Office of Surface Mining Reclamation and Enforcement

30 CFR Part 761
RIN 1029–AB82

Prohibitions of 522(e)

AGENCY: Office of Surface Mining Reclamation and Enforcement, Department of the Interior.

ACTION: Proposed interpretative rule.

SUMMARY: The Office of Surface Mining Reclamation and Enforcement (OSM) of the U.S. Department of the Interior (DOI) is proposing an interpretative rulemaking to address the question of whether subsidence due to underground mining is a surface coal mining operation and thus prohibited in areas enumerated in section 522(e) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

OSM proposes to interpret SMCRA and implementing rules to provide that subsidence due to underground mining is not a surface coal mining operation, and therefore is not prohibited in areas protected under SMCRA section 522(e). OSM proposes to construe the definition of “surface coal mining operations” at SMCRA section 701(28)(A) and in the analogous portion of the existing rules at 30 CFR 700.5 not include subsidence, and to include only (1) surface activities in connection with a surface coal mine and (2) surface activities in connection with those surface operations and impacts of an underground coal mine subject to section 516. Similarly, OSM would construe the second part of this definition, at SMCRA section 701(28)(B) and in the analogous portion of the existing rules at 30 CFR 700.5, to include only the areas upon which such surface activities occur, and the areas where such surface activities disturb the surface and to holes or depressions resulting from or incident to such surface activities. Only “surface coal mining operation” are prohibited within the areas protected by section 522(e).

Therefore, neither subsurface activities that may result in subsidence, nor actual subsidence, would be prohibited on lands protected by section 522(e). Rather, such underground activities and their impacts, including subsidence, would be subject to regulation under sections 516 and 720.

DATES: Electronic or written comments: OSM will accept electronic or written comments on the proposed rule until 5:00 p.m. Eastern time on June 2, 1997.

Public hearings: Anyone wishing to testify at a public hearing must submit a request on or before 5:00 p.m. Eastern time on March 17, 1997. Because OSM will hold a public hearing at a particular location only if there is sufficient interest, hearing arrangements, dates and times, if any, will be announced in a subsequent Federal Register notice. Any disabled individual who needs special accommodation to attend a public hearing should contact the person listed under FOR FURTHER INFORMATION CONTACT.

OSM proposes to construe the second part of this definition, at SMCRA section 701(28)(B) and in the analogous portion of the existing rules at 30 CFR 700.5, to include only the areas upon which such surface activities occur, and the areas where such surface activities disturb the surface and to holes or depressions resulting from or incident to such surface activities. Only “surface coal mining operation” are prohibited within the areas protected by section 522(e).

Therefore, neither subsurface activities that may result in subsidence, nor actual subsidence, would be prohibited on lands protected by section 522(e). Rather, such underground activities and their impacts, including subsidence, would be subject to regulation under sections 516 and 720.

DATES: Electronic or written comments: OSM will accept electronic or written comments on the proposed rule until 5:00 p.m. Eastern time on June 2, 1997.

Public hearings: Anyone wishing to testify at a public hearing must submit a request on or before 5:00 p.m. Eastern time on March 17, 1997. Because OSM will hold a public hearing at a particular location only if there is sufficient interest, hearing arrangements, dates and times, if any, will be announced in a subsequent Federal Register notice. Any disabled individual who needs special accommodation to attend a public hearing should contact the person listed under FOR FURTHER INFORMATION CONTACT.

OSM proposes to construe the second part of this definition, at SMCRA section 701(28)(B) and in the analogous portion of the existing rules at 30 CFR 700.5, to include only the areas upon which such surface activities occur, and the areas where such surface activities disturb the surface and to holes or depressions resulting from or incident to such surface activities. Only “surface coal mining operation” are prohibited within the areas protected by section 522(e).

Therefore, neither subsurface activities that may result in subsidence, nor actual subsidence, would be prohibited on lands protected by section 522(e). Rather, such underground activities and their impacts, including subsidence, would be subject to regulation under sections 516 and 720.

DATES: Electronic or written comments: OSM will accept electronic or written comments on the proposed rule until 5:00 p.m. Eastern time on June 2, 1997.

Public hearings: Anyone wishing to testify at a public hearing must submit a request on or before 5:00 p.m. Eastern time on March 17, 1997. Because OSM will hold a public hearing at a particular location only if there is sufficient interest, hearing arrangements, dates and times, if any, will be announced in a subsequent Federal Register notice. Any disabled individual who needs special accommodation to attend a public hearing should contact the person listed under FOR FURTHER INFORMATION CONTACT.

OSM proposes to construe the second part of this definition, at SMCRA section 701(28)(B) and in the analogous portion of the existing rules at 30 CFR 700.5, to include only the areas upon which such surface activities occur, and the areas where such surface activities disturb the surface and to holes or depressions resulting from or incident to such surface activities. Only “surface coal mining operation” are prohibited within the areas protected by section 522(e).

Therefore, neither subsurface activities that may result in subsidence, nor actual subsidence, would be prohibited on lands protected by section 522(e). Rather, such underground activities and their impacts, including subsidence, would be subject to regulation under sections 516 and 720.

