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Title 30: Mineral Resources

[Browse Previous](#) | [Browse Next](#)

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

Section Contents

[§ 780.1 Scope.](#)

[§ 780.2 Objectives.](#)

[§ 780.4 Responsibilities.](#)

[§ 780.10 Information collection.](#)

[§ 780.11 Operation plan: General requirements.](#)

[§ 780.12 Operation plan: Existing structures.](#)

[§ 780.13 Operation plan: Blasting.](#)

[§ 780.14 Operation plan: Maps and plans.](#)

[§ 780.15 Air pollution control plan.](#)

[§ 780.16 Fish and wildlife information.](#)

[§ 780.18 Reclamation plan: General requirements.](#)

[§ 780.21 Hydrologic information.](#)

[§ 780.22 Geologic information.](#)

[§ 780.23 Reclamation plan: Land use information.](#)

[§ 780.25 Reclamation plan: Siltation structures, impoundments, and refuse piles.](#)

[§ 780.27 Reclamation plan: Surface mining near underground mining.](#)

[§ 780.28 Activities in or adjacent to perennial or intermittent streams.](#)

[§ 780.29 Diversions.](#)

[§ 780.31 Protection of publicly owned parks and historic places.](#)

[§ 780.33 Relocation or use of public roads.](#)

[§ 780.35 Disposal of excess spoil.](#)

[§ 780.37 Road systems.](#)

[§ 780.38 Support facilities.](#)

Authority: 30 U.S.C. 1201 *et seq.* and 16 U.S.C. 470 *et seq.*

Source: 44 FR 15357, Mar. 13, 1979, unless otherwise noted.

§ 780.1 Scope.

[↑ top](#)

This part provides the minimum requirements for the Secretary's approval of regulatory program provisions for the mining operations and reclamation plan portions of applications for permits for surface mining activities, except to the extent that different requirements for those plans are established under 30 CFR part 785.

§ 780.2 Objectives.

[↑ top](#)

The objectives of this part are to insure that the regulatory authority is provided with comprehensive and reliable information on proposed surface mining activities, and to ensure that those activities are allowed to be conducted only in compliance with the Act, this chapter, and the regulatory program.

§ 780.4 Responsibilities.

[↑ top](#)

(a) It is the responsibility of the applicant to provide to the regulatory authority all of the information required by this part, except where specifically exempted in this part.

(b) It is the responsibility of State and Federal governmental agencies to provide information to the regulatory authority where specifically required in this part.

§ 780.10 Information collection.

[↑ top](#)

In accordance with 44 U.S.C. 3501 *et seq.*, the Office of Management and Budget (OMB) has approved the information collection requirements of this part and assigned clearance number 1029-0036. Sections 507 and 508 of SMCRA contain permit application requirements for surface coal mining activities, including a requirement that the application include an operation and reclamation plan. The regulatory authority uses this information to determine whether the proposed surface coal mining operation will achieve the environmental protection requirements of the Act and regulatory program. Without this information OSM and state regulatory authorities could not approve permit applications for surface coal mines and related facilities. Persons intending to conduct such operations must respond to obtain a benefit. A Federal agency may not conduct or sponsor, and you are not required to respond to, a collection of information unless it displays a currently valid OMB control number.

[73 FR 75875, Dec. 12, 2008]

§ 780.11 Operation plan: General requirements.

[↑ top](#)

Each application shall contain a description of the mining operations proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, the following:

(a) A narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used for all aspects of those operations; and

(b) A narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facilities is necessary for postmining land use as specified in §816.133):

- (1) Dams, embankments, and other impoundments;
- (2) Overburden and topsoil handling and storage areas and structures;
- (3) Coal removal, handling, storage, cleaning, and transportation areas and structures;

(4) Spoil, coal processing waste, and non-coal waste removal, handling, storage, transportation, and disposal areas and structures;

(5) Mine facilities; and

(6) Water and air pollution control facilities.

[44 FR 15357, Mar. 13, 1979, as amended at 45 FR 51550, Aug. 4, 1980]

§ 780.12 Operation plan: Existing structures.

[↑ top](#)

(a) Each application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the surface coal mining and reclamation operation. The description shall include—

(1) Location;

(2) Plans of the structure which describe its current condition;

(3) Approximate dates on which construction of the existing structure was begun and completed; and

(4) A showing, including relevant monitoring data or other evidence, whether the structure meets the performance standards of subchapter K (Permanent Program Standards) of this chapter or, if the structure does not meet the performance standards of subchapter K of this chapter, a showing whether the structure meets the performance standards of subchapter B (Interim Program Standards) of this chapter.

(b) Each application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation. The compliance plan shall include—

(1) Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of subchapter K of this chapter;

(2) A construction schedule which shows dates for beginning and completing interim steps and final reconstruction;

(3) Provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of subchapter K of this chapter are met; and

(4) A showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.

§ 780.13 Operation plan: Blasting.

[↑ top](#)

(a) *Blasting plan.* Each application shall contain a blasting plan for the proposed permit area, explaining how the applicant will comply with the requirements of §§816.61 through 816.68 of this chapter. This plan shall include, at a minimum, information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the bases for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations.

(b) *Monitoring system.* Each application shall contain a description of any system to be used to monitor compliance with the standards of §816.67 including the type, capability, and sensitivity of any blast-monitoring equipment and proposed procedures and locations of monitoring.

(c) *Blasting near underground mines.* Blasting operations within 500 feet of active underground mines require approval of the State and Federal regulatory authorities concerned with the health and safety of underground miners.

