that section.

17. A comment on Section 722.13 suggested a provisions requiring termination of cessation orders issued under this section when the authorized representative determines that the cause of the danger has been eliminated. This commenter further recommended requiring inspection of a minesite to check on abatement within 2 days of such request. The suggestion regarding mandatory termination of orders was adopted and the other recommendation was not adopted for the reasons stated in response to the same comment under Section 522.11(e) of the proposed regulations.

18. A number of commenters objected to the authority contained in Section 722.14 to serve notices and orders on any person on the minesite who appears to be in charge of the mining or reclamation operation if no designated agent is found. Some of the commenters objected because there was no requirement that the inspector attempt to look for or ascertain the whereabouts of a supervisory official or other designated agent. Specific language was recommended regarding reasonable inquiry by an inspector which was adopted in the final regulations. Reasonable inquiry to ascertain the person in charge of the mining and reclamation operations is appropriate.

19. Other comments recommended the addition of a provision in Section 722.14 stating that service is not complete until actual delivery is made to the permittee or his designated agent and that if personal service cannot be made upon the permittee or his designated agent at the minesite, service is to be accomplished by certified mail with actual delivery representing completion of service. This comment was not adopted because the exigencies of imminent hazards as well as the necessity to commence immediately abatement of non-imminent hazards to prevent their spread or degeneration dictate completion of service of citations at the time of the inspection.

20. Other commenters objected to having persons receiving notices of violation or cessation orders being responsible for any immediate compliance actions required by the notice or order. This provision of Section 722.14 is deemed essential and justified for the same reasons as given previously: if the permittee fails to have responsible supervisory personnel at the minesite and immediate action is required to remedy a situation, the inspector must look to the person or persons who, based upon reasonable inquiry, appear to be in charge of the mining and reclamation operations. Any delay in obtaining abatement of violations or imminent hazards may well prove harmful to personal safety or to the environment.

To assure rapid notification of a citation to a permittee where no designated agent can be located on mine property, the proposed regulations were changed to provide for mailings to the permittee within 48 hours of the issuance of the citations rather than 5 days as originally proposed.

21. One commenter suggested that each notice under Section 722.14 should set forth with reasonable specificity the nature of the violation, the remedial action required, the time required for abatement, and a reasonable description of the portion of the minesite to which the notice or order applies. All notices and orders should contain the above information as required by Section 521(a)(5) of the Act. However, recitation of these requirements in the Act is deemed to be sufficient and inclusion in the regulations unnecessary.

22. Several commenters objected to limiting newspaper notice of minesite hearings to "the extent possible", reasoning that such notice should be mandatory in all cases. It was stated that greater citizen participation would result if notices were published in a newspaper in each instance. This recommended change to Section 722.15 was not adopted because there may realistically be instances when sufficient time is not available for published notice. Such would be the case where, for instance, no hearing is scheduled until immediately prior to the end of the 30-day period following issuance of the cessation order because of a belief that the order would be abated within the 30-day period. In such a case, sufficient time may not exist for published notice. Effort would be made, however, to notify known appropriate parties by other means, including telephone.

23. A number of comments on Section 722.15 objected to limiting the persons to be notified of such hearings to citizens who filed a report which led to the cessation order under review and to the State regulatory authority. It was recommended that notice be given additionally to any person who had communicated to the Office within the prior year an interest or concern about violations or dangers at the subject mine.

The notice provisions regarding minesite hearings are not intended to preclude or discourage citizens from attending the hearings. However, given the likely notice by newspaper and posting at appropriate district or field offices and at the minesite, it is believed that sufficient notice is provided for in Section 722.15. The person with the primary interest in the

particular cessation order involved, the one whose report prompted the inspection in the case of a citizen-initiated inspection, is to be given direct notice of the time, place and subject matter of the hearing.

24. One commenter suggested that in addition to distributing the results of the hearing to the persons designated, the results should also go to any person who had expressed a desire to be notified as to a particular cessation order. While this language was not adopted in Section 722.15, the Office will endeavor to respond to such requests since persons who may wish to request a formal hearing before the Office of Hearings and Appeals need to know the status of a particular cessation order.

25. The same commenter recommended that the word "substantial" be deleted from Section 722.15(b) and that a sentence be added prohibiting any discussion between the Office and a permittee as to the merit of a cessation order unless the discussion occurs during an informal hearing. This recommended change was rejected as being too restrictive in that it would essentially eliminate contact and constructive exchange between the Office and the industry it regulates regarding the issuance of cessation orders.

26. Several comments on Section 722.15 stated that the 30-day time period for conducting minesite hearings is excessive in light of losses experienced by the permittees as a result of cessation orders. The only guidance from the statute is that the cessation orders will expire within 30 days unless the hearing is held. While it is expected that informal minesite hearings will be held as promptly as possible under the circumstances where the cessation orders have not been terminated because the condition has been corrected, a reduction in the mandatory 30 days is considered to be inappropriate because of the need for flexibility by the Office. There may well be situations when it appears that an order will be complied with promptly but the permittee subsequently encounters difficulties occasioning the last-minute scheduling of a conference.

26. One commenter suggested making the minesite hearings permissive rather than mandatory because of the language of Section 521(a)(5) of the Act. This change was adopted leaving the discretion with the Office. The result would be that unless such a hearing is waived by the permittee, a cessation order would expire if no hearing is held. Of course, previously terminated orders do not require a hearing and will not expire for purposes of the permittee's history.

The same commenter also objected to the provision which states that no hearing will be required where the operator waives the hearing. This comment was rejected because the intent of the minesite review provision as evidenced by the legislative history is to provide a field level review of cessation orders without the burden of a more formal administrative review. Clearly, if the permittee does not want such a review, it would be inappropriate and wasteful for all parties to conduct such a hearing. Additional language regarding waiver was inserted to clarify the point that the cessation order will not expire in the event of a waiver.

27. Several commenters state that the hearing provided pursuant to Section 521(a)(5) of the Act should be a formal hearing under the Administrative Procedure Act presided over by an administrative law judge. Legislative history in the form of floor debates was cited as evidence that such a hearing was intended. These comments were rejected, however, because it is clear that Congress did not intend the minesite hearings to be formal adjudicative hearings before administrative law judges. The minesite hearing provision was added to provide an informal review by a supervisory official of a cessation order and not the formal adjudicatory hearing as is provided by Section 525 of the Act. This intent is made clear by a colloquy between Senators Metzenbaum and Metcalf which distinguishes the formal review under Section 525 of the Act and the informal minesite review under Section 521(a)(5). 123 Cong.Rec. S12,443 (daily ed. July 20, 1977). That the minesite hearing is not intended as a formal adjudicatory hearing is also evidenced by examination of other review available to a permittee under the Act regarding a cessation order, including the 30-day decision required of the Secretary in adjudicatory hearings and availability of temporary relief under Section 525 of the Act.

28. Another commenter urged that the public hearing under Section 521(a)(5) must result in a decision within 30 days rather than be held within that time. This comment is rejected, however, because it is not consistent with the language of the Act or the legislative history.

{62669} 29. A number of comments were received regarding the provisions of Section 722.16 of the proposed regulations, appearing now as Section 722.17 of the final regulations, which prohibit vacation of a notice or order because of inability to comply. While several commenters urged complete deletion of the section, others requested retention only of the principle that inability to comply may be considered in mitigation of the amount of a civil penalty under Part 723 of the regulations. Still other commenters recommended the addition of new language which would exempt or provide for additional time for compliance to correct practices or violations resulting from conditions beyond a permittee's control such

as labor disputes, unavailability of equipment, acts of God, and other events commonly termed force majeure. One commenter suggested that the time fixed by an inspector for abatement of a violation should be tolled and good cause would be deemed to exist should there occur any event not within the control of the permittee which renders timely abatement impossible.

The language contained in the proposed regulation was retained because the Act does not authorize either total avoidance of compliance with the performance standards or a tolling of the time fixed for abatement where events such as labor disputes, equipment shortages, or the like occur. Because the degree of negligence is one of the statutory criteria contained in Section 518 of the Act regarding the assessment of civil penalties, the inability of a permittee to comply is considered to be appropriate for consideration as a mitigating factor in the amounts of civil penalties, unless a lack of diligence is shown.

30. Numerous comments on Section 722.17 of the proposed regulations, appearing now as Section 722.16 of the final regulations, addressed the question of whether a national norm showing a pattern of willful or unwarranted violations should be established and used to trigger the issuance of show cause orders under this section. Most of the comments were opposed to a national norm concept. A number of commenters stated that if the norm concept were retained in this section, it should, at a minimum, be a State or regional norm to take into account regional differences such as the size and type of operations and the different problems and conditions faced. Several commenters reasoned that Western operations are generally much larger and face much different climatological and other problems than the numerous small mines in the East.

Others objected to the national norm concept because it meant that a fixed percentage of the coal operators nationwide would automatically be subject to show cause proceedings and would constantly be in jeopardy. Further comments argued that the national norm would be impossible or extremely difficult to calculate causing considerable waste and confusion in recordkeeping, thus possibly delaying implementation of an effective enforcement program.

The regional norm approach was given careful and thorough consideration. It was not adopted in these regulations because of a number of factors. First, it is doubtful that sufficient and adequate statistical data would exist in most of the initial regulatory period to enable this approach to become truly workable. Secondly, without knowing with any degree of certainty how many willful or unwarranted violations will occur during the initial regulatory period, it would be difficult to affix a percentage above the regional norm at which a pattern should be deemed to occur.

However, OSM will develop, during the interim period, the recordkeeping and analytical capability to calculate a national or a regional norm to be used for guidance in enforcement policy and for use in adopting, if feasible, further regulations for a mandatory system based on a national or regional norm.

As to the use of a mandatory show cause order, the Office considered the suggestion that the Director be given an understanding of the Secretary's intentions regarding what is a pattern, but that he be given the flexibility to administer Section 521(a)(4). The response to this suggestion is twofold. First, Section 722.17(c)(2) of the proposed regulations provides discretion for the Regional Director to determine when there is a pattern of violations. Second, a fixed standard of conduct is needed beyond which the permittee knows he is subject to an order to show cause. If however, such a system produces results of the Act's standards, a finding to that effect could be made, and no show cause order would issue.

The option selected was to require the issuance of a show cause order if the permittee violates the same or related requirements of the Act, willfully or due to an unwarranted failure to comply, during three or more Federal inspections within any 12-month period. It is believed that such a procedure reflects the intent of Congress as to what constitutes a pattern. The legislative history clearly states that the Secretary must issue a show cause order when the permittee violates the same or related standard "several times". The number of violations was set at three because this is considered to be consistent with the concepts of "several" and "pattern". If a show cause order would not further enforcement of the standards in the Director's judgment, a finding would be made with an appropriate explanation as to why a pattern is not deemed to exist in that instance.

31. Several comments state that Section 722.17(d)(2) of the proposed regulations is not in conformity with the Act in that it requires suspension or revocation of a permit if the Secretary finds that a pattern of violations exists or has existed. The reasons stated for this position are that the standard is arbitrary and lacking in due process and that it would require suspension or revocation of a permit even if past violations had been corrected.

These comments were rejected because it is believed that the central focus of the provisions of Section 521(a)(4) of the Act is the concept of a pattern of violations. The order to show cause directed to the permittee referred to in Section 521(a)(4) of the Act is to afford the permittee an opportunity to demonstrate that he is not in a pattern of violations. This can

be done in several ways including a showing that the violations alleged to constitute the pattern are neither willful nor unwarranted or a showing that they are not violations. Once the Secretary concludes, after the opportunity for public hearing is given, that a pattern exists, the permit must be suspended or revoked. The length of any suspension, however, is within the discretion of the Secretary.

The comment that correction of past violations would be a defense to a suspension or revocation is likewise rejected because it is contrary to the Act and the legislative history.

32. Two commenters recommended that all regulations regarding pattern of violations be deferred until such time as the procedural regulations contained in 43 CFR Part 4 are promulgated. This comment was rejected because the pattern of violations regulations are considered integrally related to the other enforcement regulations which are being published at this time. It should be noted that the procedural regulations are now in preparation and will be published for comment.

33. One commenter objected to the lack of standards as to whether there will be a suspension or a revocation under Section 722.17 of the proposed regulations. While there is some guidance contained in the legislative history, it is believed that these standards are more appropriately suited for inclusion in the procedural regulations in 43 CFR Part 4.

{62670} 34. Several comments on Section 722.17 of the proposed regulations recommended certain procedural provisions such as burden of proof in show cause proceedings and types of evidence which must be offered and considered. These comments are also more properly directed to the procedural regulations to be contained in 43 CFR Part 4.

35. Finally, it was requested that Section 722.17(c)(1) of the proposed regulations be restricted specifically to the permit area so as to eliminate an ambiguity as to whether a pattern relates to a particular operation or all of a permittee's operations. No change was made as a result of this comment because the comment is not inconsistent with the intent of the proposed regulation and the Act.

PART 723 - CIVIL PENALTIES

Part 723 covers the assessment of civil penalties under Section 518 of the Act for violations of Title V of the Act, the regulations and permit conditions.

1. Several comments were received that the proposed regulations were too inflexible while others supported the detail and the mandatory provisions. Some comments were received complaining of the difficulty of defining and using general terms such as "negligence" and "seriousness" and "good faith in compliance" while others, sometimes citing past MESA difficulty, urged that few if any regulations be adopted and that civil penalties be determined and assessed on a case-by-case basis.

The maximum degree of consistency and rationality was the goal sought in developing regulations to guide the exercise of enforcement judgment in imposing civil penalties. Given the large number of mines and Federal inspections under this program, the civil penalty system is designed to allow the handling of many notices of violations and cessation orders with a minimum of involvement by policy makers and lawyers in each individual case. Policymakers and lawyers would be deeply involved in case-by-case development of a civil penalty which is proposed without guiding regulations.

The detail of the regulations and the mandatory provisions also produce substantial certainty. Certainty is an important element in enforcement; certainty increases effectiveness and decreases disputes.

The use of the terms "negligence," "seriousness," and "good faith in compliance" are required by Section 518 of the Act. The regulations attempt to reduce the uncertainty about the interpretation of these key phrases, but there is no way to reduce the element of judgment inherent in those terms. A reduction in detail in the regulations will not solve any problems in using these terms, and it may exacerbate them. Clear policy direction and effective training and management of the people within OSM who will interpret daily these phrases is important and will be accomplished.

2. Comments were received that assessment of violations contained in a cessation order should be discretionary and that the determination of whether to assess a penalty for such violations should be made by use of a formula similar to that presently adopted for assessing penalties for notices of violation. This was not adopted because Section 518 of the Act requires that all violations which lead to a cessation order must be assessed.

3. Commenters suggested that the word "operator" should be deleted and the section apply only to permittees. This has been accepted. The word "operator" was originally used to bring a person conducting underground mining within this

section. Since such a person is now covered by the definition of the word "permittee" in Section 717 of these regulations and thereby brought under all the enforcement regulations, including this section, the use of the word "operator" is unnecessary.

4. Comments were received that the regulations should be changed to clarify that the previous violations relevant as history are those at the particular mine, not those for all mines of a particular permittee. This comment is accepted. Only history of previous violations at a particular mine is considered in assessing a civil penalty; not the history at another operation of the permittee. While one change was made in Section 723.12 to clarify the point, other specific changes were not made because this point is sufficiently clear.

5. Comments were received that the regulations should allow the consideration of factors other than those four listed in Section 518 of the Act. This suggestion was not accepted because it would create uncertainty in results and administrative difficulty. It should be noted that the consideration of other factors may be possible on a case-by-case basis when the formula is waived pursuant to Section 723.15.

6. Comments were also received that OSM should use fewer than the four statutory criteria in making the determination to assess, and, in general, should devise a system to avoid assessments for minor violations. The point is well made, and the present system will achieve that goal. The use of the four statutory criteria is maintained in determining whether to assess because they are all relevant to the determination.

7. Section 723.12 contains the formula based on assigning points to each violation. One comment indicated confusion about the threshold number of 30 in paragraph (a) and its relation to the dollar conversion table in Section 723.13. The threshold number is used to determine whether a violation not contained in a cessation order will lead to a civil penalty. If such a violation is assigned 27 points in the formula, a penalty is not assessed. On the other hand, a penalty must be assessed for every violation contained in a cessation order, even in the unusual case in which such a violation is assigned less than 30 points. It is because of the latter possibility that the point-dollar conversion table goes below 30 points.

8. Commenters suggested that the threshold number of 30 in Section 723.12 was too high and would allow serious violations to escape assessment. The threshold remains at 30 for two reasons. First, many serious violations will lead to cessation orders given the broad statutory and regulatory definitions of "imminent danger to the health or safety of the public" and "significant, imminent environmental harm to land, air, or water resources." A penalty will be assessed for such violations regardless of whether they are assigned less than 30 points by the formula. Second, it is estimated that 30 will be a workable threshold number that will in fact separate those violations for which an assessment is appropriate from those for which it is not. OSM will pay close attention to the success of this threshold number in achieving this goal with a view to rapid change if it does not work as intended.

9. Comments were also received that the regulations should be changed to allow assessments as a matter of discretion for violations assigned less than 30 points. No change was made, although the Office has such discretion as the Act and the regulations stand.

10. Section 723.12(b) provides a method for converting the history of previous violations at the particular mine to points for use in the formula. Comments were received that OSM should not count previous violations that were being contested. That comment was accepted because of the potential unfairness and legal uncertainty of doing so. However, the period during which the violation was being contested will not count as a part of the 1-year period before the slate is wiped clean of past violations. If this were not done, certain violations would in effect never be counted even though they were sustained in the review process because of the time covered in the review process.

11. A comment was received that previous violations should not be counted if they did not lead to a civil penalty. This comment was rejected because such violations are just as indicative as others of previous conduct.

12. A comment was received that OSM should not weight previous violations which resulted in a cessation order by assigning the cessation order itself 5 points in addition to the 1 point per underlying violations. This comment was not accepted because with such weighting, the points assigned will more accurately reflect the actual facts and circumstances of the permittee's history. Cessation orders that resulted from a condition or practice and not from a violation are not counted.

13. A comment was received that OSM should count violations resulting from State inspections. While this has theoretical merit, it was rejected as too impractical in the initial program.

14. Comments were received that the number of points assigned to a given number of violations should be increased or decreased. The number of violations that will be encountered in the interim period is difficult to estimate. However, the present numbering system for history of previous violations should prove to be an effective measure. As in other segments of these regulations, OSM will monitor the civil penalty system closely and be alert to the need for adjustment on the basis of experience.

{62671} 15. Section 723.12(c) contains the criteria for determining the seriousness of a violation and assigning it points for use in the formula. There was much confusion about the criteria as proposed. The principal confusion was between the violation itself and the event against which a standard violated is designed to protect.

Section 723.12(c) divides seriousness into two components. The first is the probability of the occurrence, not of the violation of the standard itself which has already occurred, but of the event which the violated standard is designed to prevent. The best way to clarify this distinction is by example. There is an example in the paragraph as adopted. Another example is the standard requiring sedimentation ponds of a certain size and construction. Not having such a pond is a violation of the standard. Discharge of water from the permit area carrying greater concentrations of sediment than allowed is the event which the pond requirements are designed to protect.

The second component of seriousness is extent of potential or actual damage. This concept is designed to weigh the scope of the harm as if the event had occurred against which the violated standard was designed to prevent. For instance, failure of a refuse dam and consequent flooding is the event which the standards dealing with the construction of refuse dams are designed to prevent. Such a failure would have impact, probably catastrophic, far outside the permit area. Thus, any violation of a construction standard would be assigned the maximum 15 points under the second component of the seriousness test contained in Section 712.11(c)(2), even though the probability of such a failure resulting from the particular violation is insignificant and, therefore, assigned only 0 to 5 points under Section 723.12(c)(1).

The interrelation of these two components can be seen in another example. If the violation is a failure to spread topsoil over a relatively small area in a relatively flat terrain where the underlying strata is a good growing medium, the probability of a revegetation failure and erosion is insignificant. Furthermore, any failure or erosion would be very localized and probably only effect land within the permit area. In such a case, 0 to 5 points would be assigned for probability of occurrence and 0 to 7 points for extent of potential or actual damage.

If the area is large, on a steep slope, near the permit boundary and the uppermost layer is a poor growing medium, then revegetation failure and erosion are likely and the environmental harm will spread off the permit area. In such a case, 10 to 15 points would be awarded for probability of occurrence and 8 to 15 points for extent of potential or actual damage.

Comments were received that the concepts explained above were unclear in the regulations as proposed. Some changes, and the above explanation, clarify the regulations further. One comment suggested that instead of the approach taken, the regulations should list certain violations as per se serious. This idea has merit but was rejected as impractical at this time. Some practices may be serious in one circumstance and not another; to label a given practice as "serious" or "not serious" in every instance is likely to be unsatisfactory.

16. Section 723.12(d) provides criteria for assigning points based on the permittee's negligence. Several comments were received that the definition of negligence proposed is incorrect, or at least poorer than others available. One definition recommended is the definition contained in the American Law Institute's Restatement of Torts. While the assertion that the definition in the Restatement is superior has some merit from an academic viewpoint, the proposed definition was retained because it coincides with a key provision of the statutory definition of "unwarranted failure to comply." Having two different definitions, one for negligence in civil penalty assessments and the other for the negligence component of the concept of "unwarranted failure to comply," would be a legal and administrative nightmare. By making the definitions coincide these difficulties are avoided.

17. Comments were received suggesting that the attribution to the permittee of the actions of all persons working on the mine site was improper. They were rejected. The Act, and indeed State laws, makes the permittee liable for the conduct of the mining and compliance with the law. Anyone working on the mine is there for the benefit of or at the sufferance of the permittee. To excuse the permittee from violations resulting from activity of such people would undermine the permittee's motivation to exercise his control to protect against violations.

18. Section 723.12(e) provides a method for considering the permittees' "demonstrated good faith in attempting to achieve rapid compliance after notification of the violation." Comments were received that the test for rapid compliance is too

stringent and will undermine the motivation to comply rapidly. Because abatement after a violation is never as desirable as prevention of the violation in the first place, credit for rapid compliance is appropriate only where extraordinary effort is demonstrated.

Because a period for abatement can be longer than the 30 days given for proposing assessments, in a small percentage of the cases a complete analysis of the permittee's good faith in compliance will be impossible before the proposed assessment is issued. One comment was received that OSM should assign points for this criterion based on the progress toward abatement during the first 30 days. The suggestion would require a visit to the mine solely to analyze progress on abatement. This would be wasteful or important inspection resources. On balance, it was decided not to require a second inspection solely for the purpose of checking progress toward abatement, but to allow recalculation of the assessment after abatement was completed.

19. Section 723.13 provides a table for converting points from the formula to a dollar amount. The table, as promulgated, goes down to one point, although it is difficult to conceive of an example where a violation subject to a penalty will be assigned only one point. The maximum number of points which may be assigned a violation by the formula is 95. All violations which are assigned 70 or more points will result in the maximum fine of \$5,000.00.

Commenters suggested that the conversion table would result in unduly high penalties and other commenters suggested that it would result in unduly low penalties. In designing the table, and indeed all the civil penalty regulations, the goal has been a system that will result in penalties commensurate with the violation and that will be an effective deterrent to future violations. This goal is difficult to achieve. These regulations come as close as possible to this goal given the present uncertainty about the actual results of enforcement and given the practical constraints of a system designed to handle many violations. Moreover, it should be noted that the formula and point system can be waived pursuant to Section 723.15 when justified.

20. A comment was received that the formula should take into account the size of the operation. This was not done because the legislative history indicates Congress intended that size not be considered.

21. Section 723.14 provides criteria for determining when each day of a continuing violation will be assessed separately. Comments were received that to require assessment of each day of a continuing violation is improper. This comment was not accepted because it is proper and desirable for the Secretary to announce in regulations the criteria that will be used for exercising the enforcement discretion under the Act.

22. A comment was received that Section 723.14(a) should be changed to clarify whether the daily penalty begins after the cessation order is issued or reverts back to the date the notice of violation was given. A change was made to clarify the regulation. The daily penalty under this paragraph begins with the cessation order.

23. One comment received expressed confusion over what constitutes a continuing violation. The commenter asserted that it could not be the period after a notice of violation was issued fixing a reasonable time for abatement because it is reasonable for the violation to continue during the abatement period. That assertion is rejected. Although the abatement period may be reasonable, that is not an excuse or protection for the violation in the first instance. Thus, the reasonable abatement period is not relevant to the definition of a continuing violation. The Act and the regulations provide no definition of a continuing violation, but it is believed that it is every day that the Act, regulations, or permit conditions are violated regardless of whether it is before or after a notice of violation or cessation order.

24. Section 723.15 provides for a waiver of the formula and point system by OSM. A number of comments were received that the formula and point system might be unable to treat every fact situation satisfactorily and that a provision for waiving the use of the formula and point system should be adopted. That comment was accepted. The waiver provision may be invoked by OSM on its own initiative and on motion received within 10 days of the issuance of the notice or order. The 10 days is the same period granted in Section 723.16 for submission of information by the permittee to be considered by OSM in making the proposed assessment. This is a relatively short period; but since the procedural assessment must be issued within 30 days, it is appropriate. The waiver can be invoked when the Director determines that doing so, and proposing either a higher or lower penalty than that resulting from the formula and point system, would further abatement of violations under the Act.

25. Section 723.17 provides for informal conferences between a permittee against whom a penalty has been proposed and a representative of the OSM assessment office. The purpose is to attempt to clarify the facts surrounding the violation and reach agreement between OSM and the permittee on the proper amount of the penalty. Comments were received that

"citizen" participation should be broadened and others were received that it should be reduced. Those who wanted broader participation suggested that people attending the conference be allowed to participate, and they called for actual notice to any person whose complaint led to the violation which is the subject of the conference, to any person who communicated to OSM about the mine in the preceding year, to the State regulatory authority, and to the general public by notice in the newspaper. Those favoring narrowing participation wanted to limit or prevent the attendance of anyone other than the permittee and the OSM representative and to clarify that only those latter two were parties to any agreement reached at the conference.

The comment that third parties attending be allowed to participate has been accepted, but the suggestion to increase public notice has been rejected because of the administrative burden. The suggestion to narrow public participation was rejected. The regulations are clarified so that only the permittee and the OSM representative are parties to any agreement reached.

The principal purpose of the conference is to discuss informally the facts relevant to the proposed assessment and reach an agreement on the proper assessment without a formal hearing. Thus, the conference is neither a public nor formal hearing. On the other hand, residents near the mine or other interested members of the public may have information useful in this process. Moreover, public confidence in the conference and the entire administration of the Act will not be long maintained if critical interactions between the regulator and the regulated are conducted behind closed doors.

OSM will monitor the effectiveness of conferences as a procedure for resolving disputes. If adjustments are called for, they will be made.

26. Comments were received that the conference officer should be able to consider confidential information in reaching an agreement. That comment was rejected for several reasons. First, confidential information is of very limited relevance to the issues of a conference. Second, the administrative law judge or a lawyer in the Solicitor's Office is better trained to handle such information. Third, public confidence in the conference procedure is maintained by this rule.

27. Section 723.18 sets out the process for seeking a formal hearing to contest a proposed penalty. Comments were received that payment of the penalty should not be a prerequisite for a hearing. That requirement is in the Act and has been retained in the regulations. It is proper inasmuch as the money is returned with interest if the assessment is reduced or overturned.

28. Comments were also received that the last sentence in Section 723.18(c) deprived a person assessed of a full hearing under the Administrative Procedure Act. This argument was rejected. The Secretary has the rulemaking authority under this Act to establish interpretive rules both for the Act and for his enforcement discretion under the Act. Given a proper exercise of that authority, regulations can limit hearings to the contested facts and issues as this provision does.

29. Comments were received that Section 723.19 should be changed to protect confidential records. The suggested change was not made because the section only applied to the assessment process and not to the formal hearing. Since no confidential material can be considered until the hearing, it is unlikely that there will be any confidential material to which protection could apply.

PART 725 AND PART 740 - REIMBURSEMENTS TO STATES AND GRANTS FOR PROGRAM DEVELOPMENT, ADMINISTRATION AND ENFORCEMENT

1. One commenter noted that Part 725, Reimbursements to States, failed to clearly state what a State must do to be eligible for reimbursement and that a State was not required to implement Federal enforcement and penalty procedures during the initial enforcement period.

To clarify the eligibility requirements for reimbursements under this part, Section 725.11 has been revised to include a cross-reference both to Section 710.4(b) and Part 720. Together, these provisions require the States to enforce the Federal initial performance standards if they are more stringent than existing State performance standards, to incorporate appropriate terms in permits issued, revised or renewed on or after February 4, 1978, and to submit to OSM copies of certain inspection reports. During the initial regulatory period, States are not required to comply with the provisions of Part 721, Federal Inspection, Part 722, Enforcement Procedures or Part 723, Civil Penalties.

2. One commenter stated that Parts 725 and 740 should be used as a mechanism to encourage States to promulgate performance standards which are more stringent than the Federal performance standards.

This comment has been rejected as beyond the statutory purposes of the grant programs. Part 720 makes it clear that States may adopt and enforce performance standards more stringent than the initial Federal standards and Part 718 provides for Federal adoption of more stringent State standards.

3. One commenter stated that the grants should provide the basis for increasing State salary levels. This comment was rejected. Responsibility for establishing levels of pay for State employees rests with the States.

4. One commenter stated that covering 100 percent of the incremental costs of enforcing the initial regulatory program under Part 725 rewarded States which had not previously made a strong effort to regulate surface mining. Part 725, in this respect, was not changed. The Act does not authorize this Department to make value judgments of past enforcement efforts. Rather, it looks to strong State programs in the future and authorizes grants as a tool for constructing such programs.

5. Three commenters suggested that Parts 725 and 740 should provide for the transfer of money to counties, local units of government and regional councils for their use in implementing the Act. These comments were rejected. Grants under Section 502(e)(4) and Section 705 of the Act are in support of State regulatory activities. Local units of government, while assigned a consultative role in a number of procedures under the Act, perform no regulatory function under the Act during either the initial or permanent regulatory programs. States may, if they wish, contract with local governments for the performance of specific activities.

6. Twelve commenters suggested that a specific time limit be set for acting upon grant applications. The time suggested most frequently was 30 days. The comments were accepted in part and Section 725.15 and Section 740.18 were changed to require the Regional Director to act on grant applications within 30 days or as soon thereafter as possible. While a prompt response is desirable, circumstances beyond the control of the Office may necessitate flexibility in the application review period.

7. Several comments related to the need to include "supporting costs" and equipment costs in reimbursement grants. These comments were accepted. The term "supporting costs" was added to Section 725.12(g) and a new (h) was added to authorize purchase of major pieces of equipment, excluding aircraft, under one grant. The proposed regulations had required that the cost of major pieces of equipment be amortized over consecutive grants equivalent to the life expectancy of the equipment. Aircraft purchases are not included in the new provision because they require more advance budget planning than will be possible in the initial program. Part 740 similarly was revised and aircraft was included as an item of equipment which can be purchased after a State program is approved.

{62673} 8. A few commenters noted that a State should be allowed to take corrective action before its grant is reduced or terminated. These comments were accepted and Section 725.18 was changed accordingly.

9. One commenter stated that grounds for terminating a reimbursement grant should include failure to comply with the non-discrimination provisions applicable to Federal grantees. This comment was accepted and appropriate non-discrimination provisions, already included in Part 740, were added to Section 725.18.

10. One commenter stated that the audit provisions were inconsistent with those listed in Federal Management Circular 74-4. The comment was accepted and appropriate changes in audit provisions were made.

11. One commenter suggested that the grant coverage provisions of Section 725.12 and Section 740.14(b) be expanded to include base maps. This comment was rejected, as base maps already are covered as part of the inspection process.

12. One commenter suggested that Section 725.24(a), pertaining to retention of records, require retention of maps. This suggestion was adopted.

13. One commenter suggested that States be allowed 80 percent Federal funding for both program development grants and first year administration and enforcement grants, perhaps by deferring payments for program development grants until the administration and enforcement phase was started. This comment was rejected. Section 705 of the Act provides for grants of up to 80 percent of the total costs incurred during the first year. During the first year it would be impossible to fund both program development and program administration grants at the same percentage rate, because the time periods for the two grants will not run concurrently. A program development grant might run for less than one year, in which case an administration and enforcement grants for 80 percent would be provided for the remainder of the year. Alternatively, a State may elect to forego the program development grant, thus becoming eligible for funding for an entire year of an 80 percent administration and enforcement grant.

14. One commenter suggested that all activities conducted pursuant to a State law should be eligible for assistance when conducted as part of an approved State regulatory program. The Department agrees that activities in addition to those required by the Federal law may be included in a State regulatory program. To the extent that they are included, they will be eligible for grant assistance. No change in the regulations is required for this purpose.

15. Two commenters suggested that the regulations include specific dates when grant funds would be available to the States. While the comment has some merit, it was rejected because of inherent uncertainties in the Federal budgeting and appropriations [*]. In most years, however, OSM will know how much money is available for grants by October 1.

16. One commenter suggested that a State be allowed to allocate grant funds and responsibilities to State agencies other than the one designated by the Governor to apply for, receive, and administer grant funds. This comment was rejected as unnecessary. Parts 725 and 740 already permit transfer of grant funds to other State agencies. However, the designated agency remains responsible for all grant funds.

17. The Department revised Section 725.13, Amount of grants, to reflect the possibility that appropriated funds may be insufficient to reimburse each State for 100 percent of its incremental enforcement costs during the initial regulatory program. In that event, available funds will be allocated proportionately, i.e., each State would receive the same percentage of its budget, except where proportional allocation would not serve the best interests of the program. The revised language provides for such flexibility. Similarly, Section 740.13(b)(4) has been changed to eliminate mandatory proportional allocation and to substitute a flexible reallocation process.

PART 795 - SMALL OPERATOR ASSISTANCE PROGRAM

The regulations in Part 795 establish procedures for providing assistance to eligible small operators to obtain data which will be required for permit applications under permanent program regulations. The procedures are published at this time since it is assumed that assistance must start, in some cases, a full year before the permit application is filed. Under the regulations, assistance may be started up to 6 months before the State submits a proposed regulatory program for the Secretary to approve. Comments on the proposed regulations were received from 26 commenters and are discussed below.

1. Several commenters noted the heavy application burdens on small operators and suggested that the Small Operator Assistance Program be broadened to provide aid to operators for purposes other than hydrology and core sample analyses. This suggestion has been rejected because Section 507 of the Act limits assistance to the cost of the preparation of the determination of the probable hydrologic consequences and statement of the results of test borings or core samplings. However, every effort has been made to provide the maximum allowable assistance consistent with the availability of funds. Thus, the operator eligibility has been defined to prevent unwarranted expenditure of funds. In order to minimize the burden on applicants, the Office has assumed as much of the administrative workload as possible.

