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DEPARTMENT OF THE INTERIOR

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

30 CFR Parts 701, 780, 784, 815, 816, and 817

Surface Coal Mining and Reclamation Operations; Permanent Regulatory Program;
Reclamation and Operation Plan; Performance Standards; Roads

ACTION: Final rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSMRE) of the Department of the Interior (DOI) is amending its rules governing roads at surface and underground mining operations and coal exploration operations. The provisions for roads are to replace rules that previously were suspended. These rules define a road, establish a road classification system, and set forth performance standards that allow regulatory authorities to approve designs tailored to local needs. Also, revised information requirements for the reclamation and operations plan reflect changes in the performance standards for roads.

EFFECTIVE DATE: December 8, 1988.

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SUPPLEMENTARY INFORMATION:

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

I. BACKGROUND

Section 701(28)(B) of the Surface Mining Control and Reclamation Act (the Act), *30 U.S.C. 1201* et seq., defines "surface coal mining operations" to include roads constructed, improved or used for access to the mine site and for haulage. The Act also establishes specific environmental protection performance standards governing roads used for access into and across the mine site during surface coal mining and reclamation operations in section 515(b) (17) and (18). Section 515(b)(17) provides that all surface coal mining and reclamation operations shall "insure that the construction, maintenance, and postmining conditions of access roads into and across the site of operations will control or prevent erosion and siltation, pollution of water, damage to fish or wildlife or their habitat, or public or private property." Section 515(b)(18) provides that all operations shall "refrain from the construction of roads or other access ways up a stream bed or drainage channel or in such proximity to such channel so as to seriously alter the normal flow of water." Section 516(b)(10) of the Act imposes these same requirements on roads associated with underground mines with such modifications as are necessary to accommodate the distinct differences between surface and underground mining.

The permanent regulatory program promulgated on March 13, 1979, contained expansive and detailed provisions pertaining to road construction, maintenance and postmining conditions. The rule at 30 CFR 701.5 defined roads for surface mining operations and established a three-tiered road classification system (*44 FR 15320*, March 13, 1979). Specific provisions for each classification were established at 30 CFR 816.150-176 (*44 FR 15416-15421*). At the same time, similar requirements for underground mines were established at 30 CFR 817.150-817.176 (*44 FR 15442-15447*).

The permanent program rules were challenged in a suit filed with the U.S. District Court for the District of Columbia. The court remanded the rules for further consideration because the Secretary had not given adequate notice that he was considering a classification system, *In Re: Permanent Surface Mining Regulation Litigation*, No. 79-1144, slip op. at 32-36 (D.D.C. May 16, 1980). As a result of the court decision, OSMRE suspended its permanent program rules for roads (*45 FR 51547*, August 4, 1980).

New rules substantially different from the remanded and suspended 1979 rules were proposed on January 4, 1982 (*47 FR 56*) and April 16, 1982 (*47 FR 16592*) and were finalized in a rule published May 16, 1983 (*48 FR 22110*). The 1983 rules, although constituting an extensive expansion of the statutory performance standards, gave regulatory authorities greater flexibility as to the details of road design than did the remanded and suspended 1979 rules. Upon issuance, the 1983 rules were challenged in the U.S. District Court for the District of Columbia. In response to the challenge, the court remanded Section 816.150(a) (In Re: Permanent Surface Mining Regulation Litigation II, No. 79-1144, slip op. at 24-28 (D.D.C. Oct. 1, 1984), hereafter Round II). The court held that OSMRE, in promulgating the classification system in 30 CFR 816.150(a), violated the Administrative Procedure Act (APA), *5 U.S.C. 553*, by again not providing adequate notice and opportunity to comment (Slip op. at 28).

Subsequently, in an amended order filed December 10, 1984, the court remanded all of the rules governing roads which were dependent upon the road classification system. OSMRE then suspended those rules as well as the definition of road at Section 701.5 (*50 FR 7278*, February 21, 1985). The definition was suspended to give OSMRE an opportunity to reconsider all the provisions in the rules affecting the performance standards for roads.

OSMRE proposed new road rules on November 3, 1987 (*52 FR 42258*) that were quite similar to the remanded and suspended 1983 rules. Public hearings were scheduled for January 5, 1988, in Washington, DC; Denver, CO; and Knoxville, TN. Since no one requested to testify at these hearings, none were held. The comment period closed on January 12, 1988. OSMRE received 152 individual comments from 23 sources: Ten industry associations, eight State regulatory authorities, two public interest groups, and three Federal agencies. OSMRE also received comments from the Environmental Protection Agency (EPA) after the comment period had closed.

The rules adopted today replace the rules suspended in 1985 (*50 FR 7278*, February 21, 1985). The minor changes from the proposed rule are identified in the following discussion of the final rule. OSMRE believes, based on analysis of the issues involved, the legislative history of the Act, and the administrative record of this rulemaking, including comments received, that this final rule is a reasonable interpretation and expansion of the provisions of sections 515(b) (17) and (18) of the Act.

OSMRE has not identified any differences between roads for surface and underground mines that would appear to necessitate different regulatory provisions under this rulemaking. Therefore, the final permitting rule applicable to roads for surface mining activities at 30 CFR 780.37 and the final rule for underground mining activities at 30 CFR 784.24 are identical. Similarly, the final performance standards for surface mining activities at 30 CFR 816.150 and 816.151 are identical to the performance standards for underground mining activities at 30 CFR 817.150 and 817.151 respectively. The final permitting rule applicable to support facilities for surface mining activities at 30 CFR 780.38 and the final rule applicable to such facilities for underground mining activities at Section 784.30 are also identical. The discussion of the revisions to 30 CFR 780.37, 780.38, 816.150, and 816.151 should be understood to apply also to the revisions to 30 CFR 784.24, 784.30, 817.150, and 817.151, respectively.

II. DISCUSSION OF FINAL RULE AND COMMENTS

This portion of the preamble consists of a description of the rules adopted, changes to the proposal, comments received, and OSMRE's response to comments.

A. GENERAL COMMENTS

In addition to receiving comments on specific provisions of the November 3, 1987, proposed rules, OSMRE received several general comments. Two commenters requested time extensions of 30 days to allow adequate time to evaluate the proposed regulations. OSMRE did not accede to the time extension requests; however, OSMRE did give full consideration to all comments received on the proposed rule regardless of whether the comments were timely or late. The proposed rule allowed seventy days for the submission of written comments. OSMRE believes that this amount of time strikes a balance between the needs of reviewers and the agency's responsibility to implement the Act expeditiously through regulations.

One commenter stated that the proposed regulations do not provide consistent guidance to regulatory authorities, or establish minimum national standards for construction, maintenance, or reclamation of roads. The commenter suggested that the proposed regulations be withdrawn, and noted that OSMRE has a mandatory obligation to include standards in

the regulations, and that failure to provide these standards is a violation of the Act. The commenter stated that Congress enacted sections 515(b) (10), (17), and (18) with the intent to set "appropriate limits" for road construction, maintenance, and reclamation. The commenter also stated that the 1979 regulations implemented this congressional intent to provide minimum standards, but that adequate specific requirements no longer exist in the proposed regulations. The commenter argued further that, under these regulations, Federal and State agencies, particularly States whose regulations can be "no more stringent than" the Federal program will be unable to set meaningful standards. The commenter also suggested that the proposed regulations be withdrawn pending the outcome of current litigation in the U.S. Court of Appeals for the District of Columbia Circuit where the issue of requiring minimum national standards was under consideration.

OSMRE disagrees. Sections 515(b)(17) and (18) of the Act establish statutory performance standards for roads. In its January 29, 1988, opinion, the Courts of Appeals for the District of Columbia Circuit concurred with the Secretary of the Interior that the Act does not automatically and inevitably require him to "flesh out" statutory performance standards except in limited cases for which such a requirement is clearly established, such as sections 515(b)(13), 516(b)(5) and 517(a) of the Act (*NWF v. Hodel*, 839 F.2nd 694, 734 (DC Cir., 1988), hereafter *NWF v. Hodel*). The court went on to say, "The Secretary is to exercise his informed discretion in deciding what other statutory performance standards bear elucidation or elaboration. In short, we read the Act * * * to afford the Secretary discretion, absent an express statutory instruction to regulate, to decide whether fleshing out is appropriate in light of other concerns. Chief among these concerns is a need to accommodate widely varying local conditions that will not admit of a single nationwide rule." (*id.* p. 735) Additional material in support of the legal sufficiency of the regulatory approach taken in these rules appears in the Secretary's March 5, 1984 district court brief filed in Round II at p. 160-166.

This discussion concerned the Secretary's elimination in 1983 of minimum national environmental standards contained in the 1979 regulations involving: (1) The contemporaneous reclamation of mined lands, (2) the design of earth "terraces" on restored land, and (3) the exemption from the "approximate original contour" requirement of lands featuring unusually thick or thin overburden. The court went on to say, "Under [*Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)] the agency must examine the relevant data and articulate a satisfactory explanation for the revised regulation if it is to gain judicial approbation" (*id.*). The Secretary, therefore, is required to articulate a satisfactory explanation for the final rule and to discuss the specific comments received on the proposed rule. However, the Secretary is not required to justify changes from either the 1979 rule or the 1983 rule since both were invalidated upon appeal.

OSMRE believes this rulemaking is consistent with the above decision of the Court of Appeals for the District of Columbia Circuit and that more specific minimum national standards for construction, maintenance, or reclamation of roads are not necessary. The rules adopted today constitute a considerable expansion and fleshing out of the statutory requirements of section 515(b)(17) and (18) of the Act. However, in accordance with section 101(f) of the Act, the rules take into account regional, physical, biological and climatic diversity among the States by providing State regulatory authorities with the flexibility to incorporate regional and local considerations into their programs.

One commenter noted that the construction of roads and support facilities associated with coal mining and exploration could have serious adverse effects on historic properties. The commenter indicated that, under these rules, regulatory authorities would not adequately identify adverse effects for consideration during permit planning, review, and approval in order to avoid or mitigate such effects. The commenter suggested that a new section be inserted that would require a description of the methods to be used to identify properties included in or eligible to be in the National Register of Historic Places, and the efforts to be taken to prevent or control damage to such properties.

OSMRE's regulations at 30 CFR Parts 731, 732, 761, 772, 773, 779, 780, 783, and 784 (52 FR 4244-4263, February 10, 1987) include adequate provisions for the identification of historic properties and consideration of the effects of all surface mining activities on such properties, including the design and construction of roads. To include these provisions in the performance standards for roads, or for any other specific activity related to surface mining, would be redundant.

Two commenters were concerned that, if the roads regulations were finalized, they would be applied retroactively. They suggested that retroactive compliance would be expensive and actually could increase environmental harm due to reconstruction of existing roads. The commenters also suggested that OSMRE clarify that the regulations apply prospectively to operators requesting a permit as of the date that a State adopts these final rules.

OSMRE anticipates that these rules will be applied prospectively by a State after a State has amended its regulatory program to be no less effective than these regulations. That is, a State would require proposed roads included in a permit or permit revision application to comply with the roads regulations adopted by the State pursuant to these Federal regulations. In accordance with 30 CFR 701.11(e), existing roads that meet the performance standards, but not the design requirements, may be exempted from meeting design requirements by the regulatory authority. Therefore, OSMRE does not anticipate that regulatory authorities will require changes in existing roads if they meet environmental performance standards. Because proposed but not constructed roads included in permits approved prior to a State's adoption of rules pursuant to these regulations would comply with existing performance standards and design requirements, OSMRE believes that extensive reworking of plans would not be required.

One commenter contended that the proposed regulations do nothing for environmental protection other than to restate the existing performance standards contained within the regulatory program. The commenter went on to argue that the proposed regulations create an excessive amount of unnecessary paperwork for industry and the regulatory authorities. The commenter recommended that the proposed regulations should not become final.

OSMRE disagrees because, even though general performance standards have already been established in 30 CFR Subchapter K -- Permanent Program Performance Standards, there is a significant need to have sections specific to the design, construction, reconstruction, improvement, and maintenance of roads. Roads can have a significant environmental impact if they are not properly managed and, with this in mind, OSMRE believes that the requirements outlined in these rules justify the documentation required.

B. SECTION 701.5 - DEFINITIONS: ROAD

The definition of road in final Section 701.5 is identical to that proposed on November 3, 1987 (*52 FR 42265*), except that the exemption of "pioneer roads" contained in the proposal has been deleted. The rule defines road to mean a surface right-of-way for purposes of travel by land vehicles, including mining equipment, used in surface coal mining and reclamation operations or coal exploration. The term road encompasses the entire area and structures within a surface right-of-way that is constructed, used, reconstructed, improved, or maintained for use in surface coal mining and reclamation operations or coal exploration, including use by coal hauling vehicles leading to transfer, processing, or storage areas. The term specifically excludes ramps and routes of travel within the immediate mining area (discussed below) and within excess spoil or coal mine waste disposal areas.

The proposed rule excluded pioneer roads, defined in the proposal as "temporary routes used for constructing access or haul roads," from the definition of road. The preamble to the proposed rule explained that pioneer roads provide preliminary access for the construction of permanent access and haul roads or equipment roads and not for mining purposes and that they are either replaced by a primary or ancillary road or reclaimed once they have fulfilled their purpose. The final rule does not retain the exclusion. OSMRE has reviewed the issue and believes that pioneer roads are not a separate, discrete category of roads, but are merely part of the process of constructing primary and ancillary roads. Therefore, pioneer roads are subject to the performance standards of this rule applicable to the construction process but not to those that specify standards applicable to completed primary or ancillary roads.

The term "immediate mining area" refers to the area where coal is being removed from the seam and to other areas that should not be subject to the performance standards for roads because they are subject to frequent surface changes. These other areas include areas where topsoil and overburden are being moved and areas undergoing active reclamation. OSMRE intends the term "immediate mining area" to refer to such areas of frequent surface change. Many areas in a mining operation contain routes of travel that are moved every few days as the mining advances during coal removal and as the operator works in coal waste disposal and spoil areas. These routes have a short life and are not included in the definition of road or subject to the road performance standards, but would be subject to the other performance standards applicable to all surface coal mining and reclamation operations.

Temporary routes within spoil or coal mine waste disposal areas are excluded from the definition of road according to an agreement by the Secretary in Round II (slip op. at footnote 14). The industry plaintiffs contended and OSMRE agreed that it was not reasonable to require roads within coal spoil and refuse disposal areas to be surfaced with nonacid- or nontoxic-forming substances, since these areas often contain acid- and toxic-forming materials. In addition, all of the surface drainage from these areas is controlled by siltation structures and treatment facilities, where necessary, to mitigate any potential adverse environmental effects.

One commenter suggested revisions to the definitions of affected area and permit area in 30 CFR 701.5. The commenter wanted existing or proposed roads under the jurisdiction of a Federal land management agency to be excluded from these definitions.

The definitions of affected area and permit area are not part of this rulemaking. OSMRE believes that a revision to either of these definitions is not necessary. The definition of road is clear on its own terms as to which roads are included. For this reason, a reference to affected area has not been included. On the specific concern relative to Federal lands roads, neither this definition nor the definition of affected area as partially suspended (*51 FR 41952*, November 20, 1986) is intended to expand or limit the jurisdictional reach of the definition of "surface coal mining operations" contained in section 701(28)(B) of the Act, relative to roads. That jurisdictional reach must be determined on a case-by-case basis by the regulatory authority.

One commenter suggested that OSMRE retain the "within the affected area" phrase in the definition of road to ensure that jurisdiction over existing roads under the control of a Federal land management agency is not transferred to the Secretary or to a State regulatory authority.

As noted above, OSMRE does not agree that adding the phrase "within the affected area" will affect jurisdiction over existing roads.

One commenter requested that OSMRE restate its position with respect to the definition of affected area and public roads. Another commenter suggested that the definition of road be modified to specifically exclude "public roads." The commenter argued that roads maintained by public funds and located on properties dedicated to public entities are not roads as defined by Section 701.5 and, even if the permittee so desired, could not be permitted since ownership is not controlled.