[48 FR 9806, Mar. 8, 1983]

§ 780.14 Operation plan: Maps and plans.

[↑ top](#)

Each application shall contain maps and plans as follows:

(a) The maps and plans shall show the lands proposed to be affected throughout the operation and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown under 30 CFR 779.24 through 779.25.

(b) The following shall be shown for the proposed permit area:

(1) Buildings, utility corridors and facilities to be used;

(2) The area of land to be affected within the proposed permit area, according to the sequence of mining and reclamation;

(3) Each area of land for which a performance bond or other equivalent guarantee will be posted under subchapter J of this chapter;

(4) Each coal storage, cleaning and loading area;

(5) Each topsoil, spoil, coal waste, and non-coal waste storage area;

(6) Each water diversion, collection, conveyance, treatment, storage, and discharge facility to be used;

(7) Each air pollution collection and control facility;

(8) Each source of waste and each waste disposal facility relating to coal processing or pollution control;

(9) Each facility to be used to protect and enhance fish and wildlife and related environmental values;

(10) Each explosive storage and handling facility; and

(11) Locations of each siltation structure, permanent water impoundment, refuse pile, and coal mine waste impoundment for which plans are required by §780.25 of this part, and the location of each fill for the disposal of excess spoil for which plans are required under §780.35 of this part.

(c) Except as provided in §§780.25(a)(2), 780.25(a)(3), 780.35, 816.73(c), 816.74(c), and 816.81(c) of this chapter, cross-sections, maps, and plans required under paragraphs (b)(4), (5), (6), (10), and (11) of this section must be prepared by, or under the direction of, and certified by a qualified registered professional engineer, a professional geologist, or, in any state that authorizes land surveyors to prepare and certify cross-sections, maps, and plans, a qualified, registered, professional land surveyor, with assistance from experts in related fields such as landscape architecture.

[44 FR 15357, Mar. 13, 1979; 44 FR 49685, Aug. 24, 1979, as amended at 45 FR 51550, Aug. 4, 1980; 48 FR 14822, Apr. 5, 1983; 50 FR 16199, Apr. 24, 1985; 56 FR 65635, Dec. 17, 1991; 73 FR 75875, Dec. 12, 2008]

§ 780.15 Air pollution control plan.

[↑ top](#)

(a) For all surface mining activities with projected production rates exceeding 1,000,000 tons of coal per year and located west of the 100th meridian west longitude, the application shall contain an air pollution control plan which includes the following:

(1) An air quality monitoring program to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices proposed under paragraph (a)(2) of this section to comply with Federal and State air quality standards; and

(2) A plan for fugitive dust control practices as required under 30 CFR 816.95.

(b) For all other surface mining activities the application shall contain an air pollution control plan which includes the following:

(1) An air quality monitoring program, if required by the regulatory authority, to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices under paragraph (b)(2) of this section to comply with applicable Federal and State air quality standards; and

(2) A plan for fugitive dust control practices, as required under 30 CFR 816.95.

§ 780.16 Fish and wildlife information.



(a) *Resource information.* Each application shall include fish and wildlife resource information for the permit area and adjacent area.

(1) The scope and level of detail for such information shall be determined by the regulatory authority in consultation with State and Federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under paragraph (b) of this section.

(2) Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include:

(i) Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the Secretary under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), or those species or habitats protected by similar State statutes;

(ii) Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or

(iii) Other species or habitats identified through agency consultation as requiring special protection under State or Federal law.

(b) *Protection and enhancement plan.* Each application shall include a description of how, to the extent possible using the best technology currently available, the operator will minimize disturbances and adverse impacts on fish and wildlife and related environmental values, including compliance with the Endangered Species Act, during the surface coal mining and reclamation operations and how enhancement of these resources will be achieved where practicable. This description shall—

(1) Be consistent with the requirements of §816.97 of this chapter;

(2) Apply, at a minimum, to species and habitats identified under paragraph (a) of this section; and

(3) Include—

(i) Protective measures that will be used during the active mining phase of operation. Such measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines, and the monitoring of surface water quality and quantity; and

(ii) Enhancement measures that will be used during the reclamation and postmining phase of operation to develop aquatic and terrestrial habitat. Such measures may include restoration of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and cover, and the replacement of perches and nest boxes. Where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.

(c) *Fish and Wildlife Service review.* Upon request, the regulatory authority shall provide the resource information required under paragraph (a) of this section and the protection and enhancement plan required under paragraph (b) of this section to the U.S. Department of the Interior, Fish and Wildlife Service Regional or Field Office for their review. This information shall be provided within 10 days of receipt of the request from the Service.

[52 FR 47359, Dec. 11, 1987]

§ 780.18 Reclamation plan: General requirements.



(a) Each application shall contain a plan for reclamation of the lands within the proposed permit area, showing how the applicant will comply with section 515 of the Act, subchapter K of this chapter, and the environmental protection performance standards of the regulatory program. The plan shall include, at a minimum, all information required under 30 CFR 780.18 through 780.37.