2. Several commenters felt that the States should have the option of including the Small Operator Assistance Program within the State's approved regulatory program. Further, they felt that under Section 795.11(a) the requirement for the State to notify the Office 6 months in advance of its intent to submit its regulatory program should be deleted. These views were not accepted. Section 507(c) of the Act is cast in mandatory terms that require the regulatory authority to designate qualified laboratories and to assume the costs of the services. These regulations are consistent with the rulemaking authority in Section 201(c)(2) of the Act. The 6-month prior notice requirement is necessary to allow enough time for the Small Operator Assistance Program to proceed in an orderly way without causing delays and hardship to the small operators.

3. One commenter objected to the proposed method of taking production of operations controlled by the applicant or by the person who controls the applicant and attributing such production to the applicant. The regulations in Section 795.13 have been revised to bring the section into conformity with the small operator exemption provisions of Section 710.12. The concept of attributing production from other operations based on the identity of the controlling person has been retained in order to reduce the potential of granting assistance to unqualified operators.

4. One commenter suggested that Section 795.14(e)(1) be clarified to specify the area of natural drainage that must be shown on the map. This suggestion has not been accepted. Since geological conditions vary greatly from region to region, the State regulatory authority should be allowed to make specific determinations as to the sufficiency of drainage detail on a case-by-case basis.

5. One commenter argued that information required from an applicant for small operator assistance unduly duplicated that required for small operator exemptions by Section 710.12. Although it is recognized that some duplication exists, it is believed necessary to adequately administer the two programs, one of which lasts for 15 years and the other of which expires on January 1, 1979. The procedure chosen eliminates the need to cross-reference two programs that may be administered by different regulatory authorities.

6. One commenter recommended that a uniform scheme be adopted to award contracts among qualified laboratories and to pay them for their services. This suggestion was rejected. Divergent State and Federal procedures for securing and paying for services suggest that the imposition of any one scheme is inappropriate. It is contemplated that all existing legal methods to secure services could be used.

7. Two commenters felt that the data requirements of Section 795.16 should be more specific. Another commenter felt that logs should only be required on seams with proven acid production potential. These comments were not accepted. Sections 507(b)(11) and 507(b)(15) of the Act require the regulatory authority to make an assessment of the probable cumulative impacts of all anticipated mining in the area, provide hydrologic information on the general area prior to mining, and determine whether it is necessary to require a statement of the result of test borings or core samplings. As a result, the regulatory authority must continually determine the adequacy of its data base. The regulatory authority needs flexibility to determine what additional data should be required from proposed permit areas. Section 507(b)(15) requires logs be made on all drill holes and not just drilling logs from acid producing seams.

8. Another commenter suggested that a small laboratory performing a specific service should not be disqualified because it does not have the same financial capability and business organization as a large laboratory performing a variety of services. The laboratory qualifications are designed to be flexible to allow the regulatory authority latitude in determining what services a laboratory is capable of performing in an acceptable way. A minor word change was made in Section 795.17(b)(1)(v) to reflect that the financial capability will be related to the work required.

9. A commenter felt that the regulations required all laboratories to meet a single set of criteria, implying that each laboratory must be capable of performing all types of testing. It is intended that the provisions in Section 795.17(b)(1)(vii) are basic qualifications. It is expected that some laboratories will only be qualified to perform some work under the Small Operator Assistance Program.

10. One commenter argued that there was no authority in the Act to prohibit the use of funds for actual costs of the test boring or core sampling. The same commenter also argued that under Section 795.18(b) no applicant could evaluate its chance of being approved or rejected for assistance. The management scheme for the Small Operator Assistance Program must be devised so as to equitably divide available money among eligible applicants. Actual costs of test boring or core sampling are high, and payment of these costs would very soon deplete the available funds for any year. The decision not to cover these costs was based on Section 507(c) of the Act which focuses on the result of test borings or core samplings, and does not authorize payment of actual drilling. Section 795.18(b) of the regulations is intended to allow the regulatory authority flexibility in developing its own formula for the equitable distribution of funds.

11. Commenters suggested that the operator should be liable for repayment if he fails to mine coal after obtaining a permit or if he mines more than 100,000 tons during any year. These recommendations were accepted and language was inserted to reflect the operator's responsibility. The Program is intended to assist qualified small operators in the permit application process. If the operator's permit is rejected after the assistance is provided, and he has acted in good faith, the regulatory authority may still waive reimbursement as provided under Section 795.19(b).

12. Section 795.15 has been revised to permit the regulatory authority to withhold assistance in those cases where it is obvious that a permit will not be issued. For example, under this section the regulatory authority may refuse to grant assistance where the land has been declared unsuitable for mining. The section is further revised to emphasize that the grant of assistance will not prejudice any future decision by the regulatory authority.

13. Section 795.16 is clarified so that data collection and analysis may proceed concurrently with the development of mining and reclamation plans by the operator.

PART 830 - PROTECTION OF EMPLOYEES

1. One commenter argued that since Sections 501 and 502 of the Act do not include an employee protection provision, Part 830 should not be included in the interim program. The protection provided employees by Part 830 is necessary once any enforcement of the Act begins. Section 703 of the Act establishes employee protection rights concurrent with the effective dates of the Act and regulations.
2. One commenter argued that the scope of employee protection under the proposed rules should be broadened to that afforded under the Coal Mine Health and Safety Act of 1969. Further, the commenter argued that the legislative history of the Federal Mine Safety and Health Act of 1977 should provide guidance as to the proper scope of employee protection in the final rules. To the extent consistent with the Act, the protection afforded employees by these regulations is to be broadly interpreted to ensure that employees are not inhibited from contributing to the enforcement of the Act in any way.
3. One commenter suggested that potential forms of employee discrimination should be listed to the extent possible to prevent future litigation over the scope of the rights protected. To avoid litigation and to clarify the rights protected, Section 830.1(a) has been revised to include some specific forms of employee discrimination.
- {62674} 4. One commenter argued that the specified protected activities of Section 830.11 exceed the authority of Section 703 of the Act. Where potential problems of misinterpretation of the regulations existed, the provisions were revised to conform to Section 703 of the Act. Further, minor changes were made in several provisions of Section 830.11 to increase clarity.
5. Another reviewer suggested that employers be required to provide notice to employees of the provisions of Section 830. This suggestion has been accepted to ensure employee knowledge of the protection standards.
6. One commenter suggested the addition of several other activities to the provisions of Section 830.11. The commenter suggested that employees should be protected for "refusing to comply with orders by the employer or his agent believed in good faith to be violative of the Act, regulations or permit conditions or to endanger public health or safety or land, air, or water resources." Although the language is not adopted in the final regulations, it is expected that the scope of protection provided for such acts is to be determined on a case-by-case basis. Further, it was suggested that the regulations require a finding of discrimination " * * * whenever protected activity is in any manner or degree a contributing factor to retaliatory conduct." Again, such determinations are more appropriately made on a case-by-case basis rather than broadly in the regulations. Finally, the commenter suggested that statements and testimony made, or about to be made, in any judicial proceeding under the Act should be protected. This suggestion has been accepted to clarify the intent of the regulations.
7. One commenter suggested that the definition of an application for review should be revised to require a statement of " * * * the reason why the person believes he has been discriminated against and the facts surrounding the alleged discrimination in sufficient detail to permit the employer to file a response." Although the section has been modified to require a background statement of facts relating to the alleged discrimination, the suggestion that the statement be "sufficiently detailed" has been rejected because of the potential confusion arising from such a standard.
8. Two commenters suggested that Section 830.12(c) should be modified to permit the filing of an application for review after 30 days upon a showing of good cause. The proposed language has been retained to conform to Section 703 of the Act. However, it is recognized that in unique situations it may be appropriate to allow filing of the application after the 30-day period.
9. One commenter argued that the time periods proposed by Section 830.13 for the application review process were unreasonably long. The periods were reduced as much as possible consistent with the need for a complete and thorough investigation and review procedure.
10. One commenter suggested that the alleged discriminating person should be required to file a response to the application for review. This suggestion has not been accepted since such a requirement would unnecessarily formalize the procedure before the informal conference. However, it is expected that in many cases a response will be made within 10 days of notification.
11. One commenter suggested that the informal conference be held before the factual investigation is completed. This suggestion was not accepted. To provide a factual framework to ensure that the conference is productive, it is necessary that the investigation be conducted before the conference occurs.

{62675} 12. A commenter suggested that Section 830.13(d) should be revised to require the Office to prepare a summary of the informal conference. This suggestion has been adopted to ensure a full administrative record of the proceedings.

13. One commenter suggested that Section 830.14(a) should be modified to provide a standard for the Director's determination of whether or not to represent the applicant before the Office of Hearings and Appeals. Further, the commenter recommended that if the standard were met, the Director should be required to represent the applicant. These comments have been accepted and Section 830.14(a) has been revised accordingly.

14. One commenter noted that the proposed regulations required the filing of an application for review and a formal complaint. The commenter suggested that the procedure was unnecessarily burdensome and should be revised. Accordingly, the final regulations have been modified to require only a single filing.

15. One commenter requested a provision which would clarify that an applicant for review could still obtain a formal hearing with his own counsel regardless of the Director's determination under Section 830.14(a). This specific language was not adopted because the regulations as written give the applicant such a right.

16. One commenter suggested that the final regulations require an initial decision on the application within 45 days of the close of the formal hearing. While this change was not adopted, it is expected that decisions will be made as quickly as possible consistent with the demands on the Office of Hearings and Appeals.

17. A commenter recommended that the final regulations specify possible remedies for violation of this part. The language adopted in Section 830.15 conforms with that of Section 703 of the Act. However, it is recognized that the Secretary may take broad affirmative action to remedy adequately violations of this part.

18. One commenter suggested that temporary relief should be granted applicants for review if their claims were not found "frivolous". It is recognized that temporary relief may be required to prevent undue hardship to the applicant in many cases. Therefore, Section 830.15 has been revised to permit the Secretary or the applicant to seek temporary relief after 10 days from the filing of the application for review. However, the proper standard for the granting of an order for temporary relief will appear in the Office of Hearings and Appeals procedural regulations which will soon be proposed and subject to public comment before promulgation.

INFORMATION COLLECTION PROVISIONS

A number of these regulations require the States or permittees to collect, submit, or retain certain information. By publication of these final regulations, this Department has determined that such information is necessary to the performance of its responsibilities under the Act and must be collected, submitted or retained. Accordingly, these requirements, included in regulation Sections 710.4(b), 710.11(d)(2)(ii), 710.12(e), 715.11(c), 715.13(d), 715.17(b), (j)(3) and (5), 715.18(b)(2) and (6), 715.19(b), (c), (d), and (e)(4), 716.7(c), (d), and (e), 717.17(b), 717.18(b)(2) and (6), 718.1(b), 720.13, 725.15, 725.23(a), 725.24, 740.13(a) and (b), 740.16(e), 740.18, 740.26, 740.27, 795.11(a) and (b), 795.12(a) and (b), 795.14, 795.16, and 795.17(a)(3) and (b), are adopted, subject only to review by the General Accounting Office, pursuant to 44 U.S.C. 3512, to assure that a minimum burden is imposed upon States or permittees in the manner in which such information is proposed to be obtained. These specific regulatory provisions will be effective January 29, 1978 or on the date of GAO clearance, whichever is earlier.

DRAFTING INFORMATION

Principal authors of these regulations include the following: Parts 700 and 710: Michael Bradley and Edward Clair; Parts 715, 716, 717, and 718: George Davis, John Hardaway, and Jack Martin; Parts 720, 721, 722, and 723: Richard Hall and Marcus McGraw; Parts 725 and 740: Carl Close; Part 795: Donald Willen; and Part 830: Jesse Jackson. All regulations were developed and written by the Office of Surface Mining Task Force, Department of the Interior, under the general supervision of Paul Reeves.

Dated: December 2, 1977.

LEO M. KRULITZ, Solicitor of the Interior.

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30 CFR Chapter VII is amended by adding new Parts 700, 710, 715, 716, 717, 718, 720, 721, 722, 723, 725, 740, 795, and 830, reading as follows:

PART 700 - GENERAL

Section

700.1	Scope.
700.2	Objectives.
700.3	Authority.
700.4	Responsibility.
700.5	Definitions.
700.11	Applicability.
700.12	Petitions to initiate rulemaking.
700.13	Prior notice of citizens suits.
700.14	Requests for records.
700.15	Computation of time.

AUTHORITY: Sections 201 and 501, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 700.1 -- Scope.

(a) This chapter sets forth the rules and procedures through which the Secretary of the Interior will implement the Surface Mining Control and Reclamation Act of 1977 (Pub.L. 95-87). The Act requires the Secretary to establish procedures for development and approval of programs for the regulation of surface coal mining and surface effects of underground coal mining in each State. The Act also requires the Secretary to establish an initial regulatory program which applies limited environmental performance standards to State, Federal, Indian and private lands until the implementation of a permanent regulatory program.

(b) Regulations authorized under the Act and contained in this chapter include but are not limited to -

- (1) Environmental performance standards for surface coal mining and reclamation operations during the initial and permanent regulatory programs;
- (2) Inspection and enforcement procedures during the initial and permanent regulatory programs, including the assessment of civil penalties;
- (3) Assistance to small operators in meeting permit application requirements of the permanent regulatory programs;
- (4) Requirements and approval procedures for State programs;
- (5) Requirements for surface coal mining and reclamation operations on Federal lands;
- (6) Procedures for State and Federal designation of areas unsuitable for surface coal mining operations and lands unsuitable for non-coal mining;
- (7) Conflict of interest standards for State and Federal employees;
- (8) Requirements and procedures for approval of State mining permits during the permanent regulatory program;
- (9) Requirements for posting, release and forfeiture of performance bonds;
- (10) Standards prohibiting discrimination against employees for reporting violations of the Act and regulations;
- (11) Procedures for administering the Abandoned Mine Reclamation Fund, including approval of State plans and programs, procedures for implementing Federal programs; and
- (12) Procedures for grants for State mining and mineral research institutes.

Section 700.2 -- Objectives.

The objectives of the regulations are to -

(a) Establish a nationwide regulatory program to protect society and the environment from adverse effects of surface coal mining and surface impacts of underground coal mining.

- (b) Establish environmental, enforcement and administrative standards for regulatory programs;
- (c) Create a program for the reclamation of previously mined and inadequately reclaimed lands; and
- (d) Establish procedures for public review of the administrative and enforcement programs through access to data, hearings, inspections, and standing to sue for damages for non-compliance with the Act.

Section 700.3 -- Authority.

- (a) The Secretary is authorized to administer the programs required by the Act, except -
 - (1) Provisions of the Act authorizing the Secretary of Agriculture to establish programs for the reclamation of rural lands, identification of prime agricultural lands and other responsibilities described in the Act. Regulations promulgated by the Secretary of Agriculture are in Title 7 of the Code of Federal Regulations.
 - (2) Other provisions of the Act for which responsibility is specifically assigned to other Federal agencies including the Environmental Protection Agency, Corps of Engineers, Council on Environmental Quality and the Energy Research and Development Administration.
 - {62676} (3) Authority retained by the States to enforce State laws or regulations which are not inconsistent with the Act or these regulations.

Section 700.4 -- Responsibilities under the Act.

- (a) The Director of the Office of Surface Mining Reclamation and Enforcement, under the general direction of the Assistant Secretary, Energy and Minerals, is responsible for exercising the authority of the Secretary except for -
 - (1) Initial approval or disapproval of State regulatory programs under Section 503 of the Act; and
 - (2) Designation of Federal lands as unsuitable for mining under Sections 522 and 601 of the Act.
- (b) The Director is responsible for consulting with the Federal land managing agency on actions which may have an affect on their responsibilities for the management of Federal land resources.
- (c) The States are responsible for the regulation of surface coal mining and reclamation operations and the reclamation of abandoned mine lands in accordance with procedures in this chapter.
- (d) The Secretary may delegate to a State certain authority for regulating coal mining on Federal lands through a cooperative agreement.

Section 700.5 -- Definitions.

As used throughout the regulations of this chapter, except where otherwise indicated -

ACT means the Surface Mining Control and Reclamation Act of 1977, (Pub.L. 95-87).

AUGER MINING means a method of mining coal at a cliff or highwall by drilling holes laterally into an exposed coal seam from the highwall and transporting the coal along an auger bit to the surface.

COAL means combustible carbonaceous rock, classified as anthracite, bituminous, subbituminous. or lignite by A.S.T.M. designation 0-388-66.

DIRECTOR means the Director, Office of Surface Mining Reclamation and Enforcement, or his representative.

FEDERAL LANDS means any land, including mineral interests, owned by the United States without regard to how the United States acquired ownership of the lands and without regard to the agency having responsibility for management thereof, except Indian lands; provided, that for the purposes of the Act lands or mineral interests east of the one hundredth

meridian west longitude owned by the United States and entrusted to or managed by the Tennessee Valley Authority are not subject to sections 714 (Surface Owner Protection) and 715 (Federal Lessee Protection) of the Act.

FEDERAL LANDS PROGRAM means a program established by the Secretary pursuant to section 523 of the Act to regulate surface coal mining and reclamation operations on Federal lands.

FEDERAL PROGRAM means a program established by the Secretary pursuant to section 504 of the Act to regulate surface coal mining and reclamation operations on lands within a State in accordance with the requirements of the Act.

FUND means the Abandoned Mine Reclamation Fund established pursuant to section 401 of the Act.

IMMINENT DANGER TO THE HEALTH AND SAFETY TO THE PUBLIC means the existence of any condition; or practice, or any violation of a permit or other requirement of the Act in a surface coal mining and reclamation operation, which condition, practice, or violation could reasonably be expected to cause substantial physical harm to persons outside the permit area before such condition, practice, or violation can be abated. A reasonable expectation of death or serious injury before abatement exists if a rational person, subjected to the same condition or practice giving rise to the peril, would not expose himself or herself to the danger during the time necessary for abatement.

INDIAN LANDS means all lands, including mineral interest, within the exterior boundaries of any Federal Indian reservation, notwithstanding the issuance of any patent, and including rights-of-way, and all lands including mineral interests held in trust for or supervised by an Indian tribe.

INDIAN TRIBE means any Indian tribe, band, group or community having a governing body recognized by the Secretary.

OFFICE means the Office of Surface Mining Reclamation and Enforcement established under Title II of the Act.

OPERATOR means any person, partnership or corporation engaged in coal mining who removes or intends to remove more than 250 tons of coal from the earth by mining within 12 consecutive calendar months in any one location.

PERMIT, except as used in references to permits during the initial regulatory program, means a permit to conduct surface coal mining and reclamation operations issued by the State regulatory authority pursuant to a State program or by the Secretary pursuant to a Federal program. During the initial regulatory program, permit means a permit to conduct surface coal mining and reclamation operations issued by a State under State law. During the initial regulatory program, permit also means a mining plan approved pursuant to Part 211 of this title held by a lessee of Federal lands during the initial program.

PERMITTEE means any individual, partnership, association, society, joint stock company, firm, company, corporation, or other business organization holding a permit to conduct surface coal mining and reclamation operations issued by a State regulatory authority pursuant to a State program or by the Secretary pursuant to a Federal program or a Federal lands program. During the initial regulatory program the term includes persons conducting surface coal mining and reclamation operations regulated by a State under State law or conducting such operations under a mining plan approved pursuant to Part 211 of this title.

PERSON means an individual, partnership, association, society, joint stock company, firm, company, corporation, or other business organization.

REGULATORY AUTHORITY means the department or agency in each State which has primary responsibility at the State level for administering the Act in the initial program, or the State regulatory authority where the State is administering the

Act under an approved State program, or the Secretary in the initial or permanent program where the Secretary is administering the Act.

SECRETARY means the Secretary of the Interior or his representative.

SIGNIFICANT, IMMINENT ENVIRONMENTAL HARM TO LAND, AIR OR WATER RESOURCES is determined as follows:

(i) An environmental harm is any adverse impact on land, air, or water resources, including but not limited to plant and animal life.

(ii) An environmental harm is imminent if a condition, practice or violation exists which (a) is causing such harm or (b) may reasonably be expected to cause such harm at any time before the end of the reasonable abatement time that would be set under section 521(a)(3) of the Act.

(iii) An environmental harm is significant if that harm is appreciable and not immediately reparable.

STATE PROGRAM means a program established by a State pursuant to section 503 of the Act to regulate surface coal mining and reclamation operations on lands within such State in accord with the requirements of the Act and regulations issued by the Secretary under the Act.

STATE REGULATORY AUTHORITY means the department or agency in each State which has primary responsibility at the State level for administering the Act under both the initial and permanent regulatory programs.

SURFACE COAL MINING OPERATIONS means: (a) activities conducted on the surface of lands in connection with a surface coal mine or subject to the requirements of Section 516 surface operations and surface impacts incident to an underground coal mine, the products of which enter commerce or the operations of which directly or indirectly affect interstate commerce. Such activities include excavation for the purpose of obtaining coal including such common methods as contour, strip, auger, mountaintop removal, box cut, open pit, and area mining, the uses of explosives and blasting, and in situ distillation or retorting, leaching or other chemical or physical processing, and the cleaning, concentrating, or other processing or preparation, loading of coal for interstate commerce at or near the mine site: provided, however, that such activities do not include the extraction of coal incidental to the extraction of other minerals where coal does not exceed 16 2/3 per centum of the tonnage of minerals removed for purposes of commercial use or sale or coal exploration subject to Section 512 of the Act; and (b) the areas upon which such activities occur or where such activities disturb the natural land surface. Such areas shall also include any adjacent land, the use of which is incidental to any such activities, all lands affected by the construction of new roads or the improvement or use of existing roads to gain access to the site of such activities and for haulage and excavation, workings, impoundments, dams, ventilation shafts, entryways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, culm banks, tailings, holes or depressions, repair areas, storage areas, processing areas, shipping areas and other areas upon which are sited structures, facilities, or other property or material on the surface, resulting from or incident to such activities.

{62677} SURFACE COAL MINING AND RECLAMATION OPERATIONS means surface coal mining operations and all activities necessary and incidental to the reclamation of such operations. This term includes the term "surface coal mining operations."

TON means 2000 pounds avoirdupois (.90718 metric ton).

Section 700.11 -- Applicability.

The regulations in this chapter apply to all surface coal mining and reclamation operations except -

- (a) The extraction of coal by a landowner for his own noncommercial use from land owned or leased by him;
- (b) The extraction of coal for commercial purposes where the surface mining and reclamation operation affects two acres or less;
- (c) The extraction of coal as an incidental and non-commercial part of Federal, State or local government-financed highway or other construction;
- (d) The extraction of coal incidental to the extraction of other minerals where coal does not exceed 16 2/3 percent of the mineral tonnage removed for commercial use or sale; and
- (e) The extraction of coal on Indian lands which are covered by 25 CFR 177, Subpart B.

Section 700.12 -- Petitions to initiate rulemaking.

(a) Any person or State may petition the Director to initiate a proceeding for the issuance, amendment, or repeal of any regulation issued under the Act. The petition shall be filed in the Office of the Director, Office of Surface Mining

Reclamation and Enforcement, United States Department of the Interior, Washington, D.C. 20240.

(b) The petition shall set forth a concise statement of the facts and law which require issuance, amendment, or repeal of a regulation under the Act and shall indicate whether the petitioner desires a public hearing.

(c) Upon receipt of a petition, the Director shall publish a notice in the FEDERAL REGISTER seeking comments from the public on the proposed change, and may hold a public hearing, may conduct an investigation or take other actions to determine whether or not the petition should be granted.

(d) Within 90 days from the date of receipt, the Director shall issue a written decision either granting or denying the petition. If the petition is granted the Director shall commence a rulemaking proceeding. If the petition is denied, the Director shall notify the petitioner in writing setting forth the reasons for denial.

Section 700.13 -- Prior notice of citizen suits.

A person who intends to commence a civil action on his own behalf under section 520 of the Act shall give notice of intent to do so in accordance with the regulations of this section.

(a) Notification shall be given by certified mail to the Secretary and the Director in all cases and to the head of the State regulatory authority if a complaint involves or relates to a specific State. A copy of the notification shall be provided by first class mail to the Regional Director of the Office if the complaint involves or relates to a specific region.

(b) Notification shall be given by certified mail to the alleged violator if the complaint alleges a violation of the Act or any regulation, order or permit issued under the Act.

(c) Service of notice under this section is complete upon mailing to the last known address of the person being notified.

(d) A person giving notice regarding an alleged violation of the Act or any regulation, order or permit issued under the Act shall state, to the extent known -

(1) Sufficient information to enable the recipient to identify the provision of the Act, rule, regulation, order or permit allegedly violated;

(2) The action or omission alleged to constitute a violation;

(3) The person or persons responsible for the alleged violation;

(4) The date, time and location of the alleged violation;

(5) The name, address, and telephone number of the person giving notice; and

(6) The name, address, and telephone number of legal counsel, if any.

(e) A person giving notice regarding an alleged failure by the Secretary or a State regulatory authority to perform a mandatory act or duty under the Act shall state, to the extent known -

(1) The provision or provisions of the Act containing the mandatory act or duty allegedly not performed;

(2) Sufficient information to enable the recipient to identify the omission alleged to constitute the failure to perform a mandatory act or duty under the Act;

(3) The name, address, and telephone number of the person giving notice; and

(4) The name, address and telephone number of legal counsel, if any.

Section 700.14 -- Request for records.

(a) Records required to be made available locally to the public under the Act shall be retained at the local office having jurisdiction over the location involved.

(b) Other records or documents may be requested under 43 CFR Part 2, which implements the Freedom of Information Act and the Privacy Act.

Section 700.15 -- Computation of time.

(a) Except as otherwise provided, computation of time for these regulations will be based on calendar days.

(1) In computing any period of prescribed time, the day on which the designated period of time begins is not included. The last day of the period is included unless it is a Saturday, Sunday or legal holiday on which the Department of Interior is not open for business, in which event the period runs until the end of the next day which is not a Saturday, Sunday or legal holiday.

(2) Intermediate Saturdays, Sundays and legal holidays are excluded from the computation when the period of prescribed time is seven days or less.

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PART 710 - INITIAL REGULATORY PROGRAM

Section

710.1	Scope.
710.2	Objectives.
710.3	Authority.
710.4	Responsibility.
710.5	Definitions.
710.11	Applicability.
710.12	Special exemption for small operators on State lands.

AUTHORITY: Sections 201, 501, and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 710.1 -- Scope.

(a) This part provides general introductory and applicability material for the initial regulatory program required by section 502 and other sections of the Act which require early implementation. The initial regulatory program is effective until permanent programs are approved in accordance with section 503, 504, or 523 of the Act.

(b) The initial regulatory program which this part introduces includes -

- (1) Environmental performance standards of Parts 715-718 of this Chapter.
- (2) Inspection and enforcement procedures of Parts 720-723 of this chapter; and
- (3) Reimbursements to States of Part 725 of this chapter.

Section 710.2 -- Objectives.

(a) The objectives of the initial regulatory program are to -

(1) Protect the health and safety of the public and minimize the damage to the environment resulting from surface coal mining operations during the interval between enactment of the Act and adoption of a permanent State or Federal regulatory program; and

(2) Coordinate the State and Federal regulatory programs to accomplish the purposes of the Act.

Section 710.3 -- Authority.

(a) The Secretary is directed to implement an initial regulatory program within six months after the date of enactment of the Act in each State which regulates any aspect of surface coal mining under one or more State laws until a State program has been approved or until a Federal program has been implemented. (b) The Secretary is also authorized to regulate surface coal mining and reclamation operations on Federal Lands by the Mineral Leasing Act of February 25, 1920, as amended, (30 U.S.C. 181-287) and the Mineral Leasing Act for Acquired Lands (30 U.S.C. 351-359) and on Indian lands by various Indian lands acts. Additional regulations under these Acts are in 30 CFR Part 211, 43 CFR Part 3041 and 25 CFR Part 177.

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Section 710.4 -- Responsibility.

(a) Under the general direction of the Assistant Secretary, Energy and Minerals, the Director is responsible for administering the initial regulatory program established by the Secretary.

(b) The States are responsible for issuing permits and inspection and enforcement on lands on which operations are regulated by a State to insure compliance with the initial performance standards in Parts 715-718 of this chapter. States are required to file copies of inspection reports with the Office. States are also responsible for assuring that permits are not issued which would be in conflict with the restriction on mining found in section 510 of the Act, particularly in regard to alluvial valley floors and prime farm lands, and Section 522(e) of the Act in regard to prohibitions of mining on certain lands.

Section 710.5 -- Definitions.

As used throughout the initial regulatory program the following terms have the specified meanings unless otherwise indicated:

ACID DRAINAGE means water with a pH of less than 6.0 discharged from active or abandoned mines and from areas affected by coal mining operations.

ACID-FORMING MATERIALS means earth materials that contain sulfide mineral or other materials which, if exposed to air, water, or weathering processes, will cause acids that may create acid drainage.

ALLUVIAL VALLEY FLOORS means unconsolidated stream-laid deposits holding streams where water availability is sufficient for subirrigation or flood irrigation agricultural activities but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits by unconcentrated runoff or slope wash, together with talus, other mass movement accumulation and windblown deposits.

APPROXIMATE ORIGINAL CONTOUR means that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated; water impoundments may be permitted where the regulatory authority determines that they are in compliance with Section 715.17.

AQUIFER means a zone, stratum, or group of strata that can store and transmit water in sufficient quantities for a specific use.

COMBUSTIBLE MATERIAL means organic material that is capable of burning either by fire or through a chemical process (oxidation) accompanied by the evolution of heat and a significant temperature rise.

COMPACTION means the reduction of pore spaces among the particles of soil or rock, generally done by running heavy equipment over the earth materials.

DISTURBED AREA means those lands that have been affected by surface coal mining and reclamation operations.

DIVERSION means a channel, embankment, or other manmade structure constructed for the purpose of diverting water from one area to another.

DOWNSLOPE means the land surface between a valley floor and the projected outcrop of the lowest coalbed being mined along each highwall.

EMBANKMENT means an artificial deposit of material that is raised above the natural surface of the land and used to contain, divert, or store water, support roads or railways, or other similar purposes.

ESSENTIAL HYDROLOGIC FUNCTIONS means, with respect to alluvial valley floors, the role of the valley floor in collecting, storing, and regulating the natural flow of surface water and ground water, and in providing a place for irrigated and subirrigated farming, by reason of its position in the landscape and the characteristics of its underlying material.

FLOOD IRRIGATION means irrigation through natural overflow or the temporary diversion of high flows in which the entire surface of the soil is covered by a sheet of water.

GROUND WATER means subsurface water that fills available openings in rock or soil materials such that they may be considered water-saturated.

HIGHWALL means the face of exposed overburden and coal in an open cut of a surface or for entry to an underground coal mine.

HYDROLOGIC BALANCE means the relationship between the quality and quantity of inflow to, outflow from, and storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake, or reservoir. It encompasses the quantity and quality relationships between precipitation, runoff, evaporation, and the change in ground and surface water storage.

HYDROLOGIC REGIME means the entire state of water movement in a given area. It is a function of the climate, and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form and falls as precipitation, moves thence along or into the ground surface, and returns to the atmosphere as vapor by means of evaporation and transpiration.

IMPOUNDMENT means a closed basin formed naturally or artificially built, which is dammed or excavated for the retention of water, sediment, or waste.

INTERMITTENT OR PERENNIAL STREAM means a stream or part of a stream that flows continuously during all (perennial) or for at least one month (intermittent) of the calendar year as a result of ground-water discharge or surface runoff. The term does not include an ephemeral stream which is one that flows for less than one month of a calendar year and only in direct response to precipitation in the immediate watershed and whose channel bottom is always above the local water table.

LEACHATE means a liquid that has percolated through soil, rock, or waste and has extracted dissolved or suspended materials.

NOXIOUS PLANTS means species that have been included on official State lists of noxious plants for the State in which the operation occurs.

OVERBURDEN means material of any nature, consolidated or unconsolidated, that overlies a coal deposit, excluding topsoil.

OUTSLOPE means the exposed area sloping away from a bench or terrace being constructed as a part of a surface coal mining and reclamation operation.

PRODUCTIVITY means the vegetative yield produced by a unit area for a unit of time.

RECHARGE CAPACITY means the ability of the soils and underlying materials to allow precipitation and runoff to infiltrate and reach the zone of saturation.

ROADS means access and haul roads constructed, used, reconstructed, improved, or maintained for use in surface coal mining and reclamation operations, including use by coal-hauling vehicles leading to transfer, processing, or storage areas. The term includes any such road used and not graded to approximate original contour within 45 days of construction other than temporary roads used for topsoil removal and coal haulage roads within the pit area. Roads maintained with public funds such as all Federal, State, county, or local roads are excluded.

RECURRENCE INTERVAL means the precipitation event expected to occur, on the average, once in a specified interval. For example, the 10-year 24-hour precipitation event would be that 24-hour precipitation event expected to be exceeded on the average once in 10 years. Magnitude of such events are as defined by the National Weather Service Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, and subsequent amendments or equivalent regional or rainfall probability information developed therefrom.

RUNOFF means precipitation that flows overland before entering a defined stream channel and becoming streamflow.

SAFETY FACTOR means the ratio of the available shear strength to the developed shear-stress on a potential surface of sliding determined by accepted engineering practice.

{62679} **SEDIMENT** means undissolved organic and inorganic material transported or deposited by water.

SEDIMENTATION POND means any natural or artificial structure or depression used to remove sediment from water and store sediment or other debris.

SLOPE means average inclination of a surface, measured from the horizontal. Normally expressed as a unit of vertical distance to a given number of units of horizontal distance (e.g., 1v to 5h =20 percent=11.3 degrees).

SOIL HORIZONS means contrasting layers of soil lying one below the other, parallel or nearly parallel to the land surface. Soil horizons are differentiated on the basis of field characteristics and laboratory data. The three major soil horizons are -

(1) A horizon. The uppermost layer in the soil profile often called the surface soil. It is the part of the soil in which organic matter is most abundant, and where leaching of soluble or suspended particles is the greatest.

(2) B horizon. The layer immediately beneath the A horizon and often called the subsoil. This middle layer commonly contains more clay, iron, or aluminum than the A or C horizons.

{62679} (3) C horizon. The deepest layer of the soil profile. It consists of loose material or weathered rock that is relatively unaffected by biologic activity.

SPOIL means overburden that has been removed during surface mining.

STABILIZE means any method used to control movement of soil, spoil piles, or areas of disturbed earth and includes increasing bearing capacity, increasing shear strength, draining, compacting, or revegetating.

SUBIRRIGATION means irrigation of plants with water delivered to the roots from underneath.

SURFACE WATER means water, either flowing or standing, on the surface of the earth.

SUSPENDED SOLIDS means organic or inorganic materials carried or held in suspension in water that will remain on a 0.45 micron filter.

TOXIC-FORMING MATERIALS means earth materials or wastes which, if acted upon by air, water, weathering, or microbiological processes, are likely to produce chemical or physical conditions in soils or water that are detrimental to biota or uses of water.

TOXIC-MINE DRAINAGE means water that is discharged from active or abandoned mines and other areas affected by coal mining operations and which contains a substance which through chemical action or physical effects is likely to kill, injure, or impair biota commonly present in the area that might be exposed to it.