The definition of affected area is not a part of this rulemaking, nor is there any reference to affected area in the definition of road. Similarly, there was no reference to roads in the 1979 definition of affected area (*44 FR 15317*, March 13, 1979). The definition of affected area was modified in 1983 as it related to public roads in order to address the practice in some states of operators constructing new access roads and then deeding them to a public entity in order to keep the operation less than two acres in area and thus avoid applicability of the Act for the entire mining operation (*48 FR 14814*, April 5, 1983). The litigation on this definition (In Re: Permanent Surface Mining Regulation Litigation, No. 79-1144 (D.D.C. 1980)) also concerned the two-acre exemption, and the definition of affected area was suspended insofar as it might limit jurisdiction over roads covered by the definition of "surface coal mining operations." (*51 FR 41952*, November 20, 1986) The two-acre exemption has since been eliminated by Congress. Since the definition of affected area as partially suspended no longer provides additional guidance as to which roads are included in the definition of "surface coal mining operations," no reference to affected area is included in the definition of road.

State laws vary widely in their road classification systems. OSMRE is concerned that roads constructed to serve mining operations not avoid compliance with the performance standards by being deeded to public entities. However, it is not OSMRE's intention automatically to extend jurisdiction over roads into the existing public road network. Jurisdiction under the Act and applicability of the performance standards are best determined on a case-by-case basis by the regulatory authority. For this reason, OSMRE did not accept the commenter's suggestion that "public roads" be specifically excluded from the definition of road.

Several commenters were concerned about the term "immediate mining area" and expressed views concerning which roads within the mining area should be excluded from the definition of road. One noted that roads leading to transfer, processing, or storage areas would be subject to the design and performance standards of Section 780.37, yet routes within the immediate mining area are not considered roads under this definition. This commenter was unsure how OSMRE defines "immediate mining area" and argued that, if it is assumed that "immediate mining area" includes any road within the permit area, then the definition would be self-defeating. A second commenter maintained that the use of the term "within the immediate mining area" in the exclusion part of the definition of roads leaves the meaning open to varying interpretations since the word "immediate" is undefined and vague.

One commenter recommended that the definition of road exclude those access and haul roads that are located in areas that have been mined and are upstream from sedimentation ponds or other siltation structures that have been designed to

contain or treat the runoff from the 10-year, 24-hour precipitation event. Since these roads are in areas that already have been disturbed and all runoff from these areas is controlled, the commenter maintained that it is not necessary that these roads meet the performance standards in Section 816.150 and 816.151. Another commenter suggested excluding from the definition roads within the mine area unless a road is to be left as a permanent road and bond release is being sought in accordance with Section 800.40. The suggested language stated that roads shall be considered to be within the mine area only where the drainage from the road is commingled and treated with other mine drainage through approved sediment control structures. A fifth commenter suggested that the exclusion be limited to roads which are constructed within the portion of the permit area which is controlled by siltation structures and treatment facilities as required by 30 CFR 816.46. The commenter also suggested that this language would give an exact meaning to the exclusion since the area of the permit required to be controlled by siltation structure and treatment facilities is defined in 30 CFR 816.46. Another commenter agreed with the exclusion, but felt that it would extend to all roads within the mine area since their drainage is otherwise treated with that of the rest of the mine. Another commenter was also concerned that roads within the mine area not frequently changing should not be included in the definition.

OSMRE has not modified the rule in response to these wide-ranging comments. OSMRE intends the term "immediate mining area" to refer to the area of the mine that is subject to frequent surface changes and where the protection required by section 515(b)(17) of the Act, concerning controlling or preventing erosion, siltation, pollution of water, damage to fish and wildlife or their habitat or to public or private property, is provided by other applicable performance standards. The constraints of section 515(b)(18) of the Act would not apply to this area because any serious alterations to the normal flow of water and impact on natural stream beds and drainage channels would have already occurred. The term "immediate mining area" is not intended to encompass the entire permit area and, therefore, would not create a self-defeating definition. OSMRE's view is in part consistent with the view expressed by several of the commenters concerning the exclusion of roads within the permit area for which drainage control is otherwise provided. Since all of the other standards of section 515 of the Act would also necessarily apply to temporary routes not considered roads, the protection required by section 515(b)(17) of the Act would still be achieved. However, OSMRE has retained the concept of frequent changes to ensure that all roads are adequately reclaimed. All routes subject to frequent changes will be obliterated during the mining process. However, routes no longer changing need to be included in the definition of road to ensure that they are adequately designed, constructed, maintained and reclaimed.

One commenter maintained that the definition of roads arbitrarily restricts the applicability of the regulations for certain types of road disturbances, and argued that this is a clear contradiction of section 701(28) of the Act. The commenter stated that the deletion of pioneer and construction roads from the roads definition is clearly unlawful. The commenter argued that the principal purpose of pioneer and construction roads is to gain access to the mine site. The commenter also noted that pioneer roads typically disturb virgin areas and can lead to greatly increased sedimentation from a mine site (especially on steep slopes). The commenter asserted that this was a loophole that offers a potential for substantial abuse. The commenter maintained that OSMRE must set out clearly in the record the performance standards that must be met in the design, construction, and reclamation of pioneer roads. Two other commenters were concerned that the term "pioneer road" is not defined in the regulations and may not be universally understood. It was suggested that OSMRE should either define the term "pioneer road" or change the language in the definition of roads.

In response to these comments, the provision excluding pioneer roads from the definition of road has been deleted from the rule. As indicated above, OSMRE has re-examined this issue and believes that pioneer roads are not a separate, discrete category of roads, but are part of the process of constructing primary and ancillary roads. As such, pioneer roads are subject to the performance standards applicable to the construction process such as those in Section 816.150(b)(1) through (6). The completed primary or ancillary road is subject to the remaining applicable performance standards.

One commenter addressed the term "pioneer roads" in the context of roads for coal exploration. The commenter assumed that most exploration roads are simply unsurfaced, cleared paths that allow access into the area for off-road exploration equipment and would be considered "pioneer roads" and, therefore, not subject to the road regulations. If this assumption is correct, the commenter would support the current language with respect to coal exploration activities and pioneer roads.

OSMRE has dropped the use of the term "pioneer roads" from the rule to avoid the kind of confusion reflected in the comment. All roads used for coal exploration activities that substantially disturb the natural land surface are subject to the standards of 30 CFR 816.150.

One commenter agreed that temporary routes used for constructing access or haul roads should be excluded from the definition of roads. However, the commenter noted that, just as temporary routes are sometimes used to construct roads, so are temporary routes used to construct any number of structures, such as sediment ponds, stockpiles, and so forth. The commenter maintained that these routes also should be excluded from the definition.

OSMRE has deleted the exclusion for temporary routes that are part of the road construction process. Temporary routes used to construct other types of structures are, by definition, ancillary roads.

One commenter suggested that the rule state that only those roads used exclusively for the sole purpose of surface coal mining reclamation and exploration operations, should be included in the definition. The commenter also suggested that the definition should state that only those access and haul roads constructed, used, reconstructed, improved, and maintained are included. The commenter argued that this language would clearly show that the combination of these activities is necessary in order for a road to be considered a "road" under the definition.

OSMRE did not accept these suggestions, which are intended to limit the scope of the definition of road, because to do so would be inconsistent with the requirements of section 515(b)(17) of the Act, which requires control or prevention of environmental harm from the construction, maintenance or postmining conditions of access roads into and across the site of operations.

One commenter requested that OSMRE clarify the definition of road with respect to roads to and from transfer, processing, or storage areas. The commenter maintained that all roads from these areas would also fall under the definition of road.

OSMRE agrees that roads to and from transfer, processing, or storage areas are included in this definition, if these roads fall within the definition of "surface coal mining operations." This will have to be determined on a case-by-case basis consistent with the guidance previously stated in this preamble.

C. SECTIONS 780.37/784.24 - ROAD SYSTEMS

Final Section 780.37 is the same as the proposed rule, except for some minor wording changes discussed below, and contains permit application requirements which specify the plans and drawings that an applicant is required to submit for each road within a proposed permit area. The section also discusses certification of primary roads and the establishment of standard design plans by the regulatory authority.

One commenter suggested that the requirements of Section 780.37 would accomplish little more than additional excessive paperwork for industry and the regulatory authority because environmental protection could be accomplished by requiring roads to meet the performance standards of the existing regulations.

OSMRE believes that the requirements of Section 780.37 are the minimum necessary to provide the regulatory authority with the permit information needed to find that the performance standards promulgated with this rule will be met so that a permit may be issued.

SECTIONS 780.37(a)/784.24(a) - PLANS AND DRAWINGS

Final Section 780.37(a) requires the permit application to include plans and drawings for each road to be constructed, used, or maintained within the proposed permit area. OSMRE believes that the information in the plans and drawings enables the regulatory authority to assess the impacts resulting from any road that would be constructed or used as part of the surface mining operation, and determine whether the operation and reclamation plan would be effective in mitigating as much of the cumulative impacts on the environment as possible, consistent with the purpose of the Act.

Final Section 780.37(a)(1) requires the applicant to submit a map, and as 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. OSMRE expects that the amount of detail submitted by the applicant under this section will be appropriate to the classification of the road and to the extent of the projected impact from the specific feature. For example, less detail will be required for an ancillary road than for a primary road, for which the drawings and specifications would be quite detailed.

Final section (a)(2) requires drawings and specifications of each proposed road that will be located in the channel of an intermittent or perennial stream to give the regulatory authority the information necessary to approve the road, consistent with the performance standard in Section 816.150(d)(1), which was promulgated pursuant to section 515(b)(18) of the Act.

Final Section 780.37(a)(3) requires that the drawings and specifications for each proposed ford of perennial or intermittent streams that will be used as a temporary route provide the regulatory authority with sufficient information to review the stream ford and decide whether to approve it, consistent with the performance standard in Section 816.151(c)(2). A minor wording change, discussed below, was made in the final rule to make the language in Section 780.37(a)(3) consistent with the language in Section 816.151(c)(2).

Final Section 780.37(a)(4) requires a description of measures that the applicant must take to obtain the approval of the regulatory authority for alteration or relocation of a natural stream channel, consistent with the performance standard in proposed Section 816.151(d)(5). A minor wording change, discussed below, was made in the final rule to make the language in Section 780.37(a)(4) consistent with the language in Section 816.151(d)(5).

Final Section 780.37(a)(5) requires drawings and specifications for each low-water crossing of perennial or intermittent streams, to enable the regulatory authority to maximize the protection of the stream in accordance with the performance standard in Section 816.151(d)(6). A low-water crossing resembles a bridge in that water flows under the structure at normal stream level, but high water goes over the structure during storm or flood events. A minor word change, discussed below, was made in the final rule to make the language in Section 780.37(a)(5) consistent with the language in Section 816.151(d)(6).

Final Section 780.37(a)(6) requires information on the applicant's plans to remove and reclaim each road, and the schedule to be followed for road reclamation, to ensure consistency with the performance standards. This information will not be required for a road that is proposed to be retained for use under an approved postmining land use.

One commenter supported the new language for permit information requirements for roads and suggested that Section 780.37(a) provides needed information for the regulatory authorities to make an informed decision where an operator proposes to place roads in stream courses or ford streambeds. Another commenter suggested a language change for Section 780.37 and other similar sections that reference the preparation of plans, drawings, or maps. The commenter suggested that each section could include a sentence noting that these requirements may be accomplished through the use of photogrammetric methods for aerial surveys and mapping.

While these methods may be appropriate to fulfill some of the plans, drawings, and map requirements in the paragraph and other sections, OSMRE does not believe that photogrammetric methods need to be specifically referenced in a national rule. The States are free to specify the types of plans, drawings and maps that will be acceptable based on an assessment of the quality, reliability and availability of data provided by various methods of data collection and presentation.

One commenter maintained that the requirements in Section 780.37(a) are redundant and should be deleted because they are essentially found elsewhere in the regulations. The commenter noted that 30 CFR 816.57 prohibits any activity within 100 feet of an intermittent or perennial stream unless that activity is approved by the regulatory authority and diversions of perennial and intermittent streams, for any reason (including roads) are specifically addressed by 30 CFR 816.43(b). The commenter argued further that plans for diversions are required to be included in the permit by 30 CFR 780.29, and the effects of all proposed activities on hydrology must be addressed in the permit under 30 CFR 780.21(f).

OSMRE does not agree that Section 780.37(a) is redundant. It contains the requirement that the permit application include plans, drawings, maps, descriptions, and other information to enable the regulatory authority specifically to assess the impacts resulting from roads that would be constructed or used as part of the surface mining operation relative to the specific performance standards applicable to roads. These information requirements will enable the regulatory authority to determine whether the operation and reclamation plan will be effective in mitigating the impacts specific to roads to ensure compliance with those standards.

One commenter asserted that there was insufficient protection for stream courses and suggested that OSMRE set minimum standards for determining allowable practices.

OSMRE does not agree that further minimum standards are appropriate in a national rule, because such standards would fail to take into account regional differences in the hydrologic characteristics of streams. Further, OSMRE believes that the information requirements of Section 780.37 provide the information necessary under the Act for regulatory authorities to use in making permit decisions concerning the location of roads in stream channels. Also, the performance standards for roads found in Sections 816.150 and 816.151, along with the other general performance standards found in "Subchapter K-Permanent Program Performance Standards," provide sufficient protection for stream courses.

Two commenters suggested that the technology used in Section 780.37(a) (2) through (5) should correspond to the terminology used in the performance standards referenced by each paragraph.

OSMRE agrees and has made the following changes to the rule. In Section 780.37(a)(3), "each proposed stream ford" is replaced by "each proposed ford of perennial or intermittent streams" to correspond to the language in 30 CFR 816.151(c)(2). In Section 780.37(a)(4), "natural drainageway" is replaced by "natural stream channel" to correspond to the language in 30 CFR 816.151(d)(5). In Section 780.37(a)(5), "each low-water crossing" is replaced by "each low-water crossing of perennial or intermittent stream channels" to correspond to the language in 30 CFR 816.151(d)(6). Identical changes were made in Section 784.24(a)(3) to correspond to 30 CFR 817.151(c)(2), in Section 784.24(a)(4) to correspond to 30 CFR 817.151(d)(5), and in Section 784.24(a)(5) to correspond to 30 CFR 817.151(d)(6).

Three commenters maintained that the requirement in Section 780.37(a) to prepare plans is burdensome, does not reflect the dynamic nature of a mining operation, and does not produce a commensurate gain in environmental protection. The commenters suggested language changes and alternate concepts that included requiring only typical design plans, plans as appropriate, or only details for primary roads.

OSMRE does not agree with the commenters. The information required for plans and drawings in Section 780.37(a) is necessary for the regulatory authority to assess the impacts expected from roads associated with a permit application. This evaluation of the efficacy of the proposed reclamation and operations plan in mitigating impacts on the environment is consistent with the purposes of the Act. However, OSMRE expects that the amount of detail submitted in a permit application will be appropriate to the classification of the road and its projected impacts.

One commenter suggested that, where stream crossings are proposed, detailed plans for such crossings should be submitted so that the regulatory authority can evaluate the impacts of their construction.

OSMRE agrees that this could be helpful to the regulatory authority, and the regulatory authority has the flexibility to require this type of information. Section 780.37 requires the applicant to submit plans and drawings for each road, including 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.

Four commenters suggested that the requirement in Section 780.37(a)(6) to describe road removal and reclamation and provide a schedule for the work should be deleted or clarified to ensure that the detail required for the schedule would be commensurate with the dynamic nature of mining operations. The commenters noted that, due to the variable nature of mining operations, a schedule for road removal and reclamation would be speculative at best.