(b) Each plan shall contain the following information for the proposed permit area—

(1) A detailed timetable for the completion of each major step in the reclamation plan;

- (2) A detailed estimate of the cost of reclamation of the proposed operations required to be covered by a performance bond under subchapter J of this chapter, with supporting calculations for the estimates;
- (3) A plan for backfilling, soil stabilization, compacting, and grading, with contour maps or cross sections that show the anticipated final surface configuration of the proposed permit area, in accordance with 30 CFR 816.102 through 816.107;
- (4) A plan for removal, storage, and redistribution of topsoil, subsoil, and other material to meet the requirements of §816.22 of this chapter. A demonstration of the suitability of topsoil substitutes or supplements under §816.22(b) of this chapter shall be based upon analysis of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils. The regulatory authority may require other chemical and physical analyses, field-site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil substitutes or supplements.
- (5) A plan for revegetation as required in 30 CFR 816.111 through 816.116, including, but not limited to, descriptions of the—
- (i) Schedule of revegetation;
 - (ii) Species and amounts per acre of seeds and seedlings to be used;
 - (iii) Methods to be used in planting and seeding;
 - (iv) Mulching techniques;
 - (v) Irrigation, if appropriate, and pest and disease control measures, if any; and
 - (vi) Measures proposed to be used to determine the success of revegetation as required in 30 CFR 816.116.
- (vii) A soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation.
- (6) A description of the measures to be used to maximize the use and conservation of the coal resource as required in 30 CFR 816.59;
- (7) A description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with 30 CFR 816.89 and 816.102 and a description of the contingency plans which have been developed to preclude sustained combustion of such materials;
- (8) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, and to plug, case, or manage exploration holes, other bore holes, wells, and other openings within the proposed permit area, in accordance with 30 CFR 816.13 through 816.15; and
- (9) A description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. 7401 *et seq.*), the Clean Water Act (33 U.S.C. 1251 *et seq.*), and other applicable air and water quality laws and regulations and health and safety standards.

[44 FR 15357, Mar. 13, 1979, as amended at 48 FR 22100, May 16, 1983; 48 FR 44779, Sept. 30, 1983]

§ 780.21 Hydrologic information.

[↑ top](#)

(a) *Sampling and analysis methodology.* All water-quality analyses performed to meet the requirements of this section shall be conducted according to the methodology in the 15th edition of "Standard Methods for the Examination of Water and Wastewater," which is incorporated by reference, or the methodology in 40 CFR parts 136 and 434. Water quality sampling performed to meet the requirements of this section shall be conducted according to either methodology listed above when feasible. "Standard Methods for the Examination of Water and Wastewater," is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation and is available from the American Public Health Association, 1015 15th Street, NW., Washington, DC 20036. This document is also available for inspection at the Office of the OSM Administrative Record, U.S. Department of the Interior, Room 5315, 1100 L Street, NW., Washington, DC; at the OSM Eastern Technical Service Center, U.S. Department of the Interior, Building 10, Parkway Center, Pittsburgh, Pa.; at the OSM Western Technical Service Center, U.S. Department of the Interior, Brooks Tower, 1020 15th Street, Denver, Colo or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. This incorporation by reference was approved by the Director of the Federal Register on October 26, 1983. This document is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the Federal Register.

(b) *Baseline information.* The application shall include the following baseline hydrologic information, and any additional information required by the regulatory authority.

(1) *Ground-water information.* The location and ownership for the permit and adjacent areas of existing wells, springs, and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water quality descriptions shall include, at a minimum, total dissolved solids or specific conductance corrected to 25 °C, pH, total iron, and total manganese. Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam.

(2) *Surface-water information.* The name, location, ownership, and description of all surface-water bodies such as streams, lakes, and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Water quality descriptions shall include, at a minimum, baseline information on total suspended solids, total dissolved solids or specific conductance corrected to 25 °C, pH, total iron, and total manganese. Baseline acidity and alkalinity information shall be provided if there is a potential for acid drainage from the proposed mining operation. Water quantity descriptions shall include, at a minimum, baseline information on seasonal flow rates.

(3) *Supplemental information.* If the determination of the probable hydrologic consequences (PHC) required by paragraph (f) of this section indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then information supplemental to that required under paragraphs (b) (1) and (2) of this section shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analysis of other water quality or quantity characteristics.

(c) *Baseline cumulative impact area information.* (1) Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining on surface- and ground-water systems as required by paragraph (g) of this section shall be provided to the regulatory authority if available from appropriate Federal or State agencies.

(2) If the information is not available from such agencies, then the applicant may gather and submit this information to the regulatory authority as part of the permit application.

(3) The permit shall not be approved until the necessary hydrologic and geologic information is available to the regulatory authority.

(d) *Modeling.* The use of modeling techniques, interpolation or statistical techniques may be included as part of the permit application, but actual surface- and ground-water information may be required by the regulatory authority for each site even when such techniques are used.

(e) *Alternative water source information.* If the PHC determination required by paragraph (f) of this section indicates that the proposed mining operation may proximately result in contamination, diminution, or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose, then the application shall contain information on water availability and alternative water sources, including the suitability of alternative water sources for existing permining uses and approved postmining land uses.

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

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

(3) The PHC determination shall include findings on:

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

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

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

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

(A) Sediment yields from the disturbed area; (B) acidity, total suspended and dissolved solids, and other important water quality parameters of local impact; (C) flooding or streamflow alteration; (D) ground water and surface water availability; and (E) other characteristics as required by the regulatory authority.

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

(g) *Cumulative hydrologic impact assessment.* (1) The regulatory authority shall provide an assessment of the probable cumulative hydrologic impacts (CHIA) of the proposed operation and all anticipated mining upon surface- and ground-water systems in the cumulative impact area. The CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The regulatory authority may allow the applicant to submit data and analyses relevant to the CHIA with the permit application.