VALLEY FILL and **HEAD-OF-HOLLOW FILL** means a structure consisting of any materials other than waste placed so as to encroach upon or obstruct to any degree any natural stream channel other than those minor channels located on highland areas where overland flow in natural rills and gullies is the predominant form of runoff. Such fills are normally constructed in the uppermost portion of a V-shaped valley in order to reduce the upstream drainage area (head-of-hollow fills). Fills located farther downstream (valley fills) must have larger diversion structures to minimize infiltration. Both fills are characterized by rock underdrains and are constructed in compacted lifts from the toe to the upper surface in a manner to promote stability.

WASTE means earth materials, which are combustible, physically unstable, or acid-forming or toxic-forming, wasted or otherwise separated from product coal and are slurried or otherwise transported from coal processing facilities or preparation plants after physical or chemical processing, cleaning, or concentrating of coal.

WATER TABLE means upper surface of a zone of saturation, where the body of ground water is not confined by an overlying impermeable zone.

Section 710.11 -- Applicability.

(a) Operations on lands on which such operations are regulated by a State.

(1) The requirements of the initial regulatory program do not apply to surface mining and reclamation operations which occur on lands within a State which does not regulate any part of such operations.

(2) General obligations

(i) A person conducting coal mining operations shall have a permit if required by the State in which he is mining and shall comply with State laws and regulations that are not inconsistent with the Act and this chapter.

(ii) A person conducting coal mining operations shall not engage in any operations which result in a condition or constitute a practice that creates an imminent danger to the health or safety of the public.

(iii) A person conducting coal mining operations shall not engage in any operations which result in a condition or constitute a practice that causes or can reasonably be expected to cause significant, imminent environmental harm to land, air, or water resources.

(3) Performance standards obligations.

(i) A person who conducts any coal mining operations under an initial permit issued by a State on or after February 3, 1978, shall comply with the requirements of the initial regulatory program. Such permits shall contain terms that comply with the relevant performance standards of the initial regulatory program.

(ii) On and after May 3, 1978, any person conducting coal mining operations shall comply with the initial regulatory program, except as provided in Section 710.12 of this part.

{62679} (iii) A person shall comply with the obligations of this section until he has received a permit to operate under a permanent State or Federal regulatory program.

(b) Operations on Indian Lands. On or after December 16, 1977, a person conducting coal mining operations on Indian Lands shall comply only with the performance standards of this Chapter insofar as they are incorporated in Part 177, Subpart B, of Title 25 of the Code of Federal Regulations.

(c) Operations on Federal lands.

(1) A person conducting coal mining operations on Federal lands that commence operations on or after February 3, 1978, shall comply with the performance standards of this Chapter.

(2) Any person conducting coal mining operations on Federal lands on and after May 3, 1978, shall comply with the performance standards of this Chapter.

(d) Operations on all lands.

(1) The requirements of this chapter apply to operations conducted after the effective date of these regulations on lands from which the coal has not yet been removed and to any other lands used, disturbed, or redisturbed in connection with or to facilitate mining or to comply with the requirements of the Act or these regulations.

(2) Any pre-existing, non-conforming structure or facility which is used in connection with or to facilitate mining after the effective date of these regulations shall comply with the requirements of the regulations, unless -

(i) It is physically impossible to bring the structure or facility into compliance by the effective date;

(ii) The permittee or operator submits to the regulatory authority by February 3, 1978, a plan designed by a professional engineer for the reconstruction of the structure or facility;

(iii) The regulatory authority approves the plan; and

(iv) Reconstruction is started and completed as soon as possible. No plan shall be approved unless construction is to begin on or before May 4, 1978, and is to be completed by November 4, 1978, at the latest.

Section 710.12 -- Special exemption for small operators on State lands.

(a) As used in this section -

(1) Permittee means a person holding a permit under State law and to whom the permit was originally issued.

(2) Renewed permit means any extension of the original area or duration of a permit.

(b) If a person is an eligible permittee under paragraph (c) of this section and intends to conduct surface coal mining operations on or after May 3, 1978, that permittee may receive from the Director a limited exemption from the performance standards of this chapter. The exemption shall not -

(1) Include the Special Performance Standard of Section 716.2(a)(1) of this chapter regarding the handling of spoil;

(2) Apply to surface coal mining operations to be conducted under a permit or renewed permit issued on or after August 3, 1977;

- (3) Include any general or special performance standard with which a permittee is required to comply by a State;
- (4) Relieve the permittee of the general obligations imposed by Section 710.11(a) of this part regarding conditions or practices creating imminent danger or causing significant, imminent environmental harm; or
- {62680} (5) Relieve the permittee of any obligations under State law, regulation or permit.

(c) A permittee is eligible for an exemption under this section -

(1) If the actual and attributed production of that permittee is estimated by the Director not to exceed 100,000 tons of coal during the year ending on December 31, 1978; and

(2) If that permittee -

(i) Was in existence on July 31, 1976, and during the year ending on July 31, 1977, the actual and attributed production of that permittee was 100,000 tons of coal or less from all surface and underground coal mining operations; or

(ii) Came into existence after July 31, 1976, and prior to May 2, 1977, and the actual and attributed production from all surface and underground coal mining operations of that permittee in the average calendar month was an amount of coal which when multiplied by 12 yields a product of 100,000 tons or less.

(iii) And, in the case of a business organization, has not undergone a substantial change in ownership since May 2, 1977, other than a substantial change due to the death of an owner.

(d) Applications for an exemption under this section shall be submitted to the Director of the Office by February 3, 1978, with a copy to the State regulatory authority.

(e) The request for exemption shall be in the form of an affidavit under oath and shall include -

(1) The name and address of the permittee and of persons who control the permittee by reason of stock ownership or otherwise.

(2) The name, location, Mining Enforcement and Safety Administration identification numbers, and permit numbers of the surface coal mining operations for which exemption is sought, including a statement of the dates each permit was issued or renewed and will expire.

(3) The date and method by which the permittee was created if the permittee is not an individual.

(4) A listing of all surface and underground coal mining operations showing -

(i) Actual production for the year ending July 31, 1977, attributed to the permittee and the inclusive dates of operation.

(ii) Estimated production for the year ending December 31, 1978, attributed to the permittee and the anticipated dates of operation.

(5) A copy of coal severance tax returns for coal produced during the year ending on July 31, 1977.

(6) A copy of a notice the permittee has published in a local newspaper of general circulation in the area of each mine for which an exemption is sought once a week for two weeks stating -

(i) That an application for a small operator exemption will be filed, which if granted would exempt the operator from certain environmental protection performance standards in the Act;

(ii) The name and address of the permittee;

(iii) The location of the surface coal mining operations to which the exemption will apply; and

(iv) That public comments may be submitted to the Director, Office of Surface Mining Reclamation and

Enforcement.

(f) Production from the following operations shall be attributed to the permittee -

(1) All coal produced by operations beneficially owned entirely by the permittee, or controlled by reasons of ownership, direction of the management, or in any other manner by the permittee.

(2) The pro rata share, based upon percentage of beneficial ownership, of coal produced by operations in which the permittee owns more than a 5-percent interest.

(3) All coal produced by persons who own more than 5 percent of the permittee or who directly or indirectly control the permittee by reason of stock ownership, direction of the management or in any other manner.

(4) The pro rata share of coal produced by operations owned or controlled by the person who owns or controls the permittee.

(g) The Director shall grant the request for an exemption if, upon the basis of the request and any State regulatory authority or public comments, or any other information, he finds that -

(1) The permittee has satisfied his burden of proof by demonstrating eligibility for the exemption; and

(2) The exemption will not be inconsistent with State law, regulation or permit terms.

(h) Any person aggrieved by the decision of the Director under this section may appeal within 20 days from receipt of that decision to The Office of Hearings and Appeals under 43 CFR Part 4. The Office of Hearings and Appeals and the Secretary shall have the authority to stay the exemption pending the outcome of the appeal.

(i) The exemption shall be effective on the date approved. It shall remain in effect until expiration or renewal of the State permit to which it applies, December 31, 1978, or until revoked, whichever is earlier.

(j) The Director shall revoke the exemption upon finding that the exemption was erroneously issued or that the exempted operation has or will produce more than 100,000 tons of coal per year.

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PART 715 - GENERAL PERFORMANCE STANDARDS

Section

715.11	General obligations.
715.12	Signs and markers.
715.13	Postmining use of land.
715.14	Backfilling and grading.
715.15	Disposal of spoil and waste materials in areas other than the mine working or excavations.
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AUTHORITY: Sections 201 and 501, Pub.L. 9587 Stat. 445 (30 U.S.C. 1201).

Section 715.11 -- General obligations.

(a) Compliance. All surface coal mining and reclamation operations conducted on lands where any element of the operations is regulated by a State shall comply with the initial performance standards of this Part according to the time schedule specified in Section 710.11. Part 717 of this chapter establishes performance standards for surface effects of underground coal mines. Initial regulations regarding the special Initial Performance Standards are established by Part 716 of this chapter for -

- (1) Surface coal mining operations on steep slopes;
- (2) Surface coal mining operations involving mountaintop removal;
- (3) Special bituminous coal mines;
- (4) Anthracite surface coal mining operations;
- (5) Surface coal mining operations in Alaska; and
- (6) Surface coal mining operations on prime farmlands.

Where State environmental protection standards are adopted for a specific State because they are more stringent than the standards of Parts 715, 716, and 717, they will be published in Part 718 of this chapter.

(b) Authorizations to operate. A copy of all current permits, licenses, approved plans, or other authorizations to operate the mine shall be available for inspection at or near the mine site.

(c) Mine maps. Any person conducting surface coal mining and reclamation operations on and after May 3, 1978, shall submit two copies of an accurate map of the mine and permit area at a scale of 1:6000 or larger. The map shall show as of May 3, 1978, the lands from which coal has not yet been removed and the lands and structures which have been used or disturbed to facilitate mining. One copy of the mine map shall be submitted to the State regulatory authority and one copy shall be submitted to the Regional Director, OSM, before July 3, 1978.

Section 715.12 -- Signs and markers.

(a) Specifications. All signs required to be posted shall be of a standard design that can be seen and read easily and shall be made of durable material. The signs and other markers shall be maintained during all operations to which they pertain and shall conform to local ordinances and codes.

(b) Mine and permit identification signs. Signs identifying the mine area shall be displayed at all points of access to the permit area from public roads and highways. Signs shall show the name, business address, and telephone number of the permittee and identification numbers of current mining and reclamation permits or other authorizations to operate. Such signs shall not be removed until after release of all bonds.

(c) Perimeter markers. The perimeter of the permit area shall be clearly marked by durable and easily recognized markers, or by other means approved by the regulatory authority.

{62681} (d) Buffer zone markers. Buffer zones as defined in Section 715.17 shall be marked in a manner consistent with the perimeter markers along the interior boundary of the buffer zone.

(e) Blasting signs. If blasting is necessary to conduct surface coal mining operations, signs reading "Blasting Area" shall be displayed conspicuously at the edge of blasting areas along access and haul roads within the mine property. Signs reading "Blasting Area" and explaining the blasting warning and all clear signals shall be posted at all entrances to the permit area.

(f) Topsoil markers. Where topsoil or other vegetation-supporting material is segregated and stockpiled according to Section 715.16(c), the stockpiled material shall be marked. Markers shall remain in place until the material is removed.

Section 715.13 -- Postmining use of land.

{62681} (a) General. All disturbed areas shall be restored in a timely manner (1) to conditions that are capable of supporting the uses which they were capable of supporting before any mining, or (2) to higher or better uses achievable under criteria and procedures of paragraph (d) of this section.

(b) Determining premining use of land. The premining uses of land to which the postmining land use is compared shall be those uses which the land previously supported if the land had not been previously mined and had been properly managed.

(1) The postmining land use for land that has been previously mined and not reclaimed shall be judged on the basis of the highest and best use that can be achieved and is compatible with surrounding areas.

(2) The postmining land use for land that has received improper management shall be judged on the basis of the premining use of surrounding lands that have received proper management.

(3) If the premining use of the land was changed within 5 years of the beginning of mining, the comparison of postmining use to premining use shall include a comparison with the historic use of the land as well as its use immediately preceding mining.

(c) Land-use categories. Land use is categorized in the following groups. Change from one to another land use category in premining to postmining constitutes an alternate land use and the permittee shall meet the requirements of paragraph (d) of this section and all other applicable environmental protection performance standards of this chapter.

(1) Heavy industry. Manufacturing facilities, powerplants, airports or similar facilities.

(2) Light industry and commercial services. Office buildings, stores, parking facilities, apartment houses, motels, hotels, or similar facilities.

(3) Public services. Schools, hospitals, churches, libraries, water-treatment facilities, solid-waste disposal facilities, public parks and recreation facilities, major transmission lines, major pipelines, highways, underground and surface utilities, and other servicing structures and appurtenances.

(4) Residential. Single- and multiple-family housing (other than apartment houses) with necessary support facilities. Support facilities may include commercial services incorporated in and comprising less than 5 percent of the total land area of housing capacity, associated open space, and minor vehicle parking and recreation facilities supporting the housing.

(5) Cropland. Land used primarily for the production of cultivated and closegrowing crops for harvest alone or in association with sod crops. Land used for facilities in support of farming operations are included.

(6) Rangeland. Includes rangelands and forest lands which support a cover of herbaceous or scrubby vegetation suitable for grazing or browsing use.

(7) Hayland or pasture. Land used primarily for the long-term production of adapted, domesticated forage plants to be grazed by livestock or cut and cured for livestock feed.

(8) Forest land. Land with at least a 25 percent tree canopy or land at least 10 percent stocked by forest trees of any size, including land formerly having had such tree cover and that will be naturally or artificially reforested.

(9) Impoundments of water. Land used for storing water for beneficial uses such as stock ponds, irrigation, fire protection, recreation, or water supply.

(10) Fish and wildlife habitat and recreation lands. Wetlands, fish and wildlife habitat, and areas managed primarily for fish and wildlife or recreation.

(11) Combined uses. Any appropriate combination of land uses where one land use is designated as the primary land use and one or more other land uses are designated as secondary land uses.

(d) Criteria for approving alternative postmining use of land. An alternative postmining land use shall be approved by the regulatory authority, after consultation with the landowner or the land-management agency having jurisdiction over State or Federal lands, if the following criteria are met. Proposals to remove an entire coal seam running through the upper part of a mountain, ridge, or hill must also meet these criteria in addition to the requirements of Section 716.3 of this chapter.

(1) The proposed land use is compatible with adjacent land use and, where applicable, with existing local, State or Federal land use policies and plans. A written statement of the views of the authorities with statutory responsibilities for land use policies and plans shall accompany the request for approval. The permittee shall obtain any required approval of local, State or Federal land management agencies, including any necessary zoning or other changes necessarily required for the final land use.

(2) Specific plans have been prepared which show the feasibility of the proposed land use as related to needs, projected land use trends, and markets and that include a schedule showing how the proposed use will be developed and achieved within a reasonable time after mining and be sustained. The regulatory authority may require appropriate demonstrations to show that the planned procedures are feasible, reasonable, and integrated with mining and reclamation, and that the plans will result in successful reclamation.

(3) Provision of any necessary public facilities is assured as evidenced by letters of commitment from parties other than the permittee, as appropriate, to provide them in a manner compatible with the permittee's plans.

(4) Specific and feasible plans for financing attainment and maintenance of the postmining land use including letters of commitment from parties other than the permittee as appropriate, if the postmining land use is to be developed by such parties.

(5) The plans are designed under the general supervision of a registered professional engineer, or other appropriate professional, who will ensure that the plans conform to applicable accepted standards for adequate land stability, drainage, and vegetative cover, and aesthetic design appropriate for the postmining use of the site.

(6) The proposed use or uses will neither present actual or probable hazard to public health or safety nor will they pose any actual or probable threat of water flow diminution or pollution.

(7) The use of uses will not involve unreasonable delays in reclamation.

(8) Necessary approval of measures to prevent or mitigate adverse effects on fish and wildlife has been obtained from the regulatory authority and appropriate State and Federal fish and wildlife management agencies.

(9) Proposals to change premining land uses of range, fish and wildlife habitat, forest land, hayland, or pasture to a postmining cropland use, where the cropland would require continuous maintenance such as seeding, plowing, cultivation, fertilization, or other similar practices to be practicable or to comply with applicable Federal, State, and local laws, shall be reviewed by the regulatory authority to assure that -

(i) There is a firm written commitment by the permittee or by the landowner or land manager to provide sufficient crop management after release of applicable performance bonds to assure that the proposed postmining cropland use remains practical and reasonable;

(ii) There is sufficient water available and committed to maintain crop production; and

(iii) Topsoil quality and depth are shown to be sufficient to support the proposed use.

(10) The regulatory authority has provided by public notice not less than 45 days nor more than 60 days for interested citizens and local, State and Federal agencies to review and comment on the proposed land use.

Section 715.14 -- Backfilling and grading.

In order to achieve the approximate original contour, the permittee shall, except as provided in this section, transport, backfill, compact (where advisable to ensure stability or to prevent leaching of toxic materials), and grade all spoil material to eliminate all highwalls, spoil piles, and depressions. Cut-and-fill terraces may be used only in those situations expressly identified in this section. The postmining graded slopes must approximate the premining natural slopes in the area as defined in paragraph (a).

(a) Slope measurements.

(1) To determine the natural slopes of the area before mining, sufficient slopes to adequately represent the land surface configuration, and as approved by the regulatory authority in accordance with site conditions, must be accurately measured and recorded. Each measurement shall consist of an angle of inclination along the prevailing slope extending 100 linear feet above and below or beyond the coal outcrop or the area to be disturbed; or, where this is impractical, at locations specified by the regulatory authority. Where the area has been previously mined, the measurements shall extend at least 100 feet beyond the limits of mining disturbances as determined by the regulatory authority to be representative of the premining configuration of the land. Slope measurements shall take into account natural variations in slope so as to provide accurate representation of the range of natural slopes and shall reflect geomorphic differences of the area to be disturbed. Slope measurements may be made from topographic maps showing contour lines, having sufficient detail and accuracy consistent with the submitted mining and reclamation plan.

{62682} (2) After the disturbed area has been graded, the final graded slopes shall be measured at the beginning and end of lines established on the prevailing slope at locations representative of premining slope conditions and approved by the regulatory authority. These measurements must not be made so as to allow unacceptably steep slopes to be constructed.

(b) Final graded slopes.

(1) The final graded slopes shall not exceed either the approximate premining slopes as determined according to paragraph (a)(1) and approved by the regulatory authority or any lesser slope specified by the regulatory authority based on consideration of soil, climate, or other characteristics of the surrounding area. Postmining final graded slopes need not be uniform. The requirements of this paragraph may be modified by the regulatory authority where the mining is re-affecting previously mined lands that have not been restored to the standards of this section and sufficient spoil is not available to return to the slope determined according to paragraph (a)(1). Where such modifications are approved, the permittee shall, as a minimum, be required to -

(i) Retain all overburden and spoil on the solid portion of existing or new benches; and

(ii) Backfill and grade to the most moderate slope possible to eliminate the highwall which does not exceed the angle of repose or such lesser slopes as is necessary to assure stability.

(2) On approval by the regulatory authority and in order to conserve soil moisture, ensure stability, and control erosion on final graded slopes, cut-and-fill terraces may be allowed if the terraces are compatible with the postmining land use approved under Section 715.13, and are appropriate

substitutes for construction of lower grades on the reclaimed lands. The terraces shall meet the following requirements:

(i) The width of the individual terrace bench shall not exceed 20 feet unless specifically approved by the regulatory authority as necessary for stability, erosion control, or roads included in the approved postmining land use plan.

(ii) The vertical distance between terraces shall be as specified by the regulatory authority to prevent excessive erosion and to provide long-term stability.

(iii) The slope of the terrace outslope shall not exceed 1 v :2h (50 percent). Outslopes which exceed 1 v :2h (50 percent) may be approved if they have a minimum static safety factor of more than 1.5 and provide adequate control over erosion and closely resemble the surface configuration of the land prior to mining. In no case may highwalls be left as part of terraces.

(iv) Culverts and underground rock drains shall be used on the terrace only when approved by the regulatory authority.

(3) All operations on steep slopes of 20 degrees or more or on such lesser slopes as the regulatory authority defines as a steep slope shall meet the provisions of Section 716.2 of this chapter.

(c) Mountaintop removal. The requirements of this paragraph and of Section 716.3 shall apply to surface mining operations which remove entire coal seams in the upper part of a mountain, ridge, or hill by removing all of the overburden, and where the requirements for achieving the approximate original contour of this section cannot be met. Final graded top plateau slopes on the mined area shall be less than 1 v :5h so as to create a level plateau or gently rolling configuration and the outslopes of the plateau shall not exceed 1 v :2h, except where engineering data substantiates and the regulatory authority finds that a minimum static safety factor of 1.5 (or higher factors specified by the regulatory authority) will be attained. Although the area need not be restored to approximate original contour, all highwalls, spoil piles, and depressions except as provided in paragraphs (d) and (e) of this section shall be eliminated. All mountaintop removal operations shall in addition meet the provisions of Section 716.3 of this chapter.

(d) Small depressions. The requirement of this section to achieve approximate original contour does not prohibit construction of small depressions if they are approved by the regulatory authority to minimize erosion, conserve soil moisture or promote revegetation. These depressions shall be compatible with the approved postmining land use and shall not be inappropriate substitutes for construction of lower grades on the reclaimed lands. Depressions approved under this

section shall have a holding capacity of less than 1 cubic yard of water or, if it is necessary that they be larger, shall not restrict normal access throughout the area or constitute a hazard. Large, permanent impoundments shall be governed by paragraph (e) of this section and by Section 715.17.

(e) Permanent impoundments. Permanent impoundments may be retained in mined and reclaimed areas provided all highwalls are eliminated by grading to appropriate contour and the provisions for postmining land use (Section 715.13) and protection of the hydrologic balance (Section 715.17) are met. No impoundments shall be constructed on top of areas in which excess materials are deposited pursuant to Section 715.15 of this part. Impoundments shall not be used to meet the requirements of paragraph (j) of this section.

(f) Definition of thin and thick restored overburden. The thin overburden provisions of paragraph (g) of this section may apply only where the final thickness is less than 0.8 of the initial thickness. The thick overburden provisions of paragraph (h) of this section may apply only where the final thickness is greater than 1.2 of the initial thickness. Initial thickness is the sum of the overburden thickness and coal thickness. Final thickness is the product of the overburden thickness times the bulking factor to be determined for each mine area. The provisions of paragraph (g) and (h) apply only when operations cannot be carried out to comply with the requirements of paragraph (a) of this section to achieve the approximate original contour.

(g) Thin overburden. In surface coal mining operations carried out continuously in the same limited pit area for more than 1 year from the day coal-removal operations begin and where the volume of all available spoil and suitable waste materials is demonstrated to be insufficient to achieve approximate original contour, surface coal mining operations shall be conducted to meet, at a minimum, the following standards:

(1) Transport, backfill, and grade, using all available spoil and suitable waste materials from the entire mine area, to attain the lowest practicable stable grade, which may not exceed the angle of repose, and to provide adequate drainage and long-term stability of the regraded areas.

(2) Eliminate highwalls by grading or backfilling to stable slopes not exceeding 1v :2h (50 percent), or such lesser slopes as the regulatory authority may specify to reduce erosion, maintain the hydrologic balance, or allow the approved postmining land use.

(3) Transport, backfill, grade, and revegetate to achieve an ecologically sound land use compatible with the prevailing land use in unmined areas surrounding the permit area.

(4) Transport, backfill, and grade to ensure the impoundments are constructed only where it has been demonstrated to the regulatory authority's satisfaction that all requirements of Section 715.17 have been met and that the impoundments have been approved by the regulatory authority as meeting the requirements of this part and all other applicable Federal and State regulations.

(h) Thick overburden. In surface coal mining operations where the volume of spoil is demonstrated to be more than sufficient to achieve the approximate original contour surface coal mining operations shall be conducted to meet at a minimum the following standards:

(1) Transport, backfill, and grade all spoil and wastes not required to achieve approximate original contour in the surface mining area to the lowest practicable grade.

(2) Deposit, backfill, and grade excess spoil and wastes only within the permit area and dispose of such materials in conformance with this part.

(3) Transport, backfill, and grade excess spoil and wastes to maintain the hydrologic balance in accordance with this part and to provide long-term stability.

{62683} (4) Transport, backfill, grade, and revegetate wastes and excess spoil to achieve an ecologically sound land use compatible with the prevailing land uses in unmined areas surrounding the permit area.

(5) Eliminate all highwalls and depressions except as stated in paragraph (e) of this section by backfilling with spoil and suitable waste materials.

(i) Regarding or stabilizing rills and gullies . When rills or gullies deeper than 9 inches form in areas that have been regraded and the topsoil replaced but vegetation has not yet been established the permittee shall fill, grade, or otherwise stabilize the rills and gullies and reseed or replant the areas according to Section 715.20. The regulatory authority shall specify that rills or gullies of lesser size be stabilized if the rills or gullies will be disruptive to the approved postmining land use or may result in additional erosion and sedimentation.

(j) Covering coal and acid-forming, toxic-forming, combustible, and other waste materials; stabilizing backfilled materials; and using waste material for fill.

(1) Cover All exposed coal seams remaining after mining and any acid-forming, toxic-forming, combustible materials, or any other waste materials identified by the regulatory authority that are exposed, used, or produced during mining shall be covered with a minimum of 4 feet of nontoxic and noncombustible material; or, if necessary, treated to neutralize toxicity in order to prevent water pollution and sustained combustion, and to minimize adverse effects on plant growth and land uses. Where necessary to protect against upward migration of salts, exposure by erosion, to provide an adequate depth for plant growth, or to otherwise meet local conditions, the regulatory authority shall specify thicker amounts of cover using nontoxic material. Acid-forming or toxic-forming material shall not be buried or stored in proximity to a drainage course so as to cause or pose a threat of water pollution or otherwise violate the provisions of Section 715.17 of this part.

(2) Stabilization. Backfilled materials shall be selectively placed and compacted wherever necessary to prevent leaching of toxic-forming materials into surface or subsurface waters in accordance with Section 715.17 and wherever necessary to ensure the stability of the backfilled materials. The method of compacting material and the design specifications shall be approved by the regulatory authority before the toxic materials are covered.

(3) Use of waste materials as fill. Before waste materials from a coal preparation or conversion facility or from other activities conducted outside the permit area such as municipal wastes are used for fill material, it must be demonstrated to the regulatory authority by hydrogeological means and chemical and physical analyses that use of these materials will not adversely affect water quality, water flow, and vegetation; will not present hazards to public health and safety; and will not cause instability in the backfilled area.

(k) Grading along the contour. All final grading, preparation of overburden before replacement of topsoil, and placement of topsoil, in accordance with Section 715.16, shall be done along the contour to minimize subsequent erosion and instability. If such grading, preparation or placement along the contour would be hazardous to equipment operators then grading, preparation or placement in a direction other than generally parallel to the contour may be used. In all cases, grading, preparation, or placement shall be conducted in a manner which minimizes erosion and provides a surface for replacement of topsoil which will minimize slippage.

Section 715.15 -- Disposal of spoil and waste materials in areas other than the mine workings or excavations.

(a) Disposal of spoil in other than valley or head-of-hollow fills. Spoil not required to achieve the approximate original contour shall be transported to and placed in a controlled (engineered) manner in disposal areas other than the mine workings or excavations only if all the following conditions, in addition to the other requirements of this part, are met:

(1) The disposal areas shall be within the permit area, and they must be approved by the regulatory authority as suitable for construction of fills in accordance with the requirements of this paragraph.

(2) The disposal areas shall be located on the most moderate sloping and naturally stable areas available as approved by the regulatory authority. Where possible, fill materials suitable for disposal shall be placed upon or above a natural terrace, bench, or berm if such placement provides additional stability and prevents mass movement.

(3) The fill shall be designed using recognized professional standards, certified by a registered professional engineer, and approved by the regulatory authority.

(4) Where the slope in the disposal area exceeds 1 v:2.8h (36 percent), or such lesser slope designated by the regulatory authority based on local conditions, measures such as keyway cuts (excavations to stable bedrock) or rock toe buttresses shall be constructed to stabilize the fill.

(5) The disposal area does not contain springs, natural water courses, or wet weather seeps unless lateral drains are constructed from the wet areas to the underdrains in such a manner that infiltration of the water into the spoil pile will be prevented.

(6) All organic material shall be removed from the disposal area and the topsoil must be removed and segregated pursuant to Section 715.16 before the material is placed in the disposal area. However, if approved by the regulatory authority, organic material may be used as mulch or may be included in the topsoil.

(7) The spoil shall be transported and placed in a controlled manner, concurrently compacted as necessary to ensure mass stability and prevent mass movement, covered, and graded to allow surface and subsurface drainage to be compatible with the natural surroundings, and to ensure long-term stability. The final configuration of the fill must be suitable for postmining land uses approved in accordance with Section 715.13. Terraces shall not be constructed unless approved by the regulatory authority.

(8) If any portion of the fill interrupts, obstructs, or encroaches upon any natural drainage channel, the entire fill is classified as a valley or head-or-hollow fill and must be designed and constructed in accordance with the requirements of paragraph (b) of this section.

(9) The fill shall be inspected for stability by a registered engineer or other qualified professional specialist during critical construction periods to assure removal of all organic material and topsoil, placement of under-drainage systems, and

proper construction of terraces according to the approved plan. The registered engineer or other qualified professional specialist shall provide a certified report after each inspection that the fill has been constructed as specified in the design approved by the regulatory authority.

(b) Disposal of spoil in valley or head-of-hollow fills. Waste material must not be disposed of in valley or head-of-hollow fills. Spoil to be disposed of in natural valleys must be placed in accordance with the following requirements:

(1) The disposal areas shall be within the permit area, and they must be approved by the regulatory authority as suitable for construction of fills in accordance with the requirements of paragraph (b).

(2) The disposal site shall be near the ridge top of a valley selected to increase the stability of the fill and to reduce the drainage area above the fill. Where possible, spoil shall be placed above a natural terrace, bench, or berm, if such placement provides additional stability and prevents mass movement.

(3) The fill shall be designed using recognized professional standards, certified by a registered professional engineer and approved by the regulatory authority.

(4) All organic material shall be removed from the disposal area and the topsoil must be removed and segregated pursuant to Section 715.16 of this part before the material is placed in the disposal area. However, if approved by the regulatory authority, organic material may be used as mulch or may be included in the topsoil.

{62684} (5) Where the slope in the disposal area exceeds 1 v:2.8h (36 percent), or such lesser slope designated by the regulatory authority based on local conditions, measures such as keyway cuts (excavations to stable bedrock) or rock toe buttresses shall be constructed to stabilize the fill.

(6) A system of underdrains constructed of durable rock shall be installed along the natural drainage system, shall extend from the toe to the head of the fill and contain lateral drains to each area of potential drainage or seepage. In constructing the underdrains, no more than 10 percent of the rock may be less than 12 inches in size and no single rock may be larger than 25 percent of the width of the drain. No rock shall be used in underdrains if it tends to easily disintegrate and thereby clog the drain or if it is acid-forming or toxic-forming. The minimum size of the main underdrain shall be:

Total amount of fill material	Predominant type of fill material	Minimum size of drain in feet	
		Width	Height
Less than 1 million yd ³ .	Sandstone	10	4
Do	Shale	16	8
More than 1 million yd ³ .	Sandstone	16	8
Do	Shale	16	8

(7) Spoil shall be transported and placed in a controlled manner and concurrently compacted as specified by the regulatory authority in lifts that are less than 4 feet thick in order to achieve the densities designed to ensure mass stability, to prevent mass movement, to avoid contamination of the rock underdrain and to prevent formation of voids. The final configuration of the fill must be suitable for postmining land uses approved in accordance with Section 715.13.

(8) Terraces shall be constructed to stabilize the face of the fill. The outslope of each terrace shall not exceed 50 feet in length and the width of the terrace shall not be less than 20 feet.

(9) The tops of the fill and each terrace shall be graded no steeper than 1v:20h (5 percent) and shall be constructed to drain surface water to the sides of the fill where stabilized surface channels shall be established off the fill to carry drainage away from the fill. Drainage shall not be directed over the outslope of the fill unless approved by the regulatory authority.

(10) All surface drainage from the undisturbed area above the fill shall be diverted away from the fill by approved structures leading into water courses.

(11) The outslope of the fill shall not exceed 1 v:2h (50 percent). The regulatory authority may require a flatter slope.

(12) The fill shall be inspected for stability by a registered engineer or other qualified professional specialist during critical construction periods and at least quarterly throughout construction to assure removal of all organic material and topsoil, placement of underdrainage systems, and proper construction of terraces according to the approved plan. The registered engineer or other qualified professional specialist shall provide a certified report after each inspection that the fill has been constructed as specified in the design approved by the regulatory authority.

Section 715.16 -- Topsoil handling.

To prevent topsoil from being contaminated by spoil or waste materials, the permittee shall remove the topsoil as a separate operation from areas to be disturbed. Topsoil shall be immediately redistributed according to the requirements of paragraph (b) of this section on areas graded to the approved postmining configuration. The topsoil shall be segregated, stockpiled, and protected from wind and water erosion and from contaminants which lessen its capability to support vegetation if sufficient graded areas are not immediately available for redistribution.

(a) Topsoil removal. All topsoil to be salvaged shall be removed before any drilling for blasting, mining, or other surface disturbance.

(1) All topsoil shall be removed unless use of alternative materials is approved by the regulatory authority in accordance with subparagraph (4). Where the removal of topsoil results in erosion that may cause air or water pollution, the regulatory authority shall limit the size of the area from which topsoil may be removed at any one time and specify methods of treatment to control erosion of exposed overburden.

(2) All of the A horizon of the topsoil as identified by soil surveys shall be removed according to paragraph (a) and then replaced on disturbed areas as the surface soil layers. Where the A horizon is less than 6 inches, a 6-inch layer that includes the A horizon and the unconsolidated material immediately below the A horizon (or all unconsolidated material if the total available is less than 6 inches) shall be removed and the mixture segregated and replaced as the surface soil layer.

(3) Where necessary to obtain soil productivity consistent with postmining land use, the regulatory authority may require that the B horizon or portions of the C horizon or other underlying layers demonstrated to have comparable quality for root development be segregated and replaced as subsoil.

(4) Selected overburden materials may be used instead of, or as a supplement to, topsoil where the resulting soil medium is equal to or more suitable for vegetation, and if all the following requirements are met:

(i) The permittee demonstrates that the selected overburden materials or an overburden-topsoil mixture is more suitable for restoring land capability and productivity by the results of chemical and physical analyses. These analyses shall include determinations of pH, percent organic material, nitrogen, phosphorus, potassium, texture class, and water-holding capacity, and such other analyses as required by the regulatory authority. The regulatory authority also may require that results of field-site trials or greenhouse tests be used to demonstrate the feasibility of using such overburden materials.

(ii) The chemical and physical analyses and the results of field-site trials and greenhouse tests are accompanied by a certification from a qualified soil scientist or agronomist.

(iii) The alternative material is removed, segregated, and replaced in conformance with this section.

(b) Topsoil redistribution.

(1) After final grading and before the topsoil is replaced, regraded land shall be scarified or otherwise treated to eliminate slippage surfaces and to promote root penetration.