OSMRE recognizes the potential for changes in the road removal and reclamation plan and schedule as mining progresses. However, this potential for change, which is inherent in all plans and schedules, does not obviate the need to have this best-plan information available to the regulatory authority during permit review to ensure consistency with the performance standards found in 30 CFR 816.150(f).

SECTIONS 780.37(b)/784.24(b) - PRIMARY ROAD CERTIFICATION

This provision is identical to the proposed rule and requires that the plans and drawings for each primary road be prepared by or under the direction of a qualified registered professional engineer experienced in the design and construction of roads. It also requires that the engineer certify that the design meets the performance standards of 30 CFR Chapter VII, current, prudent engineering practices, and any design criteria established by the regulatory authority.

The phrase "current, prudent engineering practices" includes those practices well-established by engineering principles and widely recognized by experts with experience in the subject.

Section 780.37(b) also allows design and certification by a qualified registered professional land surveyor experienced in the design and construction of roads in any State which authorizes land surveyors to certify the design of primary roads. This provision is based on the November 4, 1983, amendments to the Act which authorize land surveyors to prepare and certify cross sections, maps, and plans (Section 115, Pub. L. 98-146, 97 Stat. 938 (1983)). The amendment provides that "notwithstanding section 507(b)(14) of the Surface Mining and Reclamation Act of 1977 (Pub. L. 95-87), cross sections, maps, or plans of land to be affected by an application for surface mining and reclamation permit shall be prepared by or under the direction of a qualified registered professional engineer or geologist, or qualified registered professional land surveyor in any State which authorizes land surveyors to prepare and certify such maps or plans." Before a land surveyor could certify the design of a primary road under this rule, State law also would have to grant corresponding authority.

One commenter indicated support for Section 780.37(b), which reflects the 1983 amendment to the Act initiated by the surveying profession authorizing a qualified registered professional land surveyor to design and certify plans and drawings for each primary road.

Two comments maintained that, at the time of permit application preparation, an operator may not have determined the precise location and design of a road or may not have sufficient site-specific field information to certify the plans and drawings for a primary road. They suggested that OSMRE change the language in Section 780.37(b) to allow for the submission of detailed design and plans prior to construction, instead of requiring submission with the permit application. They noted that this would reduce the likelihood of permit modifications later during the duration of the operation. In a related comment, it was suggested that Section 780.37 contain a provision requiring submission to the regulatory authority by the permittee of updated plans and drawings to account for changes in the location or design of roads.

OSMRE did not accept the suggestion that the final rule allow submission of detailed design and plans at the time of road construction. OSMRE believes that in order to adequately assess the impacts of the roads planned for an operation, the regulatory authority needs the information required in Section 780.37(b) during the initial permit review. This is particularly important for primary roads due to the potential for environmental impact associated with their frequency or length of usage. Also, OSMRE anticipates that sufficient information will be present in the permit application package to ensure compliance with the appropriate performance standards. OSMRE did not accept the suggestion that the final rule require the submission of updated plans and drawings to account for changes in the location or design of roads. If changes occur, they must be incorporated into the permit by the normal permit revision process established in 30 CFR Part 774.

One commenter did not agree with the language that authorizes land surveyors to certify plans and drawings for roads. The commenter maintained that the design of roads was outside the field of expertise of land surveyors.

OSMRE recognizes that not all land surveyors have adequate expertise to certify plans and drawings for road designs, and therefore requires that the registered professional land surveyor be "qualified and experienced in the design and construction of roads." This requirement, along with the requirement for State authorization of surveyor certification of road design, is sufficient to ensure that certifying land surveyors will have appropriate expertise to certify plans and drawings for roads.

One commenter argued that the certification requirement in Section 780.37(b) was unnecessary and should be deleted. The commenter noted that since the roads were part of the permit area, they were already completed by a qualified engineer or land surveyor and, therefore, must comply with the approved mining plan and performance standards. The commenter argued further that requiring post-construction certification of roads creates additional unnecessary paperwork with no net environmental protection.

OSMRE does not agree with the commenter and believes the design certification requirement for primary roads is necessary because the potential for environmental impacts from primary roads can be significant. By requiring certification that the design of primary roads meets the requirements of the Act, the potential problems associated with design of primary roads will be minimized.

Two commenters suggested that geologists be authorized to certify plans and drawings for primary roads. They noted that the November 4, 1983, amendment to the Act allows cross sections, maps, or plans of land to be affected by an application for surface mining and reclamation permit to be prepared by or under the direction of a qualified registered professional geologist.

OSMRE did not accept this suggestion because the existing authority of geologists is not affected by this rulemaking; therefore, their authority for preparing and certifying cross sections, maps and plans has not changed since 1985 (*50 FR 16195*, April 24, 1985).

One commenter suggested that ancillary roads should also be designed and certified by a qualified professional to ensure proper drainage control and stability of road embankments.

OSMRE did not accept this suggestion. It is not necessary to require design certification of ancillary roads because usage of ancillary roads has smaller potential for adverse environmental impact than usage of primary roads. Ancillary roads are subject to relatively infrequent use by smaller, lighter weight vehicles. See the discussion of the road classification system in the preamble to final Section 816.150(a)(1).

SECTIONS 780.37(c)/784.24(c) - STANDARD DESIGN PLANS

Final Section 780.37(c) is identical to the proposed rule and allows the regulatory authority to establish engineering design standards for primary roads through the State program approval process, in lieu of the engineering tests that otherwise would be performed to establish compliance with the minimum static safety factor of 1.3, for all primary road embankments. Such standards must be no less effective than the minimum static safety factor of 1.3. Suitable engineering design standards are those that are accepted in the engineering community as the basis for constructing stable roads, and are known to assure proper performance through testing and past practice. This provision enables the regulatory authority and the operator to save time and effort during the design and review of road plans, and also ensures protection of the environment through the application of standards that have proven effective for the conditions prevalent in each State.

Three commenters supported proposed Section 780.37(c). They noted that, by allowing the regulatory authority to establish or use engineering design standards instead of engineering tests, Section 780.37(c) reinforces the Act's finding in section 101(f) that, because of the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations, the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations should rest with the States.

D. SECTIONS 780.38/784.30 - SUPPORT FACILITIES

Final Section 780.38 addresses the specific permit application requirements for all support facilities covered by Section 816.181 of the performance standards. A permit applicant must submit a description, plans and drawings for each facility to be constructed, used or maintained within the proposed permit area. The plans and drawings include a map, appropriate cross sections, design drawings, and specifications sufficient to demonstrate compliance with Section 816.181 for each facility. The final rule is adopted as proposed.

This rule expands new Section 780.38 to cover support facilities in general. Although existing 30 CFR Part 780 contains a number of requirements applicable to support facilities, the existing rules do not contain a general requirement that a permit application include plans and drawings for support facilities that would be sufficient to demonstrate compliance with Section 816.181. To remedy this deficiency, Section 780.38 applies to all support facilities in addition to the conveyors and rail systems covered by previous Section 780.37.

One commenter objected to proposed Section 780.38 because it appeared to the commenter to consider roads associated with support facilities to be distinct from roads regulated by Sections 816.150 and 816.151. The commenter stated that the preamble provided no justification for distinguishing roads associated with support facilities as distinct from roads associated with the surface coal mining operation since the same equipment uses both roads. For this reason, the commenter continued, all roads should be designed and maintained under a uniform set of performance standards and reclaimed to permanent program standards.

OSMRE agrees that this rule should not distinguish roads associated with support facilities from other roads. The definition of road in final Section 701.5 includes all roads that are used in surface coal mining and reclamation operation without differentiating between roads for support facilities and roads for coal mining operations. Section 780.37 as well as the performance standards in Sections 816.150 and 151 apply to all roads at the coal mining operation including those associated with support facilities. Therefore, all roads must be designed and maintained under a uniform set of performance standards and reclaimed to permanent program standards.

The same commenter also stated that proposed Section 780.38 appeared to remove support facilities, including conveyors and rail systems, from the permit information requirements and permanent program performance standards that were applicable for these facilities under the 1983 rule and would be applicable to roads under the proposed rule. The commenter stated that Section 780.38 must be substantially rewritten to ensure that conveyors and rail systems in particular, and all support facilities in general, meet all permanent program application and performance standard requirements.

OSMRE disagrees with the commenter's assessment of the purpose and effect of this final rule. The final rule does not change or affect in any way the performance standards for support facilities. The rule brings the format of the permit information requirements into harmony with the format of the performance by placing the permit information requirements and performance standards for roads and support facilities in separate, parallel sections.

OSMRE also disagrees that Section 780.38 should be rewritten to indicate more clearly the performance standards applicable to support facilities. In fact, Section 780.38 certifies the performance standards applicable to support facilities (including rail systems and conveyors) by grouping the permit information requirements and the associated performance standard reference in the same place. Previously, the permit applicant would have had to search through Section 780.37 to determine the requirements applicable just to roads and those applicable to both support facilities and roads.

One commenter stated that the title of Section 780.38 should be "Other Transportation Facilities" since that is the section's topic of discussion.

OSMRE did not accept this comment. Since the permitting requirements established by this section cover all support facilities, and parallel and reference the performance standards in Section 816.181, concerning support facilities, the title is appropriate.

Two commenters requested that Section 780.38 be withdrawn from this rulemaking because OSMRE has not defined "support facilities," and it is therefore premature for OSMRE to adopt this rule. They also stated that the proposal substantially changes the scope of this rule from roads and conveyors to all facilities. They stated that it was not possible to comment on Section 780.38 without any guidance on what constitutes a support facility until it is defined in the rules. Finally, the commenters suggested that States are capable of determining those facilities related to coal mining that should be regulated under their regulatory programs and establishing appropriate performance standards as necessary.

OSMRE agrees in part and disagrees in part. First, effective July 11, 1988, OSMRE reinstated the suspended definition of support facilities (*53 FR 21764*, June 9, 1988) pursuant to the January 29, 1988 decision of the U.S. Court of Appeals for the District of Columbia Circuit (*NWF v. Hodel*). However, OSMRE agrees that State regulatory authorities are capable of identifying facilities that should be subject to the provisions of the Act without having a definition of support facilities in the Federal regulations. Therefore, OSMRE has proposed to delete the recently reinstated definition of support facilities from 30 CFR 701.5 (*53 FR 23522*, June 22, 1988). However, whether there is or is not a Federal definition of support facilities is irrelevant to this rule, the purpose of which is to specify more clearly the link between permit information requirements for such facilities and the applicable performance standards, which are not part of this rulemaking. The information required in Section 780.38 is needed to demonstrate compliance by each facility with 30 CFR 816.181.

One commenter stated that Section 780.38 was unnecessary because sufficient information is authorized in the existing regulations to show the location and dimensions of all support areas within the permit boundary; therefore, the proposed rule does little more than reinforce the existing regulations.

OSMRE disagrees that Section 780.38 is unnecessary because although existing 30 CFR Part 780 contains a number of requirements which may be applicable to support facilities, the existing rules do not contain a specific requirement that

a permit application include plans and drawings for support facilities that would be sufficient to demonstrate compliance with Section 816.181. By specifying the degree of detail that is needed in each permit application, Section 780.38 provides clear direction to the applicant.

E. SECTION 815.15(b) - ROAD STANDARDS FOR COAL EXPLORATION

Final Section 815.15(b) requires all roads or other transportation facilities used for coal exploration to comply with the applicable provisions of 30 CFR 816.150, 816.180, and 816.181. The final rule is unchanged from the proposal.

OSMRE believes that it is not necessary for roads used for coal exploration to meet the performance standards of Section 816.151 for primary roads because the amount of coal or spoil transported during coal exploration operations is relatively small. OSMRE believes that the performance standards of Section 816.150 provide sufficient protection for the environment during coal exploration. Under section 512(a) of the Act, 30 CFR 815.15 applies only to "coal exploration activities which substantially disturb the natural land surface." Thus, a road must comply with the applicable provisions of 30 CFR 816.150 only to the extent that the coal exploration activities substantially disturb the land where the road is located. OSMRE has defined the term substantially disturb in 30 CFR 701.5.

One commenter supported the language in Section 815.15(b) because, in the commenter's opinion, it allows the regulatory authority some flexibility in deciding if a coal exploration road should be designed and constructed to primary road standards. The commenter stated that, since these roads are generally used for only a short time during coal exploration activities, especially when 250 tons or less of coal is removed, the design and construction of a road to such stringent standards is not necessary.

OSMRE disagrees with the commenter's assessment of the applicability of the rule. The rules adopted today do not apply the primary road performance standards in Section 816.151 to coal exploration activities. Furthermore, the coal exploration regulations do not require prior approval of roads when 250 tons or less of coal is to be removed.

Another commenter stated that OSMRE has a responsibility to set national standards for roads associated with coal exploration, regardless of the amount of coal removed from the site. The commenter suggested that haul roads for coal exploration in steep-slope areas have the potential for environmental damage and require standards to ensure that environmental damage caused by construction and use of these roads is minimized. The commenter also stated that OSMRE has no basis for the argument that specific design standards only apply to primary roads because OSMRE has a statutory responsibility to provide meaningful national standards for all surface coal mining and reclamation operations. The commenter concluded that meaningful national standards for roads associated with coal exploration sites should be adopted in the final rule.

OSMRE has included a full discussion on the necessity of promulgating specific design standards for mining roads in the discussion of Section 816.150. Neither section 512 nor section 515 of the Act requires the establishment of design standards for coal exploration roads. The requirement in Section 816.150(c) that the road shall incorporate appropriate limits for grade, width, surface materials, surface drainage control, culvert placement and culvert size, and any necessary design criteria established by the regulatory authority will provide adequate environmental protection to the area of coal exploration activities. Enforcement of these provisions will provide the necessary protection in steep-slope areas.

One commenter recommended that the term substantially disturbed in 30 CFR 701.5 be changed to exclude the construction of a road for coal exploration activities proposing to remove less than 250 tons of coal.

OSMRE does not agree that the construction of a road for such coal exploration activities could not involve "substantial disturbance." The determination of when "substantial disturbance" has occurred must be made on a site-by-site basis. OSMRE does not believe the routine maintenance of an existing road used for coal exploration is a substantial disturbance requiring the road to be reclaimed in accordance with the performance standards of section 515 of the Act. To use an existing road that is in poor condition due to lack of maintenance, a coal exploration operator may need to blade the road surface, replace some culverts, or do other minor routine maintenance. Such routine maintenance of an existing road would not be considered substantial disturbance of the natural land surface that would require reclamation of the road. Further, in some cases coal exploration activities are conducted without roads and in such a manner that the activities do not substantially disturb the natural land surface.

F. SECTIONS 816.150/817.150 - ROADS: GENERAL

Final Section 816.150 applies to all roads as defined by 30 CFR 701.5. It includes a road classification system, performance standards, design and construction limits, provision for design criteria, and provisions on road location, maintenance, and reclamation. Section 816.150 is identical to the proposed rule except for a clarifying change to Section 816.150(b)(1) adopted at the request of EPA and minor changes to Section 816.150(d)(1) and (f).

SECTIONS 816.150(a)/817.150(a) - ROAD CLASSIFICATION SYSTEM

Final Section 816.150(a) is identical to the proposed rule and establishes classifications for all mine roads as either primary or ancillary. Primary roads are defined as any roads(1) used for transporting coal or spoil, (2) frequently used for access or other purposes for a period in excess of six months, or (3) to be retained for an approved postmining land use. An ancillary road is any road not classified as a primary road. OSMRE believes that the potential for environmental harm associated with the two types of roads is sufficiently different to require a two-tiered classification system. Roads that are heavily traveled over a long period of time; used by large, heavy vehicles; or that have a potential for spillage have a greater potential for environmental harm than roads that are used infrequently by small, light vehicles or for short periods of time. This concept is supported by OSMRE's experience and observations over the past ten years operating a regulatory program.