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

(h) *Hydrologic reclamation plan.* The application shall include a plan, with maps and descriptions, indicating how the relevant requirements of part 816, including §§816.41 to 816.43, will be met. The plan shall be specific to the local hydrologic conditions. It shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbances to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to meet applicable Federal and State water quality laws and regulations; and to protect the rights of present water users. The plan shall include the measures to be taken to: Avoid acid or toxic drainage; prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow; provide water-treatment facilities when needed; control drainage; restore approximate premining recharge capacity and protect or replace rights of present water users. The plan shall specifically address and potential adverse hydrologic consequences identified in the PHC determination prepared under paragraph (f) of this section and shall include preventive and remedial measures.

(i) *Ground-water monitoring plan.* (1) The application shall include a ground-water monitoring plan based upon the PHC determination required under paragraph (f) of this section and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in paragraph (h) of this section. It shall identify the quantity and quality parameters to be monitored, sampling frequency, and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25 °C, pH, total iron, total manganese, and water levels shall be monitored and data submitted to the regulatory authority at least every 3 months for each monitoring location. The regulatory authority may require additional monitoring.

(2) If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the regulatory authority.

(j) *Surface-water monitoring plan.* (1) The application shall include a surface-water monitoring plan based upon the PHC determination required under paragraph (f) of this section and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmined land uses and to the objectives for protection of the hydrologic balance as set forth in paragraph (h) of this section as well as the effluent limitations found at 40 CFR part 434.

(2) The plan shall identify the surface-water quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.

(i) At all monitoring locations in the surface-water bodies such as streams, lakes, and impoundments, that are potentially impacted or into which water will be discharged and at upstream monitoring locations the total dissolved solids or specific conductance corrected to 25 °C, total suspended solids, pH, total iron, total manganese, and flow shall be monitored.

(ii) For point-source discharges, monitoring shall be conducted in accordance with 40 CFR parts 122, 123 and 434 and as required by the National Pollutant Discharge Elimination System permitting authority.

(3) The monitoring reports shall be submitted to the regulatory authority every 3 months. The regulatory authority may require additional monitoring.

[48 FR 43985, Sept. 26, 1983, as amended at 53 FR 36400, Sept. 19, 1988]

§ 780.22 Geologic information.

[↑ top](#)

(a) *General.* Each application shall include geologic information in sufficient detail to assist in determining—

(1) The probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary;

(2) All potentially acid- or toxic-forming strata down to and including the stratum immediately below the lowest coal seam to be mined; and

(3) Whether reclamation as required by this chapter can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

(b) Geologic information shall include, at a minimum the following:

(1) A description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. The description shall include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground waters. It shall be based on—

(i) The cross sections, maps and plans required by §779.25 of this chapter;

(ii) The information obtained under paragraphs (b)(2) and (c) of this section; and

(iii) Geologic literature and practices.

(2) Analyses of samples collected from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops from the permit area, down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest seam to be mined which may be adversely impacted by mining. The analyses shall result in the following:

(i) Logs showing the lithologic characteristics including physical properties and thickness of each stratum and location of ground water where occurring;

(ii) Chemical analyses identifying those strata that may contain acid- or toxic-forming or alkalinity-producing materials and to determine their content except that the regulatory authority may find that the analysis for alkalinity-producing materials is unnecessary; and

(iii) Chemical analyses of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the regulatory authority may find that the analysis of pyritic sulfur content is unnecessary.

(c) If determined to be necessary to protect the hydrologic balance or to meet the performance standards of this chapter, the regulatory authority may require the collection, analysis, and description of geologic information in addition to that required by paragraph (b) of this section.

(d) An applicant may request the regulatory authority to waive in whole or in part the requirements of paragraph (b)(2) of this section. The waiver may be granted only if the regulatory authority finds in writing that the collection and analysis of such data is unnecessary because other equivalent information is available to the regulatory authority in a satisfactory form.

[48 FR 43987, Sept. 26, 1983]

§ 780.23 Reclamation plan: Land use information.

[↑ top](#)

(a) The plan shall contain a statement of the condition, capability, and productivity of the land within the proposed permit area, including:

(1) A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within 5 years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described. In the case of previously mined land, the use of the land prior to any mining shall also be described to the extent such information is available.

(2) A narrative of land capability and productivity, which analyzes the land-use description under paragraph (a) of this section in conjunction with other environmental resources information. The narrative shall provide analyses of:

(i) The capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover, and the hydrology of the proposed permit area; and

(ii) The productivity of the proposed permit area before mining, expressed as average yield of food, fiber, forage, or wood products from such lands obtained under high levels of management. The productivity shall be determined by yield data or estimates for similar sites based on

current data from the U.S. Department of Agriculture, State agricultural universities, or appropriate State natural resource or agricultural agencies.

(b) Each plan shall contain a detailed description of the proposed use, following reclamation, of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use of existing land use policies and plans. This description shall explain:

(1) How the proposed post mining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use; and

(2) Where a land use different from the premining land use is proposed, all materials needed for approval of the alternative use under 30 CFR 816.133.

(3) The consideration which has been given to making all of the proposed surface mining activities consistent with surface owner plans and applicable State and local land use plans and programs.

(c) The description shall be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and the State and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

[59 FR 27937, May 27, 1994]

§ 780.25 Reclamation plan: Siltation structures, impoundments, and refuse piles.

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(a) *General.* Each application must include a general plan and a detailed design plan for each proposed siltation structure, impoundment, and refuse pile within the proposed permit area.

(1) Each general plan must—(i) Be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, a professional geologist, or in any State which authorizes land surveyors to prepare and certify such plans, a qualified, registered, professional, land surveyor, with assistance from experts in related fields such as landscape architecture;

(ii) Contain a description, map, and cross section of the structure and its location;

(iii) Contain preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure;

(iv) Contain a survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations if underground mining has occurred; and

(v) Contain a certification statement which includes a schedule setting forth the dates that any detailed design plans for structures that are not submitted with the general plan will be submitted to the regulatory authority. The regulatory authority shall have approved, in writing, the detailed design plan for a structure before construction of the structure begins.

