

**FEDERAL REGISTER: 43 FR 8090 (February 27, 1978)**

DEPARTMENT OF THE INTERIOR

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

30 CFR CHAPTER VII

SURFACE MINING RECLAMATION AND ENFORCEMENT PROVISIONS;

Interim Final Rules and Notice of Public Hearing

ACTION: Interim Final Rules and announcement of hearing.

**SUMMARY:** These interim final rules amend the design criteria for sedimentation ponds and temporary diversion structures for surface coal-mining operations and extend the filing deadlines for submission of schedules for the reconstruction of existing sedimentation ponds, and related pre-existing, non-conforming structures to May 3, 1978. In addition, the construction on such pre-existing, non-conforming structures must begin by June 3, 1978. Construction on all pre-existing, non-conforming structures must still be completed by November 4, 1978. These interim final rules are applicable to all surface coal mining operations during the public hearing and comment period contemplated on these rules.

DATES/EFF-DATE: DATES: Interim Final Regulations are effective February 27, 1978.

Comments on the interim final regulations must be received by March 29, 1978. The hearing will be held on March 15, 1978 at 9:30 am.

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

The hearing will be at the Department of the Interior Auditorium, 18th and C Streets NW., Washington, D.C. 20240.

FOR FURTHER INFORMATION CONTACT: Walter N. Heine, 202-343-4237.

**SUPPLEMENTARY INFORMATION:**

The Surface Mining Control and Reclamation Act of 1977 (hereinafter 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. 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., Charlestown, 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.

On December 13, 1977, the Department promulgated final regulations as required by the Act for the initial regulatory program (42 FR 62639).

Both in the proposed regulations and the final regulations, the Department detailed requirements for sedimentation ponds to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area.

As a result of extensive comments from States and industry after publication of the final design criteria for sedimentation ponds, the Department reconsidered the design criteria for sedimentation ponds. Many States and industry commenters suggested that the final standard required unnecessarily large sedimentation ponds which could pose a hazard to the surrounding community. Commenters also felt that good management which is presently utilized in some States would preclude the need for large basins. In light of these and other comments, the Director of the Office of Surface Mining Reclamation and Enforcement, other representatives of the Department and representatives of the Environmental Protection Agency viewed a number of mining operations in West Virginia on January 31, 1978, to determine if this standard needed modification. As a result of these visits to mining sites and extensive discussions with State and industry and public interest representatives, the Department has modified the design criteria for sedimentation ponds to allow greater flexibility and accommodate diversity in terrain and other physical conditions. In large measure the modifications are supported by the

transcripts of the public hearings on the proposed regulations, written comments received prior and subsequent to the final regulations, technical studies, manuals, and generally accepted engineering practice.

Primary technical literature relied upon in developing these new regulations included, Curtis, "Sediment Yield From Strip-Mined Watersheds in Eastern Kentucky," Second Research and Applied Technology Symposium on Mined Land Reclamation, 1974; Kathuria, "Effectiveness of Surface Mine Sedimentation Ponds," EPA Report EPA-660/2-76-117, August 1976; Simpson, "Interagency Evaluation Tour of West Virginia - Water Quality Committee Report," September 1977; "Erosion and Sediment Control-Surfacing Mining in the Eastern United States," Volumes 1 and 2, EPA Technology Transfer Seminar Publication, October 1976; Hill, "Sedimentation Ponds - A Critical Review" NCA/BCR Coal Conference, October 1976; Janiak, "Purifications of Waters From Strip Lignite Mines," proceeding of the Polish-U.S. Symposium, May 1975.

The December 13, 1977, regulations (42 FR 62686) specified three principal criteria which controlled the size and design of sedimentation ponds: Pond surface area, sediment storage volume and water detention time. The Department has modified these criteria as follows:

At many mining locations, the controlling design criterion was to size sedimentation ponds to provide a surface area of at least 1 square foot of pond surface area for each 50 gallons per day of runoff entering the ponds resulting from a 10-year 24-hour precipitation event. The modifications delete the requirement that sedimentation ponds must provide at least 1 square foot for each 50 gallons per day of inflow. In lieu thereof, the new regulations require coal operators to consider sedimentation pond surface area in the design of ponds in order to achieve the effluent limitations (Section 715.17(a)). The effect of this change is to remove a constraint on the design and size of sedimentation ponds and substitute in its place greater design flexibility, which if properly exercised, will permit the construction of smaller ponds.