Each of the factors that distinguish primary roads from ancillary roads is related to an increased potential for environmental harm. Roads used for haulage of coal, overburden, spoil, etc. are classified as primary roads under the final rules. These roads are typically used by large, heavy vehicles. In order to accommodate such vehicles, the road must be wide, generally involving two lanes of traffic, and its surface must be capable of supporting the weight of the traffic. A wide road involves much more earthmoving in its construction and exposes more surface area, increasing the potential for erosion. On heavily traveled roads, provision must be made for vehicles to pass one another safely. The design manuals recommend wider lanes where the ability of vehicles to pass one another is a concern. See Kaufman and Ault, pp. 30-33. On less traveled roads, a single lane would suffice. The increased potential for environmental harm associated with frequently traveled roads derives from the greater surface area exposed and the greater dust entrainment associated with larger vehicles and the greater volume of traffic. Roads with a higher weight bearing capacity require a thicker subbase, so that more material must be excavated, placed and compacted in constructing the road.

Design manuals recommend that roads used by large haulage vehicles, for example, in the 100,000-200,000 pound range, minimize the severity of road grades. See Kaufman and Ault, pp. 8-11. Building roads to accommodate heavier vehicles, therefore, often requires substantial cut and fill work to limit maximum and sustained grades in addition to providing adequate width for wide vehicles to safely pass. Also, since there is a certain amount of cargo spillage associated with haulage roads, the potential for erosion, siltation or damage to property or wildlife habitat is greater for such primary roads due to loose coal, coal waste or spoil on the road surface. Roads not used for haulage will not typically generate this potential problem.

Under the classification system, primary roads also include roads frequently used for a period in excess of six months. This factor is included due to the increased risk of environmental harm associated with heavy traffic over long periods of time. Duration of road use is also an important predictor of potential environmental harm. The longer a road exists, the greater potential for slips or grade failures as well as other impacts previously mentioned. In OSMRE's experience, the potential for erosion and siltation as well as road grade failures is quite seasonal, normally occurring in early spring. Especially in the Eastern U.S., the increased precipitation associated with this period combined with frequent freezing and thawing tends to degrade road beds as well as the surface. However, such problems are frequently not evident in the first season. Moreover, roads used less than six months will frequently not even be in place during this season. Therefore, OSMRE believes, due to the increased risk of environmental harm, that longer term roads must be subject to the more stringent primary road design and performance standards. OSMRE strongly believes that differentiating between potentially greater or lesser environmental impacts in developing regulatory requirements is fully consistent with the requirement in section 102 of the Act to establish a program to protect society and the environment and to strike a balance between protection of the environment and the nation's need for coal. OSMRE is basing these road provisions, in part, on ten years of experience enforcing the surface mining regulatory program. OSMRE believes that these standards are both necessary and adequate to achieve the purposes of the Act.

Ancillary roads are all roads not designated as primary. Ancillary roads are subject to relatively infrequent use by smaller, lighter weight vehicles. Consequently, the potential severity and risk of harm from use by such vehicles is smaller. OSMRE has not identified specific types of roads in the rule as ancillary because it would not be possible to make an all-inclusive list. Examples of ancillary roads are those which provide access to air shafts, sediment ponds, and locations for hydrologic sampling, equipment maintenance, monitoring, or other similar uses.

One commenter supported the concept of two classifications for roads as well as the handling of performance standards in general terms. The commenter noted that this gives the regulatory authority more discretion in managing permitting and enforcement programs.

One commenter suggested that all roads outside the area controlled by siltation structures and treatment facilities be considered primary roads.

OSMRE did not accept this suggestion because it is unnecessarily rigid. Such a system for designating primary roads would entail substantial design, construction and maintenance costs without, in many cases, a concomitant reduction in potential environmental harm.

Some commenters were concerned that the proposed two-tiered system was overly simplistic, especially with respect to limited use roads that exist for extended periods of time. The commenters felt that such roads would be inappropriately considered primary roads.

OSMRE does not agree that the two-tiered system is overly simplistic, nor does it agree that a "simple" system is necessarily inferior to a "complex" one. The final rule balances environmental protection, safety and road stability against design, construction and maintenance costs while providing the flexibility to address a multitude of varying site conditions. Under the final rule, infrequently used access roads that will be in existence for an extended period of time will be considered ancillary roads.

Numerous commenters voiced their concerns about how the elements of the definition of primary road in Section 816.150(a)(2) would be interpreted. Regarding the criterion in Section 816.150(a)(2)(i) that roads used for transporting coal or spoil are primary roads, there was concern that a bona fide ancillary road would automatically be classified as a primary road if a pickup truck loaded with coal used the road.

OSMRE did not modify the regulation in response to this concern because it is confident that such situations rarely, if ever, arise and that regulatory authorities will use reasoned judgment in applying the definition to achieve its intended purpose. Roads used for coal and spoil transportation must be considered primary roads because of the generally large trucks used, the high frequency of trips, the potential for spillage of coal or spoil onto the road surface, and the fact that coal and spoil transport occurs throughout the life of the operation.

Concerning the frequency of use criterion contained in Section 816.150(a)(2)(ii), a commenter suggested that the word "frequently" be dropped because some infrequently used road could cause more environmental harm than coal haul roads. It was also suggested that frequency be defined.

OSMRE did not drop the frequency element from the definition of primary road because it believes that frequency of use is a key predictor, along with duration of use, of potential environmental harm. OSMRE did not add a definition of "frequently used" to the final rule because it is not possible or advisable in a national rule to devise a definition that will fairly address all sets of circumstances. Whether a road is "frequently used" is a determination that should be made at ground level on a case-by-case basis taking into account the probable environmental consequences of the anticipated level of use and the types of vehicles expected to use the road. As an example, OSMRE considers that a road used only once or twice each day, or once or twice each shift, for access to a structure housing a fan or ventilator (fan house) for the purpose of monitoring and/or maintenance would not be a "frequently used" road.

Concerning the duration of use criterion in Section 816.150(a)(2)(ii), it was suggested that the six-month period should be deleted and that the primary road definition should better reflect the type of vehicular use and primary purpose of the road. It was argued further that access and service roads used in excess of six months would be classified as primary roads thus burdening the operator with unnecessary design and performance requirements.

The concern that the primary road definition should better reflect the type of vehicular use and primary purpose of the road is addressed in the previous discussion explaining the basis for the road classification system. As to which roads are classified as primary, the commenter may have misunderstood the proposed regulation. Duration of use is a key predictor of a road's potential for environmental harm. It is generally recognized that the longer a road is used, the greater the potential for stability problems and erosion. However, an infrequently used road of more than six months duration (which is not used to haul coal or spoil, and which will not be retained for postmining land use) is unlikely to cause significant environmental harm and, thus, is not classified as a primary road. The six-month limit establishes a reasonable balance between long- and short-term use.

Three commenters suggested that OSMRE revise the road classification system in Section 816.150(a)(2)(iii) as it relates to roads that will be retained for an approved postmining land use. The commenters argued that retaining a road for a approved postmining land use should not be a determining factor in classifying the road because to do so would subject the road to performance standards that could be unrelated to the use of the road during the mining operation. They felt that the classification should be determined solely by the purpose and frequency of use of the road during mining. The same commenters were also concerned about how changes in the status of a road would be handled, e.g. a road classified as ancillary during the mining operation becomes a primary road when the operator retains the road after mining and reclamation is completed.

OSMRE did not accept the commenters' arguments and continues to believe that roads which are to be retained for an approved postmining land use should be considered primary roads and be subject to the associated performance standards. OSMRE bases this belief on the fact that after final bond release, protection from the future environmental consequences of road use and maintenance under the Act ceases. The operator has no responsibility for subsequent adverse environmental impacts related to the road's use and maintenance. In order to provide a reasonable assurance of environmental protection after the site has been reclaimed, and in the absence of an operator, OSMRE believes that postmining roads must be designed and constructed in compliance with the more stringent primary road standards. This will ensure, as far as possible, that the location, design, construction and maintenance of the road during mining operations will have minimum adverse impacts after reclamation. Concerning changes in the classification of a road, OSMRE believes that the regulatory authority must approve such changes based on the road's compliance with all standards applicable to the road.

One commenter suggested that performance standards are unnecessary because primary roads are required as part of any operation, and the regulations are only a duplication of existing performance standards.

OSMRE does not agree. These regulations and performance standards specific to roads are necessary to insure that all roads are properly classified, that potential environmental impact of the roads are adequately evaluated and that roads are located, designed, constructed, reconstructed, maintained, and reclaimed so as to minimize their environmental impacts.

One commenter maintained that some of the requirements for primary roads would be burdensome to small operators. The commenter noted that at small operations, the equipment used to transport the coal may only include small trucks of limited capacity. The commenter suggested that some allowance or exception should be made whereby use of a road to transport coal does not automatically cause it to be a primary road.

OSMRE understands the commenter's concern for small operators. However, as discussed above, OSMRE has concluded that roads used for transporting coal or spoil have a potential for environmental damage regardless of whether their use is frequent or long-term. Therefore, roads used for transporting coal or spoil have been included in the definition of primary roads and are subject to more stringent performance standards. It should be noted that OSMRE expects that road design will reflect the anticipated road duration and usage.

One commenter indicated that the term "ancillary road" requires a better definition. The commenter was concerned because of the lack of any permitting or reclamation requirements for ancillary roads.

OSMRE disagrees that "ancillary road" is poorly defined. Taken together, the definition of road at Section 701.5 and the definition of primary road at Section 816.150(a)(2) delineate ancillary road with a degree of specificity appropriate to a national rule given the variety of roads associated with mining operations. The permit information and reclamation requirements specifically associated with ancillary roads are found in Sections 780.37 and 816.150, respectively.

One commenter recommended that the classification system be changed to account for the diversity in service life and uses of mine roads. This commenter also suggested that designs should be prepared by qualified professionals.

OSMRE agrees that some form of categorization of roads is necessary from both the environmental and economic points of view due to the diversity of road uses and types associated with mining operations, but did not make any change in the final rule because the road classification system being adopted today explicitly differentiates between the two types of roads on the basis of purpose and frequency of use. Further, Section 780.37 requires the plans and drawings for each primary road to be prepared by, or under the direction of, qualified professionals. Because the risk of environmental harm from ancillary roads is less than that from primary roads, the added expense for design and construction certification by a registered professional is not appropriate.

One commenter felt that Section 816.150(a) should explicitly exclude public roads.

OSMRE disagrees. The applicability of these standards to public roads is discussed elsewhere in this preamble.

One commenter objected to the distinctions made between primary and ancillary roads for determining which roads have to meet specific performance standards. The commenter maintained that OSMRE has failed to meet the mandate of the Act by not establishing specific design criteria for all roads including ancillary roads, because of the potential for environmental damage. The commenter did not accept OSMRE's position that ancillary roads do not cause as much damage as primary roads. The commenter maintained that OSMRE is using the classification system to allow an exception from the statutory standards for ancillary roads. The commenter was particularly concerned with the potential environmental damage caused by ancillary roads in steep-slope areas.

Another commenter questioned the need to classify all mine roads as either primary or ancillary on the basis of purpose and frequency of use. The commenter argued that all roads, regardless of their intended purpose or frequency of use, retain similar potential for environmental damage if they are not designed, constructed, maintained or reclaimed properly. The commenter maintained that the additional requirements in Section 816.151 are essentially the best management practices that should apply to all roads in order to achieve the performance standards contained in Section 816.150(b). The commenter contended that the two-tiered classification system would result in less attention being paid to ancillary roads, which are more numerous in a mining operation than primary roads.

OSMRE believes that the road classification system established in Section 816.150(a) appropriately distinguishes between primary roads, which need more detailed consideration in their design, construction, maintenance, and reclamation; and ancillary roads, which are likely to be small and would generally not be used for carrying heavy loads. The basis for the distinction is that the potential severity and risk of harm associated with smaller, less used (ancillary) roads is considerably less than that associated with larger, busier (primary) roads. Ancillary roads are not exempted from performance standards; all roads, including ancillary roads, must comply with the standards of Section 816.150, which is an expansion of the statutory standards contained in section 515(b) (17) and (18) of the Act.

SECTIONS 816.150(b)/817(b) - PERFORMANCE STANDARDS

Final Section 816.150(b) establishes performance standards that operators must meet when locating, designing, constructing, reconstructing, using, maintaining, and reclaiming roads associated with surface coal mining operations as defined by 30 CFR 701.5. Section 816.150(b) is identical to the proposed rule except for a clarifying change to Section 816.150(b)(1) adopted at the request of EPA. The change is discussed below in the responses to comments.

The performance standard in section (b)(1) requires the control or prevention of erosion, siltation, and the air pollution attendant to erosion, including road dust as well as dust occurring on the other exposed surfaces, by measures such as vegetating, watering, using chemical or other dust suppressants or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices.

The standards in sections (b) (2) through (7) require an operator to control or prevent damage to fish, wildlife, or their habitat and related environmental values; control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area; neither cause nor contribute, directly or indirectly, to the violation of State or Federal water quality standards applicable to receiving waters; refrain from seriously altering the normal flow of water in streambeds or drainage channels; prevent or control damage to public or private property, including the prevention or

mitigation of adverse effects to lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers system, including designated study rivers, and National Recreation Areas designated by Act of Congress; and prohibit the use of acidic or toxic substances in road surfacing.

One commenter felt that Section 816.150 fails to provide meaningful, national standards for the design, construction, maintenance, and reclamation of roads. The commenter referred to a discussion of the need for detailed performance standards in the preamble to the 1979 final rule where OSMRE stated, in part, that there were many comments recommending that OSMRE "limit the Federal performance standards to generalized guidelines and suggestions which would then serve as the nucleus for the State regulatory authorities to develop standards unique to local conditions." In response to these recommendations, OSMRE "determined that such general standards, incorporating broad interpretation capabilities, would not be consistent with the intent of the Act or the rest of the regulatory scheme" (*44 FR 14901, 15246, March 13, 1979*). The commenter suggested that the proposed rule was inconsistent with the position expressed in 1979.

Where it is appropriate to "flesh out" portions of the Act in the implementing regulations, OSMRE has not hesitated to do so. OSMRE believes that Section 816.150 does provide sufficient national standards for the design, construction, maintenance, and reclamation of roads, while allowing consideration of the variations in site-specific conditions that can be encountered at different operations throughout the coal fields. These standards necessarily allow the regulatory authority the flexibility to identify the measures that are appropriate for the site-specific characteristics of each surface coal mining operation. In 1979, OSMRE has less than one year of experience regulating surface coal mining operations. Now, after ten years of experience, most of that in oversight of approved State programs, which deal with roads quite effectively, but through quite varied approaches, OSMRE feels that the expansion of the statutory language being promulgated today is fully adequate to ensure that statutory standards are met.

The same commenter and another commenter particularly noted the removal of the phrase "minimize the diminution to or degradation of the quality or quantity of surface and ground-water systems" from Section 816.150(b)(5) of the 1983 rule. The commenters suggested that specific language for protection of both quantity and quality of surface and groundwater systems from adverse impacts of roads should be reinstated into the final rule. A third commenter was concerned that the water quality and quantity provisions removed from Section 816.150(b)(5) of the remanded and suspended 1983 regulations were not adequately covered in other regulations.

OSMRE did not propose a provision specifically addressing the impact of roads on the quantity and quality of surface and groundwater systems, such as that contained in the remanded and suspended 1983 rule. Adequate standards to ensure compliance with section 515(b)(17) of the Act are provided by the other provisions of Sections 816/817.150(b) and by 30 CFR 780.21 and 784.14. After considering the comments, OSMRE does not believe that adding such a standard specifically for roads would add to the effectiveness of this rule.

One commenter suggested that the final rule should be clarified to ensure that it includes performance standards for roads that will protect all private property from damage. The commenter wanted to insure that all private properties are protected and not just those areas listed in section 522(e) of SMCRA. Another commenter argued that inserting into Section 816.150(b)(6) the lands listed in section 522(e)(1) of the Act inserts unsuitability criteria into this performance standard. The commenter maintained that OSMRE lacks authority to include the list in Section 816.150(b)(6). Two commenters suggested that the list be deleted because these lands already have provisions for special consideration.