(2)(i) Impoundments meeting the criteria for Significant Hazard Class or High Hazard Class (formerly Class B or C) dams in "Earth Dams and Reservoirs," Technical Release No. 60 (210-VI-TR60, July 2005), published by the U.S. Department of Agriculture, Natural Resources Conservation Service, must comply with the requirements of this section for structures that meet the criteria in §77.216(a) of this title. Technical Release No. 60 (TR-60) is hereby incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may review and download the incorporated document from the Natural Resources Conservation Service's Web site at http://www.info.usda.gov/scripts/lpsis.dll/TR/TR_210_60.htm . You may inspect and obtain a copy of this document which is on file at the Administrative Record Room, Office of Surface Mining Reclamation and Enforcement, 1951 Constitution Avenue, NW., Washington, DC 20240. For information on the availability of this document at OSM, call 202-208-2823. You also may inspect a copy of this document at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html .

(ii) Each detailed design plan for a structure that meets the criteria in §77.216(a) of this title must—

(A) Be prepared by, or under the direction of, and certified by a qualified registered professional engineer with assistance from experts in related fields such as geology, land surveying, and landscape architecture;

(B) Include any geotechnical investigation, design, and construction requirements for the structure;

(C) Describe the operation and maintenance requirements for each structure; and

(D) Describe the timetable and plans to remove each structure, if appropriate.

(b) *Siltation structures.* Siltation structures shall be designed in compliance with the requirements of §816.46 of this chapter.

(c) *Permanent and temporary impoundments.* (1) Permanent and temporary impoundments shall be designed to comply with the requirements of §816.49 of this chapter.

(2) Each plan for an impoundment meeting the criteria in §77.216(a) of this title must comply with the requirements of §77.216–2 of this title. The plan required to be submitted to the District Manager of MSHA under §77.216 of this title must be submitted to the regulatory authority as part of the permit application.

(3) For impoundments not included in paragraph (a)(2) of this section, the regulatory authority may establish through the State program approval process, engineering design standards that ensure stability comparable to a 1.3 minimum static safety factor in lieu of engineering tests to establish compliance with the minimum static safety factor of 1.3 specified in §816.49(a)(4)(ii) of this chapter.

(4) If the structure meets the Significant Hazard Class or High Hazard Class criteria for dams in TR–60 or meets the criteria of §77.216(a) of this chapter, each plan must include a stability analysis of the structure. The stability analysis must include, but not be limited to, strength parameters, pore pressures, and long-term seepage conditions. The plan also must contain a description of each engineering design assumption and calculation with a discussion of each alternative considered in selecting the specific design parameters and construction methods.

(d) *Coal mine waste impoundments and refuse piles.* If you, the permit applicant, propose to place coal mine waste in a refuse pile or impoundment, or if you plan to use coal mine waste to construct an impounding structure, you must comply with the applicable requirements in paragraphs (d)(1) through (d)(3) of this section.

(1) *Addressing impacts to perennial and intermittent streams and related environmental values.* You must design the operation to avoid placement of coal mine waste in or within 100 feet of a perennial or intermittent stream to the extent possible. If avoidance is not possible, you must—

(i) Explain, to the satisfaction of the regulatory authority, why an alternative coal mine waste disposal method or an alternative location or configuration that does not involve placement of coal mine waste in or within 100 feet of a perennial or intermittent stream is not reasonably possible.

(ii) Identify a reasonable range of alternative locations or configurations for any proposed refuse piles or coal mine waste impoundments. This provision does not require identification of all potential alternatives. You need identify only those reasonably possible alternatives that are likely to differ significantly in terms of impacts on fish, wildlife, and related environmental values. An alternative is reasonably possible if it meets all the following criteria:

(A) The alternative conforms to the safety, engineering, design, and construction requirements of the regulatory program.

(B) The alternative is capable of being done after consideration of cost, logistics, and available technology. The fact that one alternative may cost somewhat more than a different alternative does not necessarily warrant exclusion of the more costly alternative from consideration. However, an alternative generally may be considered unreasonable if its cost is substantially greater than the costs normally associated with this type of project.

(C) The alternative is consistent with the coal recovery provisions of §816.59 of this chapter.

(iii) Analyze the impacts of the alternatives identified in paragraph (d)(1)(ii) of this section on fish, wildlife, and related environmental values. The analysis must consider impacts on both aquatic and terrestrial ecosystems.

(A) For every alternative that proposes placement of coal mine waste in a perennial or intermittent stream, the analysis required under paragraph (d)(1)(iii) of this section must include an evaluation of impacts on the physical, chemical, and biological characteristics of the stream downstream of the proposed refuse pile or coal mine waste impoundment, including seasonal variations in temperature and volume, changes in stream turbidity or sedimentation, the degree to which the coal mine waste may introduce or increase contaminants, and the effects on aquatic organisms and the wildlife that is dependent upon the stream.

(B) If you have prepared an analysis of alternatives for the proposed impoundment or refuse pile under 40 CFR 230.10 to meet Clean Water Act requirements, you may initially submit a copy of that analysis in lieu of the analysis required under paragraph (d)(1)(iii)(A) of this section. The regulatory authority will determine the extent to which that analysis satisfies the requirements of paragraph (d)(1)(iii)(A) of this section.

(iv) Select the alternative with the least overall adverse impact on fish, wildlife, and related environmental values, including adverse impacts on water quality and aquatic and terrestrial ecosystems.

