lands 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 783.24 and 783.25.

(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 preparation waste, underground development waste, and non-coal waste storage area;

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

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

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

(9) Each explosive storage and handling facility;

(10) Locations of each siltation structure, permanent water impoundment, refuse pile, and coal mine waste impoundment for which plans are required by §784.16 of this part, and the location of each fill for the disposal of excess spoil for which plans are required under §784.19 of this part;

(11) Each profile, at cross-sections specified by the regulatory authority, of the anticipated final surface configuration to be achieved for the affected areas;

(12) Location of each water and subsidence monitoring point;

(13) Location of each facility that will remain on the proposed permit area as a permanent feature, after the completion of underground mining activities.

(c) Except as provided in §§781.16(a)(2), 781.16(a)(3), 784.16, 817.73(c), 817.74(c) and 817.81(c) of this chapter, cross sections, maps and plans required under paragraphs (b)(4), (5), (6), (10) and (11) of this section shall 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 cross sections, maps and plans, a qualified, registered, professional, land surveyor, with assistance from experts in related fields such as landscape architecture.

§ 784.24 Road systems.

(a) Plans and drawings. Each applicant for an underground 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 §817.150(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 §817.151(d)(5) 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 §817.151(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 §817.151(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, experienced 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 §817.151(b) of this chapter.

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§ 784.25 Return of coal processing waste to abandoned underground workings.

(a) Each plan shall describe the design, operation and maintenance of any proposed coal processing waste disposal facility, including flow diagrams and any other necessary drawings and maps, for the approval of the regulatory authority and the Mine Safety and Health Administration under 30 CFR 817.81(f).

(b) Each plan shall describe the source and quality of waste to be stowed, area to be backfilled, percent of the mine void to be filled, method of constructing underground retaining walls, influence of the backfilling operation on active underground mine operations, surface area to be supported by the backfill, and the anticipated occurrence of surface effects following backfilling.

(c) The applicant shall describe the source of the hydraulic transport medium, method of dewatering the placed backfill, treatment of water underground, treatment of water if released to surface streams, and the effect on the hydrologic regime.

(d) The plan shall describe each permanent monitoring well to be located in the backfilled area, the stratum underlying the mined coal, and gradient from the backfilled area.

(e) The requirements of paragraphs (a), (b), (c), and (d) of this section shall also apply to pneumatic backfilling operations, except where the operations are exempted by the regulatory authority from requirements specifying hydrologic monitoring.


§ 784.26 Air pollution control plan.

For all surface operations associated with underground mining activities, the application shall contain an air pollution control plan which includes the following:

(a) 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) of this section to comply with applicable Federal and State air quality standards; and

(b) A plan for fugitive dust control practices, as required under 30 CFR 817.95.

§ 784.28 Surface activities in or adjacent to perennial or intermittent streams.

(a) Applicability. (1) In general. Except as otherwise provided in paragraph (a)(2) of this section, this section applies to underground mining permit applications that propose to conduct surface 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