DATES: Electronic or written comments: OSM will accept electronic or written comments on the proposed rule until 5:00 p.m. Eastern time on June 2, 1997.

Public hearings: Anyone wishing to testify at a public hearing must submit a request on or before 5:00 p.m. Eastern time on March 17, 1997. Because OSM will hold a public hearing at a particular location only if there is sufficient interest, hearing arrangements, dates and times, if any, will be announced in a subsequent Federal Register notice. Any disabled individual who needs special accommodation to attend a public hearing should contact the person listed under FOR FURTHER INFORMATION CONTACT.

OSM proposes to construe the second part of this definition, at SMCRA section 701(28)(B) and in the analogous portion of the existing rules at 30 CFR 700.5, to include only the areas upon which such surface activities occur, and the areas where such surface activities disturb the surface and to holes or depressions resulting from or incident to such surface activities. Only “surface coal mining operation” are prohibited within the areas protected by section 522(e).

Therefore, neither subsurface activities that may result in subsidence, nor actual subsidence, would be prohibited on lands protected by section 522(e). Rather, such underground activities and their impacts, including subsidence, would be subject to regulation under sections 516 and 720.
and except for those operations which existed on August 3, 1977. Lands designated in section 522(e)(1) include any lands within the boundaries of units of the National Park System, the National Wildlife Refuge Systems, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1276(a)) or study rivers or study river corridors as established in any guidelines pursuant to that Act, and National Recreation Areas designated by Act of Congress. Additional lands designated by sections 522(e)(2), (3), (4), and (5) include National Forests; publicly owned parks; properties listed on the National Register of Historic Places; 100 foot buffer zones around public roads and cemeteries; and 300-foot buffer zones around occupied dwellings, public buildings, schools, churches, community or institutional buildings, and public parks. The term "valid existing rights" (VER) is not defined in SMCR. In a separate rulemaking, published in this issue of the Federal Register OSM intends to define VER and address requirements and procedures for the submission and processing of VER claims.

Under section 522(e), if a person who proposes to conduct a surface coal mining operation on protected lands does not qualify for one of the statutory exceptions, then the person cannot conduct the intended operation on such lands. See 30 CFR section 773.15(c)(3)(ii) (1990). Section 522(e) does not specifically mention subsidence as a prohibited activity. The need for this interpretative rulemaking derives in part from litigation concerning the applicability of the sections 522(e)(4) and (5) prohibitions to underground mining. The issue is whether and to what extent subsidence and underground coal extraction operations which cause or are expected to cause subsidence are prohibited. In 1988, OSM issued a proposed rule to address the issue. See 53 FR 52374, December 27, 1988. However, the entire proposed rule was withdrawn for further study in 1989. 54 FR 30557, July 21, 1989. The withdrawal was based on comments received on the proposed rule, and on OSM’s analysis of the issues, which indicated to OSM that this was fundamentally a legal issue. OSM therefore decided to seek a formal opinion from the Office of the Solicitor, U.S. Department of the Interior, on this matter. The Solicitor completed his review of this issue in July, 1991, and concluded that the best interpretation of SMCR is that subsidence is not a surface coal mining operation subject to the prohibitions of § 522(e).

The Solicitor’s Memorandum of Opinion (M–Op.) is based on an extensive analysis of the statute, the legislative history, relevant case authority and OSM’s regulatory actions with respect to the applicability of section 522(e) to subsidence from underground mining. The M–Op. concluded that Congress did not intend for the prohibitions of section 522(e) to apply to subsidence from underground mining and noted that OSM may regulate subsidence solely under section 516 of SMCR and not under section 522(e). While the M–Op. recognizes that regulation under section 516 may not have precisely the same effect as regulation under section 522(e), the analysis provides support for the conclusion that regulation under section 516 will achieve full protection of the environmental values which Congress sought to protect from subsidence under the Act while encouraging longwall mining.

On July 18, 1991, OSM published a Notice of Inquiry (NOI) which stated that, based on OSM’s review of the Act and the legislative history, the comments received on the December 27, 1988, proposal, and the M–Op., OSM concluded that no further rulemaking action was necessary in regard to the applicability of section 522(e) prohibitions to underground mining. OSM concluded that the regulations, at 30 CFR 761.11 (d), (e), (f) and (g), adequately address underground mining and appropriately apply the statutorily-established buffer zones in a horizontal dimension only.

On September 6, 1991, the National Wildlife Federation (NWF) filed legal action against the Secretary challenging the July 18 NOI and the July 10 M–Op., on the applicability of 522(e) of SMCR to subsidence. National Wildlife Federation (NWF) v. Babbitt, No. 91–2275–TAF (D.D.C. September 22, 1993). The NWF contended that both the M–Op. and the NOI violated the requirements of the Administrative Procedure Act (APA), the National Environmental Policy Act (NEPA), and SMCR. NWF requested, among other things, that the court order OSM to undertake rulemaking to determine the applicability of Section 522(e) to subsidence, and vacate the M–Op. and the NOI. In addition, a motion was filed by the Interstate Mining Compact Commission (IMCC) and a number of industry groups, including the National Coal Association (NCA) and American Mining Congress (AMC), to intervene as defendants in this action. That motion was granted by the court. The district court vacated the NOI on September 23, 1993, on procedural grounds, and remanded the case to the Secretary for rulemaking on the applicability of section 522(e) to subsidence, in accordance with the notice and comment procedures of the APA, 5 U.S.C. section 551 et seq., National Wildlife Federation (NWF) v. Babbitt, No. 91–2275–TAF (D.D.C. September 22, 1993).