(2) *Design requirements for refuse piles.* Refuse piles must be designed to comply with the requirements of §§816.81 and 816.83 of this chapter.

(3) *Design requirements for impoundments and impounding structures.* Impounding structures constructed of or intended to impound coal mine waste must be designed to comply with the requirements of §§816.81 and 816.84 of this chapter, which incorporate the requirements of paragraphs (a) and (c) of §816.49 of this chapter. In addition,—

(i) The plan for each structure that meets the criteria of §77.216(a) of this title must comply with the requirements of §77.216–2 of this title; and

(ii) Each plan for a coal mine waste impoundment must contain the results of a geotechnical investigation to determine the structural competence of the foundation that will support the proposed impounding structure and the impounded material. An engineer or engineering geologist must plan and supervise the geotechnical investigation. In planning the investigation, the engineer or geologist must—

(A) Determine the number, location, and depth of borings and test pits using current prudent engineering practice for the size of the impoundment and the impounding structure, the quantity of material to be impounded, and subsurface conditions.

(B) Consider the character of the overburden and bedrock, the proposed abutment sites for the impounding structure, and any adverse geotechnical conditions that may affect the particular impoundment.

(C) Identify all springs, seepage, and groundwater flow observed or anticipated during wet periods in the area of the proposed impoundment.

(D) Consider the possibility of mudflows, rock-debris falls, or other landslides into the impoundment or impounded material.

[44 FR 15357, Mar. 13, 1979, as amended at 48 FR 44780, Sept. 30, 1983; 50 FR 16199, Apr. 24, 1985; 53 FR 43605, Oct. 27, 1988; 59 FR 53028, Oct. 20, 1994; 73 FR 75876, Dec. 12, 2008]

§ 780.27 Reclamation plan: Surface mining near underground mining.

[↑ top](#)

For surface mining activities within the proposed permit area to be conducted within 500 feet of an underground mine, the application shall describe the measures to be used to comply with 30 CFR 816.79.

§ 780.28 Activities in or adjacent to perennial or intermittent streams.

[↑ top](#)

(a) *Applicability.* (1) *In general.* Except as otherwise provided in paragraph (a)(2) of this section, this section applies to applications to conduct surface mining activities in perennial or intermittent streams or on the surface of lands within 100 feet, measured horizontally, of perennial or intermittent streams.

(2) *Exceptions.* (i) *Coal preparation plants not located within the permit area of a mine.* This section does not apply to applications under §785.21 of this chapter for coal preparation plants that are not located within the permit area of a mine.

(ii) *Stream-channel diversions.* Paragraphs (b) through (e) of this section do not apply to diversions of perennial or intermittent streams, which are governed by §780.29 of this part and §816.43 of this chapter.

(b) *Application requirements for surface mining activities in a perennial or intermittent stream.* If you propose to conduct one or more of the activities listed in paragraphs (b)(2) through (b)(4) of §816.57 of this chapter in a perennial or intermittent stream, your application must demonstrate that—

(1) Avoiding disturbance of the stream is not reasonably possible; and

(2) The proposed activities will comply with all applicable requirements in paragraphs (b) and (c) of §816.57 of this chapter.

(c) *Application requirements for surface mining activities within 100 feet of a perennial or intermittent stream.* If you propose to conduct surface mining activities within 100 feet of a perennial or intermittent stream, but not in the stream itself, and those activities would occur on land subject to the buffer requirement of §816.57(a)(1) of this chapter, your application must—

(1) Demonstrate that avoiding disturbance of land within 100 feet of the stream either is not reasonably possible or is not necessary to meet the fish and wildlife and hydrologic balance protection requirements of the regulatory program;

(2) Identify any lesser buffer that you propose to implement instead of maintaining a 100-foot undisturbed buffer between surface mining activities and the perennial or intermittent stream; and

(3) Explain how the lesser buffer, together with any other protective measures that you propose to implement, constitute the best technology currently available to—

(i) Prevent the contribution of additional suspended solids to streamflow or runoff outside the permit area to the extent possible, as required by §§780.21(h) and 816.41(d)(1) of this chapter; and

(ii) Minimize disturbances and adverse impacts on fish, wildlife, and related environmental values to the extent possible, as required by §§780.16(b) and 816.97(a) of this chapter.

(d) *Approval requirements for activities in a perennial or intermittent stream.* Before approving any surface mining activities in a perennial or intermittent stream, the regulatory authority must—

(1) Find in writing that—

(i) Avoiding disturbance of the stream is not reasonably possible; and

(ii) The plans submitted with the application meet all applicable requirements in paragraphs (b) and (c) of §816.57 of this chapter.

(2) Include a permit condition requiring a demonstration of compliance with the Clean Water Act in the manner specified in §816.57(a)(2) of this chapter before the permittee may conduct any activities in a perennial or intermittent stream that require authorization or certification under the Clean Water Act.

(e) *Approval requirements for activities within 100 feet of a perennial or intermittent stream.* Before approving any surface mining activities that would disturb the surface of land subject to the buffer requirement of §816.57(a)(1) of this chapter, the regulatory authority must find in writing that—

(1) Avoiding disturbance of the surface of land within 100 feet of the stream either is not reasonably possible or is not necessary to meet the fish and wildlife and hydrologic balance protection requirements of the regulatory program; and

(2) The measures proposed under paragraphs (c)(2) and (c)(3) of this section constitute the best technology currently available to—

(i) Prevent the contribution of additional suspended solids to streamflow or runoff outside the permit area to the extent possible, as required by §§780.21(h) and 816.41(d)(1) of this chapter; and

(ii) Minimize disturbances and adverse impacts on fish, wildlife, and related environmental values to the extent possible, as required by §§780.16(b) and 816.97(a) of this chapter.