Final Section 816.150(b)(6) requires the operator to protect both private property and public property, placing special emphasis on certain types of public property. OSMRE has enumerated those areas covered by the mining prohibitions of section 522(e)(1) of the Act to ensure that special consideration is given these public properties. This enumeration does not remove the operator's requirement to protect other public property or private property as required by section 515(b)(17). OSMRE does not agree that including the list of areas covered by section 522(e)(1) of the Act in Section 816.150(b)(6) constitutes an insertion of unsuitability criteria. OSMRE believes that inclusion of these specific areas in Section 816.150(b)(6) appropriately emphasizes the importance attached to such areas by Congress in drafting the Act, without providing less protection for other public and private property under this provision.

One commenter was concerned that Section 816.150(b) would require the reconstruction of existing permitted roads causing extensive environmental damage. The commenter suggested that the regulatory authority should be able to waive

certain performance standards, e.g. drainage control, cut and fill slopes, and lane widths, as long as erosion and stream sedimentation are controlled.

OSMRE did not include such a waiver provision in the final rule. In accordance with 30 CFR 701.11(e), existing structures, including roads, that meet the performance standards may be exempted from meeting the design requirements. To the extent that changes may be required by a regulatory authority to bring existing permitted roads into compliance with this rule, no significant reconstruction and expense or increased environmental harm is expected. Existing permitted roads should already be in compliance with the performance standards of a State or Federal regulatory program.

One commenter noted that Section 816.150(b) refers to erosion requirements for roads, but lacks sediment control standards. The commenter argued that, without some guidance, it would be difficult for states to be "no less effective" in parallel provisions of their regulations.

OSMRE did not accept this comment. OSMRE believes that adequate performance standards for sediment control can be found in Sections 816/817.150(b). These standards are fully consistent with the requirements of section 515(b)(17) of the Act. OSMRE recognizes that the mechanisms for achieving that standard vary widely over the wide range of topographic, climatological and geologic conditions, and also vary according to the uses of the roads, where these standards will be applied. OSMRE therefore feels further guidance is not appropriate or necessary. States may or may not choose to elaborate upon this guidance in ways specific to the conditions in those States. So long as the required results are achieved in actual implementation, such elaboration is at the States's discretion.

One commenter was unsure if the performance standards in Section 816.150(b) were intended to relieve coal mine operators of the general requirements to meet effluent limitations. The commenter thought that 30 CFR 816.46, which prescribes performance standards for siltation structures, excluded roads from meeting effluent limits and wondered if Section 816.150(b) could be interpreted the same way. Another commenter was confused about the application of performance standards for drainage control systems for roads. The commenter noted that, under 30 CFR 816.46(a)(2), drainage from roads for which the upstream area is not otherwise disturbed by the operator is exempt from the requirement of passing through a siltation structure. The commenter, however, also noted that the disturbance associated with roads must be conducted to minimize disturbance to the hydrologic balance as required in Sections 816.41 and 816.45. The commenter was concerned as to what the specific drainage control requirements are for roads.

Effluent limitations only apply to point source discharges regulated under section 402 of the Clean Water Act. Section 816.150(b) does not require the creation of a point source. However, if a point source is created, a National Pollutant Discharge Elimination System permit would be required and effluent limits would apply. A variety of other mechanisms may also be and are being used to provide the required protection of water quality.

Two commenters were concerned with the word "prevent" in Section 816.150(b)(1) through (3) and (6). It was suggested that it be deleted because it was the intent of Congress to have OSMRE set attainable standards which would "minimize" erosion and "prevent" damage. The commenters felt that it would be unrealistic to require an operator to "prevent" erosion, siltation, and air pollution. Another commenter favored deletion of both "control" and "prevent."

OSMRE did not accept the suggestions and believes that the language in Section 816.150(b) is consistent with the language in the Act at section 515(b)(17) which requires the operation as a minimum to insure that the construction, maintenance, and postmining conditions of access roads into and across the site of operations will control or prevent erosion and siltation, pollution of water, damage to fish or wildlife or their habitat, or public or private property (Emphasis added). It should be noted that Section 816.150(b) allows the regulatory authority the flexibility to determine the level of protection necessary to control or prevent erosion, siltation, or air pollution attendant to erosion.

One commenter suggested that the language in Section 816.150(b)(1) with respect to exposed surfaces be clarified by adding the word "road" between exposed and surfaces.

OSMRE does not agree that this clarification is necessary because those surfaces exposed in connection with construction, use, reconstruction, maintenance, or reclamation of the road are properly subject to this requirement.

Four commenters responded with respect to the control of air pollution. One commenter supported the language in Section 816.150(b)(1), and asserted that OSMRE is the appropriate agency to regulate fugitive dust at coal mining

operations. One commenter requested that OSMRE change the language in Section 816.150(b) in its entirety. This commenter was concerned that air and water quality standards were being intermixed. The commenter also noted that previous district court decisions clarified that Congress only intended to regulate air pollution related to erosion. One commenter stated that the issue of responsibility in the control of air pollution attendant to erosion and pollution caused by fugitive dust as part of a surface mining operation is currently on appeal. Another commenter was concerned that including specific air pollution control measures in Section 816.150(b) would lead to these measures being interpreted as the exclusive means necessary for compliance. It was suggested that these measures be kept only in the preamble.

OSMRE believes that the language in Section 816.150(b)(1) is in harmony with the intent of Congress. It is appropriate for OSMRE to regulate road dust consistent with section 515(b)(17) of the Act because of the need to protect public and private property. It is being applied here in a manner consistent with section 515(b)(4). The U.S. Court of Appeals for the District of Columbia Circuit recently issued a decision concerning the issue of responsibility for control of air pollution attendant to erosion (*NWF v. Hodel*, 839 F.2d 694, 765). The appeals court concluded that the Secretary's interpretation of section 515(b)(4) of the Act, as controlling only the impacts of mining on air quality due to erosion, is reasonable. OSMRE also believes that the use of the terms "erosion," "siltation," and "air pollution attendant to erosion" in Section 816.150(b)(1) is appropriate in considering what measures are necessary to meet the performance standards. OSMRE does not intend this list of measures to exclude the use of other measures for controlling dust attendant to erosion and does not intend that the language in Section 816.150(b)(1) be interpreted that way. The phrase "such as" makes that clear.

The EPA noted that proposed Section 816.150(b)(1) stated that road should be built, used and maintained to control "air pollution attendant to erosion" and that the preamble to the proposal explained that this phrase includes "road dust, as well as dust occurring on other exposed surfaces" (52 FR 42262, November 3, 1987). EPA suggested that the explanation should be included in the final rule language to clarify that the performance standards apply not only to wind erosion, but also to dust created by vehicle traffic.

OSMRE has accepted this comment and made the suggested change to clarify the applicability of the final rule.

EPA noted also that proposed Section 816.150(b)(1) stated that air pollution should be controlled "in accordance with current, prudent engineering practices." EPA stated its belief that the final rule should specify reasonable control levels and techniques suitable under various conditions and requested the addition of a technical guidance document that would address current practices and their effectiveness under varying conditions. The agency suggested that the technical guidance could be developed in the near future and be incorporated into the regulation by reference at a later date.

After giving this recommendation serious consideration, OSMRE decided not to accept it. Differing geologic and climatic factors associated with the coal fields throughout the nation make it impractical to develop a single set of dust control standards and techniques with nationwide applicability. In accordance with the concept of primacy, whereby the States have the primary responsibility for the regulation of coal mining, this final rule gives State regulatory authorities the flexibility to establish guidance that is appropriate to regional and local conditions. On request, OSMRE will provide technical assistance to the States concerning the development or application of dust control standards and techniques. The primary purpose of this rule is to make clear that regulatory authorities have both the authority and obligation to regulate road dust while recognizing that operations have a wide range of options available for controlling it.

As to the EPA's concern about the effectiveness of the treatment methods employed by the operator, before a mining permit is issued, the regulatory authority has to approve the air pollution control plan submitted by a permit applicant under 30 CFR 780.15 or 784.26. In addition, monthly inspections by regulatory authority inspectors under 30 CFR 840.11 and inspections resulting from citizens' complaints filed anytime under 30 CFR 840.15 and Part 842 will ensure that potential on-the-ground problems are resolved quickly and efficiently.

One commenter was concerned that Section 816.150(b)(5) would prohibit placement of any road anywhere it would alter flow in a streambed or drainage channel. The commenter asserted that the terms "streambed or drainage channel" could be construed so as to include even the smallest ephemeral flow. The commenter suggested a language change that would replace "streambed or drainage channel" with "intermittent or perennial stream."

OSMRE did not accept this suggested language change since it is not consistent with section 515(b)(18) of the Act which uses the phrase "streambed or drainage channel." Further, OSMRE does not agree that Section 816.150(b)(5)

would necessarily prohibit placement of any road where it would alter flow in streambeds or drainage channels because the language in this section states that the road shall refrain from "seriously" altering the normal flow. OSMRE does not regard this language as a strict prohibition on the placement of roads that would cause minor alterations in normal flow.

SECTIONS 816.150(c)/817.150(c) - DESIGN AND CONSTRUCTION LIMITS AND ESTABLISHMENT OF DESIGN CRITERIA

Final Section 816.150(c) requires that roads be designed and constructed or reconstructed to meet certain criteria in order to ensure environmental protection appropriate for their planned duration and use. These criteria include limits for grade, width, surface materials, surface drainage control, culvert placement, and culvert size, that are in accordance with current, prudent engineering practices, and any other necessary design criteria established by the regulatory authority. Section 816.150(c) is identical to the proposed rule.

One commenter agreed with the deletion of the provisions addressing road safety that had previously been included in the 1983 rule, noting that road safety for users is the responsibility of the Mine Safety and Health Administration.

One commenter raised the question of what standards for road width, drainage control, culvert placement, etc. will apply in Federal program States since OSMRE sets forth no more detailed limits for Federal program States under Section 816.150(c). The commenter was also concerned about inadequate regulation by States with "no more stringent" provisions in the absence of standards in the Federal rules.

Concerning Federal program States, where OSMRE is the regulatory authority, OSMRE will consider on a program-by-program basis unique factors and regional and local conditions present in each State and will propose and promulgate appropriate standards in accordance with 30 CFR Part 736 if it determines that program-wide design criteria are needed. Concerning States that have legislatively prohibited their regulatory authorities from promulgating regulations more stringent than the Federal regulations, OSMRE considers that the regulations adopted today provide a reasonable expansion of the statutory requirements and are adequate for effective regulation of surface coal mining operations. Further expansion and additional regulations may be promulgated at the States' discretion. OSMRE does not believe that use of design standards by a State in its rules would necessarily be more stringent than the Federal rules. This issue was also addressed by the Secretary in his March 5, 1984 brief in Round II, referenced earlier.

One commenter suggested that the design, construction, and certification of ancillary roads should also be done by a qualified registered professional to ensure proper drainage control and stability of road embankments.

OSMRE believes the suggested requirement to have ancillary roads designed, constructed, and certified by a qualified professional is not necessary to ensure compliance with the performance standards because such roads have much less potential for environmental harm than do primary roads because of differences in size, use and/or duration. Ancillary roads are generally only one lane for small vehicles, thereby involving far less earthmoving in their construction. Vehicles using ancillary roads are generally small with light loads and ground pressures. Therefore, to require certification of plans and drawings for ancillary roads would place a burden on the operator that is unnecessary to provide the protection called for in section 515(b)(17) of the Act.

One commenter was concerned that the use of the term "surface materials" in Section 816.150(c) implied a requirement for surfacing all roads. The commenter did not feel that a "blanket" surfacing requirement was appropriate because in many instances the natural surface of a road was sufficient to meet the appropriate performance standards. The commenter suggested that the words "any necessary" should precede the term "surface materials" in the text of the rule.

OSMRE does not agree that the addition of these words is necessary because the language in Section 816.150(c) states that surface materials appropriate for the planned use of the road need to be incorporated into the design and construction or reconstruction to ensure environmental protection. This requirement does not preclude a finding by the regulatory authority that the natural surface of the road meets the performance standards.

SECTION 816.150(d)/817.150(d) - LOCATION

Final Section 816.150(d) sets the performance standards for the location of all roads. These standards prohibit the placement of any part of a road in the channel of an intermittent or perennial stream unless the regulatory authority specifically approves such an action in accordance with applicable Sections 816.41 through 816.43 and 816.57. Also, roads must be located to minimize downstream sedimentation and flooding. The language in Section 816.150(d) is identical to the proposed rule except that reference to the performance standards in accordance with which the regulatory authority may approve placement of a road in the channel of a stream (Sections 816.41 through 816.43 and 816.57) have been added to the final rule for clarity.

One commenter argued that the language in the proposed rule prohibits the use of structures such as bridges or culverts. The commenter considered this a drastic departure from the Act and beyond the intent of section 515(b)(18). The commenter provided suggested language to better reflect the statutory requirements. The suggested language read, "(1) No road shall be built in a streambed or drainage channel."

OSMRE did not accept the commenter's suggestion. Section 816.150(d) is not intended to establish a strict prohibition on the use of structures such as bridges and culverts. Section 816.43, Diversions, allows the regulatory authority to specify design criteria for the diversion of intermittent and perennial streams. Section 816.43 also requires the regulatory authority to make a finding that the environmental resources of the stream will not be adversely affected.

One commenter noted that Section 816.150(d)(1) does not contain a cross reference to Section 816.57 as does Section 816.151(d)(5). The commenter was unclear if this was intended or was an inadvertent omission by OSMRE.

In response to this comment, OSMRE has reviewed the reference to hydrologic balance protection and stream buffer performance standards in proposed Section 816.151(d)(5) and determined that those performance standards should be applied to the location of any road in the channel of an intermittent or perennial stream, as well as to the alteration or relocation of natural stream channels by primary roads. Therefore, OSMRE has added the reference to the performance standards (Sections 816.41 through 816.43 and 816.57) to Section 816.150(d)(1) of the final rule.

SECTION 816.150(e)/817.150(e) - MAINTENANCE

Final Section 816.150(e) governs the general maintenance responsibilities of the operator. Under this section, a road must be maintained to meet the performance standards and any additional design criteria established by the regulatory authority. Section 816.150(e) also requires that, in the event of damage due to a catastrophic event, a road must be repaired as soon as is practicable after the damage has occurred. The language in Section 816.150(e) is identical to the proposed rule.

One commenter supported the language found in Section 816.150(e) because it no longer contains the requirement from previous remanded and suspended rules to maintain a road throughout its life. The commenter agrees that the Act does not impose a perpetual responsibility for roads in the postmining use period. In contrast, one commenter was concerned with the deletion of the requirement to maintain a road throughout its life. The commenter argued that operators are liable under the Act for roads and suggested reinstatement of the requirement to maintain roads throughout their life.

OSMRE did not propose this requirement because, under the Act, an operator has no responsibility for maintenance of the postmining land use after the performance bond has been properly released for the area in which the road is located. For this same reason, the suggestion that the requirement be added was not accepted.

SECTION 816.150(f)/817.150(f) - RECLAMATION

Final Section 816.150(f) provides that a road which is not to be retained under an approved postmining land use must be reclaimed as soon as practicable after it is no longer needed for mining and reclamation operations. The reclamation activities that are required by this paragraph include: (1) Closing the road to traffic; (2) removing all bridges and culverts unless approved as part of the postmining land use; (3) removing or otherwise disposing of road-surfacing materials that are incompatible with the postmining land use and the revegetation requirements of the regulation; (4) reshaping cut and fill slopes as necessary to be compatible with the postmining land use and to complement the natural drainage pattern of

the surrounding terrain; (5) protecting the natural drainage pattern by installing dikes or cross drains as necessary to control surface runoff and erosion; and (6) scarifying or ripping the roadbed, replacing topsoil or substitute material, and revegetating disturbed surfaces in accordance with 30 CFR 816.22 and 816.111-816.116. As discussed below, the final rule differs from the proposal in that the phrase "as soon as practicable" has replaced the word "immediately."