B. Statutory Analysis

Title V of the Act sets forth the basic regulatory requirements for coal mining operations for which permits are required under the Act. Title V includes provisions which establish regulatory schemes for surface coal mining, the surface effects of underground coal mining, and protection of lands unsuitable for surface coal mining operations.


For instance, Congress was aware that the types of environmental risks associated with underground mining are, for the most part, significantly different from those associated with surface mining. Environmental impacts associated with (pre-SMCRRA) unregulated or unreclaimed underground mines included subsidence and hydrological problems that were hidden deep underground and not observable at the surface for an unpredictably long time. Such surface consequences could be severe and long-lasting. The problems in some cases remained fundamentally inaccessible or
unchangeable because of adverse technological, geological and hydrological conditions.

By contrast, most of the impacts of unregulated pre-SMCRSA surface mining resulted from surface activities that were more immediate and more readily observable, and the resulting conditions were relatively accessible for reclamation. See H.R. Rep. No. 1445, 94th Cong., 2d Sess. 20–22 (1976).

This proposed rulemaking addresses whether the provisions of section 522(e), which expressly apply to “surface coal mining operations,” should be construed as applying to subsidence from underground mining, which is not specifically referenced in the definition of that term. Addressing this issue requires interpretation of the phrase “surface coal mining operations” as used in section 522(e) and defined in section 701(28). See 30 U.S.C. 1272(e); 1291(28).

In the past, OSM has not taken a definitive position on the issue of the applicability of section 522(e) to subsidence. In some documents, OSM has apparently taken the position that section 522(e) does apply to subsidence from underground mining. In the 1979 rulemaking which first established permanent program rules under SMCRA, OSM dealt with this issue in two provisions. Concerning the definitions at 30 CFR 761.5, OSM rejected a comment that “surface operations and impacts incident to an underground mine” should be limited to subsidence. 44 FR 14990, March 13, 1979. Such operations and impacts are permitted in some circumstances in National Forests under an exception to section 522(e)(2). The negative implication would appear to be that such operations and impacts (including subsidence) are otherwise prohibited by section 522(e).

In the preamble discussion of the regulations at 30 CFR 761.11(d), which concerned the section 522(e)(4) prohibition on mining within 100 feet of the right-of-way of a public road, OSM accepted a comment that the 100 feet should be measured horizontally “so that underground mining below a public road is not prohibited.” OSM stated its belief that mining under a road should not be prohibited “where it would be safe to do so.” 44 FR 14994, March 13, 1979. The negative implication from this last clause would appear to be that mining under a public road should be prohibited where it would be unsafe to do so, but the preamble does not discuss whether such prohibition would come from section 516 or from an interpretation that section 522(e) prohibits subsidence that causes material damage.

See also letter of Patrick Boggs, Office of Surface Mining, to Ralph Albright, Jr., regarding Otter Creek Coal Co. v. United States, January 19, 1981; and Determination of Valid Existing Rights Within the Otter Creek Wilderness Area of Monongahela National Forest; Notice, 49 FR 31228, 31231, 31233 (August 3, 1984), characterizing subsidence as a prohibited surface impact under section 522(e); and Federal Defendant’s Supplemental Memorandum on the Relationship Between section 522(e) and the Surface Impacts of Underground Coal Mining at 8. In re Permanent Surface Mining Regulation Litigation II, No. 79–1144 (D.D.C. 1985).

However, in its approvals of State regulatory programs, OSM has not required states to apply the lands unsuitable prohibitions to subsidence. In fact, OSM has accepted both the policy of some states not to apply the prohibitions to subsidence, and the policy of other states to apply the prohibitions only to subsidence causing material damage. See Statement of Interstate Mining Compact Commission Re Oversight Hearing on Subsidence Issues, Before the Mining and Natural Resources Subcommittee, Committee on Interior and Insular Affairs, U.S. House of Representatives, June 28, 1990. With the exception of Colorado, Illinois, Indiana, and Montana, states with active underground coal mining do not apply the prohibitions of section 522(e) to subsidence. The states regulate the effects of subsidence through different state regulations which implement section 516 of SMCRA. Those regulations provide for the restriction, repair, and compensation for subsidence and material damage to certain structures and lands. Colorado does not allow material damage to structures even with landowner waivers or VER. Illinois prohibits planned subsidence in section 522(e) areas. The mineral owner must possess the right to subside through applicable waiver or VER. Indiana regulations provide material damage from subsidence to certain structures and lands. Indiana has not approved planned subsidence in past permits, and has not developed specific policies related to the approval of planned subsidence. Information obtained from Indiana indicates that it anticipates that it would prohibit subsidence unless the mineral owner possesses the specific right through applicable waiver or VER. Also, Montana has no defined policy regarding the regulation of subsidence. This is due in part to the fact that the State has one inactive underground mine that has not begun production. Montana is sparsely populated, and has not encountered conditions that require it to determine whether subsidence is prohibited in section 522(e) areas. See Proposed Revision to the Permanent Program Regulations Implementing section 522(e) of the Surface Mining Control and Reclamation Act of 1977, Draft Environmental Impact Statement: OSM–EIS–29 (June, 1995), prepared by U.S. Office of Surface Mining Reclamation and Enforcement, Table II–1 at pages II–2, 3.