(f) *Relationship to the Clean Water Act.* (1) In all cases, your application must identify the authorizations and certifications that you anticipate will be needed under sections 401, 402, and 404 of the Clean Water Act, 33 U.S.C. 1341, 1342, and 1344, and describe the steps that you have taken or will take to procure those authorizations and certifications.

(2) The regulatory authority will process your application and may issue the permit before you obtain all necessary authorizations and certifications under the Clean Water Act, 33 U.S.C. 1251 et seq., provided your application meets all applicable requirements of subchapter G of this chapter. However, issuance of a permit does not authorize you to initiate any activities for which Clean Water Act authorization or certification is required. Information submitted and analyses conducted under subchapter G of this chapter may inform the agency responsible for authorizations and certifications under sections 401, 402, and 404 of the Clean Water Act, 33 U.S.C. 1341, 1342, and 1344, but they are not a substitute for the reviews, authorizations, and certifications required under those sections of the Clean Water Act.

[73 FR 75877, Dec 12, 2008]

§ 780.29 Diversions.

 [top](#)

Each application shall contain descriptions, including maps and cross sections, of stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with 30 CFR 816.43 of this chapter.

[44 FR 15357, Mar. 13, 1979, as amended at 48 FR 43987, Sept. 26, 1983]

§ 780.31 Protection of publicly owned parks and historic places.

[↑ top](#)

(a) For any publicly owned parks or any places listed on the National Register of Historic Places that may be adversely affected by the proposed operation, each plan shall describe the measures to be used—

(1) To prevent adverse impacts, or

(2) If a person has valid existing rights, as determined under §761.16 of this chapter, or if joint agency approval is to be obtained under §761.17(d) of this chapter, to minimize adverse impacts.

(b) The regulatory authority may require the applicant to protect historic or archeological properties listed on or eligible for listing on the National Register of Historic Places through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance provided that the required measures are completed before the properties are affected by any mining operation.

[52 FR 4262, Feb. 10, 1987; 64 FR 70838, Dec. 17, 1999]

§ 780.33 Relocation or use of public roads.

[↑ top](#)

Each application shall describe, with appropriate maps and cross-sections, the measures to be used to ensure that the interests of the public and landowners affected are protected if, under §761.14 of this chapter, the applicant seeks to have the regulatory authority approve—

(a) Conducting the proposed surface mining activities within 100 feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way; or

(b) Relocating a public road.

[44 FR 15357, Mar. 13, 1979, as amended at 64 FR 70838, Dec. 17, 1999]

§ 780.35 Disposal of excess spoil.

[↑ top](#)

(a) If you, the permit applicant, propose to generate excess spoil as part of your operation, you must include the following items in your application—

(1) *Demonstration of minimization of excess spoil.* A demonstration, prepared to the satisfaction of the regulatory authority, that the operation has been designed to minimize, to the extent possible, the volume of excess spoil that the operation will generate, thus ensuring that spoil is returned to the mined-out area to the extent possible, taking into consideration applicable regulations concerning restoration of the approximate original contour, safety, stability, and environmental protection and the needs of the proposed postmining land use.

(2) *Capacity demonstration.* A demonstration, prepared to the satisfaction of the regulatory authority, that the designed maximum cumulative volume of all proposed excess spoil fills within the permit area is no larger than the capacity needed to accommodate the anticipated cumulative volume of excess spoil that the operation will generate, as approved by the regulatory authority under paragraph (a)(1) of this section.

(3) *Discussion of how you will address impacts to perennial and intermittent streams and related environmental values.* You must design the operation to avoid placement of excess spoil in or within 100 feet of a perennial or intermittent stream to the extent possible. If avoidance is not possible, you must—

(i) Explain, to the satisfaction of the regulatory authority, why an alternative that does not involve placement of excess spoil in or within 100 feet of a perennial or intermittent stream is not reasonably possible.

(ii) Identify a reasonable range of alternatives that vary with respect to the number, size, location, and configuration of proposed fills. This provision does not require identification of all potential alternatives. You need identify only those reasonably possible alternatives that are likely to differ significantly in terms of impacts on fish, wildlife, and related environmental values. An alternative is reasonably possible if it meets all the following criteria:

(A) The alternative conforms to the safety, engineering, design, and construction requirements of the regulatory program;

(B) The alternative is capable of being done after consideration of cost, logistics, and available technology. The fact that one alternative may cost somewhat more than a different alternative does not necessarily warrant exclusion of the more costly alternative from consideration. However, an alternative generally may be considered unreasonable if its cost is substantially greater than the costs normally associated with this type of project.

(C) The alternative is consistent with the coal recovery provisions of §816.59 of this chapter.

(iii) Analyze the impacts of the alternatives identified in paragraph (a)(3)(ii) of this section on fish, wildlife, and related environmental values. The analysis must consider impacts on both terrestrial and aquatic ecosystems.

(A) For every alternative that proposes placement of excess spoil in a perennial or intermittent stream, the analysis must include an evaluation of impacts on the physical, chemical, and biological characteristics of the stream downstream of the proposed fill, including seasonal variations in temperature and volume, changes in stream turbidity or sedimentation, the degree to which the excess spoil may introduce or increase contaminants, and the effects on aquatic organisms and the wildlife that is dependent upon the stream.