Three commenters were concerned with the word "immediately" in the phrase "shall be reclaimed in accordance with the approved reclamation plan immediately after it is no longer needed for mining and reclamation operations." The commenters believed it to be an unreasonable requirement that is subject to varying interpretations. The commenters noted that it may actually be environmentally undesirable for a road to be reclaimed during certain times of the year, due to problems with runoff and sediment control. One of these commenters argued that the immediate reclamation of a road would eliminate needed flexibility and preclude reuse of the road if mining and reclamation conditions change. One commenter noted that immediate reclamation is not needed to enforce the intent of the regulation.

OSMRE agrees with the commenters and has substituted the phrase "as soon as practicable" for the word "immediately" in Section 816.150(f) of the final rule. OSMRE believes that the phrase "as soon as practicable" is in keeping with the intentions of the Act as expressed in sections 102(e), 515(b) (2) and (16), which basically require reclamation to take place as contemporaneously as practicable with mining. However, this requirement does not become operable until the road is no longer needed. To postpone reclamation, the permittee must show a future need for or continuing use of the road as a part of his operation. The operator is required to maintain the road during this period. The reclamation schedule necessary to meet the requirement for timely reclamation should be contained in the permit and be consistent with the intent of the Act, by providing for reclamation which is as contemporaneous as practicable, minimizing unreasonable delays in reclamation implementation, and proceeding in an environmentally sound manner.

One commenter believed that proposed Section 816.150(f) should allow coal exploration roads to remain if they comply with the postmining land use. In the commenter's opinion, if retained, these roads would allow for better management of the forest reserve through better access for timber management and fire fighting activities.

OSMRE agrees that the retention of roads can be beneficial and has made provision in 30 CFR Part 815 for the retention of coal exploration roads in limited circumstances. Specifically, Section 815.15(d) provides an exemption from the requirement that all facilities and equipment be promptly removed from the exploration area when they are no longer needed. If the regulatory authority determines that the facilities or equipment will provide additional environmental data, reduce or control the on-site and off-site effects of the exploration operation, or facilitate future surface mining and reclamation operations, the facilities (roads) and equipment may be retained. The operator must apply to the regulatory authority for approval of the retention on a case-by-case basis. To the extent that coal exploration roads meet one of these three criteria, they may be exempted from the reclamation requirement. However, it should be noted that the concept of an approved postmining land use is not applicable to coal exploration activities since exploration is not mining. Therefore, OSMRE did not accept the suggested change.

One commenter suggested that some language should be added to Section 816.150(f) to clarify that both primary and ancillary roads are considered to be part of the surface coal mining operation and subject to the performance standards.

OSMRE agrees that both primary and ancillary roads are part of the surface coal mining operation. However, OSMRE believes that the wording of Section 816.150, Roads: General, is sufficiently clear in applying that section to all roads as defined in 30 CFR 701.5. Therefore, no change has been made.

One commenter supported the phrase "as necessary" in the requirement in Section 816.150(f)(4) that reclamation of a road include "reshaping cut and fill slopes as necessary to be compatible with the postmining land use and revegetation requirements." The commenter noted that this language recognizes that it is not always an appropriate requirement to redisturb an area for reshaping where stability of a slope has been assured to the satisfaction of the regulatory authority. In contrast, one commenter objected to the phrase "as necessary" because it dilutes or loosens the requirements contained in the remanded and suspended 1983 rule to reshape cut and fill slopes to be compatible with the postmining land use and to return the land to the approximate original contour.

In developing the proposed rule OSMRE looked at how this issue was handled in the remanded and suspended 1979 rule. OSMRE stated in the preamble to that final rule that "obliteration of the road might in some circumstances create extensive environmental harm due to excessive redisturbance of the road prism. Therefore, the concept of blending the

road into the topography was incorporated [into the final rule] based on comments received and work practices on thousands of miles of roads by the U.S. Forest Service" (Citation omitted.) (*44 FR 14901, 15259*, March 13, 1979). OSMRE went on to emphasize "that this blending is not to be construed as a variance from the requirement to restore the area to approximate original contour." Also, the statutory definition of "approximate original contour" allows the retention of terraces (section 701(2) of the Act). For these reasons, OSMRE proposed language similar to that used in 1979. After consideration of the comments, OSMRE feels that the position stated in 1979 and repeated here is still valid. Thus, OSMRE did not delete the phrase "as necessary" from the final rule.

One commenter supported proposed Section 816.150(f)(6), which allows the use of topsoil substitutes in reclaiming roadbeds. The commenter stated that this will accommodate the beneficial practice of redistributing topsoil taken from road areas for use in permit areas where it will promote better postmining land use.

OSMRE agrees that topsoil substitutes may be used in reclaiming roads and emphasizes that any such substitute material is subject to the requirements of Section 816.22.

G. SECTIONS 816.151/817.151 - PRIMARY ROADS

Final Section 816.151 establishes a set of performance standards for the design, construction, and maintenance of primary roads, in addition to those already established for all roads in Section 816.150. These performance standards are identical to the proposed rule except for Section 816.151(b) and (d) which have been changed to clarify the intent of the rule.

SECTIONS 816.151(a)/817.151(a) - CERTIFICATION

Final Section 816.151(a) is identical to the proposed rule and requires that primary road construction or reconstruction be certified in a report to the regulatory authority by a qualified registered professional engineer or land surveyor. The requirement for professional certification is intended to assure that the road is properly constructed to meet the environmental protection standards of the Act. Certification by a qualified registered professional land surveyor is allowed in any State which authorizes land surveyors to certify the construction or reconstruction of primary roads. This provision is based on the November 4, 1983, amendment to the Act (Section 115, Pub. L. 98-146, 97 Stat. 938 (1983)) which provides that "notwithstanding section 507(b)(14) of the Surface Mining Control and Reclamation Act of 1977 (Pub. L. 95-87), cross sections, maps, or plans of land to be affected by an application for a surface mining and reclamation permit shall be prepared by or under the direction of a qualified registered professional engineer or geologist, or qualified registered professional land surveyor in any State which authorizes land surveyors to prepare and certify such maps or plans." A registered land surveyor must have experience in the design and construction of roads in order to be eligible to provide this certification. This authority is given only to the extent allowed under State law. This requirement is equivalent to the experience requirement for registered engineers. Section 816.151(a) requires the certifying professional to prepare and submit to the regulatory authority a report certifying that the primary road was constructed or reconstructed as designed and in accordance with the approved plan.

One commenter did not agree with the language that authorizes land surveyors to certify the construction or reconstruction of primary roads. The commenter noted that the design and engineering of primary roads is outside the area of expertise of land surveyors. The commenter was particularly concerned with the adequacy of a land surveyor's expertise for roads in steep slope areas and the frequent use of primary roads by coal hauling vehicles.

OSMRE recognizes the fact that not all land surveyors have adequate expertise to certify road construction or reconstruction and, with this in mind, uses the terms qualified and experienced in the design and construction of roads. OSMRE feels that this language covering the experience and qualifications of the certifying individual and the additional requirement that the State must authorize a land surveyor to certify primary road construction or reconstruction provides adequate justification. In view of the legislative history of the November 3, 1983 amendment to the Act, OSMRE has concluded that the Congress intended the amendment to authorize certification because it is a step so intimately related to preparation of cross-sections, maps and plans that authority is necessarily implied by the terms of the legislation. As discussed by Senator Byrd on the floor of the Senate (129 Cong. Rec. S12411, Sept. 19, 1983), the purpose of the amendment was to remedy "conflicts with State laws [where the Act] preempts registered land surveyors from a lead role in the preparation and certification of maps, plans, and cross-sections."

OSMRE believes that Congress intended to authorize qualified, registered, professional land surveyors to perform both of these functions as lead professionals. If land surveyors were authorized merely to prepare and certify cross sections, maps, and plans, but were not authorized to certify associated construction or reconstruction, their status as lead professionals would be seriously impaired or negated. Thus, this rule authorizes qualified, registered, professional land surveyors to certify the construction or reconstruction of primary roads.

One commenter noted that a registered land surveyor would have to have experience in the design and construction of roads in order to have a State authorize the land surveyor to certify such work. The commenter indicated the language "with experience in the design and construction of road" to be unnecessary.

OSMRE believes that the language in Section 816.151(a) is necessary to ensure that only these land surveyors with experience in the design and construction of roads be allowed to certify this work.

One commenter suggested that landscape architects should also be allowed to certify the construction and reconstruction of roads. The commenter noted that the education and experience of landscape architects coupled with their registration would qualify them to develop plans and manage the construction of all types of roads associated with coal mining.

OSMRE does not have the statutory authority to allow landscape architects to certify cross sections, maps and plans or to authorize them to certify that the construction or reconstruction of primary roads was in accordance with those plans.

Four commenters recommended that the requirement in Section 816.151(a) to have the certified report sent to the regulatory authority should be changed to allow the report to be filed at the mine site or in a report to the regulatory authority. The commenters noted that the report should be available to the inspectors at the mine site and, by filing the report at the mine site, it would reduce the amount of paperwork that the regulatory authority would have to handle.

OSMRE believes that it is necessary to have the certified report sent to the regulatory authority so that any problems can be brought to the State's attention and so that the State has the opportunity to adequately monitor corrective action that may be necessary. Having the information on file in the State office also provides advance information to inspectors before beginning an inspection trip. Although OSMRE is sensitive to the concern that regulatory authorities' paperwork burdens should be reduced where possible, OSMRE does not agree that the limited time involved in handling this certified report outweighs the need to have it available at the regulatory authority's office.

SECTIONS 816.151(b)/817.151(b) - SAFETY FACTOR

Final Section 816.151(b) requires that all embankments have a minimum static safety factor of 1.3 or meet the requirements of Section 780.37(c). This section applies only to primary roads. Rather than specifying particular design criteria for road embankments, the 1.3 factor of safety establishes a performance standard that must be attained. The operator has the flexibility to select the particular design for the road that meets this standard. Related Section 780.37(c) enables the regulatory authority to establish engineering design standards through the State program approval process in lieu of engineering tests that would be performed to establish compliance with the safety factor. The language in final Section 816.151(b) has been changed from the proposed language by adding a cross-reference to Section 780.37(c) for clarity.

One commenter did not agree that a safety factor for road embankments was necessary, except for large embankments and those embankments which could endanger life or property upon failure. The commenter suggested new language for Section 816.151(b) that would remove the minimum safety factor requirement and require that primary road embankments be designed in accordance with standard engineering practice so as to be stable.

Two commenters agreed that the safety factor should only be applicable to primary roads. The commenters noted that, in general, ancillary roads are much smaller and less frequently used than primary roads. They also noted that, if an ancillary road would experience a slope or fill stability problem, the extent of these failures and the significance of the associated environmental impacts would be minimal.

One commenter argued that it is necessary to apply the minimum safety factor to ancillary as well as primary roads. The commenter argued further that the differentiation between primary and ancillary roads was not based on the potential for environmental effects to the point of being consistent with the concept in the 1979 rule, that minimum safety factors should apply only to roads that have greater environmental effects. The commenter specifically noted that the existence of high embankments, a factor specifically discussed by OSMRE as related to the degree of environmental risk from roads, is not a factor which is considered in the proposed distinction between primary and ancillary roads. As a result, the commenter concluded, ancillary roads with high embankments in steep slope areas, the failure of which could have serious environmental effects, would not be subject to static safety requirements.

As discussed previously in the preamble to the road classification system, there are substantial differences between primary and ancillary roads concerning road width (and thus the amount of cut and fill involved in steep slopes), ground pressure from traffic, and vehicle frequency that justify the application of the static safety factor to ensure stable primary roads that will meet the mandate of section 515(b)(17) of the Act. This reduces the potential for slips or failures on those heavily used roads. On the other hand, the narrow, lightly traveled ancillary roads do not typically have the high embankments associated with primary roads, even in steep slope areas, nor are they subject to the frequent impact of high ground pressures. Therefore, OSMRE is finalizing the rule as proposed.

A commenter expressed confusion about the fact that proposed Sections 780.37(c) and 784.24(c) appeared to allow the regulatory authority to develop design standards in lieu of the minimum safety factor. The commenter argued that the language in the proposal was confusing and should be clarified concerning the regulatory authority's flexibility to develop design standards under Section 780.37(c) in lieu of minimum safety factor requirements. Three additional commenters suggested language changes to Section 816.151(b) to help clarify the fact that regulatory authorities can establish engineering design standards in lieu of the minimum safety factor requirement.

Section 780.37(c) allows the regulatory authority to establish engineering design standards for primary roads in lieu of the engineering tests that otherwise would be performed to establish compliance with the minimum static safety factor of 1.3 for all primary road embankments. This provision enables the regulatory authority and the operator to save time and effort during the design and review of road plans and also ensures protection of the environment through the application of standards that have proved effective for the conditions prevalent in that State. Section 780.37(c) was not cross-referenced in proposed Section 816.151(b), and OSMRE recognizes, in response to the comments, that the connection needs emphasis. Final Section 816.151(b) includes a cross-reference to Section 780.37(c) to clarify that embankments must either have a minimum safety factor of 1.3 or, alternatively, meet the design standards developed in accordance with Section 780.37(c).

SECTIONS 816.151(c)/817.151(c) - LOCATION

Final Section 816.151(c) requires primary roads to be located, insofar as is practicable, on the most stable available surfaces to minimize erosion. Section 816.151(c)(2) prohibits primary roads from using stream fords on perennial or intermittent streams unless specifically approved by the regulatory authority as temporary routes during road construction. These provisions are identical to the proposed rule.

One commenter was concerned about the difference in the language of proposed Section 816.151(c) and that of the 1979 regulations (*44 FR 15416*, March 13, 1979). The commenter noted that the language in 816.151(c) states that primary roads are located, insofar as is "practicable," on the most stable available surface, while the 1979 regulations require roads to be placed on the most stable surface insofar as "possible." The commenter proposed that, in the alternative, roads be required to be located on ridges.

OSMRE disagrees. In developing the proposed rule, OSMRE chose to use the word "practicable" because it provides an adequate standard for road location to achieve the required stability when applied along with the requirement for a 1.3 static safety factor. OSMRE is concerned that requiring location of primary roads, insofar as is "possible," on the most stable surface available could result in roads being unnecessarily lengthened. In the preambles to both the 1979 (*44 FR 14901, 15248*, March 13, 1979) and 1983 (*48 FR 22110, 22120*, May 16, 1983) suspended rules, OSMRE expressed concern that road location requirements might unduly lengthen roads as well. Concerning the commenter's alternative, OSMRE agrees that ridges are often the most stable surface available and should be used for roads where practicable. However, ridges are not always located where the road is intended to go. Additionally, in appropriate circumstances,

wildlife disturbance can be reduced by locating roads below ridgelines (Ambrose, et al., p. 14). Since this alternative would not allow sufficient flexibility in the location of roads, OSMRE did not accept it.

SECTIONS 816.151(d)/817.151(d) - DRAINAGE CONTROL

Final Section 816.151(d) requires that surface water drainage for each primary road be controlled in accordance with the approved reclamation and operations plan specified in Section 780.37(a).

Final section (d)(1) requires that primary roads be constructed or reconstructed, and maintained to have adequate drainage control by using structures such as, but not limited to, bridges, ditches, cross drains and ditch relief drains. Section (d)(1) also requires that, at a minimum, drainage control systems be designed to safely pass the peak runoff from a ten-year, six-hour precipitation event, or greater event as specified by the regulatory authority. The language in final Section 816.151(d)(1) has been changed from the proposed language in an effort to clarify its intent because proposed Section 816.151(d)(1) could be read to mean that the regulatory authority may specify a lesser precipitation event than the ten-year, six-hour event. To clarify that the ten-year, six-hour event is the minimum precipitation event that the drainage control system must be able to handle, the final rule allows only modification to a higher standard by the regulatory authority.