The new regulations clarify the sediment storage volume requirement for sedimentation ponds. A sediment storage volume must be provided equal to 0.2-acre feet of disturbed area within the upstream drainage area, unless the operator utilizes on-site or point-of-origin activities which may be considered as credits to reduce the required 0.2-acre feet storage volume. The new regulations specify a list of on-site activities including prompt and progressive backfilling, revegetation, mulching, and check dams. These credits, if approved by the regulatory authority, can have a significant impact on reducing the size of ponds.

Section 715.17(e)(1) of the December 13, 1977, regulations required a 24-hour detention time for the design inflow or runoff entering sedimentation ponds. The new regulations require that the pond be designed to provide a 24-hour detention time for the design inflow or runoff unless a lower detention time is approved by the regulatory authority. In addition, in determining the design runoff volume, the operator can consider the characteristics of the mine site, reclamation control procedures and on-site sediment control practices. The 24-hour theoretical detention time can be reduced to 10 hours if the operator implements sediment control measures approved by the regulatory authority. The Office of Surface Mining will allow credits for sediment control measures such as pond configuration, inflow and outflow facilities and onsite measures to reduce detention time. Detention time can be reduced even below 10 hours by utilizing chemical treatment or flocculation or demonstrating to the regulatory authority that particle size, or specific gravity could warrant even a lower detention time. {8091}

The new regulations ease to a considerable degree the burden upon coal operators to bring existing sedimentation ponds into compliance. The deadline for starting reconstruction has been extended and the reconstruction burden has been significantly lessened. Therefore, the Department has decided to maintain the November 4, 1978, compliance date for existing sedimentation ponds which cannot be in compliance by May 3, 1978.

To allow adequate time for coal operators to submit schedules and statements of impossibility to regulatory authorities, the Department has extended the filing deadline for sedimentation ponds from March 1, 1978, to May 3, 1978. In addition, the filing deadline has been extended to May 3, 1978, for other pre-existing, non-conforming structures which are related to the redesign of sedimentation ponds. Related structures or facilities are those which an engineer must necessarily redesign as a result of the new sedimentation pond standard. Reconstruction must be initiated on such existing structures on or before June 3, 1978. Additional approval responsibilities have been added to assure that no schedules extend beyond November 4, 1978.

The Department has decided to make these rules effective upon publication to provide immediate guidance to State regulatory agencies and coal operators. In this way, State regulatory agencies can issue new permits incorporating these requirements and immediately approve applications to reconstruct existing sedimentation ponds. In addition, the Department

believes that it is essential to assure timely compliance with section 502 of the Act. It is emphasized, however, that the Department intends to hold at least one public hearing on the interim final rules, obtain necessary concurrences and consider public comments before making the rule final.

This interim final rulemaking also includes a modification to the regulation governing temporary diversion structures. Additional State and industry comments received after promulgation of the final rules on December 13, 1977, have demonstrated that under the prior rules, construction of temporary diversions to safely pass a peak runoff from a precipitation event with a 10-year recurrence interval could result in disturbing an area in excess of the effective control provided by such structures. Therefore, the Department has reduced the design criteria to require the structure to safely pass the peak runoff from a precipitation event with a one-year recurrence interval. The Department has added an additional design criterion to adequately protect the public and the environment during the existence of temporary diversion structures.

In addition, in response to comments requesting clarification, the Department emphasizes that small depressions allowed by Section 715.14(d) are not considered as temporary or permanent diversions under Section 715.17(c)(1) and (2). Temporary or permanent diversions are those structures which divert water away from disturbed areas. Thus, upon approval of the regulatory authority, coal operators may leave small depressions, small ditches and swales which act to diffuse water or reduce water velocity as part of erosion control practices.

Statutory authority for interim final rules is contained in Sections 201(c)(2), 501 and 502 of the Act and 5 U.S.C. Section 553.

The Department intends to entertain comments for a thirty-day period following publication of these interim final rules in the FEDERAL REGISTER. In addition, it will shortly announce the place and time of public hearings on these interim final rules.

The Department of the Interior has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821 and OMB Circular A-107.

In accordance with the Surface Mining Control and Reclamation Act of 1977, Pub.L. 95-87 and 5 U.S.C. Section 553, a public hearing will be held at the Department of the Interior Auditorium, 18th and C Streets NW., Washington, D.C. 20240 on March 15, 1978 at 9:30 a.m. The purpose of the hearing is to allow full public participation in the rulemaking process. Individuals making oral statements or submitting written comments should limit their statements to these interim final rules. Individuals are encouraged to submit statements in writing. Individuals making oral statements are limited to 10 minutes.