(B) If you have prepared an analysis of alternatives for the proposed fill under 40 CFR 230.10 to meet Clean Water Act requirements, you may initially submit a copy of that analysis with your application in lieu of the analysis required by paragraph (a)(3)(iii)(A) of this section. The regulatory authority will determine the extent to which that analysis satisfies the analytical requirements of paragraph (a)(3)(iii)(A) of this section.

(iv) Select the alternative with the least overall adverse impact on fish, wildlife, and related environmental values, including adverse impacts on water quality and aquatic and terrestrial ecosystems.

(4) *Location.* Maps and cross-section drawings showing the location of all proposed disposal sites and structures. You must locate fills on the most moderately sloping and naturally stable areas available, unless the regulatory authority approves a different location based upon the alternatives analysis under paragraph (a)(3) of this section or on other requirements of the Act and this chapter. Whenever possible, you must place fills upon or above a natural terrace, bench, or berm if that location would provide additional stability and prevent mass movement.

(5) *Design plans.* Detailed design plans for each structure, prepared in accordance with the requirements of this section and §§816.71 through 816.74 of this chapter. You must design the fill and appurtenant structures using current prudent engineering practices and any additional design criteria established by the regulatory authority.

(6) *Geotechnical investigation.* The results of a geotechnical investigation of each proposed disposal site, with the exception of those sites at which spoil will be placed only on a pre-existing bench under §816.74 of this chapter. You must conduct sufficient foundation investigations, as well as any necessary laboratory testing of foundation material, to determine the design requirements for foundation stability for each site. The analyses of foundation conditions must take into consideration the effect of underground mine workings, if any, upon the stability of the fill and appurtenant structures. The information submitted must include—

(i) The character of the bedrock and any adverse geologic conditions in the proposed disposal area.

(ii) A survey identifying all springs, seepage, and groundwater flow observed or anticipated during wet periods in the area of the proposed disposal site.

(iii) A survey of the potential effects of subsidence of subsurface strata as a result of past and future mining operations.

(iv) A technical description of the rock materials to be utilized in the construction of disposal structures containing rock chimney cores or underlain by a rock drainage blanket.

(v) A stability analysis including, but not limited to, strength parameters, pore pressures, and long-term seepage conditions. This analysis must be accompanied by a description of all engineering design assumptions and calculations and the alternatives considered in selecting the design specifications and methods.

(7) *Operation and reclamation plans.* Plans for the construction, operation, maintenance, and reclamation of all excess spoil disposal structures in accordance with the requirements of §§816.71 through 816.74 of this chapter.

(8) *Additional requirements for keyway cuts or rock-toe buttresses.* If keyway cuts or rock-toe buttresses are required under §816.71(d) of this chapter, the number, location, and depth of borings or test pits, which must be determined according to the size of the spoil disposal structure and subsurface conditions. You also must provide the engineering specifications used to design the keyway cuts or rock-toe buttresses. Those specifications must be based upon the stability analysis required under paragraph (a)(7)(v) of this section.

(b) *Design certification.* A qualified registered professional engineer experienced in the design of earth and rock fills must certify that the design of all fills and appurtenant structures meets the requirements of this section.

[73 FR 75878, Dec. 12, 2008]

§ 780.37 Road systems.

[↑ top](#)

(a) *Plans and drawings.* Each applicant for a surface coal mining and reclamation permit shall submit plans and drawings for each road, as defined in §701.5 of this chapter, to be constructed, used, or maintained within the proposed permit area. The plans and drawings shall—

(1) Include a map, appropriate cross sections, design drawings and specifications for road widths, gradients, surfacing materials, cuts, fill embankments, culverts, bridges, drainage ditches, low-water crossings, and drainage structures;

(2) Contain the drawings and specifications of each proposed road that is located in the channel of an intermittent or perennial stream, as necessary for approval of the road by the regulatory authority in accordance with §816.150(d)(1) of this chapter;

(3) Contain the drawings and specifications for each proposed ford of perennial or intermittent streams that is used as a temporary route, as necessary for approval of the ford by the regulatory authority in accordance with §816.151(c)(2) of this chapter;

(4) Contain a description of measures to be taken to obtain approval of the regulatory authority for alteration or relocation of a natural stream channel under §816.151(d)(5) of this chapter;

(5) Contain the drawings and specifications for each low-water crossing of perennial or intermittent stream channels so that the regulatory authority can maximize the protection of the stream in accordance with §816.151(d)(6) of this chapter; and

(6) Describe the plans to remove and reclaim each road that would not be retained under an approved postmining land use, and the schedule for this removal and reclamation.

(b) *Primary road certification.* The plans and drawings for each primary road shall be prepared by, or under the direction of, and certified by a qualified registered professional engineer, or in any State which authorizes land surveyors to certify the design of primary roads a qualified registered professional land surveyor, with experience in the design and construction of roads, as meeting the requirements of this chapter; current, prudent engineering practices; and any design criteria established by the regulatory authority.

(c) *Standard design plans.* The regulatory authority may establish engineering design standards for primary roads through the State program approval process, in lieu of engineering tests, to establish compliance with the minimum static safety factor of 1.3 for all embankments specified in §816.151(b) of this chapter.

[53 FR 45211, Nov. 8, 1988]

§ 780.38 Support facilities.

[↑ top](#)

Each applicant for a surface coal mining and reclamation permit shall submit a description, plans, and drawings for each support facility to be constructed, used, or maintained within the proposed permit area. The plans and drawings shall include a map, appropriate cross sections, design drawings, and specifications sufficient to demonstrate compliance with §816.181 of this chapter for each facility.

[53 FR 45211, Nov. 8, 1988]

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