(2) Topsoil shall be redistributed in a manner that -

(i) Achieves an approximate uniform thickness consistent with the postmining land uses;

(ii) Prevents excess compaction of the spoil and topsoil; and

(iii) Protects the topsoil from wind and water erosion before it is seeded and planted.

(c) Topsoil storage. If the permit allows storage of topsoil, the stockpiled topsoil shall be placed on a stable area within the permit area where it will not be disturbed or be exposed to excessive water, wind erosion, or contaminants which lessen its capability to support vegetation before it can be redistributed on terrain graded to final contour. Stockpiles shall be selectively placed and protected from wind and water erosion, unnecessary compaction, and contamination by undesirable materials either by a vegetative cover as defined in Section 715.20(g) or by other methods demonstrated to provide equal protection such as snow fences, chemical binders, and mulching. Unless approved by the regulatory authority, stockpiled topsoil shall not be moved until required for redistribution on a disturbed area.

(d) Nutrients and soil amendments. Nutrients and soil amendments in the amounts and analyses as determined by soil tests shall be applied to the surface soil layer so that it will support the postmining requirements of Section 715.13 and the revegetation requirements of Section 715.20.

Section 715.17 -- Protection of the hydrologic system.

The permittee shall plan and conduct coal mining and reclamation operations to minimize disturbance to the prevailing hydrologic balance in order to prevent long-term adverse changes in the hydrologic balance that could result from surface coal mining and reclamation operations, both on- and off-site. Changes in water quality and quantity, in the depth to ground

water, and in the location of surface water drainage channels shall be minimized such that the postmining land use of the disturbed land is not adversely affected and applicable Federal and State statutes and regulations are not violated. The permittee shall conduct operations so as to minimize water pollution and shall, where necessary, use treatment methods to control water pollution. The permittee shall emphasize surface coal mining and reclamation practices that will prevent or minimize water pollution and changes in flows in preference to the use of water treatment facilities. Practices to control and minimize pollution include, but are not limited to, stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, lining drainage channels with rock or vegetation, mulching, sealing acid-forming and toxic-forming materials, and selectively placing waste materials in backfill areas. If pollution can be controlled only by treatment, the permittee shall operate and maintain the necessary water-treatment facilities for as long as treatment is required.

Section 715.17(a) -- Water quality standards and effluent limitations.

{62685} All surface drainage from the disturbed area, including disturbed areas that have been graded, seeded, or planted, shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the permit area. Sedimentation ponds shall be retained until drainage from the disturbed area has met the water quality requirements of this section and the revegetation requirements of Section 715.20 have been met. The regulatory authority may grant exemptions from this requirement only when the disturbed drainage area within the total disturbed area is small and if the permittee shows that sedimentation ponds are not necessary to meet the effluent limitations of this paragraph and to maintain water quality in downstream receiving waters. For purpose of this section only, disturbed area shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed in accordance with this section and the upstream area is not otherwise disturbed by the permittee. Sedimentation ponds required by this paragraph shall be constructed in accordance with paragraph (e) of this section in appropriate locations prior to any mining in the affected drainage area in order to control sedimentation or otherwise treat water in accordance with this paragraph. Discharges from areas disturbed by surface coal mining and reclamation operations must meet all applicable Federal and State laws and regulations and, at a minimum, the following numerical effluent limitations:

EFFLUENT LIMITATIONS, IN MILLIGRAMS PER LITER, mg/1, EXCEPT FOR pH

Effluent characteristics	Maximum allowable n1 discharge	Average of daily values 30 consecutive days n1
Iron, total	7.0	3.5
Manganese, total	4.0	2.0
Total suspended solids n2.	70.0	35.0
Within the range 6.0 to pH n3	9.0.	

n1 Based on representative sampling.

n2 In Arizona, Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah, and Wyoming, total suspended solids limitations will be determined on a case-by-case basis, but they must not be greater than 45 mg/1 (maximum allowable) and 30 mg/1 (average of daily value for 30 consecutive discharge days) based on a representative sampling.

n3 Where the application of neutralization and sedimentation treatment technology results in inability to comply with the manganese limitations set forth, the regulatory authority may allow the pH level in the discharge to exceed to a small extent the upper limit of 9.0 in order that the manganese limitations will be achieved.

(1) Any overflow or other discharge of surface water from the disturbed area within the permit area demonstrated by the permittee to result from a precipitation event larger than a 10-year, 24-hour frequency event will not be subject to the effluent limitations of paragraph (a).

(2) The permittee shall install, operate, and maintain adequate facilities to treat any water discharged from the disturbed area that violates applicable Federal or State laws or regulations or the limitations of paragraph (a). If the pH of waters to be discharged from the disturbed area is normally less than 6.0, an automatic lime feeder or other neutralization

process approved by the regulatory authority shall be installed, operated, and maintained. If the regulatory authority finds (1) that small and infrequent treatment requirements to meet applicable standards do not necessitate use of an automatic neutralization process, and (2) that the mine normally produces less than 500 tons of coal per day, then the regulatory authority may approve the use of a manual system if the permittee ensures consistent and timely treatment.

(b) Surface-water monitoring.

(1) The permittee shall submit for approval by the regulatory authority a surface-water monitoring program which meets the following requirements:

(i) Provides adequate monitoring of all discharge from the disturbed area.

(ii) Provides adequate data to describe the likely daily and seasonal variation in discharges from the disturbed area in terms of water flow, pH, total iron, total manganese, and total suspended solids and, if requested by the regulatory authority, any other parameter characteristic of the discharge.

(iii) Provides monitoring at appropriate frequencies to measure normal and abnormal variations in concentrations.

(iv) Provides an analytical quality control system including standard methods of analysis such as those specified in 40 CFR 136.

(v) Provides a regular report of all measurements to the regulatory authority within 60 days of sample collection unless violations of permit conditions occur in which case the regulatory authority shall be notified immediately after receipt of analytical results by the permittee. If the discharge is subject to regulation by a Federal or State permit issued in compliance with the Federal Water Pollution Control Act Amendment of 1972 (33 U.S.C. Sections 1251-1378), a copy of the completed reporting form supplied to meet the permit requirements may be submitted to the regulatory authority to satisfy the reporting requirements if the data meet the sampling frequency and other requirements of this paragraph.

(2) After disturbed areas have been regraded and stabilized in accordance with this part, the permittee shall monitor surface water flow and quality. Data from this monitoring shall be used to demonstrate that the quality and quantity of runoff without treatment will be consistent with the requirement of this section to minimize disturbance to the prevailing hydrologic balance and with the requirements of this part to attain the approved postmining land use. These data shall provide a basis for approval by the regulatory authority for removal of water quality or flow control systems and for determining when the requirements of this section are met. The regulatory authority shall determine the nature of data, frequency of collection, and reporting requirements.

(3) Equipment, structures, and other measures necessary to accurately measure and sample the quality and quantity of surface water discharges from the disturbed area of the permit area shall be properly installed, maintained, and operated and shall be removed when no longer required.

(c) Diversion and conveyance of overland flow away from disturbed areas. In order to minimize erosion and to prevent or remove water from contacting toxic-producing deposits, overland flow from undisturbed areas may, if required or approved by the regulatory authority, be diverted away from disturbed areas by means of temporary or permanent diversion structures. The following requirements shall be met:

(1) Temporary diversion structures are those used during mining and reclamation. When no longer needed, these structures shall be removed and the area reclaimed. Temporary diversion structures shall be constructed to safely pass the peak runoff from a precipitation event with a 10-year recurrence interval, or a larger event as specified by the regulatory authority.

(2) Permanent diversion structures are those remaining after mining and reclamation and approved for retention by the regulatory authority and other appropriate State and Federal agencies. To protect fills and property and to avoid danger to public health and safety, permanent diversion structures shall be constructed to safely pass the peak runoff from a precipitation event with a 100-year recurrence interval, or a larger event as specified by the regulatory authority. Permanent diversion structures shall be constructed with gently sloping banks that are stabilized by vegetation. Asphalt, concrete, or other similar linings shall not be used unless specifically required to prevent seepage or to provide stability and are approved by the regulatory authority.

{62686} (3) Diversions shall be designed, constructed, and maintained in a manner to prevent additional contributions of suspended solids to streamflow or to runoff outside the permit area to the extent possible, using the best technology currently available. In no event shall such contributions be in excess of requirements set by applicable State or Federal law. Appropriate sediment control measures for these diversions shall include, but not be limited to, maintenance of appropriate gradients, channel lining, revegetation, roughness structures, and detention basins.

(d) Stream channel diversions.

(1) Flow from perennial and intermittent streams within the permit area may be diverted only when the diversions are approved by the regulatory authority and they are in compliance with local, State, and Federal statutes and regulations.

When streamflow is allowed to be diverted, the new stream channel shall be designed and constructed to meet the following requirements:

(i) The average stream gradient shall be maintained and the channel designed, constructed, and maintained to remain stable and to prevent additional contributions of suspended solids to streamflow, or to runoff outside the permit area to the extent possible, using the best technology currently available. In no event shall such contributions be in excess of requirements set by applicable State or Federal law. Erosion control structures such as channel lining structures, retention basins, and artificial channel roughness structures shall be used only when approved by the regulatory agency for temporary diversions where necessary or for permanent diversions where they are stable and will require only infrequent maintenance.

(ii) Channel, bank, and flood-plain configurations shall be adequate to safely pass the peak runoff of a precipitation event with a 10-year recurrence interval for temporary diversions and a 100-year recurrence interval for permanent diversions, or larger events as specified by the regulatory authority.

(iii) Fish and wildlife habitat and water and vegetation of significant value for wildlife shall be protected in consultation with appropriate State and Federal fish and wildlife management agencies.

(2) All temporary diversion structures shall be removed and the affected land regraded and revegetated consistent with the requirements of Section 715.14 and Section 715.20. At the time such diversions are removed, the permittee shall ensure that downstream water treatment facilities previously protected by the diversion are modified or removed to prevent overtopping or failure of the facilities.

(3) Buffer zone. No land within 100 feet of an intermittent or perennial stream shall be disturbed by surface coal mining and reclamation operations unless the regulatory authority specifically authorizes surface coal mining and reclamation operations through such a stream. The area not to be disturbed shall be designated a buffer zone and marked as specified in Section 715.12.

(e) Sediment control measures. Appropriate sediment control measures shall be designed, constructed, and maintained to prevent additional contributions of sediment to streamflow or to runoff outside the permit area to the extent possible, using the best technology currently available. Sediment control measures may include, but are not limited to, sedimentation ponds, diversion structures, sediment traps, straw dikes, riprap, check dams, vegetative filters, dugout, ponds, and chemical treatment. Sedimentation ponds may be used individually or in a series and shall (either individually or in series) meet the following criteria:

(1) Sedimentation ponds must provide at least a 24-hour detention time and a surface area of at least 1 square foot for each 50 gallons per day of inflow for runoff entering the (ponds) that results from a 10-year, 24-hour precipitation event. Runoff diverted, in accordance with paragraphs (c) and (d) of this section, away from disturbed drainage areas need not be considered in sedimentation pond design. Required sedimentation pond surface area and detention time may be accordingly reduced by the appropriate use of chemical treatment measures such as flocculation and coagulation if approved by the regulatory authority.

(2) An additional sediment storage volume must be provided equal to 0.2 acre-feet for each acre of disturbed area within the upstream drainage area. Upon approval of the regulatory authority, the sediment storage volume may be reduced in an amount, as demonstrated by the permittee, equal to the sediment removed by other appropriate sediment control measures.

(3) Ponds may be of the permanent pool or self-dewatering type. Dewatering-type ponds shall use siphon or other dewatering methods approved by the regulatory authority to prevent discharges of pollutants within the design flow.

(4) Spillway systems shall be properly located to maximize the distances from the point of inflow into the pond to maximize detention times. Spillway systems shall be provided to safely discharge the peak runoff from a precipitation event with a 25-year recurrence interval, or larger event as specified by the regulatory authority.

(5) Sediment shall be removed from sedimentation ponds when the volume of sediment accumulates to 80 percent of the sediment storage volume required. Sediment removal shall be done in a manner that minimizes adverse effects on surface waters due to its chemical and physical characteristics, on infiltration, on vegetation, and on surface and ground water quality. Sediment that has been removed from sedimentation ponds and that meets the requirements for topsoil may be redistributed over graded areas in accordance with Section 715.16.

(6) If a sedimentation pond has an embankment that is more than 20 feet in height, as measured from the upstream toe of the embankment to the crest of the emergency spillway, or has a storage volume of 20 acre-feet or more, the following additional requirements shall be met:

(i) An appropriate combination of principal and emergency spillways shall be provided to safely discharge the run-off resulting from a 100-year, 6-hour precipitation event, or larger event as specified by the regulatory authority.

(ii) Ponds shall be designed and constructed with an acceptable static safety factor of at least 1.5 of maximum design flood elevation of the pool to ensure embankment slope stability.

(iii) The minimum top width of the embankment shall not be less than the quotient of $H + 35/5$ where H is the height of the embankment as measured from the upstream toe of the top of the embankment.

(iv) Ponds shall have appropriate barriers to control seepage along conduits that extend through the embankment.

(7) All ponds shall be designed and inspected under the supervision of, and certified after construction by a registered professional engineer.

(8) All ponds, including those not meeting the size or other criteria of Section 77.216(a) of this title, shall be examined for structural weakness, erosion, and other hazardous conditions in accordance with the inspection requirements contained in Section 77.216-3 of this title.

(9) All ponds shall be removed and the affected land regraded and revegetated consistent with the requirements of Section 715.14 and Section 715.20, unless the regulatory authority approves retention of the ponds pursuant to paragraph (k) of this section.

(f) Discharge structures. Discharges from sedimentation ponds and diversions shall be controlled, where necessary, using energy dissipators, surge ponds, and other devices to reduce erosion and prevent deepening or enlargement of stream channels and to minimize disturbances to the hydrologic balance.

(g) Acid and toxic materials. Drainage from acid-forming and toxic-forming mine waste materials and soils into ground and surface water shall be avoided by -

(1) Identifying, burying, and treating where necessary, spoil or other materials that, in the judgment of the regulatory authority, will be toxic to vegetation or that will adversely affect water quality if not treated or buried. Such material shall be disposed of in accordance with the provision of Section 715.14(j);

(2) Preventing or removing water from contact with toxic-producing deposits;

(3) Burying or otherwise treating all toxic or harmful materials within 30 days, if such materials are subject to wind and water erosion, or within a lesser period designated by the regulatory authority. If storage of such materials is approved, the materials shall be placed on impermeable material and protected from erosion and contact with surface water. Coal waste ponds and other coal waste materials shall be maintained according to Section 715.17(g)(4), and Section 715.18 shall apply;

{62687} (4) Burying or otherwise treating waste materials from coal preparation plants no later than 90 days after the cessation of the filling of the disposal area. Burial or treatment shall be in accordance with Section 715.14(j);

(5) Casing, sealing or otherwise managing boreholes, shafts, wells, and auger holes or other more or less horizontal holes to prevent pollution of surface or ground water and to prevent mixing of ground waters of significantly different quality. All boreholes that are within the permit area but are outside the surface coal mining area or which extend beneath the coal to be mined and into water bearing strata shall be plugged permanently in a manner approved by the regulatory authority, unless the boreholes have been approved for use in monitoring.

(6) Taking such other actions as required by the regulatory authority.

(h) Ground water.

(1) Recharge capacity of reclaimed lands. The disturbed area shall be reclaimed to restore approximate premining recharge capacity through restoration of the capability of the reclaimed areas as a whole to transmit water to the ground water system. The recharge capacity should be restored to support the approved postmining land use and to minimize disturbances to the prevailing hydrologic balance at the mined area and in associated offsite areas. The permittee shall be responsible for monitoring according to paragraph (h)(3) of this section to ensure operations conform to this requirement.

(2) Ground water systems. Backfilled materials shall be placed to minimize adverse effects on ground water flow and quality, to minimize offsite effects, and to support the approved postmining land use. The permittee shall be responsible for performing monitoring according to paragraph (h)(3) of this section to ensure operations conform to this requirement.

(3) Monitoring. Ground water levels, infiltration rates, subsurface flow and storage characteristics, and the quality of ground water shall be monitored in a manner approved by the regulatory authority to determine the effects of surface coal mining and reclamation operations on the recharge capacity of reclaimed lands and on the quantity and quality of water in ground water systems at the mine area and in associated offsite areas. When operations are conducted in such a manner that may affect the ground water system, ground water levels and ground water quality shall be periodically monitored using wells that can adequately reflect changes in ground water quantity and quality resulting from such operations. Sufficient water wells must be used by the permittee. The regulatory authority may require drilling and development of additional wells if needed to adequately monitor the ground water system. As specified and approved by the regulatory authority, additional hydrologic tests, such as infiltration tests and aquifer tests, must be undertaken by the permittee to demonstrate compliance with subparagraphs (1) and (2) of this paragraph.

(i) Water rights and replacement. The permittee shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or

surface source where such supply has been affected by contamination, diminution, or interruption proximately resulting from surface coal mine operation by the permittee.

(j) Alluvial valley floors west of the 100th meridian west longitude.

(1) Surface coal mining operations conducted in or adjacent to alluvial valley floors shall be planned and conducted so as to preserve the essential hydrologic functions of these alluvial valley floors throughout the mining and reclamation process. These functions shall be preserved by maintaining or reestablishing those hydrologic and biologic characteristics of the alluvial valley floor that are necessary to support the functions. The permittee shall provide information to the regulatory authority as required in paragraph (j)(3) of this section to allow identification of essential hydrologic functions and demonstrate that the functions will be preserved. The characteristics of an alluvial valley floor to be considered include, but are not limited to -

(i) The longitudinal profile (gradient), cross-sectional shape, and other channel characteristics of streams that have formed within the alluvial valley floor and that provide for maintenance of the prevailing conditions of surface flow;

(ii) Aquifers (including capillary zones and perched water zones) and confining beds within the mined area which provide for storage, transmission, and regulation of natural ground water and surface water that supply the alluvial valley floors;

(iii) Quantity and quality of surface and ground water that supply alluvial valley floors;

(iv) Depth to and seasonal fluctuations of ground water beneath alluvial valley floors;

(v) Configuration and stability of the land surface in the flood plain and adjacent low terraces in alluvial valley floors as they allow or facilitate irrigation with flood waters or subirrigation and maintain erosional equilibrium; and

(vi) Moisture-holding capacity of soils (or plant growth medium) within the alluvial valley floors, and physical and chemical characteristics of the subsoil which provide for sustained vegetation growth or cover through dry months.

(2) Surface coal mining operations located west of the 100th meridian west longitude shall not interrupt, discontinue, or preclude farming on alluvial valley floors and shall not materially damage the quantity or quality of surface or ground water that supplies these valley floors unless the premining land use has been undeveloped rangeland which is not significant to farming on the alluvial valley floors or unless the area of affected alluvial valley floor is small and provides

negligible support for the production from one or more farms. This subparagraph (2) does not apply to those surface coal mining operations that -

(i) Were in production in the year preceding August 3, 1977, were located in or adjacent to an alluvial valley floor, and produced coal in commercial quantities during the year preceding August 3, 1977; or

(ii) Had specific permit approval by the State regulatory authority before August 3, 1977, to conduct surface coal mining operations for an area within an alluvial valley floor.

(3)(i) Before surface mining and reclamation operations authorized under paragraph (j)(2) of this section may be issued a new, revised or amended permit, the permittee shall submit, for regulatory authority approval, detailed surveys and baseline data to establish standards against which the requirements of paragraph (j)(1) of this section may be measured and from which the degree of material damage to the quantity and quality of surface and ground water that supply the alluvial valley floors may be assessed. The surveys and data shall include -

(A) A map, at a scale determined by the regulatory authority, showing the location and configuration of the alluvial valley floor;

(B) Baseline data covering a full water year for each of the hydrologic functions identified in paragraph (j)(1) of this section;

(C) Plans showing how the operation will avoid, during mining and reclamation, interruption, discontinuance, or preclusion of farming on the alluvial valley floors and will not

materially damage the quantity or quality of water in surface and ground water systems that supply such valley floors;

(D) Historic land use data for the proposed permit area and for farms to be affected; and

(E) Such other data as the regulatory authority may require.

(ii) Surface mining operations which qualify for the exceptions in paragraph (j)(2) of this section are not required to submit the plans prescribed in (i)(C) of this subparagraph.

(4) The holder of a Federal coal lease or the fee holder of any coal deposit located within or adjacent to an alluvial valley floor west of the 100th meridian west from which coal was not produced in commercial quantities between August 3, 1976, and August 3, 1977, and for which no specific permit by the appropriate State or Federal regulatory authority to conduct surface coal mining operations in the alluvial valley floors has been obtained, may be entitled to an exchange of the Federal coal lease for a lease of other Federal coal deposits under section 510(b)(5) of the Act, or to the conveyance by the Secretary of fee title to other available Federal coal deposits in exchange for the fee title to such deposits under section 206 of the Federal Land Policy and Management Act of 1976 (90 Stat. 2743), if the Secretary determines that substantial

financial and legal commitments were made by the operator prior to January 1, 1977, in connection with surface coal mining operations on such lands.

{62688} (5) The Secretary may, if he determines that the person is qualified for an exchange of Federal coal leases under the provisions of section 510(b)(5) of the Act or a conveyance of other Federal coal deposits under section 206 of the Federal Land Policy and Management Act, take appropriate steps to complete the exchange of lands. The Secretary may require the person to submit additional information and a formal application for exchange.

{62688} (k) Permanent impoundments. The permittee may construct, if authorized by the regulatory agency pursuant to this paragraph and Section 715.13, permanent water impoundments on mining sites as a part of reclamation activities only when they are adequately demonstrated to be in compliance with Section 715.13 and Section 715.14 in addition to the following requirements:

- (1) The size of the impoundment is adequate for its intended purposes.
- (2) The impoundment dam construction is designed to achieve necessary stability with an adequate margin of safety compatible with that of structures constructed under Pub.L. 83-566 (16 U.S.C. 1006).
- (3) The quality of the impounded water will be suitable on a permanent basis for its intended use and discharges from the impoundment will not degrade the quality of receiving waters below the water quality standards established pursuant to applicable Federal and State law.
- (4) The level of water will be reasonably stable.
- (5) Final grading will comply with the provisions of Section 715.14 and will provide adequate safety and access for proposed water users.
- (6) Water impoundments will not result in the diminution of the quality or quantity of water used by adjacent or surrounding landowners for agricultural, industrial, recreational, or domestic uses.

(1) Hydrologic impact of roads.

(1) General. Access and haul roads and associated bridges, culverts, ditches, and road rights-of-way shall be constructed, maintained, and reclaimed to prevent additional contributions of suspended solids to streamflow, or to runoff outside the permit area to the extent possible, using the best technology currently available. In no event shall the contributions be in excess of requirements set by applicable State or Federal law. All access and haul roads shall be removed and the land affected regraded and revegetated consistent with the requirements of Section 715.14 and Section 715.20, unless retention of a road is approved as part of a postmining land use under Section 715.13 as being necessary to support the postmining land use or necessary to adequately control erosion and the necessary maintenance is assured.

(2) Construction.

(i) All roads, insofar as possible, shall be located on ridges or on the available flatter and more stable slopes to minimize erosion. Stream fords are prohibited unless they are specifically approved by the regulatory authority as temporary routes across dry streams that will not adversely affect sedimentation and that will not be used for coal haulage. Other stream crossing shall be made using bridges, culverts or other structures designed and constructed to meet the requirements of this paragraph. Roads shall not be located in active stream channels nor shall they be constructed or maintained in a manner that increases erosion or causes significant sedimentation or flooding. However, nothing in this paragraph will be construed to prohibit relocation of stream channels in accordance with paragraph (d) of this section.

(ii) In order to minimize erosion and subsequent disturbances of the hydrologic balance, roads shall be constructed in compliance with the following grade restrictions or other grades determined by the regulatory authority to be necessary to control erosion:

(A) The overall sustained grade shall not exceed 1 v :10h (10 percent).

(B) The maximum grade greater than 10 percent shall not exceed 1v :6.5 h (15 percent) for more than 300 feet.

(C) There shall not be more than 300 feet of grade exceeding 10 percent within each 1,000 feet.

(iii) All access and haul roads shall be adequately drained using structures such as, but not limited to, ditches, water barriers, cross drains, and ditch relief drains. For access and haul roads that are to be maintained for more than 1 year, water control structures shall be designed with a discharge capacity capable of passing the peak runoff from a 10-year, 24-hour precipitation event. Drainage pipes and culverts shall be constructed to avoid plugging or collapse and erosion at inlets and outlets. Drainage ditches shall be provided at the toe of all cut slopes formed by construction of roads. Trash racks and debris basins shall be installed in the drainage ditches wherever debris from the drainage area could impair the functions of drainage and sediment control structures. Ditch relief and cross drains shall be spaced according to grade. Effluent limitations of paragraph (a) of this section shall not apply to drainage from access and haul roads located outside the disturbed area as defined in this section unless otherwise specified by the regulatory authority.

(iv) Access and haul roads shall be surfaced with durable material. Toxic or acid-forming substances shall not be used. Vegetation may be cleared only for the essential width necessary for road and associated ditch construction and to serve traffic needs.

(3) Maintenance.

(i) Access and haul roads shall be routinely maintained by means such as, but not limited to, wetting, scraping or surfacing.

(ii) Ditches, culverts, drains, trash racks, debris basins and other structures serving to drain access and haul roads shall not be restricted or blocked in any manner that impedes drainage or adversely affects the intended purpose of the structure.

(m) Hydrologic impacts of other transport facilities. Railroad loops, spurs, sidings and other transport facilities shall be constructed, maintained and reclaimed to control diminution or degradation of water quality and quantity and to prevent additional contributions of suspended solids to streamflow, or to run-off outside the permit area to the extent possible, using the best technology currently available. In no event shall contributions be in excess of requirements set by applicable State or Federal law.

(n) Discharge of waters into underground mines. Surface and ground waters shall not be discharged or diverted into underground mine workings.

Section 715.18 -- Dams constructed of or impounding waste material.

(a) General. No waste material shall be used in or impounded by existing or new dams without the approval of the regulatory authority. The permittee shall design, locate, construct, operate, maintain, modify, and abandon or remove all dams (used either temporarily or permanently) constructed of waste materials, in accordance with the requirements of this section.

(b) Construction of dams.

(1) Waste shall not be used in the construction of dams unless demonstrated through appropriate engineering analysis, to have no adverse effect on stability.

(2) Plans for dams subject to this section, and also including those dams that do not meet the size or other criteria of Section 77.216(a) of this title, shall be approved by the regulatory authority before construction and shall contain the minimum plan requirements established by the Mining Enforcement and Safety Administration pursuant to Section 77.216-2 of this title.

(3) Construction requirements are as follows:

(i) Design shall be based on the flood from the probable maximum precipitation event unless the permittee shows that the failure of the impounding structure would not cause loss of life or severely damage property or the environment, in which case, depending on site conditions, a design based on a precipitation event of no less than 100-year frequency may be approved by the regulatory authority.

(ii) The design freeboard distance between the lowest point on the embankment crest and the maximum water elevation shall be at least 3 feet to avoid overtopping by wind and wave action.

(iii) Dams shall have minimum safety factors as follows:

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Case	Loading condition	Minimum safety factor
I	End of construction	1.3
II	Partial pool with steady seepage saturation.	1.5
III	Steady seepage from spillway or decant crest.	1.5
IV	Earthquake (cases II and III with seismic loading).	1.0

(iv) The dam, foundation, and abutments shall be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing shall be performed to determine the factors of safety of the dam for all loading conditions in paragraph (b)(3)(iii) of this section and for all increments of construction.

(v) Seepage through the dam, foundation, and abutments shall be controlled to prevent excessive uplift pressures, internal erosion, sloughing, removal of material by solution, or erosion of material by loss into cracks, joints, and cavities. This may require the use of impervious blankets, pervious drainage zones or blankets, toe drains, relief wells, or dental concreting of jointed rock surface in contact with embankment materials.

(vi) Allowances shall be made for settlement of the dams and the foundation so that the freeboard will be maintained.

(vii) Impoundments created by dams of waste materials shall be subject to a minimum drawdown criteria that allows the facility to be evacuated by spillways or decants of 90 percent of the volume of water stored during the design precipitation event within 10 days.

(viii) During construction of dams subject to this section, the structures shall be periodically inspected by a registered professional engineer to ensure construction according to the approved design. On completion of construction, the structure shall be certified by a registered professional engineer experienced in the field of dam construction as having been constructed in accordance with accepted professional practice and the approved design.

(ix) A permanent identification marker, at least 6 feet high that shows the dam number assigned pursuant to Section 77.216-1 of this title and the name of the person operating or controlling the dam, shall be located on or immediately adjacent to each dam within 30 days of certification of design pursuant to this section.

(4) All dams, including those not meeting the size or other criteria of Section 77.216(a) of this title, shall be routinely inspected by a registered professional engineer, or someone under the supervision of a registered professional engineer, in accordance with Mining Enforcement and Safety Administration regulations pursuant to Section 77.216-3 of this title.

(5) All dams shall be routinely maintained. Vegetative growth shall be cut where necessary to facilitate inspection and repairs. Ditches and spillways shall be cleaned. Any combustible materials present on the surface, other than that used for surface stability such as mulch or dry vegetation, shall be removed and any other appropriate maintenance procedures followed.

(6) All dams subject to this section shall be certified annually as having been constructed and modified in accordance with current prudent engineering practices to minimize the possibility of failures. Any changes in the geometry of the impounding structure shall be highlighted and included in the annual certification report. These certifications shall include a report on existing and required monitoring procedures and instrumentation, the average and maximum depths and elevations of any impounded waters over the past year, existing storage capacity of impounding structures, any fires occurring in the material over the past year and any other aspects of the structures affecting their stability.

(7) Any enlargements, reductions in size, reconstruction or other modification of the dams shall be approved by the regulatory authority before construction begins.

(8) All dams shall be removed and the disturbed areas regraded, revegetated, and stabilized before the release of bond unless the regulatory authority approves retention of such dams as being compatible with an approved postmining land use (Section 715.13).

Section 715.19 -- Use of explosives.

(a) General.

(1) The permittee shall comply with all applicable local, State, and Federal laws and regulations and the requirements of this section in the storage, handling, preparation, and use of explosives.

(2) Blasting operations that use more than the equivalent of 5 pounds of TNT shall be conducted according to a time schedule approved by the regulatory authority.

(3) All blasting operations shall be conducted by experienced, trained, and competent persons who understand the hazards involved. Persons working with explosive materials shall -

(i) Have demonstrated a knowledge of, and a willingness to comply with, safety and security requirements;

(ii) Be capable of using mature judgment in all situations;

(iii) Be in good physical condition and not addicted to intoxicants, narcotics, or other similar types of drugs;

(iv) Possess current knowledge of the local, State and Federal laws and regulations applicable to his work; and

(v) Have obtained a certificate of completion of training and qualification as required by State law or the regulatory authority.

(b) Preblasting survey.

(1) On the request to the regulatory authority of a resident or owner of a manmade dwelling or structure that is located within one-half mile of any part of the permit area, the permittee shall conduct a preblasting survey of the dwelling or structure and submit a report of the survey to the regulatory authority.

(2) Personnel approved by the regulatory authority shall conduct the survey to determine the condition of the dwelling or structure and to document any preblasting damage and other physical factors that could reasonably be affected by the blasting. Assessments of structures such as pipes, cables, transmission lines, and wells and other water systems shall be limited to surface condition and other readily available data. Special attention shall be given to the preblasting condition

of wells and other water systems used for human, animal, or agricultural purposes and to the quantity and quality of the water.

(3) A written report of the survey shall be prepared and signed by the person or persons who conducted the survey and prepared the written report. The report shall include recommendations of any special conditions or proposed adjustments to the blasting procedures outlined in paragraph (e) of this section which should be incorporated into the blasting plan to prevent damage. Copies of the report shall be provided to the person requesting the survey and to the regulatory authority.

(c) Public notice of blasting schedule. At least 10 days, but not more than 20 days before beginning a blasting program in which explosives that use more than the equivalent of 5 pounds of TNT are detonated, the permittee shall publish a blasting schedule in a newspaper of general circulation in the locality of the proposed site. Copies of the schedule shall be distributed by mail to local governments and public utilities and to each residence within one-half mile of the blasting sites described in the schedule. The permittee shall republish and redistribute the schedule by mail at least every 3 months. Blasting schedules shall not be so general as to cover all working hours but shall identify as accurately as possible the location of the blasting sites and the time periods when blasting will occur. The blasting schedule shall contain at a minimum -

- (1) Identification of the specific areas in which blasting will take place. The specific blasting areas described shall not be larger than 300 acres with a generally contiguous border;
- (2) Dates and times when explosives are to be detonated expressed in not more than 4-hour increments;
- (3) Methods to be used to control access to the blasting area;
- (4) Types of audible warnings and all clear signals to be used before and after blasting; and
- (5) A description of possible emergency situations (defined in paragraph (e)(1)(ii) of this section), which have been approved by the regulatory authority, when it may be necessary to blast at times other than those described in the schedule.

(d) Public notice of changes to blasting schedules. Before blasting in areas not covered by a previous schedule or whenever the proposed frequency of individual detonations are materially changed, the permittee shall prepare a revised blasting schedule in accordance with the procedures in paragraph (c) of this section. If the change involves only a temporary adjustment of the frequency of blasts, the permittee may use alternate methods to notify the governmental bodies and individuals to whom the original schedule was sent.

{62690} (e) Blasting procedures.

(1) General.

(i) All blasting shall be conducted only during the daytime hours, defined as sunrise until sunset. Based on public requests or other considerations, including the proximity to residential areas, the regulatory authority may specify more restrictive time periods.

(ii) Blasting may not be conducted at times different from those announced in the blasting schedule except in emergency situations where rain, lighting, other atmospheric conditions, or operator or public safety requires unscheduled detonation.

(iii) Warning and all-clear signals of different character that are audible within a range of one-half mile from the point of the blast shall be given. All persons within the permit area shall be notified of the meaning of the signals through appropriate instructions and signs posted as required by Section 715.12.

(iv) Access to the blasting area shall be regulated to protect the public and livestock from the effects of blasting. Access to the blasting area shall be controlled to prevent unauthorized entry at least 10 minutes before each blast and until the permittee's authorized representative has determined that no unusual circumstances such as imminent slides or undetonated charges exist and access to and travel in or through the area can safely resume.

(v) Areas in which charged holes are awaiting firing shall be guarded, barricaded and posted, or flagged against unauthorized entry.

(vi) Airblast shall be controlled such that it does not exceed 128 decibel linear peak at any manmade dwelling or structure located within one-half mile of the permit area.

(vii) Except where lesser distances are approved by the regulatory authority (based upon a preblasting survey or other appropriate investigations) blasting shall not be conducted within -

(A) 1,000 feet of any building used as a dwelling, school, church, hospital, or nursing facility;

(B) 500 feet of facilities including, but not limited to, disposal wells, petroleum or gas-storage facilities, municipal water-storage facilities, fluid-transmission pipelines, gas or oil-collection lines, or water and sewage lines; and

(C) 500 feet of an underground mine not totally abandoned except with the concurrence of the Mining Enforcement and Safety Administration.