Further information and reservation of time for oral statements may be obtained by contacting Walter N. Heine, Director, Office of Surface Mining Reclamation and Enforcement, Department of the Interior, Washington, D.C. 20240, 202-343-4237.

#### DRAFTING INFORMATION

Principal authors of these regulations are Ronald D. Hill, Environmental Protection Agency, Cincinnati, Ohio; Walter N. Heine, Director, Office of Surface Mining Reclamation and Enforcement; and Donald Crane, Consultant to the Office of Surface Mining Reclamation and Enforcement, Denver, Colo.

Dated: February 22, 1978.

JOAN M. DAVENPORT, Assistant Secretary Energy and Minerals. Energy and Minerals.

Chapter VII of Title 30 of the Code of Federal Regulations is amended as follows:

#### **PARTS 710, 715, 717 [Amended].**

#### **PART 710 - INITIAL REGULATORY PROGRAM**

In 30 CFR Section 710.11, paragraph (d) is revised to read as follows:

## **SECTION 710.11 - APPLICABILITY.**

(d) \* \* \*

(3) Notwithstanding paragraph (d)(2) of this section, any sedimentation pond, or related pre-existing, nonconforming 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) The permittee submits to the regulatory authority and to the Director by May 3, 1978, a statement in writing demonstrating that it is physically impossible to bring the structure or facility into compliance by May 3, 1978. The statement shall include the steps to be taken to reconstruct the structure or facility in conformance with applicable performance standards and a schedule for reconstruction including the estimated date of completion;

(ii) The regulatory authority finds in writing that it is physically impossible to bring the structure or facility into compliance by May 3, 1978;

(iii) The construction work is to be performed in accordance with plans designed by a professional engineer;

(iv) The construction work is to be started and completed as soon as possible and in no event is to be started later than June 3, 1978 and completed later than November 4, 1978; and

(v) The Director approves of any schedules which contain an estimated date of completion beyond October 3, 1978.

(4) The Director shall be deemed to have approved such schedules referred to in paragraph (d)(3)(v) of this section, unless written disapproval is received by the operator on or before June 3, 1978.

## **PART 715 - GENERAL PERFORMANCE STANDARDS**

In 30 CFR Section 715.17, paragraph (c)(1) is revised to read as follows:

### **SECTION 715.17 [Amended]**

(c) \* \* \*

(1) Temporary diversion structures shall be constructed to safely pass the peak runoff from a precipitation event with a one year recurrence interval, or a larger event as specified by the regulatory authority. The design criteria must assure adequate protection of the environment and public during the existence of the temporary diversion structure. {8092}

Section 715.17 is further amended as follows:

1. Paragraphs (e), (e)(1), and (e)(2) are revised.
2. Paragraphs (e)(3)-(e)(9) are redesignated as (e)(4)-(e)(10) and a new paragraph (e)(3) is added.

(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.

(1) Sediment control measures include practices carried out within and adjacent to the disturbed area. The scale of downstream practices shall reflect the degree to which successful techniques are applied at the sources of the sediment. Sediment control measures consist of the utilization of proper mining, reclamation methods, and sediment control practices (singly or in combination) including but not limited to:

(i) Disturbing the smallest practicable area at any one time during the mining operation through progressive backfilling, grading and timely revegetation;

(ii) Consistent with the requirements of Section 715.14 and Section 715.15 shaping the backfill material to promote a reduction of the rate and volume of runoff;

(iii) Retention of sediment within the pit and disturbed area;

(iv) Diversion of overland and channelized flow from undisturbed areas around or in protected crossings through the disturbed area;

(v) Utilization of straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds, and other measures that reduce overland flow velocity, reduce runoff volume or entrap sediment;

(vi) Sedimentation ponds.

(2) Sedimentation ponds may be used individually or in series, should be located as near as possible to the disturbed area and where possible out of major stream courses, and shall (either individually or in series) meet the following criteria:

(i) Sedimentation ponds must provide 24-hour theoretical detention time for the inflow or runoff entering the ponds from a 10-year, 24-hour precipitation event. Runoff diverted, in accordance with paragraphs (c) and (d) of this section, away from the disturbed drainage areas need not be considered in sedimentation pond design. In determining the runoff volume the characteristics of the mine site, reclamation procedures, and on-site sediment control practices shall be considered.

(ii) Upon approval of the regulatory authority theoretical detention time may be reduced to not less than 10 hours, as demonstrated by the permittee, equal to the improvement in sedimentation removal efficiency as a result of pond design including but not limited to pond configuration, inflow-outflow facilities and their relative location, baffles to decrease inflow velocity and short circuiting, a surface area sufficient to achieve the sediment trap efficiency necessary to meet effluent limitations (Section 715.17(a)), and sediment control measures provided in Section 715.17(e)(1).