Because OSM arguably has taken conflicting or unclear positions in the past, OSM is proposing to develop a definitive position on this issue, consistent with the Act. For the reasons set forth below, OSM proposes to interpret SMCRA as regulating subsidence under sections 516 and 720; and proposes to interpret section 522(e) in light of the statutory definition of “surface coal mining operations” in section 701(28), as not applying to subsidence from underground mining. Section 516

Section 516 establishes the regulatory requirements for the surface effects of underground coal mining, including provisions for the control of subsidence from underground coal mining. SMCRA section 516 provides in relevant part:

(a) The Secretary shall promulgate rules and regulations directed toward the surface effects of underground coal mining operations, embodying the following requirements and in accordance with the procedures established under section 501 of this Act: Provided, however, That in adopting any rules and regulations the Secretary shall consider the distinct difference between surface coal mining and underground coal mining.

(b) Each permit issued under any approved State or Federal program pursuant to this Act relating to underground coal mining shall require the operator to—

(1) adopt measures consistent with known technology in order to prevent subsidence causing material damage to the extent technologically and economically feasible, maximize mine stability, and maintain the value and reasonably foreseeable use of such surface lands, except in those instances where the mining technology used requires planned subsidence in a predictable and controlled manner: Provided, That nothing in this subsection shall be construed to prohibit the standard method of room-and-pillar mining:

(c) In order to protect the stability of the land, the regulatory authority shall suspend underground coal mining under urbanized areas, cities, towns, and major

(2) impoundments, or permanent streams if he finds imminent danger to inhabitants of the urbanized areas, cities, towns, and communities;

(d) The provisions of Title V of this Act relating to State and Federal programs,
permits, bonds, inspections and enforcement, public review, and administrative and judicial review shall be applicable to surface operations and surface impacts incident to an underground coal mine with such modifications to the permit application requirements, permit approval or denial procedures, and bond requirements as are necessary to accommodate the distinct difference between surface and underground coal mining. * * *


Section 516 is implemented in large part at 30 CFR Part 817, which sets forth the fundamental standards for underground coal mining. The provisions concerning subsidence control in Part 817 include performance standards which require the prevention of material damage and maintaining the value and reasonably foreseeable use of surface lands, or using mine technology for planned subsidence in a predictable and controlled manner; compliance with the subsidence control plan; repair of material damage; and a detailed plan of underground workings.

Section 516(b) sets the foundation for a regulatory scheme intended to control subsidence to the extent technologically and economically feasible in order to protect the value and use of surface lands. Section 516(c) authorizes suspension of underground mining under urban areas and water bodies, when there is imminent danger to inhabitants. Section 516(c) applies in those situations in which an underground mine has been permitted because all applicable permitting standards, including standards for prevention of material damage, have been met, but actual underground mining poses a serious subsidence danger to inhabitants of urban areas and water bodies.

Section 515

Section 515 of the Act sets out the environmental protection performance standards for surface coal mining, including standards for backfilling and grading to approximate original contour; revegetation; reconstruction of prime farmlands; impoundments; augering; protecting the hydrologic balance; protecting fish and wildlife values; disposal of excess spoil, mine waste, and acid-forming and toxic materials, use of explosives; and construction of roads. This section is implemented in large part at 30 CFR Part 816.

Section 720

Section 720 of SMCRA was added by the Energy Policy Act of 1992, Public law 102-486, 106 Stat. 2776 (1992). The statute was enacted on October 24, 1992. Section 720 provides, in relevant part:

(a) Underground coal mining operations conducted after the date of enactment of this section shall comply with each of the following requirements:

(1) Promptly repair, or compensate for, material damage resulting from subsidence caused by any occupied residential dwelling and structures related thereto, or noncommercial building due to underground coal mining operations. Repair of damage shall include rehabilitation, restoration, or replacement of the damaged occupied residential dwelling and structures related thereto, or noncommercial building and shall be in the full amount of the diminution in value resulting from the subsidence. * * *

(2) Promptly replace any drinking, domestic, or residential water supply from a well or spring in existence prior to the application for a surface coal mining and reclamation permit, which has been affected by contamination, diminution, or interruption resulting from underground coal mining operations. Nothing in this section shall be construed to prohibit or interrupt underground coal mining operations.


On March 31, 1995, OSM published final regulations implementing these provisions. The implementing regulations are set forth primarily in Parts 701, 784, and 817. Amendments to Part 701 provide definitions of key terms. The regulations require a presubsidence survey to document the condition of protected structures and the quantity and quality of protected water supplies, that could be damaged by subsidence. The regulations also clarify that, if the proposed mining would provide for planned subsidence in a predictable and controlled manner, then, with certain exceptions, the permittee must take measures consistent with the mining method, to minimize material damage to the extent technologically and economically feasible to non-commercial buildings, dwellings and related structures.