Final Section 816.151(d)(2) requires that drainage pipes and culverts be installed as designed, and maintained in a free and operating condition and to prevent or control erosion at inlets and outlets. Final Section 816.151(d)(3) requires that drainage ditches be constructed and maintained to prevent uncontrolled drainage over the road surface and embankment. Final Section 816.151(d)(4) requires that culverts be installed and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road. Final Section 816.(d)(5) requires that natural stream channels not be altered or relocated without prior approval of the regulatory authority in accordance with Sections 816.41 through 816.43 and 816.57.

Final Section 816.151(d)(6) requires that, except as provided in section (c)(2), stream channel crossings for perennial and intermittent streams be accomplished using bridges, culverts, low-water crossings, or other structures designed, constructed, and maintained using current, prudent engineering practices. The requirement for drainage structures at perennial and intermittent streams is included to ensure consistency with Section 816.150(d)(1) of this part. By using current, prudent engineering practices to design, construct, and maintain crossings, the hydrologic and environmental balance of the stream is protected while the crossing is in place. Section 816.151(d)(6) includes language referring to perennial and intermittent streams for consistency with the language of performance standard in Section 816.150(d).

Several commenters requested a clarification as to the intent of proposed Section 816.151(d)(1) which stated, "The drainage control system shall be designed to safely pass the peak runoff from a ten-year, six-hour or greater precipitation event, unless otherwise specified by the regulatory authority." The confusion involved whether the regulatory authority could specify only a precipitation event greater than the ten-year, six-hour storm, or any greater or lesser precipitation event. One commenter suggested that the words "or greater precipitation" be deleted so the regulatory authority could, based on site-specific conditions, reduce the design storm below the ten-year, six-hour event.

Final Section 816.151(d)(1) provides flexibility to regulatory authorities to account for particular situations likely to be encountered over the life of the mine or related to specific downstream conditions. The rule allows for modification by the regulatory authority in those situations when the ten-year, six-hour precipitation event is not appropriate. In order to eliminate the confusion created by the language in proposed Section 816.151(d)(1), OSMRE has changed the final rule to read, "(1) Each primary road shall be constructed or reconstructed and maintained to have adequate drainage control, using structures such as, but not limited to, bridges, ditches, cross drains, and ditch relief drains. The drainage control system shall be designed to safely pass the peak runoff from a ten-year, six-hour precipitation event, or a greater event as specified by the regulatory authority." This will ensure that reductions in the required storm event are not made.

Several commenters suggested that the design precipitation event for the drainage control system should be modified from the ten-year, six-hour event in the proposed rule. One commenter suggested the use of the 25-year, 24-hour storm event, the ten-year, six-hour event or another event specified by the regulatory authority. The commenter maintained that the 25-year, 24-hour event is consistent with current local practices and has not caused any problems. Another commenter stated that the ten-year, six-hour event is excessive, and the one-year, 24-hour event should be used to design the drainage control system. The commenter argued that no problems have been experienced with excessive water

overtopping the road surface during major storm events when the one-year, 24-hour standard was used. Two other commenters were satisfied that the ten-year, six-hour storm would be appropriate.

Another commenter contended that the drainage control systems should be designed for a ten-year, 24-hour storm event rather than a ten-year, six-hour event because better data is available for the 24-hour events. Also, the commenter indicated that the peak flows for ten-year, 24-hour events and ten-year, six-hour events do not differ significantly. One commenter believed that the ten-year, six-hour event standard could create compliance problems since some states currently design for a 25-year, 24-hour event. If the ten-year, six-hour event produces higher peak runoff volumes than the 25-year, 24-hour event, the commenter maintained that existing approved roads could be found in non-compliance. (See the discussion under General Comments concerning existing structures.)

OSMRE believes that the ten-year, six-hour precipitation event is appropriate for drainage control systems for primary roads. This design event makes the road rules consistent with the rules for diversions in Section 816.43. OSMRE recognizes that for some basins, depending on location, the 24-hour duration storm may result in a runoff volume somewhat higher than the six-hour storm for the same area (*44 FR 15207*, March 13, 1979). However, for most mining situations, a six-hour event is more likely to result in a higher peak flow. See the Final Environmental Statement, OSM-EIS-1: Supplement, Volume 1: Analysis, p. IV-17. For a given storm frequency, the time of concentration and watershed shape can be more influential in determining the peak flow than the storm duration. Therefore, in most cases the differences in any increased volume of peak flow will be minor from a practical design and construction standpoint. Any computed increase in peak flow volume would most likely not result in any significant change in flow depth or flow velocity and, correspondingly, any alteration in the design of the drainage control system. Thus, OSMRE did not find any compelling reasons to change the proposed design event standard in response to comments on the proposed rule.

One commenter asserted that drainage control systems designed to pass the peak runoff from a ten-year, six-hour or greater precipitation event as required in proposed Section 816.151(d)(1), would be inadequate. The commenter argued that drainage control systems for ancillary roads, especially those with high embankments and those in steep slope areas, should be required to be designed to safely pass the peak runoff from some precipitation event that is greater than the ten-year, six-hour storm. The commenter was also particularly concerned with long-term or permanent roads where there is potential danger to health and/or safety or significant environmental impacts. The commenter suggested that drainage control systems for long-term roads have a minimum of a 25-year precipitation event, and permanent roads have a minimum of a 100-year precipitation event. The commenter also suggested that drainage control systems on roads with high potential for injury or significant environmental damage should be designed to appropriate precipitation event standards.

Another commenter suggested that there should be a distinction made in the design precipitation events for temporary water crossings versus permanent structures. The commenter argued that permanent structures have a longer intended life and should be designed accordingly. The commenter suggested that the design precipitation event for permanent structures should be the 100-year, six-hour event, with the exception for low-water crossings since they are designed to be overtopped.

OSMRE believes that a minimum standard of a ten-year, six-hour precipitation event for the design of drainage control system is adequate to protect the public and the environment from significant damage. The U.S. Army Corps of Engineers and State highway departments use ten-year storms for design purposes. The regulatory authority may specify a greater precipitation event as appropriate for site-specific conditions and situations. Concerning ancillary roads, OSMRE considers that the standards in final Section 816.150(b) (2) through (6) are adequate to protect the environment without details associated with the standards for primary roads. The standards in Section 816.150(b) allow the operator and the regulatory authority to use a variety of methods to minimize adverse environmental impacts from ancillary roads.

One commenter suggested that proposed Section 816.151(d)(1) be revised to delete the word "reconstructed." The commenter argued that roads in existence at the time that this rulemaking is adopted should not be required to be reconstructed.

OSMRE does not agree. The word "reconstructed" in the context of this rule refers to those situations where an operator on his own initiative decides to upgrade or improve significantly a road by reconstructing it. The application of these standards to existing roads is covered by the provisions of 30 CFR 701.11(e), concerning existing structures.

One commenter suggested that the word "avoid" in proposed Section 816.151(d)(2) be replaced by the word "control." The commenter noted that, because some erosion is unavoidable, the use of the word "avoid" makes it possible for an operator to meet this requirement.

Since the language of section 515(b)(17) of the Act requires control or prevention of erosion, not avoidance of erosion, OSMRE has deleted the word "avoid" and replaced it with "prevent or control" in the final rule.

One commenter noted that the performance standards for diversions are found in 30 CFR 816.43, but the definition of "diversion" in 30 CFR 701.5 does not explicitly include stream channel crossings. The commenter suggested revising the definition of "diversion" to clarify that stream channel crossings (i.e., culverts, bridges, fords, etc.) are included in the definition and that the requirements of Section 816.43 apply to roads. The commenter also suggested that specific reclamation design criteria for restoration of channel crossings be added.

The definition of "diversion" does not include stream channel crossings, and OSMRE does not agree that the definition should be changed. Culverts, bridges, and fords are man-made structures that cross a stream and do not "divert" water to a channel in a new location. OSMRE does not agree that specific design criteria for restoration of stream channel crossings should be included in the final rule. The performance standards adopted today and other permanent program regulations, e.g. 30 CFR 816.43, are adequate to minimize environmental harm. Further, specific design criteria would limit the regulatory authority's flexibility in approving effective reclamation designs.

One commenter felt that the addition of low-water crossings to the list of structures that are allowed for stream crossings was not acceptable because of potential problems with erosion and increased sediment, and the fact that they are inundated by high flows. The commenter noted further that there is a need for detailed national standards for erosion prevention and sediment control.

OSMRE notes that the regulations require that the operator prevent erosion and sediment problems with low-water crossings. Final Section 816.151(d)(6) specifically states that "the regulatory authority shall ensure that low-water crossings are designed, constructed, and maintained to prevent erosion of the structure or streambed and additional contributions of suspended solids to streamflow." OSMRE agrees that by design, low-water crossings will be inundated during high flows which will restrict their use. OSMRE does not agree that this creates a problem except that it necessarily will cause the operator to alter mining operations to accommodate the inundation.

One commenter was concerned with the use of the word "prevent" in proposed Section 816.151(d)(6) with respect to erosion associated with low-water structures. The commenter suggested that the word "prevent" be replaced by the word "control" because an operator cannot prevent erosion entirely.

OSMRE kept the word "prevent" in final Section 816.151(d)(6) because by design, a low-water structure will be inundated during high-water flow periods, and this high-water flow will have greater velocities and erosion potential than during periods of low water. Therefore, the design, construction, and maintenance of low-water structures must prevent erosion of the structure and streambed during all anticipated flow conditions.

One commenter inquired if it was the intent of OSMRE to allow retention of low-water crossings as permanent structures.

OSMRE believes that the decision on retention of low-water crossings as permanent structures is the responsibility of the regulatory authority. This decision must consider the requirements of 30 CFR 816.133 and other associated permanent structure performance requirements.

SECTIONS 816.151(e)/817.151(e) - SURFACING

Final Section 816.151(e) is identical to the proposed rule and requires that primary roads be surfaced with material approved by the regulatory authority as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road. The final rule does not specify the kinds of materials which must be used for surfacing primary roads and does not list routine maintenance responsibilities for primary roads. Since the regulatory authority may approve only surfacing materials that meet the requirements of this section, it is not necessary to list the materials that may be used. The regulatory authority should have the flexibility to approve any material which will satisfy these requirements. The final rule establishes adequate maintenance requirements for all roads and, therefore, it is not necessary

to establish separate requirements for primary roads. The regulatory authority may specify additional maintenance criteria for primary roads, as necessary.

One commenter was concerned that the requirements in proposed Section 816.151(e) were too general. The commenter questioned if economics would be taken into account when the regulatory authority comes to a decision on the type of material that will be "sufficiently durable." The commenter raised the possibility that appropriate surface materials may not be available at or near the mine site, and the costs to obtain the required materials could be prohibitive. Two commenters argued that proposed Section 816.151(e) was a "blanket" surfacing requirement that would, in every case, require some type of additional surface material. The commenters contended that, in many instances, the natural surface of the road may be sufficient to meet the performance standards. The commenters suggested that the language in Section 816.151(e) be changed by taking out the phrase "approved by the regulatory authority."

OSMRE does not foresee that a regulatory authority would take economics into account in approving road surfacing material. In the first place, the regulatory experience OSMRE has accumulated over the past ten years indicates that durable surfacing material is usually present in sufficient quantities at the vast majority of coal mining operations, particularly when used in association with periodic chemical treatment to maintain a compacted, dust-free surface. Secondly, the purpose of the provision is to protect the environment, that is, to ensure that the road surfacing material is sufficiently durable to avoid problems with excessive dust and erosion due to breakdown of the road surface. While OSMRE agrees that, in some instances, the natural surface of the road may be sufficient to meet the performance standards, the commenter's suggested change was not accepted. Final Section 816.151(e) does not preclude the acceptability of the natural road surface in meeting the durability requirement.

One commenter objected to the lack of a justification for the requirement to have the surface materials approved in advance.

OSMRE believes that the regulatory authority must review the type of surface material proposed for the construction of each primary road prior to the construction of the road. From a practical standpoint, prior approval will ensure that environmental damage does not result from surfacing with substandard material, and will avoid the problems and costs associated with having to remove any substandard material and/or resurface the road.

H. REFERENCES

In addition to the literature cited with previous rulemakings on this subject (*43 FR 41739*, September 18, 1978; *44 FR 15245*, March 13, 1979; and *47 FR 16595*, April 16, 1982) which was used as general background material, the following items were used in the preparation of this final rule:

Ambrose, R.E., C.R. Hinkle, and C.R. Wenzel, 1983, Practices for protecting and enhancing fish and wildlife on coal surface-mined lands in the Southcentral U.S., U.S. Department of the Interior, Fish and Wildlife Service, FWS/OBS-83/11, 229 pp.

Kaufman, W.K. and J.C. Ault, 1977, Design of Surface Mine Haulage Roads -- A Manual, U.S. Department of the Interior, Bureau of Mines, Information Circular No. 8758, 68 pp.

U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement, 1983, Proposed revisions to the Permanent Program Regulations Implementing section 501(b) of the Surface Mining Control and Reclamation Act of 1977, Final Environmental Statement, OSM-EIS-1: Supplement, 3 vols.

III. PROCEDURAL MATTERS

Effect in Federal Program States and on Indian Lands

The rule applies through cross-referencing, to those states with Federal programs. This includes California (as of August 12, 1988; *53 FR 26570*, July 13, 1988), Georgia, Idaho, Massachusetts, Michigan, North Carolina, Oregon, Rhode Island, South Dakota, Tennessee, and Washington. The Federal programs for these States appear at 30 CFR Parts 905, 910, 912, 921, 922, 933, 937, 939, 941, 942, and 947, respectively. The rule also applies, through cross-referencing, to Indian lands under the Federal program for Indian lands as provided in 30 CFR Part 750.

Effect on State Programs

Following promulgation of the final rule, OSMRE will evaluate permanent State regulatory programs approved under section 503 of SMCRA to determine whether any changes in these programs will be necessary. If the Director determines that certain State program provisions should be amended in order to be made no less effective than the revised Federal rules, the individual states will be notified in accordance with the provisions of 30 CFR 732.17.

Executive Order 12291

The Department of the Interior has examined this final rule according to the criteria of Executive Order 12291 (February 17, 1981) and has determined that this is not a major rule and does not require a regulatory impact analysis. The final rule will impose only minor costs on the coal industry and coal consumers because it emphasizes the use of performance standards instead of design criteria which will allow operators to use the most cost-effective means of achieving the minimum standards.

Regulatory Flexibility Act

The Department of the Interior has also determined, pursuant to the Regulatory Flexibility Act, 5 *U.S.C.* 601 et seq., that this final rule will not have a significant economic impact on a substantial number of small entities. The funds that a small operator will have to invest in the construction of roads to comply with this final rule will only be minimally increased over what would normally be spent to ensure efficient transportation and minimal vehicle damage. The cost of building roads will be defrayed by lowered maintenance costs for roads and vehicles. The operator will also avoid losses from a shutdown of operations due to impassable roads.

Federal Paperwork Reduction Act

The information collection requirements contained in Sections 780.37 and 780.38 have been approved by the Office of Management and Budget (OMB) under 44 *U.S.C.* 3501 et seq. and assigned clearance number 1029-0036. The information collection requirements contained in Sections 784.24 and 784.30 have been approved by OMB under 44 *U.S.C.* 3501 et seq. and assigned clearance number 1029-0039.

Public reporting burden for this information is estimated to average as follows: Section 780.37 -- 17.0 hours, Section 780.38 -- 12.0 hours, Section 784.24 -- 9.7 hours, and Section 784.30 -- 12.0 hours, per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection information, including suggestions for reducing the burden, to Information Collection Clearance Officer, OSMRE, 1951 Constitution Avenue, NW., Washington, DC 20240; and the Office of Information and Regulatory Affairs, OMB, Washington, DC 20503.