(iii) The regulatory authority may approve a detention time less than the time required by paragraph (e)(2)(i) or (ii) of this section, when the permittee has demonstrated that the size distribution or the specific gravity of the suspended matter or the utilization of chemical treatment or flocculation are such that the effluent limitations can be met. The detention time shall be stipulated.

(3) 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 such as those identified in paragraph (e)(1) of this section, or by lesser sediment yields as evidenced by empirical data for runoff characteristics.

Redesignated paragraph (e)(6) is revised to read as follows:

(e) \* \* \*

(6) Sediment shall be removed from sedimentation ponds so as to assure maximum sediment removal efficiency and attainment and maintenance of effluent limitations. 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.

## **PART 717 - UNDERGROUND MINING GENERAL PERFORMANCE STANDARDS**

### **SECTION 717.17 [Amended]**

In 30 CFR Section 717.17, paragraph (c)(1) is revised to read as follows:

(c) \* \* \*

(1) Temporary diversion structures shall be constructed to safely pass the peak runoff from a precipitation event with a one year recurrence interval, or a larger event as specified by the regulatory authority. The design criteria must assure adequate protection of the environment and public during the existence of the temporary diversion structure.

Paragraph (e) of Section 717.17 is amended as follows:

1. Subparagraphs (1) and (2) are revised.

2. Subparagraphs (e)(3)-(e)(9) are redesignated as (e)(4)-(e)(10), and a new paragraph (e)(3) is added.

(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.

(1) Sediment control measures include practices carried out within and adjacent to the disturbed area. The scale of downstream practices shall reflect the degree to which successful techniques are applied at the sources of the sediment. Sediment control measures consist of the utilization of proper mining, reclamation methods, and sediment control practices (singly or in combination) including but not limited to:

(i) Disturbing the smallest practicable area at any one time during the mining operation through progressive backfilling, grading and timely revegetation;

(ii) Consistent with the requirements of Section 715.14 and Section 715.15 of this chapter shaping the backfill material to promote a reduction of the rate and volume of runoff;

(iii) Retention of sediment within the pit and disturbed area;

(iv) Diversion of overland and channelized flow from undisturbed areas around or in protected crossings through the disturbed area;

(v) Utilization of straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds, and other measures that reduce overland flow velocity, reduce runoff volume or entrap sediment;{8093}

(vi) Sedimentation ponds.

(2) Sedimentation ponds may be used individually or in series, should be located as near as possible to the disturbed area and where possible out of major stream courses, and shall (either individually or in series) meet the following criteria:

(i) Sedimentation ponds must provide 24 hour theoretical detention time for the inflow or runoff entering the (ponds) from a 10 year, 24-hour precipitation event. Runoff diverted, in accordance with paragraphs (c) and (d) of this section, away from the disturbed drainage areas need not be considered in sedimentation pond design. In determining the runoff volume the characteristics of the mine site, reclamation procedures, and on-site sediment control practices shall be considered.

(ii) Upon approval of the regulatory authority theoretical detention time may be reduced to not less than 10 hours, as demonstrated by the permittee, equal to the improvement in sedimentation removal efficiency as a result of pond design including but not limited to pond configuration, inflow-outflow facilities and their relative location, baffles to decrease inflow velocity and short circuiting, a surface area sufficient to achieve the sediment trap efficiency necessary to meet effluent limitations (Section 715.17(a)), and sediment control measures provided in Section 715.17(e)(1).

(iii) The regulatory authority may approve a detention time less than the time required by paragraph (e)(2)(i) or (ii) of this section, when the permittee has demonstrated that the size distribution or the specific gravity of the suspended matter or the utilization of chemical treatment or flocculation are such that the effluent limitations can be met. The detention time shall be stipulated.

(3) 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 such as those identified in paragraph (e)(1) of this section, or by lesser sediment yields as evidenced by empirical data for runoff characteristics.

In 30 CFR 717.17(e), redesignated subparagraph (6) is revised to read as follows:

(6) Sediment shall be removed from sedimentation ponds so as to assure maximum sediment removal efficiency and attainment and maintenance of effluent limitations. Sediment shall be disposed of in a manner that minimizes adverse effects on surface waters due to its chemical and physical characteristics, on infiltration, or surface or ground water quality.

[FR Doc. 78-5309 Filed 2-24-78; 11:34 am]