Section 522(e)

In addition to the regulation of surface and underground coal mining under sections 515, 516, and 720, SMCRA section 522(e) imposes certain prohibitions on surface coal mining operations on lands designated by Congress as unsuitable for those operations. Congress determined that the nature and purpose of certain areas and land uses were incompatible with surface coal mining operations. See S. Rep. No. 128, 95th Cong. 1st Sess. 55 (1977). Therefore, SMCRA section 522(e) states that, with certain exceptions, surface coal mining operations are prohibited on or within specified distances of those lands and uses.

Section 522(e) provides, in relevant part, as follows:

After the enactment of this Act and subject to valid existing rights no surface coal mining operations except those which exist on the date of enactment of the Act shall be permitted—

(1) on any lands within the boundaries of units of the National Park System, the National Wildlife Refuge Systems, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act and National Recreation Areas designated by Act of Congress;

(2) on any Federal lands within the boundaries of any national forest: Provided, however, That surface coal mining operations may be permitted on such lands if the Secretary finds that there are no significant recreational, timber, economic, or other values which may be incompatible with such surface mining operations and—

(A) surface operations and impacts are incident to an underground coal mines or

(B) where the Secretary determines, with respect to lands which do not have a significant forest cover within those national forests west of the 100th meridian, that surface mining is in compliance with the Multiple-Use Sustained-Yield Act of 1969, the Federal Coal Leasing Amendments Act of 1975, the National Forest Management Act of 1976, and the provisions of this Act: And provided further, that no surface coal mining operations may be permitted within the boundaries of the Custer National Forest;

(3) which will adversely affect any publicly owned park or places included in the National Register of Historic Sites unless approved jointly by the regulatory authority and the Federal, State, or local agency with jurisdiction over the park or places included in the National Register of Historic Sites;

(4) within one hundred feet of the outside right-of-way line of any public road, except where mine access roads or haulage roads join such right-of-way line and except that the regulatory authority may permit such roads to be relocated or the area affected to lie within one hundred feet of such road, if after public notice and opportunity for public hearing in the locality a written finding is made that the interests of the public and the landowners affected thereby will be protected; or

(5) within three hundred feet from any occupied dwelling, unless waived by the owner thereof, nor within three hundred feet of any public building, school, church, community, or institutional building, public park, or within one hundred feet of a cemetery.

30 U.S.C. 1272(e) (emphasis added).

Section 522(e) is implemented primarily at 30 CFR Part 761. That part provides definitions of key terms concerning SMCRA section 522(e) and describes the procedures to be followed in implementing the prohibitions of section 522(e). Sections 522(e)(4) and (5) are implemented by 30 CFR 761.11(d) through (g) which provides that
subject to valid existing rights and an exemption for mines existing on August 3, 1977, no surface coal mining operations shall be conducted within the specified distances, "measured horizontally," of the listed features and facilities. The regulation implementing section 522(e) requires a determination, as a prerequisite for permit issuance under section 515 or 516, whether a requester has the right to conduct a surface coal mining operation of such lands. 30 CFR 761.12 (1990).

The language "measured horizontally," was added in response to a comment which requested that OSM clarify that underground mining beneath a public road would not be prohibited. Although, OSM explained that it did not believe mining under a road should be prohibited when it would be safe to do so, OSM provided no clarification as to what is meant by "safe to do so."

Section 701(28)

Section 522(e) of SMCRA establishes that subject to VER and except for operations existing on August 3, 1977, "surface coal mining operations" are prohibited in each of the five areas set out in subparagraphs (e)(1) through (e)(5). Thus an understanding of the definition of the term "surface coal mining operations" in section 701(28) is required to determine the scope of the prohibitions. The term "surface coal mining operations" is defined in section 701(28) and includes certain aspects of underground coal mining. However, section 701(28) does not specifically mention subsidence.

Section 701(28) provides in full as follows:

"Surface coal mining operations" means—

(A) activities conducted on the surface of lands in connection with a surface coal mine or subject to the requirements of section 516 surface operations and surface impacts incident to an underground coal mine, the products of which enter commerce or the operations of which directly or indirectly affected interstate commerce. Such activities include excavation for the purpose of obtaining coal including such common areas and other areas upon which are sited structures, facilities, or other property or materials on the surface, resulting from or incident to such activities.


Interpretation of Section 701(28)

While the definition of "surface coal mining operation" in SMCRA section 701(28) is not a clearly drafted provision, OSM believes that paragraph (A) of the definition includes only surface activities which are connected with a surface coal mine, and surface activities connected with those surface operations and surface impacts that are incident to an underground mine and that are subject to section 516. This proposed interpretation is consistent with the description of the effect of section 701(28) in the Senate Report on the version of the definition that was adopted:

"Surface coal mining operations" includes all areas upon which occur surface mining activities and surface activities incident to underground mining. It also includes all roads, facilities, structures, property, and materials on the surface resulting from or incident to such activities.