National Environmental Policy Act

OSMRE has prepared an environmental assessment and has made a finding that the final rules will not significantly affect the quality of the human environment under section 102(2)(C) of the National Environmental Policy Act of 1969, 42 *U.S.C.* 4332(2)(C). The environmental assessment is on file in the OSMRE Administrative Record, Room 5131, 1100 L Street, NW., Washington, DC.

Agency Approval

Section 516(a) requires that, with regard to rules directed toward the surface effects of underground mining, OSMRE must obtain written concurrence from the head of the department which administers the Federal Mine Safety and Health Act of 1977, the successor to the Federal Coal Mine Health and Safety Act of 1969. OSMRE has obtained the written concurrence of the Assistant Secretary for Mine Safety and Health, U.S. Department of Labor.

Authors

The authors of this rule are Robert A. Wiles, P.E., and Donald E. Stump, Jr., P.E., with assistance from Patrick W. Boyd; OSMRE, 1951 Constitution Avenue, NW., Washington, DC 20240; Telephone: 202-343-1502 (Commercial or FTS).

LIST OF SUBJECTS

30 CFR Part 701

Law enforcement, Surface mining, Underground mining.

30 CFR Part 780
Reporting and recordkeeping requirements, Surface mining.

30 CFR Part 784
Reporting and recordkeeping requirements, Underground mining.

30 CFR Part 815
Reporting and recordkeeping requirements, Surface mining.

30 CFR Part 816
Environmental protection, Reporting and recordkeeping requirements, Surface mining.

30 CFR Part 817
Coal mining, Environmental protection, Reporting and recordkeeping requirements, Underground mining.

Accordingly, 30 CFR Parts 701, 780, 784, 815, 816, and 817 are amended as set forth below:

Dated: September 14, 1988.

J. Steven Griles, Assistant Secretary -- Land and Minerals Management.

PART 701 -- PERMANENT REGULATORY PROGRAM

1. The authority citation for Part 701 is revised to read as follows:

Authority: Pub. L. 95-87, *30 U.S.C. 1201* et seq., as amended, and Pub. L. 100-34.

SECTION 701.5 [AMENDED]

2. In Section 701.5, the definition of road is reinstated and revised to read as follows:

* * * * *

ROAD means a surface right-of-way for purposes of travel by land vehicles used in surface coal mining and reclamation operations or coal exploration. A road consists of the entire area within the right-of-way, including the roadbed, shoulders, parking and side areas, approaches, structures, ditches, and surface. The term includes access and haul roads constructed, used, reconstructed, improved, or maintained for use in surface coal mining and reclamation operations or coal exploration, including use by coal hauling vehicles to and from transfer, processing, or storage areas. The term does not include ramps and routes of travel within the immediate mining area or within spoil or coal mine waste disposal areas.

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

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

Authority: Pub. L. 95-87, *30 U.S.C. 1201* et seq., as amended; Section 115 of Pub. L. 98-146, *30 U.S.C. 1257*; *16 U.S.C. 470* et seq.; and Pub. L. 100-34.

4. Section 780.37 is revised to read as follows:

SECTION 780.37 - ROAD SYSTEMS.

(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 Section 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 Section 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 Section 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 Section 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 Section 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 Section 816.151(b) of this chapter.

5. Section 780.38 is added to read as follows:

SECTION 780.38 - SUPPORT FACILITIES.

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 Section 816.181 of this chapter for each facility.

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

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

Authority: Pub. L. 95-87, 30 U.S.C. 1201 et seq., as amended; Section 115 of Pub. L. 98-146, 30 U.S.C. 1257; 16 U.S.C. 470 et seq.; and Pub. L. 100-34.

7. Section 784.24 is revised to read as follows:

SECTION 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 Section 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 Section 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 Section 817.151(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 Section 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 Section 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 Section 817.151(b) of this chapter.

8. Section 784.30 is added to read as follows:

SECTION 784.30 - SUPPORT FACILITIES.

Each applicant for an underground 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 Section 817.181 of this chapter for each facility.

PART 815 -- PERMANENT PROGRAM STANDARDS -- COAL EXPLORATION

9. The authority citation for Part 815 is revised to read as follows:

Authority: Pub. L. 95-87, *U.S.C. 1201* et se., as amended; and Pub. L. 100-34.

10. Section 815.15 is amended by revising paragraph (b) to read as follows:

SECTION 815.15 - PERFORMANCE STANDARDS FOR COAL EXPLORATION.

* * * * *

(b) All roads or other transportation facilities used for coal exploration shall comply with the applicable provisions of Sections 816.150 (b) through (f), 816.180, and 816.181 of this chapter.

PART 816 -- PERMANENT PROGRAM PERFORMANCE STANDARDS -- SURFACE MINING ACTIVITIES

11. The authority citation for Part 816 is revised to read as follows:

Authority: Pub. L. 95-87, *30 U.S.C. 1201* et seq., as amended; Section 115 of Pub. L. 98-146, *30 U.S.C. 1257*; and Pub. L. 100-34.

12. Section 816.150 is reinstated and revised to read as follows:

SECTION 816.150 - ROADS: GENERAL.

(a) Road classification system.

(1) Each road, as defined in Section 701.5 of this chapter, shall be classified as either a primary road or an ancillary road.

(2) A primary road is any road which is-

(i) Used for transporting coal or spoil;

(ii) Frequently used for access or other purposes for a period in excess of six months; or

(iii) To be retained for an approved postmining land use.

(3) An ancillary road is any road not classified as a primary road.

(b) Performance standards. Each road shall be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

(1) Control or prevent erosion, siltation, and the air pollution attendant to erosion, including road dust as well as dust occurring on other exposed surfaces, by measures such as vegetating, watering, using chemical or other dust suppressants, or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices;

(2) Control or prevent damage to fish, wildlife, or their habitat and related environmental values;

(3) Control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area;

(4) Neither cause nor contribute to, directly or indirectly, the violation of State or Federal water quality standards applicable to receiving waters;

(5) Refrain from seriously altering the normal flow of water in streambeds or drainage channels;

(6) Prevent or control damage to public or private property, including the prevention or mitigation of adverse effects on lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including designated study rivers, and National Recreation Areas designated by Act of Congress;

(7) Use nonacid- and nontoxic-forming substances in road surfacing.

(c) Design and construction limits and establishment of design criteria. To ensure environmental protection appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and construction or reconstruction of roads shall incorporate appropriate limits for grade, width, surface materials, surface drainage control, culvert placement, and culvert size, in accordance with current, prudent engineering practices, and any necessary design criteria established by the regulatory authority.

(d) Location.

(1) No part of any road shall be located in the channel of an intermittent or perennial stream unless specifically approved by the regulatory authority in accordance with applicable Sections 816.41 through 816.43 and 816.57 of this chapter.

(2) Roads shall be located to minimize downstream sedimentation and flooding.

(e) Maintenance.

(1) A road shall be maintained to meet the performance standards of this part and any additional criteria specified by the regulatory authority.

(2) A road damaged by a catastrophic event, such as a flood or earthquake, shall be repaired as soon as is practicable after the damage has occurred.

(f) Reclamation. A road not to be retained under an approved postmining land use shall be reclaimed in accordance with the approved reclamation plan as soon as practicable after it is no longer needed for mining and reclamation operations.

This reclamation shall include:

(1) Closing the road to traffic;

(2) Removing all bridges and culverts unless approved as part of the postmining land use;

(3) Removing or otherwise disposing of road-surfacing materials that are incompatible with the postmining land use and revegetation requirements;

(4) Reshaping cut and fill slopes as necessary to be compatible with the postmining land use and to complement the natural drainage pattern of the surrounding terrain;

(5) Protecting the natural drainage patterns by installing dikes or cross drains as necessary to control surface runoff and erosion; and

(6) Scarifying or ripping the roadbed; replacing topsoil or substitute material, and revegetating disturbed surfaces in accordance with Sections 816.22 and 816.111 through 816.116 of this chapter.

12. Section 816.151 is reinstated and revised to read as follows:

SECTION 816.151 - PRIMARY ROADS.

Primary roads shall meet the requirements of section 816.150 and the additional requirements of this section.

(a) Certification. The construction or reconstruction of primary roads shall be certified in a report to the regulatory authority by a qualified registered professional engineer, or in any State which authorizes land surveyors to certify the construction or reconstruction of primary roads, a qualified registered professional land surveyor with experience in the design and construction of roads. The report shall indicate that the primary road has been constructed or reconstructed as designed and in accordance with the approved plan.

(b) Safety Factor. Each primary road embankment shall have a minimum static factor of 1.3 or meet the requirements established under Section 780.37(c) of this chapter.

(c) Location.

(1) To minimize erosion, a primary road shall be located, insofar as is practicable, on the most stable available surface.

(2) Fords or perennial or intermittent streams by primary roads are prohibited unless they are specifically approved by the regulatory authority as temporary routes during periods of road construction.

(d) Drainage control. In accordance with the approved plan --

(1) Each primary road shall be constructed or reconstructed, and maintained to have adequate drainage control, using structures such as, but not limited to bridges, ditches, cross drains, and ditch relief drains. The drainage control system shall be designed to safely pass the peak runoff from a 10-year, 6-hour precipitation event, or greater event as specified by the regulatory authority;

(2) Drainage pipes and culverts shall be installed as designed, and maintained in a free and operating condition and to prevent or control erosion at inlets and outlets;

(3) Drainage ditches shall be constructed and maintained to prevent uncontrolled drainage over the road surface and embankment;

(4) Culverts shall be installed and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road;

(5) Natural stream channels shall not be altered or relocated without the prior approval of the regulatory authority in accordance with applicable Section 816.41 through 816.43 and 816.57 of this chapter; and

(6) Except as provided in paragraph (c)(2) of this section, structures for perennial or intermittent stream channel crossings shall be made using bridges, culverts, low-water crossings, or other structures designed, constructed, and maintained using current, prudent engineering practices. The regulatory authority shall ensure that low-water crossings are designed, constructed, and maintained to prevent erosion of the structure or streambed and additional contributions of suspended solids to streamflow.

(e) Surfacing. Primary roads shall be surfaced with material approved by the regulatory authority as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road.

PART 817 -- PERMANENT PROGRAM PERFORMANCE STANDARDS -- UNDERGROUND MINING ACTIVITIES

13. The authority citation for Part 817 is revised to read as follows:

Authority: Pub. L. 95-87, *30 U.S.C. 1201* et seq., as amended; Section 115 of Pub. L. 98-146, *30 U.S.C. 1257*; and Pub. L. 100-34.

14. Section 817.150 is reinstated and revised to read as follows:

SECTION 817.150 - ROADS: GENERAL.

(a) Road classification system.

(1) Each road, as defined in Section 701.5 of this chapter, shall be classified as either a primary road or an ancillary road.

(2) A primary road is any road which is --

(i) Used for transporting coal or spoil;

(ii) Frequently used for access or other purposes for a period in excess of six months; or

(iii) To be retained for an approval postmining land use.

(3) An ancillary road is any road not classified as a primary road

(b) Performance standards. Each road shall be located, designed, constructed, reconstructed, used, maintained, and reclaimed so as to:

(1) Control or prevent erosion, siltation, and the air pollution attendant to erosion, including road dust and dust occurring on other exposed surfaces, by measures such as vegetating, watering, using chemical or other dust suppressants, or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices;

(2) Control or prevent damage to fish, wildlife, or other habitat and related environmental values;

(3) Control or prevent additional contributions of suspended solids to streamflow or runoff outside the permit area;

(4) Neither cause nor contribute to, directly or indirectly, the violation of State or Federal water quality standard applicable to receiving waters;

(5) Refrain from seriously altering the normal flow of water in streambeds or drainage channels;

(6) Prevent or control damage to public or private property, including the prevention or mitigation of adverse effects on lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including designated study rivers, and National Recreation Areas designated by Act of Congress; and

(7) Use nonacid- and nontoxic-forming substances in road surfacing.

(c) Design and construction limits and establishment of design criteria. To ensure environmental protection appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and construction or reconstruction of roads shall incorporate appropriate limits for grade, width, surface materials, surface drainage control, culvert placement, and culvert size, in accordance with current, prudent engineering practices, and any necessary design criteria established by the regulatory authority.

(d) Location.

(1) No part of any road shall be located in the channel of an intermittent or perennial stream unless specifically approved by the regulatory authority in accordance with applicable Sections 817.41 through 817.43 and 817.57 of this chapter.

(2) Roads shall be located to minimize downstream sedimentation and flooding.

(e) Maintenance.

(1) A road shall be maintained to meet the performance standards of this part and any additional criteria specified by the regulatory authority;

(2) A road damaged by a catastrophic event, such as a flood or earthquake, shall be repaired as soon as is practicable after the damage has occurred.

(f) Reclamation. A road not to be retained under an approved postmining land use shall be reclaimed in accordance with the approved reclamation plan as soon as practicable after it is no longer needed for mining and reclamation operations. This reclamation shall include:

(1) Closing the road to traffic;

(2) Removing all bridges and culverts unless approved as part of the postmining land use;

(3) Removing or otherwise disposing of road-surfacing materials that are incompatible with the postmining land use and revegetation requirements;

(4) Reshaping cut and fill slopes as necessary to be compatible with the postmining land use and to complement the natural drainage pattern of the surrounding terrain;

(5) Protecting the natural drainage patterns by installing dikes or cross drains as necessary to control surface runoff and erosion; and

(6) Scarifying or ripping the roadbed, replacing topsoil or substitute material and revegetating disturbed surfaces in accordance with Sections 817.22 and 817.111 through 817.116 of this chapter.

15. Section 817.151 is reinstated and revised to read as follows:

SECTION 817.151 - PRIMARY ROADS.

Primary roads shall meet the requirements of Section 817.150 and the additional requirements of this section.

(a) Certification. The construction or reconstruction of primary roads shall be certified in a report to the regulatory authority by a qualified registered professional engineer, or in any State which authorizes land surveyors to certify the construction or reconstruction of primary roads, a qualified registered professional land surveyor, with experience in the design and construction of roads. The report shall indicate that the primary road has been constructed or reconstructed as designed and in accordance with the approved plan.

(b) Safety Factor. Each primary road embankment shall have a minimum static factor of 1.3 or meet the requirements established under Section 784.24(c).

(c) Location.

(1) To minimize erosion, a primary road shall be located, insofar as is practicable, on the most stable available surface.

(2) Fords of perennial or intermittent streams by primary roads are prohibited unless they are specifically approved by the regulatory authority as temporary routes during periods of road construction.

(d) Drainage control. In accordance with the approved plan --

(1) Each primary road shall be constructed or reconstructed, and maintained to have adequate drainage control, using structures such as, but not limited to bridges, ditches, cross drains, and ditch relief drains. The drainage control system shall be designed to safely pass the peak runoff from a 10-year, 6-hour precipitation event, or greater event as specified by the regulatory authority;

(2) Drainage pipes and culverts shall be installed as designed, and maintained in a free and operating condition and to prevent or control erosion at inlets and outlets;

(3) Drainage ditches shall be constructed and maintained to prevent uncontrolled drainage over the road surface and embankment;

(4) Culverts shall be installed and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road;

(5) Natural stream channels shall not be altered or relocated without the prior approval of the regulatory authority in accordance with applicable Sections 816.41 through 816.43 and 816.57 of this chapter; and

(6) Except as provided in paragraph (c)(2) of this section, structures for perennial or intermittent stream channel crossings shall be made using bridges, culverts, low-water crossings, or other structures designed, constructed, and maintained using current, prudent engineering practices. The regulatory authority shall ensure that low-water crossings are designed, constructed, and maintained to prevent erosion of the structure or streambed and additional contributions of suspended solids to streamflow.

(e) Surfacing. Primary roads shall be surfaced with material approved by the regulatory authority as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road.

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