(2) Blasting standards.

(i) Blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in the course, channel, or availability of ground or

surface waters outside the permit area.

(ii) In all blasting operations, except as otherwise stated, the maximum peak particle velocity of the ground motion in any direction shall not exceed 1 inch per second at the immediate location of any dwelling, public building, school, church, or commercial or institutional building. The regulatory authority may reduce the maximum peak particle velocity allowed if it determines that a lower standard is required because of density of population or land use, age or type of structure, geology or hydrology of the area, frequency of blasts or other factors.

(iii) The maximum peak particle velocity of ground motion does not apply to property inside the permit area that is owned or leased by the permittee.

(iv) An equation for determining the maximum weight of explosives that can be detonated within any 8 millisecond period is given in paragraph (v). If the blasting is conducted in accordance with this equation, the regulatory authority will consider the vibrations to be within the 1 inch per second limit.

(v) The maximum weight of explosives to be detonated within any 8 millisecond period shall be determined by the formula

$W = (D/60)^2$ where W =the maximum weight of explosives, in pounds, that can be detonated in any 8 millisecond period, and D =the distance, in feet, to the nearest dwelling, school, church, or commercial or institutional building.

For distances between 350 and 5,000 feet, solution of the equation results in the following maximum weight:

Distance, in feet (D):	Maximum weight, in pounds (W)
350	34
400	44
500	69
600	100
700	136
800	178
900	225
1,000	278
1,100	336
1,200	400
1,300	469
1,400	544
1,500	625
1,600	711
1,700	900
1,800	900
1,900	1,002
2,000	1,111
2,500	1,736
3,000	2,500
3,500	3,402
4,000	4,444
4,500	5,625
5,000	6,944

(vi) If on a particular site the peak particle velocity continuously exceeds one-half inch per second after a period of 1 second following the maximum ground particle velocity, the regulatory authority shall require the blasting procedures to be revised to limit the ground motion.

(3) Seismograph measurements.

(i) where a seismograph is used to monitor the velocity of ground motion and the peak particle velocity limit of 1 inch per second is not exceeded, the equation in paragraph (v) need not be used. However, if the equation is not being used, a seismograph record shall be obtained for every shot.

(ii) The use of a modified equation to determine maximum weight of explosives for blasting operations at a particular site may be approved by the regulatory authority on receipt of a petition accompanied by reports including seismograph records of test blasting on the site. However, in no case shall the regulatory authority approve the use of a

modified equation where the peak particle velocity limit of 1 inch per second required in paragraph (e)(2)(ii) of this section would be exceeded.

(iii) The regulatory authority may require a seismograph recording of any or all blasts.

(4) Records of blasting operations. A record of each blast, including seismograph reports, shall be retained for at least 3 years and shall be available for inspection by the regulatory authority and the public on request. The record shall contain the following data -

- (i) Name of permittee, operator, or other person conducting the blast;
- (ii) Location, date, and time of blast;
- (iii) Name, signature, and license number of blaster-in-charge;
- (iv) Direction and distance, in feet, to nearest dwelling, school, church, or commercial or institutional building neither owned or leased by the permittee;
- (v) Weather conditions;
- (vi) Type of material blasted;
- (vii) Number of holes, burden, and spacing;
- (viii) Diameter and depth of holes;
- (ix) Types of explosives used;
- (x) Total weight of explosives used;
- (xi) Maximum weight of explosives detonated within any 8 millisecond period;
- (xii) Maximum number of holes detonated within any 8 millisecond period;
- (xiii) Methods of firing and type of circuit;
- (xiv) Type and length of stemming;
- (xv) If mats or other protections were used;
- (xvi) Type of delay detonator used, and delay periods used;
- (xvii) Seismograph records, where required, including -
 - (A) Seismograph reading, including exact location of seismograph and its distance from the blast;
 - (B) Name of person taking the seismograph reading; and
 - (C) Name of person and firm analyzing the seismograph record.

Section 715.20 -- Revegetation.

(a) General.

(1) The permittee shall establish on all land that has been disturbed, a diverse, effective, and permanent vegetative cover of species native to the area of disturbed land or species that will support the planned postmining uses of the land approved according to Section 715.13. For areas designated as prime farmland, the reclamation procedures of Section 716.7 shall apply.

(2) Revegetation shall be carried out in a manner that encourages a prompt vegetative cover and recovery of productivity levels compatible with approved land uses. The vegetative cover shall be capable of stabilizing the soil surface with respect to erosion. All disturbed lands, except water areas and surface areas of roads that are approved as a part of the postmining land use, shall be seeded or planted to achieve a vegetative cover of the same seasonal variety native to the area of disturbed land. If both the pre- and postmining land use is intensive agriculture, planting of the crops normally grown will meet the requirement. Vegetative cover will be considered of the same seasonal variety when it consists of a mixture of species of equal or superior utility for the intended land use when compared with the utility of naturally occurring vegetation during each season of the year.

{62691} (3) On Federal lands, the surface management agency shall be consulted for approval prior to revegetation regarding what species are selected, and following revegetation, to determine when the area is ready to be used.

(b) Use of introduced species. Introduced species may be substituted for native species only if appropriate field trials have demonstrated that the introduced species are of equal or superior utility for the approved postmining land use, or are necessary to achieve a quick, temporary, and stabilizing cover. Such species substitution shall be approved by the regulatory authority. Introduced species shall meet applicable State and Federal seed or introduced species statutes, and shall not include poisonous or potentially toxic species.

(c) Timing of revegetation. Seeding and planting of disturbed areas shall be conducted during the first normal period for favorable planting conditions after final preparation. The normal period for favorable planting shall be that planting time generally accepted locally for the type of plant materials selected to meet specific site conditions and climate. Any disturbed areas, except water areas and surface areas of roads that are approved under Section 715.13 as part of the postmining land use, which have been graded shall be seeded with a temporary cover of small grains, grasses, or legumes to control erosion

until an adequate permanent cover is established. When rills or gullies, that would preclude the successful establishment of vegetation or the achievement of the postmining land use, form in regraded topsoil and overburden materials as specified in Section 715.14, additional regrading or other stabilization practices will be required before seeding and planting.

(d) Mulching. Mulch shall be used on all regraded and topsoiled areas to control erosion, to promote germination of seeds, and to increase the moisture retention of the soil. Mulch shall be anchored to the soil surface where appropriate, to ensure effective protection of the soil and vegetation. Mulch means vegetation residues or other suitable materials that aid in soil stabilization and soil moisture conservation, thus providing micro-climatic conditions suitable for germination and growth, and do not interfere with the postmining use of the land. Annual grains such as oats, rye and wheat may be used instead of mulch when it is shown to the satisfaction of the regulatory authority that the substituted grains will provide adequate stability and that they will later be replaced by species approved for the postmining use.

(e) Methods of revegetation.

(1) The permittee shall use technical publications or the results of laboratory and field tests approved by the regulatory authority to determine the varieties, species, seeding rates, and soil amendment practices essential for establishment and self-regeneration of vegetation. The regulatory authority shall approve species selection and planting plans.

(2) Where hayland, pasture, or range is to be the postmining land use, the species of grasses, legumes, browse, trees, or forbes for seeding or planting and their pattern of distribution shall be selected by the permittee to provide a diverse, effective, and permanent vegetative cover with the seasonal variety, succession, distribution, and regenerative capabilities native to the area. Livestock grazing will not be allowed on reclaimed land until the seedlings are established and can sustain managed grazing. The regulatory authority, in consultation with the permittee and the landowner or in concurrence with the governmental land managing agency having jurisdiction over the surface, shall determine when the revegetated area is ready for livestock grazing.

(3) Where forest is to be the postmining land use, the permittee shall plant trees adapted for local site conditions and climate. Trees shall be planted in combination with an herbaceous cover of grains, grasses, legumes, forbes, or woody plants to provide a diverse, effective, and permanent vegetation cover with the seasonal variety, succession, and regeneration capabilities native to the area.

(4) Where wildlife habitat is to be included in the postmining land use, the permittee shall consult with appropriate State and Federal wildlife and land management agencies and shall select those species that will fulfill the needs of wildlife, including food, water, cover, and space. Plant groupings and water resources shall be spaced and distributed to fulfill the requirements of wildlife.

(f) Standards for measuring success of revegetation.

(1) Success of revegetation shall be measured on the basis of reference areas approved by the regulatory authority. Reference areas mean land units of varying size and shape identified and maintained under appropriate management for the purpose of measuring ground cover, productivity and species diversity that are produced naturally. The reference areas must be representative of geology, soils, slope, aspect, and vegetation in the permit area. Management of the reference area shall be comparable to that which will be required for the approved postmining land use of the area to be mined. The regulatory authority shall approve the estimating techniques that will be used to determine the degree of success in the revegetated area.

(2) The ground cover of living plants on the revegetated area shall be equal to the ground cover of living plants of the approved reference area for a minimum of two growing seasons. The ground cover shall not be considered equal if it is less than 90 percent of the ground cover of the reference area for any significant portion of the mined area. Exceptions may be authorized by the regulatory authority for -

(i) Previously mined areas that were not reclaimed to the standards required by this chapter prior to the effective date of these regulations. The ground cover of living plants for such areas shall not be less than required to control erosion, and in no case less than that existing before redisturbance;

(ii) Areas to be developed immediately for industrial or residential use. The ground cover of living plants shall not be less than required to control erosion. As used in this paragraph, immediately means less than 2 years after regrading has been completed for the area to be used; and

(iii) Areas to be used for agricultural cropland purposes. Success in revegetation of cropland shall be determined on the basis of crop production from the mined area compared to the reference area. Crop production from the mined area shall be equal to that of the approved reference area for a minimum of two growing seasons. Production shall not be considered equal if it is less than 90 percent of the production of the reference area for any significant portion of the mined area.

(3) Species diversity, distribution, seasonal variety, and vigor shall be evaluated on the basis of the results which could reasonably be expected using the methods of revegetation approved under paragraph (e) of this section.

(g) Seeding of stockpiled topsoil. Topsoil stockpiled in compliance with Section 715.16 must be seeded or planted with an effective cover of nonnoxious, quick growing annual and perennial plants during the first normal period for favorable planting conditions or protected by other approved measures as specified in Section 715.16.

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PART 716 - SPECIAL PERFORMANCE STANDARDS

Section

716.1	General obligations.
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716.6	Coal mines in Alaska.
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AUTHORITY: Sections 201, 501, 527 and 529, Pub.L. 95-87 Stat. 445 (30 U.S.C. 1201).

Section 716.1 -- General obligations.

(a) This part establishes special initial performance standards that apply in the following special circumstances -

- (1) Section 716.2 applies to surface coal mining operations on steep slopes.
- {62692} (2) Section 716.3 applies to surface coal mining operations involving mountaintop removal.
- (3) Section 716.4 applies to special bituminous coal mines.
- (4) Section 716.5 applies to anthracite surface coal mining operations.
- (5) Section 716.6 applies to surface coal mining operations in Alaska.
- (6) Section 716.7 applies to surface coal mining operations on prime farmlands.

(b) All surface coal mining and reclamation operations subject to this part shall comply with the applicable special performance standards in this part. Such operations shall also comply with all general performance standards in Part 715 of this chapter unless specifically exempted in this part from the requirements of Part 715.

Section 716.2 -- Steep-slope mining.

(a) The permittee conducting surface coal mining and reclamation operations on natural slopes that exceed 20 degrees, or on lesser slopes that require measures to protect the area from disturbance, as determined by the regulatory authority after consideration of soils, climate, the method of operation, geology, and other regional characteristics, shall meet the following performance standards. The standards of this section do not apply where mining is done on a flat or gently rolling terrain with an occasional steep slope through which the mining proceeds and leaves a plain or predominantly flat area; or where the mining is governed by Section 716.3.

- (1) Spoil, waste materials or debris, including that from clearing and grubbing, and abandoned or disabled equipment, shall not be placed or allowed to remain on the downslope.
- (2) The highwall shall be completely covered with spoil and the disturbed area graded to comply with the provisions of Section 715.14 of this chapter. Land above the highwall shall not be disturbed unless the regulatory authority finds that the disturbance will facilitate compliance with the requirements of this section.
- (3) Material in excess of that required to meet the provisions of Section 715.14 of this chapter shall be disposed of in accordance with the requirements of Section 715.15 of this chapter.
- (4) Woody materials may be buried in the backfilled area only when burial does not cause, or add to, instability of the backfill. Woody materials may be chipped and distributed through the backfill when approved by the regulatory authority.

Section 716.3 -- Mountaintop removal.

(a) Surface coal mining and reclamation operations that remove entire coal seams running through the upper fraction of a mountain, ridge, or hill by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining are exempt from the requirements of Section 715.14 of this chapter for achieving approximate original contour, if the following requirements are met:

- (1) An industrial, commercial, agricultural, residential, or public facility (including recreational facilities) use is proposed for the affected land.
- (2) The alternative land use criteria in Section 715.13(d) of this chapter are met and the proposal is approved by the regulatory authority.
- (3) All other applicable requirements of Part 715 of this chapter can be met.

(b) Surface coal mining and reclamation operations conducted under this section shall comply with the following standards:

- (1) An outcrop barrier of sufficient width, consisting of the toe of the lowest coal seam, and its associated overburden shall be retained to prevent slides and erosion.
- (2) The final graded top plateau slopes on the mined area shall be less than 1v: 5h so as to create a level plateau or gently rolling configuration and the outcrops of the plateau shall not exceed 1v:2h , except where engineering data substantiates and the regulatory authority finds that a minimum static safety factor of 1.5 will be attained.
- (3) The resulting level or gently rolling contour shall be graded to drain inward from the outslope except at specific points where it drains over the outslope in protected stable channels.
- (4) Damage to natural watercourses below the area to be mined shall be prevented.
- (5) Spoil shall be placed on the mountaintop bench as is necessary to achieve the postmining land use approved under Section 715.13 of this chapter. All excess spoil material not retained on the mountaintop shall be placed in accordance with the standards of Section 715.15 of this chapter.

(c)(1) All permits giving approval for mountaintop removal shall be reviewed not more than 3 years from the date of issuance of the permit, unless the permittee affirmatively demonstrates and the regulatory authority finds that all operations are proceeding in accordance with the terms of the permit and applicable requirements of the Act and the regulations of this part. The terms of the permit shall be in accordance with the requirements of the Act and the regulations of this part.

(2) The terms of a permit for mountaintop removal may be modified by the regulatory authority if it determines that more stringent measures are necessary to prevent or control slides and erosion, prevent damage to natural water courses, avoid water pollution, or to assure successful revegetation.

Section 716.4 -- Special bituminous coal mines.

(a) Definition. Special bituminous coal surface mines as used in this section means those bituminous coal surface mines that are located in the State of Wyoming and that are being mined or will be mined according to the following criteria:

- (1) Excavation of the mine pit takes place on a relatively limited site for an extended period of time. For the purposes of this section, mine pit means an open-pit mine in which the surface opening is at least the full size of the excavation and has a contiguous border. The pit generally is quite deep and is formed by the removal of relatively large amounts of overburden to obtain lesser amounts of coal. The term as used in this section applies only to mining operations that extract coal from seams dipping 15 degrees or more from the horizontal.
- (2) Excavation of the mine pit follows a coal seam that inclines 15 degrees or more from the horizontal, and as the excavation proceeds downward it expands laterally to maintain stability of the pitwall or as necessary to accommodate the orderly expansion of the total mining operations.
- (3)(i) Surface coal mining operations in the mine pit have taken place since January 1, 1972, and
 - (A) Operations in the mine pit are removing more than one coal seam, and
 - (B) Mining has begun on the deepest coal seam scheduled to be mined; or
- (ii) Surface coal mining operations which may be developed after August 3, 1977, and are conducted on lands immediately adjacent to operations meeting the criteria of paragraph (a)(3)(i).
- (4) The amount of material removed from the pit is large in proportion to the surface area disturbed.
- (5) There is no practicable alternative to the deep open-pit method of mining the coal.
- (6) There is no practicable way to entirely reclaim the land as required by Part 715 of this chapter.

(b) Requirements for special bituminous coal mines operating prior to July 1, 1973. Those portions of a special bituminous coal mine approved for operation prior to July 1, 1973, including the orderly expansion of such a mine pit to the extent

authorized by State law, shall at a minimum meet the general performance standards of Part 715 of this chapter for all operations conducted on the permit area outside the mine pit and for those operations associated with spoil storage areas. The standards of Part 715 also apply to the mine pit with the exception of Section 715.14, which relates to backfilling and grading. Special requirements for backfilling and grading the mine pit area are as follows:

(1) In the final mine area, highwalls will be allowed to remain and benches will be allowed. Details of the benches shall be included in the mine plans submitted to the regulatory authority for approval.

(2) The exposed pit floors will be sloped and graded to provide access to the area, and topsoil shall be applied and the floor area seeded according to the requirements of Sections 715.16 and 715.20. Where water impoundments are included as part of the mine plan, riprap may be used if necessary to prevent erosion.

(3) Spoil piles will be graded and contoured with no more than overall slope of 17 degrees allowed, and terraces may be used to break the slope when it can be shown that terraces will accomplish the required reclamation. For the postmining land use, steeper slopes may be permitted upon approval of the regulatory authority, provided it can be demonstrated that such method will provide the required results.

{62693} (c) Requirements for other special bituminous coal mines. Those portions of a special bituminous coal mine which do not meet the criteria of paragraph (b) of this section shall, at minimum, meet the general performance standards of Part 715 of this chapter for all operations conducted on the permit area outside the mine pit and for these operations associated with spoil storage areas. The standards of Part 715 also apply to the mine pit with the exception of Section

715.14, which relates to backfilling and grading. Special requirements for backfilling and grading the mine pit area as follows:

(1) Slope specifications. Slope specifications for the postmining land use shall be based on an average of the natural slopes measured in the immediate area of the mine site, and the maximum inclination of the slopes in the reclaimed area shall not be greater than this average slope. However, slopes steeper than the average of the natural slopes may be approved by the regulatory authority if it can be demonstrated that returning the mined area to a slope equal to or less than the average natural slope would greatly increase the amount of disturbed land. Measurements of individual slopes, locations at which measurements are made, and the average natural slope as determined from the individual slope measurements shall be submitted for approval to the regulatory authority. The regulatory authority may make an independent slope survey to verify the average natural slope.

(2) Postmining land uses that do not include permanent water impoundments.

(i) The final mine area shall be backfilled, graded, and contoured to the extent necessary to return the land to the use approved by the regulatory authority.

(ii) All backfilling, grading, and contouring shall be done in a manner to preserve the original drainage system or to provide substitute drainage systems approved by the regulatory authority.

(iii) Terraces or benches may be used only if it can be demonstrated that contouring methods will not provide the required results. Detailed plans of dimensions and design of the terraces or benches, check dams, erosion prevention techniques, and slopes of the terraces or benches and their intervals shall be submitted to the regulatory authority for approval before construction.

(iv) Depressions that will accumulate water shall not be allowed unless they are approved under paragraph (3).

(3) Postmining land uses that include permanent water impoundments.

(i) The exposed mine pit area shall be sloped, graded, and contoured to blend with the topography of the surrounding terrain and to provide for access to the area. Where necessary to prevent erosion, riprap shall be used.

(ii) Under certain conditions where it can be demonstrated by the permittee that the pitwall can be stabilized by terracing or other techniques, it may be permissible to leave one-half the proposed shoreline, as measured along the circumference, composed of the stabilized pitwall. The remaining part of the shoreline shall be graded and contoured to blend with the topography of the surrounding terrain and to provide access to the area. Detailed explanations of the techniques to be used to stabilize the pitwalls shall be submitted for approval to the regulatory authority. The regulatory authority may verify the effectiveness of the proposed stabilization techniques from a study made by an independent engineering company and based on this information and an onsite inspection, the regulatory authority will then determine the acceptability of the proposed stabilization techniques.

(d) In the event of an amendment or revision to the State of Wyoming's regulatory program, regulations, or decisions made thereunder governing special bituminous coal mines, the Secretary shall issue such additional regulations as necessary to meet the purposes of the Act.

Section 716.5 -- Anthracite coal mines.

- (a) Permittees of anthracite coal surface mines in those States where the mines are regulated by State environmental protection standards shall be subject to the environmental protection standards of the State regulatory program in existence on August 3, 1977, instead of Part 715 of this chapter.
- (b) The environmental protection provisions of Title 25, Rules and Regulations, Part 1, Department of Environmental Resources, Commonwealth of Pennsylvania, shall apply to reclamation of anthracite surface coal mines operated in the Commonwealth of Pennsylvania instead of Part 715 of this chapter. In addition, the regulations of the Commonwealth of Pennsylvania pertaining to standards for air and water quality shall apply instead of the regulations of Part 715 of this chapter.
- (c) If a State's regulatory program or regulations for anthracite coal mining and reclamation operations in force at the time of this Act are amended, the Secretary, upon receipt of a notice of amendment, shall issue additional regulations as necessary to meet the purposes of this Act.

Section 716.6 -- Coal mines in Alaska.

- (a) Permittees of surface coal mining operations in Alaska from which coal has been mined on or after August 3, 1977, shall conduct operations in a manner that, at a minimum, meets the performance standards of this chapter.
- (b) The Secretary, after consultation with the Governor of Alaska, may modify the applicability of any environmental protection standard to any surface coal mining operation if he determines that it is necessary to ensure the continued operation of the mine.
- (c) Any person may petition the Secretary to modify the applicability of a performance standard to a coal mine in Alaska. No particular form of petition is required. However, the petition shall be in writing and shall identify clearly -
- (1) The performance standard involved;
 - (2) The alternative methods to be used to protect the environment and public health and safety;
 - (3) The reasons why a modification is requested with full descriptions of the impacts continued requirements for compliance with the performance standard to be modified would have on mining and reclamation and of the impacts the proposed method would have on the environment and public health and safety; and
 - (4) The location of the mine.
- (d) If the Secretary determines that the petition presents reasonable justification for modifying the performance standard, he may grant a temporary suspension of enforcement of the performance standard, and he shall publish a notice of intention to modify the applicability of the performance standard in the FEDERAL REGISTER and in a newspaper of general circulation in the area of Alaska where the affected coal mine is located. A public hearing shall be held in Alaska and any person may testify for or against the proposed modification. The Secretary, after considering the public comments, and consulting with the Governor of Alaska, shall publish his decision in the FEDERAL REGISTER and in the same newspaper in which the original notice was published.

Section 716.7 -- Prime farmland.

- (a) Applicability.
- (1) Permittees of surface coal mining and reclamation operations conducted on prime farmland shall comply with the general performance standards of Part 715 of this chapter in addition to the special requirements of this section. Prime farmlands are those lands defined in paragraph (b) of this section that have been used for the production of cultivated crops, including nurseries, orchards, and other specialty crops, and small grains for at least 5 years out of the 20 years preceding the date of the permit application.
 - (2) The requirements of this section are applicable to any permit issued on or after August 3, 1977. Permits issued before that date and revisions or renewals of those permits need not conform to the provisions of this section regarding actions to be taken before a permit is issued. Permit renewals or revisions shall include only those areas that –
 - (i) Were in the original permit area or in a mining plan approved prior to August 3, 1977; or

(ii) Are contiguous and under State regulation or practice would have normally been considered as a renewal or revision of a previously approved plan.

(b) Definition. Prime farmland means those lands that meet the applicability requirements in paragraph (a) of this section and the specific technical criteria prescribed by the Secretary of Agriculture as published in the FEDERAL REGISTER on August 23, 1977. These criteria are included here for convenience. Terms used in this section are defined in U.S. Department of Agriculture publications: Soil Taxonomy, Agriculture Handbook 436; Soil Survey Manual, Agriculture Handbook 18; Rainfall-Erosion Losses From Cropland, Agriculture Handbook 282; and Saline and Alkali Soils, Agriculture Handbook 60. To be considered prime farmland soils must meet all of the following criteria:

{62694} (1) The soils have -

(i) Aquic, udic, ustic, or xeric moisture regimes and sufficient available water capacity within a depth of 40 inches or in the root zone, if the root zone is less than 40 inches deep, to produce the commonly grown crops in 7 or more years out of 10; or

(ii) Xeric or ustic moisture regimes in which the available water capacity is limited but the area has a developed irrigation water supply that is dependable and of adequate quality (a dependable water supply is one in which enough water is available for irrigation in 8 out of 10 years for the crops commonly grown); or

(iii) Aridic or torric moisture regimes and the area has a developed irrigation water supply that is dependable and of adequate quality.

(2) The soils have a temperature regime that is frigid, mesic, thermic, or hyperthermic (pergelic and cryic regimes are excluded). These are soils that at a depth of 20 inches have a mean annual temperature higher than 32 degrees F. In addition, the mean summer temperature at this depth in soils with an O horizon is higher than 47 degrees F.; in soils that have no O horizon the mean summer temperature is higher than 59 degrees F.

(3) The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches or in the root zone if the root zone is less than 40 inches deep.

(4) The soils either have no water table or have a water table that is maintained at a sufficient depth during the cropping season to allow food, feed, fiber, forage, and oilseed crops common to the area to be grown.

(5) The soils can be managed so that, in all horizons within a depth of 40 inches or in the root zone if the root zone is less than 40 inches deep, during part of each year the conductivity of saturation extract is less than 4 mmhos/cm and the exchangeable sodium percentage (ESP) is less than 15.

(6) The soils are not flooded frequently during the growing season (less often than once in 2 years).

(7) The soils have a product of K (erodability factor) x percent slope of less than 2.0 and a product of I (soil erodability) x C (climatic factor) not exceeding 60.

(8) The soils have a permeability rate of at least 0.06 inch per hour in the upper 20 inches and the mean annual soil temperature at a depth of 20 inches is less than 59 degrees F.; the permeability rate is not a limiting factor if the mean annual soil temperature is 59 degrees F. or higher.

(9) Less than 10 percent of the surface layer (upper 6 inches) in these soils consists of rock fragments coarser than 3 inches.

(c) Identification of prime farmland. Prime farmland shall be identified on the basis of soil surveys submitted by the applicant. The regulatory authority also may require data on irrigation, drainage, flood control, and subsurface water management. The requirement for submission of soil surveys may be waived by the regulatory authority if the applicant can demonstrate according to the procedures in paragraph (d) of this section that no prime farmlands are involved. Soil surveys shall be conducted according to standards of the National Cooperative Soil Survey, which include the procedures set forth in U.S. Department of Agriculture Handbooks 436 (Soil Taxonomy) and 18 (Soil Survey Manual), and shall include -

(1) Data on moisture availability, temperature regime, flooding, water table, erosion characteristics, permeability, or other information that is needed to determine prime farmland in accordance with paragraph (b) of this section;

(2) A map designating the exact location and extent of the prime farmland; and

(3) A description of each soil mapping unit.

(d) Negative determination of prime farmland. The land shall not be considered as prime farmland where the applicant can demonstrate one or more of the following situations -

(1) Lands within the proposed permit boundaries have been used for the production of cultivated crops for less than 5 years out of 20 years preceding the date of the permit application.

(2) The slope of all land within the permit area is 10 percent or greater.

(3) Land within the permit area is not irrigated or naturally subirrigated, has no developed water supply that is dependable and of adequate quality, and the average annual precipitation is 14 inches or less.

(4) Other factors exist, such as a very rocky surface, or the land is frequently flooded, which clearly place all land within the area outside the purview of prime farmland.

(5) A written notification based on scientific findings and soil surveys that land within the proposed mining area does not meet the applicability requirements in paragraph (a) of this section is submitted to the regulatory authority by a qualified person other than the applicant, and is approved by the regulatory authority.

(e) Plan for restoration of prime farmland. The applicant shall submit to the regulatory authority a plan for the mining and restoration of any prime farmland within the proposed permit boundaries. This plan shall be used by the regulatory authority in judging the technological capability of the applicant to restore prime farmlands. The plan shall include -

(1) A description of the original undisturbed soil profile, as determined from a soil survey, showing the depth and thickness of each of the soil horizons that collectively constitute the root zone of the locally adapted crops and are to be removed, stored, and replaced;

(2) The proposed method and type of equipment to be used for removal, storage, and replacement of the soil in accordance with paragraph (g) of this section;

(3) The location of areas to be used for the separate stockpiling of the soil and plans for soil stabilization before redistribution;

(4) If applicable, documentation such as agricultural school studies or other scientific data from comparable areas that supports the use of other suitable material, instead of the A, B or C soil horizon, to obtain on the restored area equivalent or higher levels of yield as non-mined prime farmlands in the surrounding area under equivalent levels of management; and

(5) Plans for seeding or cropping the final graded mine land and the conservation practices to control erosion and sedimentation during the first 12 months after regrading is completed. Proper adjustments for seasons must be made so that final graded land is not exposed to erosion during seasons when vegetation or conservation practices cannot be established due to weather conditions; and

(6) Available agricultural school studies, company data, or other scientific data for comparable areas that demonstrate that the applicant using his proposed method of reclamation will achieve, within a reasonable time, equivalent or higher levels of yield after mining as existed before mining.

(f) Consultation with Secretary of Agriculture and issuance of permit.

(1) The regulatory authority may grant a permit which shall incorporate the plan submitted under paragraph (e) of this section, if it finds in writing that the applicant -

(i) has the technological capability to restore the prime farmland within the proposed permit area, within a reasonable time, to equivalent or higher levels of yield as nonmined prime farmland in the surrounding area under equivalent levels of management; and

(ii) will achieve compliance with the standards of paragraph (g) of this section.

(2) Before any permit is issued for areas that include prime farmlands, the regulatory authority shall consult with the Secretary of Agriculture. The Secretary of Agriculture will provide a review of the proposed method of soil reconstruction and comment on possible revisions that will result in a more complete and adequate restoration. The Secretary of Agriculture has assigned his responsibilities under this paragraph to the Administrator of the U.S. Soil Conservation Service and the U.S. Soil Conservation Service will carry out the consultation and review through their State Conservationist, located in each State.

{62695} (g) Special requirements. For all prime farmlands to be mined and reclaimed, the applicant shall meet the following special requirements:

(1) All soil horizons to be used in the reconstruction of the soil shall be removed before drilling, blasting, or mining to prevent contaminating the soil horizons with undesirable materials. Where removal of soil horizons result in erosion that may cause air and water pollution, the regulatory authority shall specify methods of treatment to control erosion of exposed overburden. The permittee shall -

(i) Remove separately the entire A horizon or other suitable soil materials which will create a final soil having an equal or greater productive capacity than that which existed prior to mining in a manner that prevents mixing or contamination with other material before replacement;

(ii) Remove separately the B horizon of the natural soil or a combination of B horizon and underlying C horizon or other suitable soil material that will create a reconstructed root zone of equal or greater productivity capacity than that which existed prior to mining in a manner that prevents mixing or contamination with other material; and

(iii) Remove separately the underlying C horizons or other strata, or a combination of such horizons or other strata, to be used instead of the B horizon that are of equal or greater thickness and that can be shown to be equal or more favorable for plant growth than the B horizon, and that when replaced will create in the reconstructed soil a final root zone of comparable depth and quality to that which existed in the natural soil.

(2) If stockpiling of soil horizons is allowed by the regulatory authority in lieu of immediate replacement, the A horizon and B horizon must be stored separately from each other. The stockpiles must be placed within the permit area and

where they will not be disturbed or exposed to excessive erosion by water or wind before the stockpiled horizons can be redistributed on terrain graded to final contour. Stockpiles in place for more than 30 days must meet the requirements of Section 715.16(c).

(3) Scarify the final graded land before the soil horizons are replaced.

(4) Replace the material from the B horizon, or other suitable material specified in paragraph (g)(1)(ii) or (g)(1)(iii) of this section in such a manner as to avoid excessive compaction of overburden and to a thickness comparable to the root zone that existed in the soil before mining.

(5) Replace the A horizon or other suitable soil materials, which will create a final soil having an equal or greater productive capacity than existed prior to mining, as the final surface soil layer to the thickness of the original soil as determined in paragraph (g)(1)(i) of this section in a manner that -

(i) Prevents excess compaction of both the surface layer and underlying material and reduction of permeability to less than 0.06 inch per hour in the upper 20 inches of the reconstructed soil profile; and

(ii) Protects the surface layer from wind and water erosion before it is seeded or planted.

(6) Apply nutrients and soil amendments as needed to establish quick vegetative growth.

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PART 717 - UNDERGROUND MINING GENERAL PERFORMANCE STANDARDS

Section

717.11 General obligations.

717.12 Signs and markers.

717.13 [Reserved].

717.14 Backfilling and grading of road cuts, mine entry area cuts, and other surface work areas.

717.15 Disposal of excess rock and earth materials on surface areas.

717.16 Reserved.

717.17 Protection of the hydrologic system.

717.18 Dams constructed of or impounding waste material.

717.19 Reserved.

717.20 Topsoil handling and revegetation.

AUTHORITY: Sections 201 and 501, Publ.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 717.11 -- General obligations.

(a) Compliance. All underground coal mining and associated reclamation operations conducted on lands where any element of the operations is regulated by a State shall comply with the initial performance standards of this part according to the time schedule specified in Section 710.11.

(1) For the purposes of this part, underground coal mining and associated reclamation operations mean a combination of surface operations and underground operations. Surface operations include construction, use, and reclamation of new and existing access and haul roads, aboveground repair areas, storage areas, processing areas, shipping areas, and areas upon which are sited support facilities including hoist and ventilating ducts, and on which materials incident to underground mining operations are placed. Underground operations include underground construction, operation, and reclamation of shafts, adits, underground support facilities, underground mining, hauling, storage, and blasting.

(2) For the purpose of this part the term permittee means the person permitted to conduct underground mining operations by a State or if no permit is issued in the State, the person operating a mine.

(3) For the purpose of this part, disturbed areas means surface work areas and lands affected by surface operations including, but not limited to, roads, mine entry excavations, above ground (surface) work areas, such as tipples, coal processing facilities and other operating facilities, waste work and spoil disposal areas, and mine waste impoundments or embankments.

(4) Where State environmental protection standards are adopted for a specific State because they are more stringent than the standards of this part, they will be published in Part 718 of this chapter.

(b) Authorizations to operate. A copy of all current permits, licenses, approved plans or other authorizations to operate the mine shall be available for inspection at or near the mine site.

Section 717.12 -- Signs and markers.

(a) Specifications. All signs required to be posted shall be of a standard design that can be seen and read easily and shall be made of durable material, and shall conform to local ordinances and codes. The signs and other markers shall be maintained during all operations to which they pertain.

(b) Mine and permit identification signs. Signs identifying the mine area shall be displayed at all points of access to the permit area from public highways. Signs shall show the name, business address, and telephone number of the permittee and identification numbers of current mining and reclamation permits or other authorizations to operate. Such signs shall not be removed until after release of all bonds.

Section 717.13 [Reserved].

Section 717.14 -- Backfilling and grading of road cuts, mine entry area cuts, and other surface work areas.