Paragraph (B) of section 701(28) supports this interpretation. Paragraph (A) refers to "activities conducted on the surface of lands in connection with a surface coal mine or * * * "surface operations and surface impacts incident to an underground coal mine * * *" Paragraph (B) refers to "the areas upon which such activities occur or where such activities disturb the natural land surface" and to holes or depressions "resulting from or incident to such activities * * *" (emphasis added). The only "activities" to which paragraph (B) could refer are those described in paragraph (A), namely those conducted on the surface of lands in connection with a surface coal mine or in connection with the surface operations and impacts incident to an underground coal mine.

Under this construction, subsidence would not be included within the term "surface coal mining operations" because it is not an activity conducted on the surface of lands, and it is not an area on which surface activities occur, or an area where surface activities disturb the surface, or a hole or depression resulting from or incident to surface activities. Surface activities associated with surface operations incident to underground mining, and surface activities associated with surface impacts incident to underground mining would be included in the definition. While subsidence is clearly a surface impact incident to underground mining, it is not a surface activity under the definition of surface coal mining operations. This reading of subsection 701(28), however, would not mean that subsidence would be exempt from regulation under the Act, since Congress specifically provided for regulation of subsidence under section 516 of SMCRA.

Relationship of Section 522(e) to Sections 516 and 720

OSM believes, based on its interpretation of the language of section 516 and of the legislative history, that Congress intended section 516(c), in combination with other regulatory provisions under section 516 and section 720, to offer sufficient prohibition, prevention, or repair of subsidence damage to those features that Congress considered vulnerable to significant impairment from subsidence. The existence of this comprehensive regulatory scheme in section 516 make it unlikely that Congress also intended to prohibit subsidence under section 522(e).

The legislative history of section 516 contains ample references to Congress' focus on control rather than prohibition. The following is pertinent House Report language:

Surface subsidence has a different effect on different land uses. Generally, no appreciable impact is realized on agricultural land and similar types of land and productivity is not affected. On the other hand, when subsidence occurs under developed land such as in an urbanized area, substantial damage results to surface improvements be they private homes, commercial buildings or public roads and schools. One characteristic of subsidence which disrupts surface land use is its unpredictable occurrence in terms of both time and location. Subsidence occurs, seemingly on a random basis, at least up to 60 years after mining and even in those areas it is still occurring. It is the intent of this section to provide the Secretary with the authority to require the design and conduct of underground mining methods to control subsidence to the extent technically and economically feasible in order to protect the value and use of surface lands.

In those extreme cases in which Congress felt that prohibition could be necessary, it provided broad authority under section 516(c):

In order to prevent the creation of additional subsidence hazards from underground mining in developing areas, subsection (c) provides permissive authority to the regulatory agency to prohibit underground coal mining in urbanized areas, cities, towns and communities, and under or adjacent to industrial buildings, major impoundments or permanent streams.


It is reasonable to conclude that Congress addressed specifically, in section 516(c), the limited types of surface features that might be so significantly affected by subsidence from underground mining that a subsidence prohibition could be appropriate. This conclusion that prohibition was to be imposed solely under 516(c) is buttressed by the discussion in the House report quoted above, that subsidence has no appreciable impact on agricultural land and similar types of land. It is not necessary to impose the prohibitions of section 522(e) on subsidence because the surface features that might need such protection are covered by section 516(c).

This conclusion is also supported by the discussion in the 1977 Senate report on section 522(e) which notes that "surface coal mining" is prohibited within the specified distances of public roads, occupied buildings, and active underground mines, "for reasons of public health and safety." S. Rep. No. 128 at 55. Clearly, one of Congress’ purposes in section 522(e)(4)–(5) was to protect public health and safety.

Prohibition of subsidence in all section 522(e) areas would be unnecessary, however, given that an underground mine must meet the requirements of section 516 to prevent material damage and to maintain the value and use of lands, and those requirements should prevent risks to public health and safety. Moreover, if an unforeseen and imminent subsidence danger were to arise, section 516(c) requires that underground mining be suspended as necessary, thus providing a second level of protection for public health and safety. Therefore, Congress had already addressed in section 516 those subsidence control measures necessary to address public health and safety.

Sections 516 and 720, the sections of the Act expressly dealing with subsidence, treat subsidence as a surface impact to be regulated only to the extent that it:

(1) Causes material damage (section 516(b)(1) and section 720(a)(1)); or

(2) Diminishes the value or the reasonably foreseeable uses of the surface (section 516(b)(1)) or

(3) Creates imminent danger (section 516(c)), or

(4) Contaminants, diminishes, or interrupts a domestic water supply (section 720(a)(2)).


Congressional Intent

OSM’s proposed interpretation is consistent with Congress’ intent to encourage underground mining and full coal resource recovery. The statute and legislative history express Congress’ intent to “encourage the full utilization of coal resources through the development and application of underground extraction technologies.” SMCRA section 102(k), 30 U.S.C. section 1202(k). Similarly, Congress found that:

The overwhelming percentage of the Nation’s coal reserves can only be extracted by underground mining methods, and it is, therefore, essential to the national interest to insure the existence of an expanding and economically healthy underground coal mining industry.