(a) Upon completion of underground mining, surface work areas which are involved in excavation, disposal of materials, or otherwise affected, shall be regraded to approximate original contour. The permittee shall transport, backfill and compact fill material to assure stability or to prevent leaching of toxic pollutants. Barren rock or similar materials excess to the mining operations and which are disposed on the land surface shall be subject to the provision of Section 717.15 of this part. Roads and support facility areas existing prior to the effective date of this part and used in support of underground mining operations which are subject to this part shall be regraded to the extent deemed feasible by the regulatory authority based on the availability of backfill material and resulting stability of the affected lands after reclamation. As a minimum, the permittee shall be required to:

(1) Retain all earth, rock and other mineral nonwaste materials on the solid portion of existing or new benches, except that the regulatory authority may permit placement of such material at the site of the faceup as a means of disposing of excavated spoil when additional working space is needed to facilitate operations. Such placement of material shall be limited to minimize disturbance of land and

to the hydrologic balance. Such fills shall be stabilized with vegetation and shall achieve a minimum static safety factor of 1.5. In no case shall the outslope exceed the angle of repose.

(2) Backfill and grade to the most moderate slope possible to eliminate any highwall along roads, mine entry faces or other areas. Slopes shall not exceed the angle of repose or such lesser slopes as required by the regulatory authority to maintain stability.

{62696} (b) On approval by the regulatory authority and in order to conserve soil moisture, ensure stability, and control erosion on final graded slopes, cut-and-fill terraces may be allowed if the terraces are appropriate substitutes for construction of lower grades on the reclaimed lands. The terraces shall meet the following requirements:

(1) The width of the individual terrace bench shall not exceed 20 feet unless specifically approved by the regulatory authority as necessary for stability erosion control, or roads.

(2) The vertical distance between terraces shall be as specified by the regulatory authority to prevent excessive erosion and to provide long-term stability.

(3) The slope of the terrace outslope shall not exceed 1 v :2h (50 percent). Outslopes which exceed 1 v :2h (50 percent) may be approved if they have a minimum static safety factor of 1.5 or more and provide adequate control over erosion and closely resemble the surface configuration of the land prior to mining. In no case may highwalls be left as part of terraces.

(4) Culverts and underground rock drains shall be used on the terrace only when approved by the regulatory authority.

(c) All surface operations on steep slopes of 20 degrees or more or on such lesser slopes as the regulatory authority define as a steep slope shall be conducted so as not to place any material on the downslope below road cuts, mine working or other benches, other than in conformance with paragraph (a)(1) of this part.

(d) Regrading or stabilizing rills and gullies. When rills or gullies deeper than 9 inches form in areas that have been regraded and the topsoil replaced but vegetation has not yet been established, the permittee shall fill, grade, or otherwise stabilize the

rills and gullies and reseed or replant the areas according to Section 717.20. The regulatory authority shall specify that erosional features of lesser size be stabilized if they result in additional erosion and sedimentation.

(e) Covering coal and acid-forming, toxic-forming, combustible, and other waste materials; stabilizing backfilled materials; and using waste material for fill. Any acid-forming, toxic-forming, combustible materials, or any other waste materials as identified by the regulatory authority that are exposed, used, or produced during underground mining and which are deposited on the land surface shall, after placement in accordance with Section 717.15 of this part, be covered with a minimum of 4 feet of nontoxic and noncombustible material; or, if necessary, treated to neutralize toxicity, in order to prevent water pollution and sustained combustion, and to minimize adverse effects on plant growth and land uses. Where necessary to protect against upward migration of salts, exposure by erosion, to provide an adequate depth for plant growth, or to otherwise meet local conditions, the regulatory authority shall specify thicker amount of cover using nontoxic material. Acid-forming or toxic-forming material shall not be buried or stored in proximity to a drainage course so as to cause or pose a threat of water pollution or otherwise violate the provisions of Section 727.17 of this part.

(f) Grading along the contour. All final grading, preparation of earth, rock and other nonwaste materials before replacement of topsoil, and placement of topsoil in accordance with Section 717.20, shall be done along the contour to minimize subsequent erosion and instability. If such grading, preparation or placement along the contour would be hazardous to equipment operators, grading, preparation or placement in a direction other than generally parallel to the contour may be used. In all cases, grading, preparation or placement shall be conducted in a manner which minimizes erosion and provides a surface for replacement of topsoil which will minimize slippage.

Section 717.15 -- Disposal of excess rock and earth materials on surface areas.

Excess rock and earth materials produced from an underground mine and not disposed in underground workings or used in backfilling and grading operations shall be placed in surface disposal areas in accordance with requirements of Section 715.15. Where the volume of such material is small and its chemical and physical characteristics do not pose a threat to either public safety or the environment the regulatory authority may modify the requirements of Section 715.15 in accordance with Section 717.14(a)(1).

Section 717.16 [Reserved]

Section 717.17 -- Protection of the hydrologic system.

The permittee shall plan and conduct underground coal mining and reclamation operations to minimize disturbance of the prevailing hydrologic balance in order to prevent long-term adverse changes in the hydrologic balance that could result from underground coal mining operations, both on and off site. Changes in water quality and quantity, in the depth to ground water, and in the location of surface water drainage channels shall be minimized and applicable Federal and State statutes and regulations shall not be violated. The permittee shall conduct operations so as to minimize water pollution and shall, where necessary, use treatment methods to control water pollution. The permittee shall emphasize underground coal mining and reclamation practices that will prevent or minimize water pollution and changes in flows in preference to the use of water treatment facilities prior to discharge to surface waters. Practices to control and minimize pollution include, but are not limited to, diverting water from underground workings or preventing water contact with acid-or toxic-forming materials, and minimizing water contact time with waste materials, maintaining mine barriers to enhance postmining inundation and sealing, establishing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, and lining drainage channels. If treatment is required to eliminate pollution of surface or ground waters, the permittee shall operate and maintain the necessary water treatment facilities as set forth in this section.

(a) Water quality standards and effluent limitations. All surface drainage from the disturbed area, including disturbed areas that have been graded, seeded or planted and which remain subject to the requirements of this section, except for drainage from disturbed areas that have met the requirements of Section 717.20 shall be passed through a sedimentation pond or a series of sedimentation ponds prior to leaving the permit area. All waters which flow or are removed from underground operations or underground waters which are removed from other areas to facilitate mining and which discharge to surface waters must be passed through appropriate treatment facilities prior to discharge where necessary to meet effluent limitations.

For purposes of this section only, disturbed areas shall include areas of surface operations but shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed in accordance with this section and the upstream area is not otherwise disturbed by the permittee. Disturbed areas shall not include those surface areas overlying the underground working unless those areas are also disturbed by surface operations such as fill (disposal) areas, support facilities areas, or other major activities which create a risk of pollution.

The regulatory authority may grant exemptions from this requirement only when the disturbed drainage area within the total disturbed area is small and if the permittee shows that sedimentation ponds are not necessary to meet effluent limitations of this paragraph and to maintain water quality in downstream receiving waters. Sedimentation ponds required by this paragraph shall be constructed in accordance with paragraph (e) of this section in appropriate locations prior to any mining in the affected drainage area in order to control sedimentation or otherwise treat water in accordance with this paragraph. Discharges from areas disturbed by underground operation and by surface operation and reclamation activities conducted thereon, must meet all applicable Federal and State regulations and, at a minimum, the following numerical effluent limitations:

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EFFLUENT LIMITATIONS, IN MILLIGRAMS PER LITER, mg/l EXCEPT for pH

Effluent characteristics	Maximum allowable n1	Average of daily values for 30 consecutive discharge days n1
Iron, total	7.0	3.5
Manganese, total	4.0	2.0
Total suspended solids. n2	70.0	35.0
pH n3	Within the range 6.0 to 9.0.	

n1 Based on representative sampling.

n2 In Arizona, Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah, and Wyoming, total suspended solids limitations will be determined on a case-by-case basis, but they must not be greater than 45 mg/l (maximum allowable) and 30 mg/l (average of daily value for 30 consecutive discharge days) based on a representative sampling.

n3 Where the application of neutralization and sedimentation treatment technology results in inability to comply with the manganese limitations set forth, the regulatory authority may allow the pH level in the discharge to exceed to a small extent the upper limit of 9.0 in order that the manganese limitations will be achieved.

(1) Any overflow or other discharge of surface water from the disturbed area within the permit area demonstrated by the permittee to result from a precipitation event larger than the 10-year 24-hour frequency event will not be subject to the effluent limitations of paragraph (a).

(2) The permittee shall install, operate, and maintain adequate facilities to treat any water discharged from the disturbed area that violates applicable Federal or State regulations or the limitations of paragraph (a). If the pH of waters to be discharged from the disturbed area is normally less than 6.0, an automatic lime feeder or other neutralization process approved by the regulatory authority shall be installed, operated, and maintained. If the regulatory authority finds that small and infrequent treatment requirements to meet applicable standards do not necessitate use of an automatic neutralization process, and the mine normally produces less than 500 tons of coal per day, the regulatory authority can approve the use of a manual system if the permittee agrees to ensure that consistent and timely treatment is carried out.

(b) Surface water monitoring.

(1) The permittee shall submit for approval by the regulatory authority a surface water monitoring program which meets the following requirements:

(i) Provides adequate monitoring of all discharge from the disturbed area and from the underground operations.

(ii) Provides adequate data to describe the likely daily and seasonal variation in discharges from the disturbed area in terms of flow, pH, total iron, total manganese, and total suspended solids and, as requested by the regulatory authority, any other parameter characteristic of the discharge.

(iii) Provides monitoring at appropriate frequencies to measure normal and abnormal variations in concentrations.

(iv) Provides an analytical quality control system including standard methods of analysis such as those specified in 40 CFR 136.

(v) Provides regular reports of all measurements to the regulatory authority within 60 days of sample collection unless violations of permit conditions occur in which case the regulatory authority shall be notified immediately after receipt of analytical results by the permittee. If the discharge is subject to regulation by a Federal or State permit issued in compliance with section 301 of the Federal Water Pollution Control Act Amendment of 1972 (33 U.S.C. Section 1311), a copy of the completed reporting form supplied to meet the permit requirements may be submitted to the regulatory authority to satisfy the reporting requirements if the data meet the frequency and other requirements of this paragraph.

(2) Equipment, structures, or other measures necessary to accurately measure and sample the quality and quantity of surface water discharges from the disturbed area of the permit area shall be properly installed, maintained and operated and shall be removed when no longer required.

(c) Diversion and conveyance of overland flow away from disturbed areas. In order to minimize erosion and to prevent or remove water from contacting toxic-producing deposits, overland flow from undisturbed areas may, as required or approved by the regulatory authority, be diverted away from disturbed areas by means of temporary or permanent diversion structures. The following requirements shall be met for such diversions:

(1) Temporary diversion structures are those used during mining and reclamation. When no longer needed, these structures shall be removed and the area reclaimed. Temporary diversion structures shall be constructed to safely pass the peak runoff from a precipitation event with a 10-year recurrence interval, or a larger event as specified by the regulatory authority.

(2) Permanent diversion structures are those remaining after mining and reclamation and approved for retention by the regulatory authority and other appropriate State and Federal agencies. To protect fills and property, to prevent water from contacting toxic-producing deposits, and to avoid danger to public health and safety, permanent diversion structures shall be constructed to safely pass the peak runoff from a precipitation event with a 100-year recurrence interval or a larger event as specified by the regulatory authority. Permanent diversion structures shall be constructed with gently sloping banks that are stabilized by vegetation. Asphalt, concrete, or other similar linings shall not be used unless specifically required to prevent seepage or to provide stability and they are approved by the regulatory authority.

(3) Diversions shall be designed, constructed, and maintained in a manner so as to prevent additional contributions of suspended solids to streamflow, or to runoff outside the permit area to the extent possible, using the best technology currently available. In no event shall such contributions be in excess of requirements set by applicable State or Federal law. Appropriate sediment control measures for these diversions shall include, but not be limited to, maintenance of appropriate gradients, channel lining, vegetation, and roughness structures and detention basins.

(d) Stream channel diversions. In the event that the regulatory authority permits diversion of streams, the regulations of Section 715.17(d) shall apply.

(e) Sediment control measures. Appropriate sediment control measures shall be designed, constructed, and maintained to prevent additional contributions of sediment to streamflow or to runoff outside the permit area to the extent possible, using the best technology currently available. Sediment control measures may include, but are not limited to, sedimentation ponds, diversion structures, sediment traps, straw dikes, riprap, check dams, vegetative filters, dugout ponds, and chemical treatment. All ponds shall be designed and constructed to take into account any discharges into the pond from underground operations. Sedimentation ponds may be used individually or in a series and shall (either individually or in series) meet the criteria below:

(1) Sedimentation ponds must provide at least a 24-hour detention time and a surface area of at least 1 square foot for each 50 gallons per day of inflow for runoff entering the (ponds) that results from a 10-year 24-hour precipitation event. Runoff diverted, in accordance with paragraph (c) of this section, away from disturbed drainage areas need not be considered in sedimentation pond design. Required sedimentation pond surface area and detention time may be proportionally reduced by the appropriate use of chemical treatment measures such as flocculation and coagulation if approved by the regulatory authority.

(2) An additional sediment storage volume must be provided equal to 0.2 acre-feet for each acre of disturbed area within the upstream drainage area. Upon approval of the regulatory authority, the sediment storage volume may be reduced in an amount, as demonstrated by the permittee, equal to the sediment removed by other appropriate sediment control measures.

(3) Ponds may be of the permanent pool or self-dewatering type. Dewatering-type ponds shall use siphon or other dewatering methods approved by the regulatory authority to prevent discharges of pollutants within the design flow.

(4) Spillway systems shall be properly located to maximize the distances from the point of inflow into the pond to

maximize detention times. Spillway systems shall be provided to safely discharge the peak runoff from a precipitation event with a 25-year recurrence interval, or larger event as specified by the regulatory authority.

(5) Sediment shall be removed from sedimentation ponds when the volume of sediment accumulates to 80 percent of the sediment storage volume required in paragraph (e)(2) of this section. Sediment shall be disposed of in a manner that minimizes adverse effects on surface waters due to its chemical and physical characteristics, on infiltration, vegetation, or surface or ground water quality.

{62698} (6) If a sedimentation pond includes an embankment that is more than 20 feet in height, as measured from the upstream toe of the embankment to the crest of the emergency spillway, or has a storage volume of 20 acre-feet or more, the following additional requirements shall be met:

(i) An appropriate combination of principal and emergency spillways shall be provided to safely discharge the runoff resulting from a 100-year 6-hour precipitation event, or larger event as specified by the regulatory authority.

(ii) Ponds shall be designed and constructed with an acceptable static safety factor of at least 1.5 for the normal pool level to ensure embankment slope stability.

(iii) The minimum top width of the embankment shall not be less than the quotient of $H+35/5$ where H is the height of the embankment as measured from the upstream toe to the top of the embankment.

(iv) Ponds shall have appropriate barriers to control seepage along conduits that extend through the embankment.

(7) All ponds shall be designed and inspected under the supervision of, and certified after construction by, a registered professional engineer.

(8) All ponds, including those not meeting the size or other criteria of Section 77.216(a) of this title, shall be examined for structural weakness, erosion, and other hazardous conditions in accordance with the inspection requirements contained in Section 77.216-3 of this title.

(9) All ponds shall be removed and the land affected regraded and revegetated consistent with the requirements of Section 717.14 and Section 717.20.

(f) Discharge structures. Discharges from sedimentation ponds and diversion structures shall be controlled, where necessary, using energy dissipators, surge ponds, and other devices to reduce erosion and prevent deepening or enlargement of stream channels and to minimize disturbances to the hydrologic balance.

(g) Acid and toxic materials. Drainage to ground and surface waters which emanates from acid-forming or toxic-forming mine waste materials and spoils placed on the land surface shall be avoided by -

(1) Identifying, burying, and treating where necessary, spoil or other materials that, in the judgment of the regulatory authority, will be toxic to vegetation or that will adversely affect water quality if not treated or buried. Such material shall be disposed in accordance with the provision of Section 717.14(e);

(2) Preventing or removing water from contact with toxic-producing deposits;

(3) Burying or otherwise treating all toxic or harmful materials within 30 days if such materials are subject to wind and water erosion, or within a lesser period designated by the regulatory authority. If storage of such materials is approved, the materials shall be placed on impermeable material and protected from erosion and contact with surface water. Coal waste ponds and other coal waste materials shall be maintained according to Section 717.17(g)(4) and Section 717.18 shall apply;

(4) Burying or otherwise treating waste materials from coal preparation plants no later than 90 days after the cessation of the filling of the disposal area. Burial or treatment shall be in accordance with Section 717.14(e) of this part;

(5) Casing, sealing, or otherwise managing boreholes, shafts, wells, and auger holes or other more or less horizontal holes to prevent pollution of surface or ground water and to prevent mixing of ground waters of significantly different quality. All boreholes that are within the permit area but are outside the surface coal mining area or which extend beneath the coal to be mined and into water-bearing strata shall be plugged permanently in a manner approved by the regulatory authority, unless boreholes have been approved for use in monitoring.

(h) Ground water systems.

(1) Underground operations shall be conducted to minimize adverse effects on ground water flow and quality, and to minimize off-site effects. The permittee will be responsible for performing monitoring according to subparagraph (2) of this paragraph to ensure operations conform to this requirement.

(2) Ground water levels, subsurface flow and storage characteristics, and the quality of ground water shall be monitored in a manner approved by the regulatory authority to determine the effects of underground coal mining operations on the quantity and quality of water in ground water systems at the mine area and in associated offsite areas. When operations are conducted in such a manner that may affect the ground water system, ground water levels and ground water quality shall be periodically monitored using wells which can adequately reflect changes in ground water quantity and quality resulting from such operations. Sufficient water wells must be used by the permittee. The regulatory authority may require drilling and development of additional wells if needed to adequately monitor the ground water system. As specified and

approved by the regulatory authority, additional hydrologic tests, such as aquifer tests, must be undertaken by the permittee to demonstrate compliance with subparagraph (1) of this paragraph.

(i) Water rights and replacement. The permittee shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source where such supply has been affected by contamination, diminution, or interruption proximately resulting from surface coal mine operation by the permittee.

(j) Hydrologic impact of roads.

(1) General. Access and haul roads and associated bridges, culverts, ditches, and road rights-of-way shall be constructed, maintained, and reclaimed so as to the extent possible, using the best technology currently available, prevent additional contributions of suspended solids to streamflow, or to runoff outside the permit area to the extent possible, using the best technology currently available. In no event shall the contributions be in excess of requirements set by applicable State or Federal law. All haul and access roads shall be removed and the land affected shall be regraded and revegetated consistent with the requirements of Section 717.14 and Section 717.20, unless retention of a road is approved and assured of necessary maintenance to adequately control erosion.

(2) Construction.

(i) All roads, insofar as possible, shall be located on ridges or on flatter and more stable slopes to minimize erosion. Stream fords are prohibited unless they are specifically approved by the regulatory authority as temporary routes across dry streams that will not adversely affect sedimentation and that will not be used for coal haulage. Other stream crossings shall be made using bridges, culverts, or other structures designed and constructed to meet the requirements of this paragraph. Roads shall not be located in active stream channels nor shall they be constructed or maintained in a manner that increases erosion or causes significant sedimentation or flooding. However, nothing in this paragraph will be construed to prohibit relocation of stream channels in accordance with paragraph (d) of this section.

(ii) In order to minimize erosion and subsequent disturbances of the hydrologic balance, roads shall be constructed in compliance with the following grade restrictions or other grades determined by the regulatory authority to be necessary to control erosion:

(A) The overall sustained grade shall not exceed 1v:10h (10 percent).

(B) The maximum grade greater than 10 percent shall not exceed 1v:6.5h (15 percent) for more than 300 feet.

(C) There shall not be more than 300 feet of grade exceeding 10 percent within each 1,000 feet.

(iii) All access and haul roads shall be adequately drained using structures such as, but not limited to, ditches, water barriers, cross drains, and ditch relief drains. For access and haul roads that are to be maintained for more than 1 year, water control structures shall be designed with a discharge capacity capable of passing the peak runoff from a 10-year, 24-hour precipitation event. Drainage pipes and culverts shall be constructed to avoid plugging or collapse and erosion at inlets and outlets. Drainage ditches shall be provided at the toe of all cut slopes formed by construction of roads. Trash racks and debris basins shall be installed in the drainage ditches wherever debris from the drainage area could impair the functions of drainage and sediment control structures. Ditch relief and cross drains shall be spaced according to grade. Effluent limitations of paragraph (a) of this section shall not apply to drainage from access and haul roads located outside the disturbed area as defined in this section unless otherwise specified by the regulatory authority.

(iv) Access and haul roads shall be surfaced with durable material. Toxic or acid-forming substances shall not be used. Vegetation may be cleared only for the essential width necessary for road and associated ditch construction and to serve traffic roads.

{62699} (3) Maintenance.

(i) Access and haul roads shall be routinely maintained by means such as, but not limited to, wetting, scraping, or surfacing.

(ii) Ditches, culverts, drains, trash racks, debris basins, and other structures serving to drain access and haul roads shall not be restricted or blocked in any manner that impedes drainage or adversely affects the intended purpose of the structure.

(4) Access roads constructed for and used only to provide infrequent service to surface facilities, such as ventilators or monitoring devices shall be exempt from the requirements of subparagraph (2) of this paragraph provided adequate stabilization to control erosion is achieved through use of alternative measures.

(k) Hydrologic impacts of other transport facilities. Railroad loops, spurs, conveyors, or other transport facilities shall be constructed, maintained, and reclaimed to prevent additional contributions of suspended solids to streamflow, or to runoff outside the permit area to the extent possible, using the best technology currently available and to control other diminution or degradation of water quality and quantity. In no event shall contributions be in excess of requirements set by applicable State or Federal law.

(1) Discharge of waters into underground mines. Surface and ground waters shall not be discharged or diverted into underground mine workings.

Section 717.18 -- Dams constructed of or impounding waste material.

(a) General. No waste material shall be used in or impounded by existing or new dams without the approval of the regulatory authority. The permittee shall design, locate, construct, operate, maintain, modify, and abandon or remove all dams (used either temporarily or permanently) constructed of waste materials, in accordance with the requirements of this section.

(b) Construction of dams.

(1) Waste shall not be used in the construction of dams unless demonstrated through appropriate engineering analysis, to have no adverse effect on stability.

(2) Plans for dams subject to this section, and also including those dams that do not meet the size or other criteria of Section 77.216(a) of this title, shall be approved by the regulatory authority before construction and shall contain the minimum plan requirements established by the Mining Enforcement and Safety Administration pursuant to Section 77.216-2 of this title.

(3) Construction requirements are as follows:

(i) Design shall be based on the flood from the probable maximum precipitation event unless the permittee shows that the failure of the impounding structure would not cause loss of life or severely damage property or the environment, in which case, depending on site conditions, a design based on a precipitation event of no less than 100-year frequency may be approved by the regulatory authority.

(ii) The design freeboard distance between the lowest point on the embankment crest and the maximum water elevation shall be at least 3 feet to avoid overtopping by wind and wave action.

(iii) Dams shall have minimum safety factors as follows:

Case	Loading condition	Minimum safety factor
I	End of construction	1.3
II	Partial pool with steady seepage saturation.	1.5
III	Steady seepage from spillway or decant crest.	1.5
IV	Earthquake (cases II and III with seismic loading).	1.0

(iv) The dam, foundation, and abutments shall be stable under all conditions of construction and operation of the impoundment. Sufficient foundation investigations and laboratory testing shall be performed to determine the factors of safety of the dam for all loading conditions in paragraph (b)(3)(iii) of this section and for all increments of construction.

(v) Seepage through the dam, foundation, and abutments shall be controlled to prevent excessive uplift pressures, internal erosion, sloughing, removal of material by solution, or erosion of material by loss into cracks, joints, and cavities. This may require the use of impervious blankets, pervious drainage zones or blankets, toe drains, relief wells, or dental concreting of jointed rock surface in contact with embankment materials.

(vi) Allowances shall be made for settlement of the dams and the foundation so that the freeboard will be maintained.

(vii) Impoundments created by dams of waste materials shall be subject to a minimum drawdown criteria that allows the facility to be evacuated by spillways or decants of 90 percent of the volume of water stored during the design precipitation event within 10 days.

(viii) During construction of dams subject to this section, the structures shall be periodically inspected by a registered professional engineer to ensure construction according to the approved design. On completion of construction, the structure shall be certified by a registered professional engineer experienced in the field of dam construction as having been constructed in accordance with accepted professional practice and the approved design.

(ix) A permanent identification marker, at least 6 feet high that shows the dam number assigned pursuant to Section 77.216-1 of this title and the name of the person operating or controlling the dam, shall be located on or immediately adjacent to each dam within 30 days of certification of design pursuant to this section.

(4) All dams, including those not meeting the size or other criteria of Section 77.216(a) of this title, shall be routinely inspected by a registered professional engineer, or someone under the supervision of a registered professional

engineer, in accordance with Mining Enforcement and Safety Administration regulations pursuant to Section 77.216-3 of this title.

(5) All dams shall be routinely maintained. Vegetative growth shall be cut where necessary to facilitate inspection and repairs. Ditches and spillways shall be cleaned. Any combustible materials present on the surface, other than that used for surface stability such as mulch or dry vegetation, shall be removed and any other appropriate maintenance procedures followed.

(6) All dams subject to this section shall be recertified annually as having been constructed and modified in accordance with current prudent engineering practices to minimize the possibility of failures. Any changes in the geometry of the impounding structure shall be highlighted and included in the annual recertification report. These certifications shall include a report on existing and required monitoring procedures and instrumentation, the average and maximum depths and elevations of any impounded waters over the past year, existing storage capacity of impounding structures, any fires occurring in the material over the past year and any other aspects of the structures affecting their stability.

(7) Any enlargements, reductions in size, reconstruction or other modification of the dams shall be approved by the regulatory authority before construction begins.

(8) All dams shall be removed and the disturbed areas regraded, revegetated, and stabilized before the release of bond unless the regulatory authority approves retention of such dams as being compatible with an approved postmining land use (Section 715.13).

Section 717.19 [Reserved]

Section 717.20 -- Topsoil handling and revegetation.

(a) Topsoil shall be removed as a separate operation from areas to be disturbed by surface operations, such as roads and areas upon which support facilities are to be sited. Selected overburden materials may be used instead of, or as a substitute for topsoil where the resulting soil medium is determined by the regulatory authority to be equal to or more suitable for revegetation. Topsoil shall be segregated, stockpiled, and protected from wind and water erosion, or contaminants. Disturbed areas no longer required for the conduct of mining operations shall be regraded, topsoil distributed, and revegetated.

{62700} (b) The permittee shall establish on all land that has been disturbed by mining operations a diverse, effective, and permanent vegetative cover capable of self-regeneration and plant succession, and adequate to control soil erosion. Introduced species may be substituted for native species if approved by the regulatory authority. Introduced species shall meet applicable State and Federal seed or introduced species statutes, and may not include poisonous or potentially toxic species.

PART 718 - ADOPTION OF STATE STANDARDS

Section

718.1 Procedures for adoption.

AUTHORITY: Sections 201 and 501, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 718.1 -- Procedures for adoption.

(a) Any State law or regulation which is determined by the Secretary under the procedures in this section to be a more stringent performance standard for regulation of surface coal mining and reclamation operations than that provided under a performance standard in Part 715, 716, or 717 of this chapter shall be adopted by the Secretary and applied in that State instead of the requirements of the standards in Part 715, 716, or 717.

(b) A State may request the Secretary to review the provisions of any State law or regulation to determine whether such law or regulation provides a more stringent performance standard than comparable provisions in Part 715, 716, or 717 of this chapter. No particular form of request is required. However, the request shall be in writing and shall include the text of the State law or regulation, identification of the comparable performance standard in Part 715, 716, or 717 of this chapter, and an analysis of the reasons why the State law or regulation is a more stringent standard.

(c) If the Secretary determines that the requirements of State law or regulation may be more stringent than the comparable performance standard in Part 715, 716, or 717 of the chapter, rulemaking shall be initiated under the procedures of section 501 of the Act for adoption of the standard.

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PART 720 - STATE ENFORCEMENT ACTIVITIES

Section

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| 720.11 | Enforcement authority. |
| 720.12 | Permits. |
| 720.13 | Reporting obligations. |

AUTHORITY: Sections 201, 501, and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. Section 1201).

Section 720.11 -- Enforcement authority.

Nothing in the Act or these regulations shall be interpreted to preclude a State from exercising its authority to enforce State law, regulations, and permit conditions, unless compliance with the State law, regulations, or permit condition will preclude compliance with these regulations.

Section 720.12 -- Permits.

(a) On or after February 4, 1978, if a State is enforcing the performance standards of this Chapter that State shall incorporate terms in initial permits that comply with those standards.

(b) On or after May 4, 1978, if a State is enforcing the performance standards of this Chapter, that State shall incorporate terms in revised or renewed permits that comply with these standards.

Section 720.13 -- Reporting obligations.

(a) During the initial regulatory program, each State regulatory authority shall submit to the Office, within 5 days after its completion, a copy of each State report which contains observations of the condition of the mine site and relates to the obligations imposed by these regulations. In order to protect preparation for hearings and enforcement proceedings, the Director and the State regulatory authority may enter into agreements as to procedures for the special handling of investigative and enforcement reports and other materials.

(b) Any State issuing an initial permit to conduct surface coal mining operations on or after February 4, 1978, and a revised or renewed permit on or after May 4, 1978, shall submit a copy of the application and the permit to the Office.

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PART 721 - FEDERAL INSPECTIONS

Section

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| 721.11 | Extent. |
| 721.12 | Right of entry. |
| 721.13 | Inspections based on citizen requests. |
| 721.14 | Failure to give notice and lack of reasonable belief. |

AUTHORITY: Sections 201, 501 and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. Section 1201).

Section 721.11 -- Extent.

The authorized representative of the Secretary shall conduct inspections of surface coal mining and reclamation operations subject to regulation under the Act -

- (a) On the basis of not less than two consecutive State inspection reports indicating a violation of the Act, regulations or permit conditions required by the Act;
- (b) On the basis of information provided by a State or any person which gives rise to a reasonable belief that the provisions of the Act, regulations or permit conditions required by the Act are being violated, or that a condition or practice exists which creates an imminent danger to the health or safety of the public, or is causing or can reasonably be expected to cause significant, imminent environmental harm to land, air, or water resources; and
- (c) On a random basis of at least one complete inspection each 6 months. A complete inspection is an onsite review of the operator's compliance with all applicable standards in these regulations within the entire area disturbed or affected by mining.

Section 721.12 -- Right of entry.

- (a) Authorized representatives of the Secretary, without advance notice and upon presentation of appropriate credentials and without a search warrant, shall have the right of entry to, upon, or through any surface coal mining and reclamation operations or any premises in which any records required to be maintained are located.
- (b) The authorized representatives may at reasonable times, and without delay, have access to and copy any records, and inspect any monitoring equipment or method of operation required under this Act, the regulations or the permit.

Section 721.13 -- Inspection based on citizen requests.

(a) Citizen reports.

(1) Any person who believes that there is a violation of the Act, regulations or permit conditions required by the Act or that any imminent danger or harm exists may report this information to the Office of Surface Mining Reclamation and Enforcement. Written reports must be signed and include a phone number where the reporting party can be contacted. Oral reports will be accepted but must be followed by a written and signed statement including the information reported. The complaint or other information shall be considered as having a reasonable basis if it alleges facts which, if proven to be true, would be sufficient to show a violation of the Act, regulations or permit. Unless the Office has reason to believe that the information is incorrect, or determines that even if true it would not constitute a violation, the Office shall conduct an inspection within 15 days of receipt of the complaint. If the complaint alleges an imminent danger or harm, the inspection shall be conducted promptly.

(2) The identity of any person supplying information to the Office relating to possible violations or imminent dangers or harms shall remain confidential with the Office, if requested by the person supplying the information, unless disclosure is required under the Freedom of Information Act (5 U.S.C. Section 552) or by other Federal law.

(b) Right to accompany the authorized representative of the Secretary.

(1) If a Federal inspection is conducted as a result of information provided to the Office, the person who provided the information shall be notified when the inspection is to occur and the person will be allowed to accompany the authorized representative of the Secretary during the inspection.

(2) Any person accompanying an authorized representative of the Secretary has a right of entry to, upon and through the mining and reclamation operations about which he supplied information, only if he is in the presence of and is under the control, direction and supervision of the authorized representative while on the mine property.

(c) Notification of Results of Investigation. Within 10 days of the inspection or, if no inspection, within 15 days of the complaint, the Office shall notify the person in writing of the following -

(1) The results of the investigation, including a description of any inspection which occurred and any enforcement action taken; copies of Federal inspection reports, notices of violation, and cessation orders may be forwarded to the person in satisfaction of this requirement.

{62701} (2) If no inspection was conducted, an explanation of the reason for not inspecting;

(3) A statement as to the person's right to informal review of the actions or inactions of the Office.

(4) The permittee shall receive copies of all such reports which have not already been given to the permittee, except that the name of the complainant shall be removed.

(d) Review of action of local offices. A person who does not agree with the action taken by the Office on their report may request the Regional Director to review the complaint and actions taken. The Regional Director shall advise the person in writing, within 30 days, of the results of the review. Informal review under this subsection shall not affect any rights to formal review or a citizen's suit.

Section 721.14 -- Failure to give notice and lack of reasonable belief.

No notice of violation or cessation order may be vacated by reason of failure to give notice required by the Act or these regulations prior to the inspection; or by reason of a subsequent determination that prior to the inspection the Office did not have information sufficient to create a reasonable belief that a violation had occurred.

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PART 722 - ENFORCEMENT PROCEDURES

Section

722.1	Scope.
722.11	Imminent hazards.
722.12	Non-imminent hazard violations.
722.13	Failure to abate.
722.14	Service of notice.
722.15	Review at minesite of cessation orders.
722.16	Pattern of violation.
722.17	Inability to comply.

AUTHORITY: Sections 201, 501, and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. Section 1201).

Section 722.1 -- Scope.

The regulations of this part set forth general procedures governing issuance of orders of cessation, notices of violation, and orders to show cause under Section 521 of the Act.

Section 722.11 -- Imminent dangers and harms.

(a) If an authorized representative of the Secretary finds conditions or practices, or violations of applicable performance standards, which create an imminent danger to the health or safety of the public, the authorized representative shall immediately order a cessation of surface coal mining and reclamation operations or that portion of the operation relevant to the condition, practice, or violation.

(b) If an authorized representative of the Secretary finds conditions or practices, or violations of applicable performance standards, which are causing or can reasonably be expected to cause significant, imminent environmental harm to land, air, or water resources, the authorized representative shall immediately order a cessation of surface coal mining and reclamation operations or that portion of the operation relevant to the condition, practice or violation.

(c) An authorized representative of the Secretary shall impose affirmative obligations on an operator which the authorized representative deems necessary to abate the condition, practice, or violation if -

(i) a cessation order is issued under paragraph (a) or (b) of this section; and

(ii) the cessation of mining or reclamation activities will not completely abate the imminent danger or harm or eliminate the practices or conditions that contributed to the imminent danger or harm.

(d) When imposing affirmative obligations under this section, the authorized representative of the Secretary shall require abatement of the imminent danger or harm in the most expeditious manner physically possible. The affirmative obligation shall include a time by which abatement shall be accomplished and may include, among other things, the use of existing or additional personnel and equipment.

(e) Reclamation operations not directly the subject of the order or affirmative obligation shall continue during any cessation order.

(f) An authorized representative of the Secretary shall terminate a cessation order issued under paragraph (a) or (b) of this section by written notice when the authorized representative determines that the conditions or practices or violations that contributed to the imminent danger to life or the environment have been eliminated.

Section 722.12 -- Non-imminent danger or harm.

(a) If an authorized representative of the Secretary finds a violation which is not covered by Section 722.11 of this Part, the authorized representative shall issue a notice of violation fixing a reasonable time for abatement.

(b) An authorized representative of the Secretary may extend the time to abate a violation by written notice if the failure to abate within the time set was not caused by the permittee's lack of diligence.

(c) An authorized representative of the Secretary may establish interim steps in an abatement period. If the permittee fails to meet any interim step within the time set, the authorized representative may extend the time set for meeting the interim step, in accordance with this section, or may issue a cessation order pursuant to Section 722.13 of this Part.

(d) The total time for abatement as originally fixed and subsequently extended shall not exceed 90 days.

Section 722.13 -- Failure to abate.

An authorized representative of the Secretary shall order cessation of surface coal mining and reclamation operations, or the portion relevant to the violation, when a notice of violation has been issued under Section 722.12 of this Part and the permittee fails to abate the violation within the time originally fixed or subsequently extended. In a cessation order issued under this section, the authorized representative shall impose affirmative obligations to abate the violation in the manner provided in Section 722.11 of this Part. Reclamation operations not directly the subject of the order or affirmative obligation shall continue during any cessation order. A cessation order issued under this section shall be terminated as provided in Section 722.11 of this Part.

Section 722.14 -- Service of notice.

Notices and orders issued under this part shall be given to the permittee or his designated agent. If no designated agent is found at the mine site, service will be made upon the person who, based on reasonable inquiry by the authorized representative of the Secretary, appears to be in charge of the mining or reclamation operation. The person receiving service shall be responsible for any immediate compliance actions required by the notice or order. Service is complete on delivery at the mine. However, a copy of each notice or order shall be mailed to the permittee within 48 hours.

Section 722.15 -- Review at minesite of cessation orders.

(a) Within 30 days after the permittee has received any cessation order issued under this part, a representative of the Office may conduct an informal hearing at the minesite or within such reasonable proximity to the mine that it may be visited during the conduct of the hearing. No hearing will be required where the condition, practice, or violation in question has been abated or the permittee waives the hearing. If no hearing is held because of a waiver, the cessation order shall not expire.

(b) Any request made to the Office for a substantial modification or vacation of a cessation order shall be deemed a request for an informal hearing under this section.

(c) Notice of the time, place and subject matter of the hearing shall be given to the permittee, any citizen who filed a report which led to the cessation order to be reviewed and the State regulatory authority. Notice of the hearing also shall be posted at the appropriate district or field office and at the mine site and, to the extent possible, in a newspaper in the area of the mine.

(d) The requirements of Section 554 of Title 5 of the United States Code shall not govern the conduct of the hearings required by this section. The representative of the Office may accept oral or written arguments and any other relevant information from any person attending.

(e) Within 15 days of the close of the informal hearing, the Office shall affirm, modify, or vacate the order. The decision shall be in writing and shall be sent to the permittee, any citizen who filed a report which led to the cessation order reviewed, and the State regulatory authority.

(f) Informal review under this subsection shall not affect the rights of any person to request formal review under Section 525(a)(1) of the Act. A request for informal review under this section of the Act shall not affect the 30-day time period for filing a request for formal review under Section 525(a)(1) of the Act.
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Section 722.16 -- Pattern of violations.

(a) The regulations of this section set forth the procedures governing the suspension or revocation of State permits and rights to mine under this Act based on a pattern of violations arising during Federal inspections during the initial regulatory program.

(b) Definitions. As used in this section -

(1) "VIOLATIONS OF THE SAME OR RELATED REQUIREMENTS OF THE ACT, REGULATIONS OR PERMIT CONDITIONS" means noncompliance with any single section of Parts 715, 716 or 717 of this Chapter.

(2) "VIOLATIONS OF DIFFERENT REQUIREMENTS OF THE ACT, REGULATIONS, OR PERMIT CONDITIONS" means noncompliance with different sections of Parts 715, 716 or 717 of this Chapter.

{62702} (3) "UNWARRANTED FAILURE TO COMPLY" means the failure of a permittee to prevent the occurrence of any violation of his permit or any requirement of the Act or these regulations due to indifference, lack of diligence, lack of reasonable care; or the failure to abate any violation of such permit, the Act or regulations due to indifference, lack of diligence, or lack of reasonable care.

(4) "WILLFUL VIOLATION" means an intentional action or omission which violates the Act, regulations or permit conditions required under the Act.

(5) "INSPECTION" as used in this section means any visit to the mine.

(c) Order to show cause.

(1) If the Director determines that a pattern of violations of any requirements of the Act, the regulations, or a permit condition imposed under the Act or regulations exists, or has existed, and that such violations are caused by the unwarranted failure of the permittee or were willful violations, the Director shall issue an order to the permittee to show cause why the permit should not be suspended or revoked.

(2) The Director may determine that a pattern of violations exists or has existed, after considering the circumstances, including -

(i) The number of willful violations or violations caused by unwarranted failure to comply with the same or related requirements of the Act, regulations, or permit conditions during two or more Federal inspections;

(ii) The number of willful violations or violations caused by unwarranted failure to comply with different requirements of the Act, regulations, or permit conditions; and

(iii) The extent to which the violations were isolated departures from lawful conduct.

(3) Violations of the same or related requirements of the Act, regulations, or permit conditions required by the Act during three or more Federal inspections within any 12-month period which were either caused by the unwarranted failure of the permittee to comply with the Act, the regulations or permit conditions required by the Act, or were willful violations, shall constitute a pattern of violations. A show cause order shall issue unless the Director finds that it would not further enforcement of the performance standards of the Act.

(d) Suspension or revocation of permit.

(1) The order to show cause shall be issued and a public hearing, if requested, shall be conducted under the procedures of 43 CFR Part 4.

(2) If the Secretary finds that a pattern of violations exists or has existed, the permit and right to mine under this Act shall be either suspended or revoked and the permittee directed to complete necessary corrective measures and reclamation operations.

Section 722.17 -- Inability to comply.

(a) Neither a notice of violation nor a cessation order issued under this part may be vacated because of inability to comply.

(b) A permittee may not be deemed to have shown good cause for not suspending or revoking a permit by showing inability to comply.

(c) Unless caused by lack of diligence, inability to comply may be considered in mitigation of the amount of a civil penalty under Part 723 of this chapter and of the duration of the suspension of the permit under Section 722.16 of this Part.

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PART 723 - CIVIL PENALTIES

Section

723.1	Scope.
723.2	Objective.
723.11	When assessment made.
723.12	When to assess after a notice of violation.
723.13	Determination of amount of penalty.
723.14	Assessment of separate violation for each day.
723.15	Waiver of use of formula to determine civil penalty.
723.16	Procedures for assessment of civil penalties.
723.17	Procedures for conference.
723.18	Request for hearing.
723.19	Availability of records.

AUTHORITY: Sections 201, 501 and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 723.1 -- Scope.

This Part covers the assessment of civil penalties under Section 518 of the Act for violations of a permit condition, any provision of Title V of the Act, or any implementing regulations. This Part governs when a civil penalty is assessed, how the amount is determined and sets forth applicable procedures. This Part applies to cessation orders and notices of violation issued under Part 722 of this chapter during a Federal inspection.

Section 723.2 -- Objective.

Civil penalties are assessed under section 518 of the Act to deter violations of the Act and to insure the maximum compliance with the Act on the part of the coal mining industry.

Section 723.11 -- When assessment made.

(a) The Office will review each notice of violation and cessation order in accordance with the assessment procedures described in this part to determine whether a civil penalty will be assessed, the amount of the penalty, and whether each day of a continuing violation will be deemed a separate violation for purposes of the total penalty assessed.

(b) The Office shall assess a civil penalty for each violation contained in a cessation order.

(c) In determining whether to assess a civil penalty for a violation not covered by subsection (b) above, the Office shall consider -

- (1) The permittee's history of previous violations at the particular coal mining operation;
- (2) The seriousness of the violation.
- (3) Whether the permittee is negligent; and
- (4) The demonstrated good faith of the permittee in attempting to achieve rapid compliance after notification of the violation. The Office shall make this determination by use of a point system described in Section 723.12 of this Part.

Section 723.12 -- Whether to assess after a notice of violation.

(a) General. The Office shall determine whether to assess a penalty following the issuance of a notice of violation by a point system that takes into account the four criteria in Section 723.11(c) of this Part. Points are assigned based on each of the four criteria. If the total is more than 30 points, a penalty shall be assessed.

(b) History of previous violations. The Office shall assign one point for each past violation, and five points for each past cessation order issued as a result of a violation at the particular coal mining operation, up to a maximum of 30 points. Each violation which underlies a cessation order shall be counted separately from the cessation order itself. For purposes of history of previous violations, all violations and cessation orders issued within one year preceding the violation under consideration shall be counted unless -

- (1) The violation or cessation order is the subject of pending administrative or judicial review or;
- (2) The violation or cessation order has been vacated because of a determination that the violation did not occur. In the event that administrative or judicial review is sought, the period of time during which the contested notice or order was under review shall not be counted in computing the 1-year period preceding the notice or order. The Office shall count each violation without regard to whether it led to a civil penalty assessment.

(c) Seriousness. The Office shall assign up to 30 points based on the seriousness of the violation according to the following schedules:

(1) Probability of occurrence. The probability of the occurrence of the event which a violated standard is designed to prevent may account for a maximum of 15 penalty points. (An example of the concept of the phrase "the event which a violated standard is designed to prevent" is as follows: Mishandling of topsoil is a violation of the topsoil standard in Section 715.16 of this chapter; however, delay or failure in revegetation and resulting environmental harm are the events which the topsoil standard in section 715.16 of this chapter is designed to prevent.) The Office shall use the following definitions and schedules -
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Probability of Occurrence: Points

None or insignificant	0-5
Unlikely	5-10
Likely	10-15
Occurred	15

(2) Extent of potential or actual damage. The extent of the potential or actual damage in terms of area and impact on the public or environment may account for a maximum of 15 penalty points based on the following -

- (i) If the damage or impact which the violated standard is designed to prevent would remain within the permit area (or in the case of a deep mine, the area of surface structures), the Office shall assign zero to seven points depending on the duration and extent of the damage or impact.
- (ii) If the damage or impact against which the violated standard is designed to prevent would extend outside the permit area (or in the case of a deep mine, the area of surface structures), the Office shall assign eight to fifteen points depending on the duration and extent of the damage or impact.

(3) In the case of a violation of a requirement of the Act, the regulations, or a permit to keep records, give notice, or conduct any measuring or monitoring, the Office may, as an alternative to the use of subsections (1) and (2) above, assign up to 15 points for seriousness based upon the extent to which enforcement is obstructed by the violation.

(d) Negligence.

(1) The Office shall assign up to 25 points based on the degree of fault of the permittee, either through act or omission, in causing or failing to correct the condition or practice which is a violation. A violation which occurs through no negligence shall not be assigned penalty points for negligence. A violation which is caused by negligence shall be assigned 12 points or less depending on the degree of negligence. A violation which occurs through a greater degree of fault than negligence shall be assigned 13 through 25 penalty points depending on the degree of fault.

(2) In determining the degree of negligence involved in a violation and the number of penalty points to be assigned, the following definitions apply -

(i) No negligence means an inadvertent violation of the Act, regulations or permit conditions which was unavoidable by the exercise of reasonable care.

(ii) Negligence means the failure of a permittee to prevent the occurrence of any violation of his permit or any requirement of the Act or the regulations due to indifference, lack of diligence, or lack of reasonable care, or the failure to correct any violation of such permit or the Act or the regulations due to indifference, lack of diligence or lack of reasonable care.

(iii) Examples of greater degree of fault than negligence are reckless, knowing or intentional conduct.

(3) In calculating points to be assigned for negligence, the actions of all persons working on the mine site shall be attributed to the permittee or operator.

(e) Good faith in attempting to achieve compliance.

(1) The Office shall subtract or add points based on the degree of good faith of the permittee in attempting to achieve rapid compliance after notification of the violation. The points shall be assigned according to the following schedule-

Degree of Good Faith:	Points
Rapid	-10
Normal	0
Lack of good faith	10

(2) In determining the permittee's degree of good faith in attempting to achieve rapid compliance, the following definitions apply -

(i) Rapid compliance means that the permittee took extraordinary measures to abate the violation in the shortest possible time and that abatement was achieved before the time set for abatement.

(ii) Normal compliance means the permittee abated the violation within the time given for abatement.

(iii) Lack of good faith means the permittee did not show diligence in attempting to abate the violation and the violation was not timely abated.

(3) If the consideration of this criteria is impractical because of the length of the abatement period, the assessment may be made without considering this criteria. Any such assessment may be reconsidered upon the permittee's request after abatement is completed.

Section 723.13 -- Determination of amount of penalty.

The Office shall determine the amount of any civil penalty by converting the total number of points assigned under section 723.12 of this section to a dollar amount according to the following schedule:

1 -	20.
2 -	40.
3 -	60.
4 -	80.
5 -	100.
6 -	120.
7 -	140.
8 -	160.
9 -	180.
10 -	200.

11 -	220.
12 -	240.
13 -	260.
14 -	280.
15 -	300.
16 -	320.
17 -	340.
18 -	360.
19 -	380.
20 -	400.
21 -	420.
22 -	440.
23 -	460.
24 -	480.
25 -	500.
26 -	600.
27 -	700.
28 -	800.
29 -	900.
30 -	1,000.
31 -	1,100.
32 -	1,200.
33 -	1,300.
34 -	1,400.
35 -	1,500.
36 -	1,600.
37 -	1,700.
38 -	1,800.
39 -	1,900.
40 -	2,000.
41 -	2,100.
42 -	2,200.
43 -	2,300.
44 -	2,400.
45 -	2,500.
46 -	2,600.
47 -	2,700.
48 -	2,800.
49 -	2,900.
50 -	3,000.
51 -	3,100.
52 -	3,200.
53 -	3,300.
54 -	3,400.
55 -	3,500.
56 -	3,600.
57 -	3,700.
58 -	3,800.
59 -	3,900.
60 -	4,000.
61 -	4,100.
62 -	4,200.
63 -	4,300.
64 -	4,400.
65 -	4,500.
66 -	4,600.
67 -	4,700.
68 -	4,800.

69 -	4,900.
70 and above	5,000.

Section 723.14 -- Assessment of separate violations for each day.

(a) If a cessation order is issued for failure to abate a violation within the time set in a prior notice of violation the Office shall assess separately each day the violation underlying the cessation order remains unabated following expiration of the abatement period in the notice of violation. The daily penalty shall be the amount assessed for the violation or \$7 50.00, whichever is greater. The daily assessment of a penalty shall not be made for any period that the obligation to abate is suspended.

(b) The Office may assess separately each day of any continuing violation. In making this determination, the Office may consider the factors listed in section 723.11 of this Part and any economic benefit to the permittee which resulted from a failure to comply.

(c) The Office shall separately assess a minimum of 2 days for any continuing violation which is assigned more than 70 points under Section 723.12 of this Part.

Section 723.15 -- Waiver of use of formula to determine civil penalty.

The Director, upon his own initiative or upon written request received within the time set in Section 723.16(a) of this part, may elect to waive in whole or in part the use of the formula contained in this part in determining the civil penalty for violation of the Act, if he determines that a waiver will further abatement of violations of the Act. A grant or denial of waiver may be reversed by the Office of Hearings and Appeals, if such grant or denial is determined to be an abuse of discretion.

Section 723.16 -- Procedures for assessment of civil penalties.

(a) Within 10 days of service of a notice or order, the permittee may submit information in writing pertaining to the violation involved to the Assessment Office and to the inspector who issued the notice or order. The Office shall consider any information so submitted in determining the facts surrounding the violation and the amount of the penalty.

(b) The Office shall serve the permittee by certified mail, return receipt requested, within 30 days of the issuance of the notice or order, with a copy of the proposed assessment and of the worksheets showing the computation.

Section 723.17 -- Procedure for conference.

(a) If a written request from the permittee is received within 15 days from receipt of a proposed assessment, the Office shall arrange for a conference to review the assessment. The permittee may submit additional material for consideration during the conference. The Office may contact the permittee to discuss the assessment prior to the conference if necessary to expedite the review.

{62704} (b) The Office shall consider all relevant information on the violation in question presented by the permittee and may recalculate either up or down or vacate the proposed penalty. No information as to which the permittee claims confidentiality shall be considered as a basis for reduction of a proposed assessment. When new facts warrant the imposition of a higher penalty, it shall be proposed in the manner provided in Section 723.15 of this Part. Every change in a proposed assessment shall be fully documented in the file including a written explanation of the reason the penalty has changed.

(c) Notice of the time and place of the conference shall be posted at the Office of Surface Mining Reclamation and Enforcement field office with jurisdiction over the mine at least 5 days prior to the conference. Any person shall have a right to attend the conference and participate.

(d) If the issues are resolved, the agreement shall be in writing and signed by the party assessed and the representative of the Office. If payment is not received within 30 days, the office may -

- (1) Enter the agreed upon amount as a final order of the Secretary; or
- (2) Rescind the agreement and reinstate the original proposed assessment.

(e) A reduction of a proposed civil penalty assessment of more than 25 percent and more than \$5 00 agreed to during a conference shall be approved by the Director or his designee before it is final and binding on the Secretary.

Section 723.18 -- Request for hearing.

(a) Within 30 days from receipt of the proposed assessment, the permittee may request a hearing before the Office of Hearings and Appeals by filing a petition and tendering full payment of the proposed assessment to be held in escrow.

(b) The timely filing of a request for a conference under Section 723.17 of this Part suspends the running of the 30-day period for requesting a hearing. The suspension shall continue until the completion of the conference, which shall be held within 60 days from the date of the request for the conference. The permittee shall have 15 days after completion of the conference or after any disapproval by the Director or his designee under Section 723.17(e), whichever occurs later, to request a public hearing.

(c) The Office of Hearings and Appeals conducts the hearings and issues orders or otherwise terminates the petition pursuant to its procedures in 43 CFR Part 4. The Office of Hearings and Appeals may determine whether a violation occurred. When determining the amount of the penalty, the Office of Hearings and Appeals shall use the point system and conversion table contained in this Part, except in cases in which the Office has waived the use of the point system and conversion table pursuant to Section 723.15 of this part.

Section 723.19 -- Availability of records.

All records and files created or used in the assessment process under this Part shall be available for public inspection.

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PART 725 - REIMBURSEMENTS TO STATES

Section

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AUTHORITY: Sections 201, 501, and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 725.1 -- Scope.

This part sets forth policies and procedures for reimbursements to States for costs of enforcing the initial performance standards set forth in this chapter.

Section 725.2 -- Objectives.

The objectives of assistance under this part are:

- (a) To assist the States in meeting the increased costs of administering the initial performance standards.
- (b) To encourage the States to build strong reclamation and enforcement programs.

Section 725.3 -- Authority.

Section 502(e)(4) of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201) authorizes the Secretary to reimburse States for costs of enforcing the performance standards of the initial regulatory program.

Section 725.4 -- Responsibility.

- (a) The Director shall administer the grant program for reimbursements to States for costs of enforcing performance standards during the initial regulatory program.
- (b) The Regional Director of each of the Office regions shall receive, review, and approve grant applications under this part.

Section 725.5 -- Definitions.

As used in this Part, the following terms have the specified meanings:

AGENCY means the State agency designated by the Governor to receive and administer grants under this part.

BASE PROGRAM means the State program to regulate surface coal mining prior to August 3, 1977.

Section 725.11 -- Eligibility.

- (a) Assumption of responsibility. To be eligible for a grant for reimbursements for the cost of enforcing performance standards during the initial regulatory program the State shall assume responsibility for enforcement of the initial regulatory program including the specific responsibilities identified under parts 710.4(b) and 720 of this chapter.
- (b) Designation of state agency. In order to receive a grant for reimbursements for costs of enforcing performance standards during the initial regulatory program, the Governor of a State shall designate in writing one agency to submit grant applications, receive and administer grants under this part.
- (c) Periods covered by reimbursement grants. An agency may apply for a reimbursement grant for any period during the initial regulatory program and for a reasonable start-up period beginning no earlier than August 3, 1977.

Section 725.12 -- Coverage of grants.

An agency may use grant money under this part to cover costs in excess of the base program for administering and enforcing the initial regulatory program. The Regional Director shall determine the base program from the State fiscal year budget in effect on August 3, 1977. Costs of the following items are eligible for reimbursement -

- (a) Incorporation of the initial performance standards of this chapter in new permits issued by the State.
- (b) Modification of existing permits to include the initial performance standards of this chapter.
- (c) Additional inspections required to enforce the initial performance standards of this chapter.
- (d) Inspections which are more detailed than inspections before the initial regulatory program.
- (e) Responses to complaints related to the initial performance standards of this chapter.
- (f) Enforcement actions required to secure compliance with the initial performance standards of this chapter.
- (g) Additional administrative activities and supporting costs related to hiring additional inspectors and other personnel, revising permits, conducting inspections, preparing, copying and submitting reports required by part 720, and submitting applications for reimbursement grants under this part.
- (h) Additional equipment required for inspection or support of inspections, as follows:
 - (1) An agency may charge any required item of equipment to the grant on a use basis in accordance with the principles set forth in Federal Management Circular 74-4, "Cost principles applicable to grants and contracts with State and local governments" (34 CFR 255).
 - (2) An agency may purchase equipment, excluding aircraft, with grant funds where cost recovery through use charges is prohibited, made impractical or more costly than purchase by existing State laws or procedures.

Section 725.13 -- Amount of grants.

The Office shall pay up to 100 percent of the costs to the agency in excess of the base program for administering and enforcing the performance standards during the initial regulatory program.

Section 725.14 -- Grant periods.

{62705} The Regional Director shall approve a grant for a period of 1 year or less. The Regional Director shall fund a program that extends over more than 1 year by consecutive annual grants.

Section 725.15 -- Grant application procedures.

- (a) The agency may submit its application (3 copies) for a grant to the Regional Director no later than March 1, 1978, for the first year and no later than September 1 of 1978 and each year thereafter.
- (b) The agency shall use the short form application for non-construction programs and other procedures specified by Office of Management and Budget Circular No. A-102, "Uniform administrative requirements for grants-in-aid to State and local governments" (42 FR 45828). No preapplication is required.
- (c) The agency shall include in Part III of the standard application sufficient information to enable the Regional Director to determine the agency's base program and increases over the base program eligible for reimbursement grants. The agency shall include the following information, plus any other relevant data:
 - (1) A summary of the State permit, inspection and enforcement program prior to the addition of the requirements of the Act of 1977, including -
 - (i) Permit requirements and the system for issuing permits;

- (ii) Mining and reclamation plan requirements;
- (iii) Coverage and frequency of inspections;
- (iv) Actions required to enforce mining and reclamation requirements;
- (v) The number and nature of responses to complaints; and
- (vi) Other regulatory activities and related administrative functions affected by the performance standards

of the initial regulatory program of this chapter.

(2) A statement of the number of employees and annual budget required to carry out functions described in paragraph (c)(1) of this section.

(3) A copy of all State constitutional, statutory and regulatory provisions applicable to the enforcement and administration of the initial regulatory program.

(4) An opinion of the State's chief legal officer as to whether and to what extent the State is authorized to enforce and administer the initial regulatory program.

(5) A statement of the additional work required to enforce the initial regulatory program for each of the agency activities described in paragraph (c)(1) of this section.

(6) The additional staff and funds required for the increased workload described in paragraph (c)(5) of this section.

(7) The number and types of major equipment (equipment with a unit acquisition cost of \$1 000 or more) which the State plans to purchase with grant funds.

(d) The Regional Director may waive the resubmission of information required by paragraphs (c)(2), (c)(3) and (c)(4) of this section in applications for a second or third reimbursement grant.

(e) The Regional Director shall notify the agency within thirty days after the receipt of a complete application, or as soon thereafter as possible, whether it is or is not approved. If the application is not approved, the Regional Director shall set forth in writing the reasons it is not approved, and may propose modifications if appropriate. The agency may resubmit the application within thirty days. The Regional Director shall process the revised application as an original application.

Section 725.16 -- Grant agreement.

(a) If a Regional Director approves an agency's grant application, the Regional Director shall prepare a grant agreement which includes -

(1) The approved scope of the program to be covered by the grant, including functions to be accomplished by other agencies.

(2) The base program budget and estimated costs in excess of the base program.

(3) The amount of the grant.

(4) Commencement and completion dates for the segment of the program covered by this grant and for major phases of the program to be completed during the grant period.

(5) Permissible transfers of funds to other State agencies.

(b) The Regional Director shall limit grants under this part to the additional costs to an agency for administering and enforcing the initial regulatory program.

(c) The Regional Director may permit the agency to assign functions and funds to other State agencies. The Regional Director shall require the grantee agency to retain responsibility for overall administration of the grant, including use of funds, accomplishment of functions and reporting.

(d) Except as may be provided by the grant agreement, costs may not be incurred prior to the execution of the agreement.

(e) The Regional Director shall transmit four copies of the grant agreement, by certified mail, return receipt requested, to the agency for signature. The agency shall execute the grant agreement and return all copies within 3 calendar weeks after receipt, or within an extension of such time that may be granted by the Regional Director.

(f) The Regional Director shall sign the grant agreement upon its return from the agency and return one copy to the agency. The grant is effective and constitutes an obligation of Federal funds in the amount and for the purposes stated in the grant agreement at the time the Regional Director signs the agreement.

(g) Neither the approval of a program nor the award of any grant will commit or obligate the United States to award any continuation grant or to enter into any grant amendment, including grant increases to cover cost overruns.

Section 725.17 -- Grant amendments.

(a) A grant amendment is a written alteration to the grant amount, grant terms or conditions, budget or period, or other administrative, technical, or financial agreement whether accomplished on the initiative of the agency or the Regional Director or by mutual action of the agency and the Regional Director.

(b) The agency shall promptly notify the Regional Director in writing by certified mail, return receipt requested, of events or proposed changes which may require a grant amendment, such as -

- (1) Rebudgeting;
- (2) Changes which may affect the approved scope or objective of a program; or
- (3) Changes which may increase or substantially decrease the total cost of a program.

(c) The Regional Director shall approve or disapprove each proposed amendment within thirty days of receipt, or as soon thereafter as possible, and shall notify the agency in writing of the approval or disapproval of the amendment.

(d) The grant amendment establishes the effective date of the action. If no date is specified in the grant amendment then the date the Regional Director signs the amendment will be the effective date of the action.

Section 725.18 -- Grant reduction and termination.

(a) Conditions for reduction or termination.

(1) If an agency fails to carry out its responsibilities pursuant to Section 710.4 (b) and part 720 of this chapter the Regional Director shall reduce or terminate the grant.

(2) If an agency violates the terms of a grant agreement, the Regional Director may reduce or terminate the grant.

(3) If an agency fails to enforce the initial performance standards of this chapter the Regional Director may reduce or terminate the grant. (4) If an agency is not in compliance with the following nondiscrimination provisions, the Regional Director shall terminate the grant -

(i) Title VI of the Civil Rights Act of 1964 (78 Stat. 252), Nondiscrimination in Federally Assisted Programs, which provides that no person in the United States shall on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving Federal financial assistance, and the implementing regulations at 43 CFR 17.

(ii) Executive Order 11246, as amended by Executive Order 11375, Equal Employment Opportunity, requiring that employees or applicants for employment not be discriminated against because of race, creed, color, sex or national origin, and the implementing regulations at 41 CFR 60.

{62706} (iii) Section 504 of the Rehabilitation Act of 1973, as amended by Executive Order 11914, Nondiscrimination With Respect to the Handicapped in Federally Assisted Programs.

(5) If an agency fails to enforce the financial interest provisions of part 705 of this chapter the Director shall terminate the grant.

(6) If an agency fails to submit reports required by this part or Parts 705 and 720 of this chapter the Director shall reduce or terminate the grant.

(b) Grant reduction and termination procedures.

(1) The Regional Director shall give at least ten days written notice to the agency by certified mail, return receipt requested, of intent to reduce or terminate a grant. The Regional Director shall include in the notice the reasons for the proposed action and the proposed effective date of the action.

(2) The Regional Director shall afford the agency opportunity for consultation and remedial action prior to reducing or terminating a grant.

(3) The Regional Director shall notify the agency of the termination or reduction of the grant in writing by certified mail, return receipt requested.

(4) Upon termination the agency shall refund or credit to the United States that portion of the grant money paid or owed to the agency and allocated to the terminated portion of the grant. However any portion of the grant that is required to meet commitments made prior to the effective date of termination shall be retained by the agency.

(5) Upon termination, the agency shall reduce the amount of outstanding commitments insofar as possible and report to the Regional Director the uncommitted balance of funds awarded under the grant.

(6) Upon notification of intent to terminate, the agency shall not make any new commitments without the approval of the Regional Director.

(7) The Regional Director may allow termination costs as determined by applicable Federal cost principles listed in Federal Management Circular 74-4.

(c) Appeals.

(1) An Agency may appeal the Regional Director's decision to reduce or terminate a grant to the Director within 30 days of the Regional Director's decision.

(2) An Agency shall include in an appeal -

(i) The decision being appealed, and

(ii) The facts which the Agency believes justify a reversal or modification of the decision.

(3) The Director shall act on appeals within 30 days of their receipt, or as soon thereafter as possible.

Section 725.19 -- Audit.

The Office of Audit and Investigations, U.S. Department of the Interior is responsible for audits of reimbursement grants and will arrange for audits as appropriate.

Section 725.20 Administrative procedures.

The Agency shall follow administrative procedures governing accounting, payment, property, and related requirements contained in Office of Management and Budget Circular No. A-102.

Section 725.21 -- Allowable costs.

(a) The Regional Director shall determine costs which may be reimbursed according to Federal Management Circular 74-4.

(b) Costs must be in conformity with any limitations, conditions, or exclusions set forth in the grant agreement or this part.

(c) Costs must be allocated to the grant to the extent of benefit properly attributable to the period covered by the grant.

(d) Costs must not be allocated to or included as a cost of any other Federally assisted program.

Section 725.22 -- Financial management.

(a) The agency shall account for grant funds in accordance with the requirements of Office of Management and Budget Circular A-102. An agency shall use generally accepted accounting principles and practices, consistently applied. Accounting for grant funds must be accurate and current.

(b) The agency shall adequately safeguard all funds, property, and other assets and shall assure that they are used solely for authorized purposes.

(c) The agency shall provide a comparison of actual amounts spent with budgeted amounts for each grant.

(d) When advances are made by a letter-of-credit method, the agency shall make drawdowns from the U.S. Treasury through its commercial bank as closely as possible to the time of making the disbursements.

(e) The agency shall support accounting records by source documentation.

(f) The agency shall design a systematic method to assure timely and appropriate resolution of audit findings and recommendations.

Section 725.23 -- Reports.

(a) The agency shall, for each grant made under this part, submit annually to the Regional Director a Financial Status Report in accordance with Office of Management and Budget Circular A-102, Attachment H. This report shall be accompanied by a performance report prepared according to Attachment I of OMB Circular A-102.

(b) The Regional Director shall require through the grant agreement that annual reports also provide the relation of financial information to performance and productivity data, including unit cost information.

Section 725.24 -- Records.

(a) The agency shall maintain complete records in accordance with Office of Management and Budget Circular No. A-102. This includes books, records, documents, maps, and other evidence and accounting procedures and practices, sufficient to reflect properly -

(1) The amount, receipt, and disposition by the agency of all assistance received for the program.

(2) The total costs of the program, including all direct and indirect costs of whatever nature incurred for the performance of the program for which the grant has been awarded.

(b) Subgrantees and contractors, including contractors for professional services, shall maintain books, documents, papers, maps, and records which are pertinent to a specific grant award.

(c) The agency's records and the records of its subgrantees and contractors, including professional services contracts, shall be subject at all reasonable times to inspection, reproduction, copying, and audit by the Office, the Department of the Interior, the Comptroller General of the United States, the Department of Labor, or any authorized representative.

(d) For completed or terminated grants, the agency, subgrantees and contractors shall preserve and make their records available to the Office, the Department of the Interior, the Comptroller General of the United States, Department of Labor, or any authorized representative pursuant to OMB Circular A-102.

Section 725.25 -- Disclosure of information.

All grant applications received by the Regional Director constitute agency records. As such, their release may be requested by any member of the public under the Freedom of Information Act (5 U.S.C. 552), and shall be disclosed unless exempt from disclosure under 5 U.S.C. 552(b).

{62706}

PART 740 - GRANTS FOR PROGRAM DEVELOPMENT AND ADMINISTRATION AND ENFORCEMENT

Section

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AUTHORITY: Sections 201, 501, and 502, Pub.L. 95-87, 91 Stat. 445 (30 U.S.C. 1201).

Section 740.1 -- Scope.

This part sets forth policies and procedures for grants to States to -

- (a) Develop State programs for the regulation and control of surface coal mining and reclamation operations;
- {62707} (b) Administer and enforce State programs for the regulation and control of surface coal mining and reclamation operations; and
- (c) Administer cooperative agreements for State regulation of surface coal mining and reclamation operations on Federal lands.

Section 740.2 -- Objectives.

The objectives of assistance under this part are -

- (a) To assist the States in meeting the costs of administering reclamation and enforcement programs consistent with the Act;
- (b) To encourage the States to build strong reclamation and enforcement programs; and
- (c) To encourage the States to assume jurisdiction over the regulation of surface coal mining and reclamation operations.

Section 740.3 -- Authority.

Section 705 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201) authorizes the Secretary to make grants to States for developing, administering, and enforcing State regulatory programs.

Section 740.4 -- Responsibility.

- (a) The Director shall administer the State grant program for the development, administration, and enforcement of State programs under this part.
- (b) The Regional Director of each of the Office regions shall receive, review, and approve grant applications under this part.

Section 740.5 -- Definitions.

As used in this part, agency means the State agency designated by the Governor to receive and administer grants under this part.

Section 740.11 -- Eligibility for program development grants.

(a) Designation of State agency. In order to receive a program development grant the Governor of a State shall designate in writing to the Director one agency to submit the grant applications, and to receive and administer the grants.

(b) Periods covered by program development grants.

(1) An agency may apply for a program development grant for any period for which it does not have an approved State program. This is limited to periods during -

(i) The initial development of a State program;

(ii) The revision of a State program which has been disapproved by the Secretary; and

(iii) The revision of a State program from which the Secretary has withdrawn his approval.