SMCRA section 101(b), 30 U.S.C. section 1201(b).

In fact, there is evidence that Congress wished to encourage longwall mining in particular:

Underground mining is to be conducted in such a way as to assure appropriate permanent support to prevent surface subsidence of land and the value and use of surface lands, except in those instances where the mining technology approved by the regulatory authority at the outset results in planned subsidence. Thus, operators may use underground mining techniques, such as longwall mining, which completely extract the coal and which result in predictable and controllable subsidence.


Clearly, if subsidence is likely to occur from room-and-pillar underground mining and is a virtually inevitable consequence of longwall mining, then prohibiting all subsidence below homes, roads, and other features specified in section 522(e) could make it substantially less feasible to mine and could substantially reduce the level of coal recovery in areas where such features are common on the surface.

Thus, inclusion of subsidence in the definition of “surface coal mining operations” at section 701(28), and application of the section 522(e) prohibitions to subsidence could be regarded as failing to accommodate congressional recognition of the importance of underground mining and longwall mining in particular. The application of the prohibitions in section 522(e) to subsidence could substantially impede longwall and other full-extraction mining methods. As discussed above, the language of SMCRA demonstrates that Congress intended to encourage underground mining and especially full-extraction methods such as longwall mining.

Congress intended that longwall and other mining techniques that completely remove the coal be used as subsidence control measures. See H.R. Rep. No. 218, supra. Such techniques involve planned subsidence.

Comparison of Underground Mining Techniques

Mine productivity improved significantly during the 1980’s thus reversing the declining trend of the earlier decade. Productivity increased by an average of 6.6 percent per year between 1980 and 1990 (Department of Energy, Energy Information Administration (EIA), 1990). Improvement in underground mine productivity was particularly impressive. While surface mining productivity rose 86 percent during the 1980’s, productivity at underground mines more than doubled.

The increases in productivity can be attributed to intense competition between coal producers, technology advancement, changing market conditions, improved labor/management relations, and a mature and more experienced labor force. The three primary underground mining methods principally used to extract coal are room-and-pillar, room-and-pillar with secondary mining, and longwall mining. Room-and-pillar is the predominant underground mining method, although longwall mining has increased in use in the United States since 1960.
Room and Pillar Mining

Room and pillar mining is the predominant method of coal extraction in the United States. The room and pillar method in its basic form consists of driving entries, rooms and cross-cuts into the coal seam to extract coal. Pillars of coal are left to support the mine roof, or for haulage and ventilation. This procedure is called “development” mining. Movements of the ground surface during this procedure are nearly always imperceptible.

To increase the extraction of coal where conditions allow, development mining is followed by “pillar recovery,” where the pillars are systematically extracted. This is called secondary (or retreat) mining. Secondary mining occurs when the coal pillars left to support the mine roof are extracted during the retreat mining phase to obtain maximum recovery of the coal.

Pillar extraction is invariably accompanied by subsidence of the ground surface as the overburden sags into the mined-out area in response to the removal of mine-level support. Where pillar extraction is not conducted and the operator intends to leave surface support, the pillars must be designed to permanently support the overburden. During the development mining phase, 30 to 50 percent of the coal may be extracted from the panel. In order to prevent subsidences, the remainder of the coal may not be recovered from a mine panel. However, when the roof collapses in a controlled fashion and the surface subsidences are not a limiting factor, secondary mining can be practiced to increase the coal recovery up to 85 percent.

Longwall Mining

Longwall mining is a high extraction mining method that maximizes the recovery of coal resources. The development of the mains and sub-mains for access and ventilation of the longwall panels is essentially identical to the development of room and pillar mining. However, the longwall mining methods differs from room-and-pillar mining in that the mine working panel is fully extracted during mining by a fully automated shearer or plow. The mineral extraction ratio for longwall mining operation can be as high as 90 percent in each panel. Retreat mining on the longwall panel results in 100 percent coal extraction.

In longwall mining, groups of three or four parallel entries are driven perpendicular to the main entry on either side of the proposed panel. The width of the panel varies from 500 to 1,200 feet, and length from 4,000 to 15,000 feet. Longwall mining removes the coal in one operation by means of a long working face or wall that advances, or retreats, in a continuous line. The coal is cut by a shearer or coal plough which travels up and down along the face and makes 27 to 39 inch deep cuts. The broken coal falls on to an Armored Flexible Conveyor (AFC) which transfers the coal to the Stage Loader. The coal is then conveyed to the surface through several belt conveyors. Mechanical steel supports known as Shields or Chocks are used to support the mine roof along the entire longwall face. After each cutting cycle of the shearer/plough, the steel supports and AFC are hydraulically advanced. The mine roof immediately behind the AFC is allowed to cave. The space from which the coal has been removed is either allowed to collapse or is completely or partially filled with stone and debris. The roof rock that falls into the mined-out area is referred to as the “gob.” As the overburden continues to collapse, effects of subsidences progresses upwards to the surface. However, solid coal barriers and pillars are left in the mine for haulage, ventilation, and other purposes. Ninety percent of the surface subsidences caused by longwall mining occurs within 4 to 6 weeks of mining.