(2) The Director shall limit grants for (b)(1)(ii) and (iii) of this paragraph to the costs of making revisions necessary to secure approval of the State programs.

(3) The Director shall not approve grants for costs incurred prior to August 3, 1977.

(c) Limits on duration of grants.

(1) The Regional Director shall limit a State's program development grants to a maximum period of 18 months unless at least one of the following conditions exists -

(i) The 18-month period is insufficient because new legislation is required.

(ii) The State requests extension of the grant period, for a reason found appropriate by the Regional

Director.

(2) If one of the two conditions in this paragraph exists, the Director may extend the grant period to a maximum of 24 months.

Section 740.12 -- Eligibility for administration and enforcement grants.

(a) Approved program required. In order to receive a grant to administer and enforce a State program, the State must have an approved State regulatory program.

(b) Designation of a State agency. In order to receive a grant to administer and enforce a State program, the Governor must designate a single agency to receive and administer administration and enforcement grants, including cooperative agreement grants described in section 740.16 of this part.

(c) Nondiscrimination . The agency shall monitor the compliance activity of its subrecipients with respect to the nondiscrimination provisions in Section 740.21(a)(4) of this part.

Section 740.13 -- Submission of estimated annual budgets and allocation of funds.

(a) Program development grants. As early as possible prior to the Federal fiscal year in which the program development grant will be requested an agency shall submit to the Regional Director a summary of its program development budget. The Director will use these budget summaries in preparing the Federal budget estimates which he is required to submit.

(b) Administration and enforcement grants.

(1) For the fiscal years beginning on and after October 1, 1980, the agency shall submit to the Regional Director 18 months prior to the Federal fiscal year for which the grant will be requested, a projection of its regulatory program budget, including the costs of administering State-Federal cooperative agreements pursuant to Section 211.75 of this title, and any aircraft which the agency proposes to acquire.

(2) For the fiscal year beginning October 1, 1979, and each year thereafter, the agency shall submit to the Regional Director a current regulatory program budget 3 months prior to the beginning of the Federal fiscal year for which a grant will be requested.

(c) Allocation of funds.

(1) The Director shall allocate to the agencies the full amount requested and approved in the States' revised or actual budgets provided that the amount available in the Federal budget is sufficient.

(2) If the funds available to the Director for grants are insufficient to cover the total grant needs, including cooperative agreement grants, the Director shall allocate the funds available according to the proportion of each agency's budget to the total of all agencies' budgets.

(3) Allocation of a specific amount of funds to an agency does not assure that grants for that amount will be approved. Each agency must apply for and secure approval of grants in accordance with the requirements of this part.

(4) On July 1 of each year the Director shall reallocate any funds which are not requested by agencies as of June 1 of that year. Such funds shall be allocated only to those agencies which have received less than the allowable percentage of their eligible costs.

(5) Agencies which are allocated additional funds on July 1 may have until August 15 to submit new or revised grant applications for the additional amounts.

Section 740.14 -- Coverage of grants.

(a) Program development grants. An agency may use grant money under this part to cover the costs of developing -

(1) New or revised State laws, regulations, and procedures;

(2) Revised or expanded inspection systems;

(3) Training programs for inspectors and other personnel;

(4) New or revised organizational structures;

(5) Information and communications systems, including data processing systems;

(6) A planning process including a data base and information system to receive and act upon petitions to designate lands unsuitable for mining;

(7) An application for the initial administration and enforcement grant to the extent not covered by indirect costs or other cost items;

(8) Other components necessary to obtain an approved State program, as mutually agreed upon by the Regional Director and the agency receiving a grant.

(b) Administration and enforcement grants. An agency may use grant money under this part to cover the costs of -

(1) Administering an approved State regulatory program;

(2) Providing supporting and administrative services required by the State regulatory program;

(3) Providing equipment required for the regulatory program and its support, either through use charges or direct purchase. Equipment charges and purchases will be allowed in accordance with Federal Management Circular 74-4, "Cost principles applicable to grants and contracts with State and local governments," (34 CFR 255) and Office of Management and Budget Circular No. A-102, "Uniform administrative requirements for grants-in-aid to State and local governments" (42 FR 45828).

Section 740.15 -- Amount of grants.

(a) Amount of program development grants.

(1) For the first year of a program development grant the Regional Director shall approve grants for not more than 80 percent of the total of agreed upon costs pursuant to Section 740.14(a).

(2) For the second year of a program development grant the Regional Director shall approve grants for not more than 60 percent of the total agreed upon costs pursuant to Section 740.14(a).

{62708} (b) Amount of administration and enforcement grants.

(1) If no program development grant has been awarded, the Regional Director may approve the first administration and enforcement grant for not more than 80 percent of the agreed upon costs for administration and enforcement of the program.

(2) If a program development grant has been awarded for only one year, the Regional Director may approve an administration and enforcement grant for 60 percent of the agreed upon costs for administration and enforcement of the program.

(3) If a program development grant has been awarded for more than 1 year but less than 2 years, the Regional Director may approve the first administration and enforcement grant for 60 percent for that proportion remaining in the second year and for 50 percent for the proportion allocated to the third year.

(4) For the third and following years, the Regional Director may approve administration and enforcement grants for 50 percent of the agreed upon costs for administration and enforcement of the program.

Section 740.16 -- Special provisions for states with cooperative agreements.

(a) Eligibility. The Director may approve additional grants to States which have cooperative agreements pursuant to section 211.75 of this title for State regulation of surface coal mining and reclamation operations on Federal lands. This includes -

- (1) States which had cooperative agreements on August 3, 1977, which have been modified to comply with the initial regulatory program; and
- (2) States which enter into cooperative agreements following approval of the State's regulatory program.

(b) Coverage of grants. An agency may use cooperative agreements grants to carry out the functions assigned to the State under the agreement.

(c) Amount of grants. The Regional Director may approve grants for the approximate amount which he determines the Federal Government would have expended for regulation of coal mining on the Federal lands being regulated by the State, except that no grant may exceed the actual costs to the State.

(d) Grant periods. The Regional Director shall approve a grant for a period of 1 year or less. The Regional Director shall fund a program that extends over more than 1 year by consecutive annual grants.

(e) Application procedures.

(1) States with cooperative agreements in effect on August 3, 1977, may apply for cooperative agreement grants using the procedures set forth in Section 740.13(a), (b) and (d).

(2) States with cooperative agreements established in conjunction with approved State regulatory programs may apply for cooperative agreement grants by including a supplement to an annual administration and enforcement grant application submitted according to Section 740.18. The State shall include in the supplemental section:

- (i) A separate Part II for the costs of the cooperative agreement; and
- (ii) A separate Part III describing the specific activities required by the cooperative agreement for the period for which the grant is requested.

(f) Other requirements. The procedures and requirements set forth in Sections 740.17 through 740.26 are applicable to cooperative agreement grants.

Section 740.17 -- Grant periods.

The Regional Director shall approve a grant for a period of 1 year or less. The Regional Director shall fund a program that extends over more than 1 year by consecutive annual grants.

Section 740.18 -- Grant application procedures.

(a) The agency may submit its application (3 copies) to the Regional Director for a grant as soon as it is notified by the Regional Director that funds are available, but not later than May 31 of each calendar year.

(b) The agency shall use the short form application for non-construction programs and other procedures specified by Office of Management and Budget Circular No. A-102. No preapplication is required.

(c) For program development grant applications, agencies shall include in Part III of the standard application -

- (1) An analysis and evaluation of the current State laws and changes required therein to conform to the requirements of the Surface Mining Control and Reclamation Act of 1977, unless previously submitted under Part 725;
- (2) A description of the changes expected to be required in State regulations, organization, staffing, training and other policies and operations in order to develop a State program which can be approved; and
- (3) A program to develop the legislation, regulations, procedures, organization, staffing, training materials, and other program elements necessary to obtain program approval.

(d) For administration and enforcement grants and cooperative agreement grants, agencies shall include in Part III of the standard application:

- (i) A description of the specific operations in the approved program which will be implemented during the period for which the grant is requested.

(ii) A description and justification of any major equipment (equipment which has a unit acquisition cost of \$1 ,000 or more) which the agency proposes to acquire with the grant.

(e) The Regional Director shall notify the agency within thirty days after the receipt of a complete application, or as soon thereafter as possible, whether it is or is not approved. If the application is not approved, the Regional Director shall set forth in writing the reasons for disapproval, and may propose modifications if appropriate. The agency may resubmit the application within thirty days. The Regional Director shall process the revised application as an original application.

Section 740.19 -- Grant agreement.

(a) If the Regional Director approves an agency's grant application, the Regional Director shall prepare a grant agreement which includes -

- (1) The approved scope of the program to be covered by the grant;
- (2) The approved budget, including the Federal share;
- (3) Commencement and completion dates for the segment of the program covered by the grant and for major phases of the program to be completed during the grant period; and
- (4) Permissible transfers of funds to other State agencies.

(b) The Regional Director may permit an agency to assign functions and funds to other State agencies. The Regional Director shall require the grantee agency to retain responsibility for overall administration of the grant, including use of funds, accomplishment of functions and reporting.

(c) Pre-agreement costs for program development grants shall be allowed only as specified in the grant agreement.

(d) The Regional Director shall transmit four copies of the grant agreement by certified mail, return receipt requested, to the agency for signature. The agency shall execute the grant agreement and return all copies of it within 3 calendar weeks after receipt, or within an extension of such time that may be granted by the Regional Director.

(e) The Regional Director shall sign the grant agreement upon its return from the agency and return one copy to the agency. The grant is effective and constitutes an obligation of Federal funds in the amount and for the purposes stated in the grant agreement at the time the Regional Director signs the agreement.

(f) Neither the approval of a program nor the award of any grant will commit or obligate the United States to award any continuation grant or enter into any grant amendment, including grant increases to cover cost overruns.

Section 740.20 -- Grant amendments.

(a) A grant amendment is a written alteration in the grant amount, grant terms or conditions, budget or period, or other administrative, technical, or financial agreement whether accomplished on the initiative of the agency or the Regional Director, or by mutual action of the agency and the Regional Director.

(b) The agency shall promptly notify the Regional Director in writing by certified mail, return receipt requested, of events or proposed changes which may require a grant amendment, such as -

- (1) Rebudgeting;
- (2) Changes which may affect the approved scope or objective of a program; or
- (3) Changes which may increase or substantially decrease the total cost of a program.

{62709} (c) The Regional Director shall approve or disapprove each proposed amendment within thirty days of receipt, or as soon thereafter as possible, and shall notify the agency in writing of the approval or disapproval of the amendment.

(d) The grant amendment establishes the effective date of the action. If no date is specified in the grant amendment then the date the Regional Director signs the amendment will be the effective date of the action.

Section 740.21 -- Grant reduction and termination.

(a) Conditions for reduction or termination.

- (1) If an agency violates the terms of a grant agreement, the Regional Director may reduce or terminate the grant.
- (2) If an agency fails to implement, enforce or maintain an approved program, or cooperative agreement, the Regional Director shall terminate the administration and enforcement grant or cooperative agreement grant.
- (3) If an agency fails to implement, enforce or maintain only a part of the program, the Regional Director shall reduce the grant to the amount of the program being operated by the agency.
- (4) If an agency is not in compliance with the following nondiscrimination provisions, the Regional Director shall terminate the grant -
 - (i) Title VI of the Civil Rights Act of 1964 (78 Stat. 252), Nondiscrimination in Federally Assisted Programs, which provides that no person in the United States shall on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal Financial assistance, and the implementing regulations at 43 CFR 17.
 - (ii) Executive Order 11246, as amended by Executive Order 11375, Equal Employment Opportunity, requiring that employees or applicants for employment not be discriminated against because of race, creed, color, sex, or national origin, and the implementing regulations at 41 CFR 60.
 - (iii) Section 504 of the Rehabilitation Act of 1973, as amended by Executive Order 11914, Nondiscrimination With Respect to the Handicapped in Federally Assisted Programs.
- (5) If an agency fails to enforce the financial interest provisions of part 705 of this chapter the Director shall terminate the grant.
- (6) If an agency fails to submit reports required by this part or parts 705 and 720 of this chapter the Director shall reduce or terminate the grant.

(b) Grant reduction and termination procedures.

- (1) The Regional Director shall give at least 10 days written notice to the agency by certified mail, return receipt requested, of intent to reduce or terminate a grant. The Regional Director shall include in the notice the reasons for the proposed action and the proposed effective date of the action.
- (2) The Regional Director shall afford the agency opportunity for consultation and remedial action prior to reducing or terminating a grant.
- (3) The Regional Director shall notify the agency of the termination or reduction of the grant in writing by certified mail, return receipt requested.
- (4) Upon termination the agency shall refund or credit to the United States that portion of the grant money paid or owed to the agency and allocated to the terminated portion of the grant.

However any portion of the grant that is required to meet commitments made prior to the effective date of termination shall be retained by the agency.

- (5) The agency shall reduce the amount of outstanding commitments insofar as possible and report to the Regional Director the uncommitted balance of funds awarded under the grant.
- (6) Upon notification of intent to terminate the agency shall not make any new commitments without the approval of the Regional Director.
- (7) The Regional Director may allow termination costs as determined by applicable Federal cost principles listed in Federal Management Circular 74-4.

(c) Appeals.

- (1) An agency may appeal the Regional Director's decision to reduce or terminate a grant to the Director within 30 days of the Regional Director's decision.
- (2) An agency shall include in an appeal -
 - (i) The decision being appealed, and
 - (ii) The facts which the agency believes justify a reversal or modification of the decision.
- (3) The Director shall act upon appeals within 30 days of their receipt, or as soon thereafter as possible.

Section 740.22 -- Audit.

The agency shall arrange for independent audit not less frequently than once every two years, pursuant to the requirements of Office of Management and Budget Circular No. A-102. The audits will be performed in accord with the "Standards for

Audit of Governmental Organizations, Programs, Activities, and Functions" published by the Comptroller General of the United States and audit guides provided by the Department of the Interior.

Section 740.23 -- Administrative Procedures.

The agency shall follow administrative procedures governing accounting, payment, property and related requirements contained in Office of Management and Budget Circular No. A-102.

Section 740.24 -- Allowable costs.

- (a) The Regional Director shall determine costs which may be reimbursed according to Federal Management Circular 74-4.
- (b) Costs must be in conformity with any limitations, conditions, or exclusions set forth in the grant agreement or this part.
- (c) Costs must be allocated to the grant to the extent of benefit properly attributable to the period covered by the grant.
- (d) Costs must not be allocated to or included as a cost of any other federally assisted program.

Section 740.25 -- Financial management.

- (a) The agency shall account for grant funds in accordance with the requirements of Office of Management and Budget Circular No. A-102. Agencies shall use generally accepted accounting principles and practices, consistently applied. Accounting for grant funds must be accurate and current.
- (b) The agency shall adequately safeguard all funds, property, and other assets and shall assure that they are used solely for authorized purposes.
- (c) The agency shall provide a comparison of actual amounts spent with budgeted amounts for each grant.
- (d) When advances are made by a letter-of-credit method, the agency shall make drawdowns from the U.S. Treasury through its commercial bank as closely as possible to the time of making the disbursements.
- (e) The agency shall support accounting records by source documentation.
- (f) The agency shall design a systematic method to assure timely and appropriate resolution of audit findings and recommendations.

Section 740.26 -- Reports.

- (a) The agency shall, for each grant made under this part, submit annually to the Regional Director a Financial Status Report in accordance with Office of Management and Budget Circular No. A-102, Attachment H. This report shall be accompanied by a performance report prepared according to Attachment I of OMB Circular No. A-102.
- (b) The Regional Director shall require through the grant agreement that annual reports provide the relation of financial information to performance and productivity data, including unit cost information.

Section 740.27 -- Records.

- (a) The agency shall maintain complete records in accordance with Office of Management and Budget Circular No. A-102. This includes books, documents, maps, and other evidence and accounting procedures and practices, sufficient to reflect

properly -

- (1) The amount, receipt, and disposition by the agency of all assistance received for the program.
- (2) The total costs of the program, including all direct and indirect costs of whatever nature incurred for the performance of the program for which the grant has been awarded.

(b) Subgrantees and contractors, including contractors for professional services, shall maintain books, documents, papers, maps, and records which are pertinent to a specific grant award.

(c) The agency's records and the records of its subgrantees and contractors, including professional services contracts, shall be subject at all reasonable times to inspection, reproduction, copying, and audit by the Office, the Department of the Interior, the Comptroller General of the United States, the Department of Labor or any authorized representative.

{62710} (d) For completed or terminated grants the agency, subgrantees, and contractors shall preserve and make their records available to the Office, the Department of the Interior, the Comptroller General of the United States, Department of Labor, or any authorized representative pursuant to OMB Circular No. A-102.

Section 740.28 -- Disclosure of information.

All grant applications received by the Regional Director constitute agency records. As such, their release may be requested by any member of the public under the Freedom of Information Act, 5 U.S.C. 552, and shall be disclosed unless exempt from disclosure under 5 U.S.C. 552(b).

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PART 795 - SMALL OPERATOR ASSISTANCE

Section

795.1	Scope.
795.2	Objective.
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795.19	Applicant liability.

AUTHORITY: Sections 201, 501, and 502, Pub.L. 95-87 91 Stat. 445 (30 U.S.C. 1201).

Section 795.1 -- Scope.

This part comprises the small operator assistance program (Program) and governs the procedures for providing assistance to qualified small mine operators who request assistance under Section 507(c) of the Act, for -

(a) The determination of the probable hydrologic consequences of mining and reclamation, under section 507(b)(11) of the Act; and

(b) The statement of physical and chemical analyses of test borings or core samples, under Section 507(b)(15) of the Act

Section 795.2 -- Objective.

The objective of this part is to meet the intent of Section 507(c) of the Act by -

- (a) Providing financial and other necessary assistance to qualified small operators; and
- (b) Assuring that the regulatory authority shall have sufficient information to make a reasonable assessment of the probable cumulative impacts of all anticipated mining upon the hydrology of the area and particularly upon water availability.

Section 795.3 -- Authority.

The Secretary shall provide financial and other assistance under Section 507(c) of the Act to the extent funds are appropriated by Congress specifically for this Program.

Section 795.4 -- Responsibilities.

- (a) General. Once the regulatory authority initiates the Program, it shall -
 - (1) Review requests for assistance and determine qualified operators;
 - (2) Develop and maintain a list of qualified laboratories, and select and pay laboratories for services rendered;
 - (3) Conduct periodic on-site evaluations of the Program activities with the appropriate small operator; and
 - (4) Participate with the Office in data coordination activities with the U.S. Geological Survey, U.S. Environmental Protection Agency, and other appropriate agencies or institutions.
- (b) State. A State shall include a Program within its proposed State regulatory program for approval by the Secretary.
- (c) Office. The Office shall develop oversight policies and procedures to implement the Program. These shall include policies and procedures for -
 - (1) Data acquisition, analysis and interpretation;
 - (2) Interstate coordination and exchange of data;
 - (3) Model contract stipulations; and
 - (4) National certification of labs.
- (d) The Office and the regulatory authority shall insure that applicable equal opportunity in employment provisions are included within any contract or other procurement documents.

Section 795.5 -- Definitions.

As used in this part -

MONITORING means the collection of environmental data by either continuous or periodic sampling methods.

PROBABLE CUMULATIVE IMPACTS means the expected total qualitative, and quantitative, direct and indirect effects of mining and reclamation activities on the hydrologic regime.

PROBABLE HYDROLOGIC CONSEQUENCE means the projected result of proposed surface coal mining and reclamation operations which may reasonably be expected to change the quantity or quality of the surface and ground water; the surface or ground water flow, timing and pattern; the stream channel conditions; and the aquatic habitat on the permit area and other affected areas.

Section 795.11 -- Small Operator Assistance Program initiation procedures.

- (a) The State shall notify the Office not less than six months prior to submission of its State regulatory program for approval under Section 503 of the Act. The notification shall include -

- (1) A statement of the intent to submit a proposed State regulatory program;
 - (2) A summary description of actions taken to develop a State regulatory program for approval and a summary schedule of actions to be taken; and
 - (3) A declaration of whether -
 - (i) The State elects to receive funding and commence the administration of the Small Operator Assistance Program, or
 - (ii) The State elects to have the Office administer the Small Operator Assistance Program on behalf of the State through a cooperative arrangement until such time as the proposed State regulatory program is approved.
- (b) If the State elects to administer the Small Operator Assistance Program, it may submit a grant application for funding of the program under the procedures of Part 740 of this chapter. The Office shall review the State's grant application and information provided under paragraph (a) of this section and approve or disapprove the State's request.
- (c) If the State elects to have the Office administer the Small Operator Assistance Program, the Office shall implement the Small Operator Assistance Program within the State.

Section 795.12 -- Program services.

To the extent possible with available funds, the regulatory authority shall for qualified small operators who request assistance -

- (a) Select and pay a qualified laboratory to -
 - (1) Determine for the operator the probable hydrologic consequences of the mining and reclamation operations both on and off the proposed permit area in accordance with Section 795.16.
 - (2) Prepare a statement of the results of test borings or core samplings in accordance with Section 795.16.
- (b) Collect and provide general hydrologic information on the basin or subbasin areas within which the anticipated mining will occur. The information provided shall be limited to that required to relate the basin or subbasin hydrology to the hydrology of the proposed permit area.

Section 795.13 -- Eligibility for assistance.

An applicant is eligible for assistance if he -

- (a) Intends to apply for a permit pursuant to the Act; and
- (b) Establishes that the probable total actual and attributed production of the applicant for each year of the permit will not exceed 100,000 tons. Production from the following operations shall be attributed to the permittee -
 - (1) All coal produced by operations beneficially owned entirely by the applicant or controlled, by reason ownership, direction of the management or in any other manner whatsoever, by the applicant.
 - (2) The pro rata share, based upon percentage of beneficial ownership, of coal produced by operations in which the applicant owns more than a 5 percent interest.
 - (3) All coal produced by persons who own more than 5 percent of the applicant or who directly or indirectly control the applicant by reason of stock ownership, direction of the management or in any other manner whatsoever.
 - (4) The pro rata share of coal produced by operations owned or controlled by the person who owns or controls the applicant.

Section 795.14 -- Filing for assistance.

Each applicant shall submit the following information to the regulatory authority at any time after initiation of the Small Operator Assistance Program within the State in which mining is proposed -

- (a) A statement of intent to file a permit application;

- (b) The names and addresses of -
{62711} (1) The potential permit applicant;
(2) The potential operator if different from the applicant.
- (c) A schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant under 795.13. The schedule shall include for each location -
(1) The name under which coal is or will be mined;
(2) The permit number and Mining Enforcement and Safety Administration identification number;
(3) The actual coal production for the year preceding the application for assistance and that portion of the production attributed to the applicant; and
(4) The estimated coal production for each year of the proposed permit and that portion attributed to the applicant.
- (d) A description of -
(1) The method of surface coal mining operation proposed;
(2) The anticipated starting and termination dates of mining operations;
(3) The number of acres of land to be affected by the proposed mining; and
(4) A general statement on the probable depth and thickness of the coal resource.
- (e) A U.S. Geological Survey topographic map of 1:24,000 scale or larger or other topographic map of equivalent detail which clearly shows -
(1) The area of land to be affected and the natural drainage above and below the affected area;
(2) The names of property owners within the area to be affected and of adjacent lands;
(3) The location of existing structures and developed water sources within the area to be affected and on adjacent lands;
(4) The location of existing and proposed test boring or core samplings; and
(5) The location and extent of known working of any underground mines.
- (f) Copies of documents which show that -
(1) The applicant has a legal right to enter and commence mining within the permit area; and
(2) A legal right of entry has been obtained for the Office, regulatory authority and laboratory personnel to inspect the lands to be mined and adjacent lands which may be affected to collect environmental data or install necessary instruments.

Section 795.15 -- Application approval and notice.

- (a) If the regulatory authority finds the applicant eligible, and it does not have information readily available which would preclude issuance of a permit to the applicant for mining in the area proposed, it shall -
(1) Determine the minimum data requirements necessary to meet the provisions of Section 795.16.
(2) Select the services of one or more qualified laboratories to perform the required work. A copy of the contract or other appropriate work order and the final approved report shall be provided to the applicant.
- (b) The regulatory authority shall inform the applicant in writing if the application is denied and shall state the reasons for denial.
- (c) The granting of assistance under this part shall not be a factor in decisions by the regulatory authority on a subsequent permit application.

Section 795.16 -- Data requirements.

- (a) General. This section describes the minimum requirements for the collection of data to meet the objective of the program. The regulatory authority shall determine the data collection requirements for each applicant or group of applicants. Data collection and analysis may proceed concurrently with the development of mining and reclamation plans by the operator. The data requirements will be based on -
(1) The extent of currently available hydrologic and core analysis data for the applicable area provided by the regulatory authority; and

(2) The data collection and analysis guidelines developed and provided by the Office.

(b) Specific Provisions.

(1) A determination of the probable hydrologic consequences of the mining and reclamation operations, both on- and off-site, shall be made by a qualified laboratory. The data for this determination shall include -

(i) The existing and projected surface and ground water seasonal flow regime, including water level and water table evaluations. The regulatory authority shall specify duration and return frequencies to be used in the determination.

(ii) The existing and projected seasonal quality of the surface and ground water regime. This shall include measurements and estimates of dissolved and suspended solids, pH, iron, manganese, surface and channel erosion and other water quality parameters specified by the regulatory authority.

(2) A statement of the result of test borings or core samplings from the proposed permit area, including -

(i) Logs from any drill holes including identification of each stratum and water level penetrated;

(ii) The coal seam thickness and its chemical analysis including sulfur content;

(iii) The chemical analysis of potentially acid or toxic forming of the overburden, and the chemical analysis of the stratum lying immediately underneath the coal to be mined.

(c) Exemptions. The statement by a qualified laboratory under paragraph (b)(2) of this section may be waived by the regulatory authority by a written determination that such requirements are unnecessary with respect to the specific permit application.

(d) Data Availability. Data collected under this Program shall be made available to all interested persons, except information related to the chemical and physical properties of coal. Information regarding the mineral or elemental content of the coal which is potentially toxic in the environment shall be made available.

Section 795.17 -- Qualified Laboratories.

(a) General.

(1) As used in this section, qualified laboratory means a designated public agency, private consulting firm, institution, or analytical laboratory which can provide the required determination or statement under this Program.

(2) The Office shall establish and periodically publish in the FEDERAL REGISTER a list of qualified laboratories which may be used by regulatory authorities under the procedures of this section. A State regulatory authority may designate qualified laboratories under procedures included in an approved State regulatory program.

(3) Persons who desire to be included in the list of qualified laboratories established by the Office shall apply to the Office and provide such information as is necessary to establish the qualifications required by paragraph (b) of this section.

(b) Basic Qualifications.

(1) To qualify for designation, the laboratory shall demonstrate that it -

(i) Is staffed with experienced, professional personnel in the fields of hydrology, mining engineering, aquatic biology, geology or chemistry applicable to the work to be performed.

(ii) Is capable of collecting necessary field data and samples.

(iii) Has adequate space for material preparation, cleaning and sterilizing necessary equipment, stationary equipment, storage, and space to accommodate periods of peak workloads.

(iv) Meets the requirements of the Occupational Safety and Health Act or the equivalent State safety and health program.

(v) Has the financial capability and business organization necessary to perform the work required.

(vi) Has analytical, monitoring and measuring equipment capable of meeting the applicable standards and methods contained in -

(A) Standard Methods for the Examination of Water and Waste Water, 14th Edition, 1975. This publication is available from the American Public Health Association, 1015 18th Street, NW., Washington, D.C. 20036.

(B) Methods for Chemical Analysis of Water and Wastes, 1974. This publication is available from the Office of Technology Transfer, U.S. Environmental Protection Agency, Industrial Environmental Research Laboratory, Cincinnati, Ohio 45268. These standards are hereby incorporated by reference.

(vii) Has the capability of making hydrologic field measurements and analytical laboratory determinations by acceptable hydrologic engineering or analytical methods, or by those appropriate methods or guidelines for data acquisition recommended by the Office or other Federal or State agencies

{62712} (2) The qualified laboratory shall be capable of performing either the determination or statement under paragraphs Section 795.16(b)(1) or (b)(2). Subcontractors may be used to provide the services required provided their use is defined in the application for designation and approved by the Office.

Section 795.18 -- Assistance funding.

(a) Use of funds. Funds authorized for this Program shall not be used to cover State administrative costs or the costs of test boring or core sampling.

(b) Allocation of funds. The regulatory authority shall to the extent practicable establish a formula for allocating funds among eligible small operators if available funds are less than those required to provide the services pursuant to this Part. This formula shall include such factors as the applicant's -

- (1) Anticipated date of filing a permit application;
- (2) Anticipated date for commencing mining; and
- (3) Performance history.

Section 795.19 -- Applicant liability.

(a) The applicant shall reimburse the regulatory authority for the cost of the laboratory services performed pursuant to this Part if the applicant -

- (1) Submits false information;
- (2) Fails to submit a permit application within 1 year from the date of receipt of the approved laboratory report;
- (3) Fails to mine after obtaining a permit; or
- (4) If the regulatory authority finds that the applicant's actual and attributed annual production of coal exceeds 100,000 tons during any year of mining under the permit for which the assistance is provided.

(b) The regulatory authority may waive the reimbursement obligation if it finds that the applicant at all times acted in good faith. The incorporations by reference in this part were approved by the Director, Office of the FEDERAL REGISTER on November 11, 1977 and are on file in the FEDERAL REGISTER Library.

{62712}

PART 830 - PROTECTION OF EMPLOYEES

Section

830.1	Scope.
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830.12	Procedures for filing an application for review of discrimination.
830.13	Investigation and conference.
830.14	Requests for formal hearing.
830.15	Formal adjudicatory proceedings.

AUTHORITY. Sections 201, 501, 502 and 703, Pub.L. 95-87, Stat. 445 (30 U.S.C. 1201).

Section 830.1 -- Scope.

This part establishes procedures regarding -

(a) The reporting of acts of discriminatory discharge or other acts of discrimination under the Act caused by any person. Forms of discrimination include, but are not limited to: Firing, suspension, transfer or demotion, denial or reduction of wages and benefits, coercion by promises of benefits or threats of reprisal, and interference with the exercise of any rights afforded under the Act;

(b) The investigation of applications for review and holding of informal conferences about the alleged discrimination; and

(c) The request for formal hearings with the Office of Hearings and Appeals.

Section 830.11 -- Protected activity.

(a) No person shall discharge or in any other way discriminate against or cause to be fired or discriminated against any employee or any authorized representative of employees because that employee or representative has –

(1) Filed, instituted or caused to be filed or instituted any proceedings under the Act by -

(i) Reporting alleged violations or dangers to the Secretary, the State Regulatory Authority, or the employer or his representative.

(ii) Requesting an inspection or investigation; or

(iii) Taking any other action which may result in a proceeding under the Act.

(2) Made statements, testified, or is about to do so -

(i) In any informal or formal adjudicatory proceeding;

(ii) In any informal conference proceeding;

(iii) In any rulemaking proceeding;

(iv) In any investigation, inspection or other proceeding under the Act;

(v) In any judicial proceeding under the Act.

(3) Has exercised on his own behalf or on behalf of others any right granted by the Act.

(b) Each employer conducting operations which are regulated under this Act, shall within 30 days from the effective day of these regulations, provide a copy of this part to all current employees and to all new employees at the time of their hiring.

Section 830.12 -- Procedures for filing an application for review of discrimination.

(a) Who may file. Any employee, or any authorized representative of employees, who believes that he has been discriminated against by any person in violation of Section 830.11(a) of this part may file an application for review. For the purpose of these regulations, an application for review means the presentation of a written report of discrimination stating the reasons why the person believes he has been discriminated against and the facts surrounding the alleged discrimination.

(b) Where to file. The employee or representative may file the application for review at any location of the Office and each office shall maintain a log of all filing.

(c) Time for filing. The employee or representative shall file an application for review within 30 days after the alleged discrimination occurs. An application is considered filed -

(1) On the date delivered if delivered in person to the Office, or

(2) On the date mailed to the Office.

(d) Running of the time of filing. The time for filing begins when the employee knows or has reason to know of the alleged discriminatory activity.

Section 830.13 -- Investigation and conference procedures.

(a) Within 7 days after receipt of any application for review, the Office shall mail a copy of the application for review to the person alleged to have caused the discrimination, shall file the application for review with the Office of Hearings and Appeals and shall notify the employee and the alleged discriminating person that the Office will investigate the complaint. The alleged discriminating person may file a response to the application for review within 10 days after he receives the copy of the application for review. The response shall specifically admit, deny or explain each of the facts alleged in the application unless the alleged discriminating person is without knowledge in which case he shall so state.

(b) The Office shall initiate an investigation of the alleged discrimination within 30 days after receipt of the application for review. The Office shall complete the investigation within 60 days of the date of the receipt of the application for review. If circumstances surrounding the investigation prevent completion within the 60-day period, the Office shall notify the person

who filed the application for review and the alleged discriminating person of the delay, the reason for the delay, and the expected completion date for the investigation.

(c) Within 7 days after completion of the investigation the Office shall invite the parties to an informal conference to discuss the findings and preliminary conclusions of the investigation. The purpose of this informal conference is to attempt to conciliate the matter. If a complaint is resolved at an informal conference, the terms of the agreement will be recorded in a written document that will be signed by the alleged discriminating person, the employee and the representative of the Office. If the Office concludes on the basis of a subsequent investigation that any party to the agreement has failed in any material respect to comply with the terms of any agreement reached during an informal conference, the Office shall take appropriate action to obtain compliance with the agreement.

(d) Following the investigation and any informal conference held, the Office shall complete a report of investigation which shall include a summary of the results of the conference. Copies of this report shall be available to the parties in the case.

Section 830.14 -- Request for hearing.

(a) If the Office determines that a violation of this part has probably occurred and was not resolved at an informal conference, the Director shall request a hearing on the employee's behalf before the Office of Hearings and Appeals within 10 days of the scheduled informal hearing. The parties shall be notified of the determination. If the Director declines to request a hearing the employee shall be notified within 10 days of the scheduled informal conference and informed of his right to request a hearing on his own behalf.

{62713} (b) The employee may request a hearing with the Office of Hearings and Appeals after 60 days have elapsed from the filing of his application.

Section 830.15 -- Formal adjudicatory proceedings.

(a) Formal adjudication of a complaint filed under this part shall be conducted in the Office of Hearings and Appeals under 43 CFR Part 4.

(b) A hearing shall be held as promptly as possible consistent with the opportunity for discovery provided for under 43 CFR Part 4.

(c) Upon a finding of violation of section 830.11 of this part, the Secretary shall order the appropriate affirmative relief including, but not limited to, the rehiring or reinstatement of the employee or representative of employees to his former position with compensation. At the request of the employee a sum equal to the aggregate amount of all costs and expenses including attorneys' fees which have been reasonably incurred by the employee for, or in connection with, the institution and prosecution of the proceedings shall be assessed against the person committing the violation.

(d) On or after 10 days after filing an application for review under this part the Secretary of the employee may seek temporary relief in the Office of Hearings and Appeals under 43 CFR Part 4.