Significance of Longwall mining.

Longwall mining has a long history of use in Europe and has been tried at various times in the United States. In early attempts—some prior to 1900—labor costs associated with moving manual supports made the methods less competitive than room and pillar mining. But, in the past two decades, longwall mining has become the safest, most productive and most economic underground mining method. While overall underground production remained relatively flat between 1980 and 1993, longwall production grew at an annual rate of 6.1 percent. Longwall mining is anticipated to continue to be an important and expanding type of mining. In 1993, it accounted for 38 percent of the coal extracted by underground methods, were recovered by longwall mining. The Economic Analysis (EA) estimates that longwall mining will account for 48 percent of production by 2015. See (Proposed Revision to the Permanent Program Regulations Implementing section 522(e) of the Surface Mining Control and Reclamation Act of 1977, and Proposed Rulemaking Clarifying the Applicability of section 522(e) to Subsidiary from Underground Mining prepared by OSM and USGS, (September 1, 1995))

Longwall mining operations require large investments in capital equipment, but are less labor intensive than room-and-pillar mining. It is estimated that longwall mining requires only one-third of the manpower at the face as does room-and-pillar mining. The high capital costs associated with longwall mining are generally offset with lower operating costs, due primarily to the higher productivity of longwall mining. The average operating costs for a coal mine operation include the operating cost per ton and the return on the capital cost allocated per ton. The operating costs for longwall mine range from $0.50 to $2.00 per ton, while operating costs for room-and-piller range from $2.00 to $7.00 per ton, while Room-and-piller mining operation costs average an additional $3.25 per ton more than longwall mining because of increased labor and material costs associated with mine operation.

In some instances, use of the longwall mining method is the most economical and safest means to extract the coal in particular geologic areas. For example, when a coal seam is 1,000 feet or more below the surface, the cost of mining would be so high that it would effectively prevent coal from being mined by any method other than longwall. Another example are those areas where the high limestone content in particular coal seams creates fragile coal workings which make room-and-piller mining impossible. Longwall mining provides the economy of scale so that mining costs are lowered and a relatively safe working environment is created.

Implications of Applying 522(e) Prohibitions to Subsidence From Underground Mining

Currently, owners of coal reserves, who hold valid deeds, typically have the property right to mine coal beneath dwellings without obtaining explicit permission in the form of waivers from owners of the dwellings. However, under SMCRA when the coal is mined, the mining companies must meet all existing subsidence performance standards, take steps to minimize damage to dwellings, repair or compensate for damage that does occur to dwellings, assure adequate domestic water supplies, and take other measures as set out in OSM’s recent regulations on subsidence (60 FR 16722 (Friday, March 31, 1995)).

If Section 522(e) were to apply to subsidence from underground mining, the operator would be required to plan the operation to exclude mining in all portions of the underground workings where mining would cause subsidence.
affecting a protected surface feature. The surface area affected by subsidence is usually considerably larger than the area actually mined underground. Because subsidence typically occurs in a funnel shape radiating upward and outward from the underground mine cave-in, any surface impacts may extend well beyond the area directly above the mine. Thus, to ensure that subsidence would not take place within a surface area specified in section 522(e), underground mine operations would be required to leave coal in place around each protected feature for a horizontal distance much larger than the protected area. The amount of coal left in place to support dwellings would result in a pattern of irregular mined areas that would in effect, eliminate the contiguous coal reserves needed to sustain the economic advantage of longwall operations. Consequently, few new longwall mines would be opened. Over time, existing longwall mines could continue those operations that would extract coal reserves pursuant to the “needed for and adjacent to” valid existing rights provisions implementing SMCRA.

Mining could be allowed in some cases in lands protected by 522(e) (2), (3), and (4), and some (5) areas, if an appropriate waiver or approval were obtained by the permit applicant for mining coal directly underneath the protected feature. The coal for which a mining company would have to obtain a waiver would include the coal directly underlying the dwelling and within the surrounding buffer area. Both the Environmental Impact Statement and the Economic Analysis indicate that the withholding of dwelling waivers has the potential to significantly alter coal mining operations. The waiver authority would apply to new longwall mining operations. Consequently, OSM estimated that if 10 percent or more of homeowners withheld waivers, longwall mining operations would not be economically viable. The economic impacts of applying the prohibitions of section 522(e) to subsidence are discussed in more detail in the draft Economic Analysis.

In summary, longwall mining is an important and expanding type of mining. It accounted for 36 percent of the underground mining in 1993, and is forecasted to increase its share to 48 percent by 2015. Longwall mining is a low-cost underground mining method, and in some instances, may be the only economically feasible underground mining method when the coal seam is deep or the roof is extremely fragile. The key to the competitive advantage of longwall mining is access to large blocks of uninterrupted coal. If the prohibitions of 522(e) were to apply to subsidence, longwall mining would no longer be economically feasible if as few as 10 percent of the owners of occupied dwellings denied waivers for mining. A more detailed discussion of impacts on mining is provided in the Draft Environmental Impact Statement (DEIS) on the Proposed Revision to the Permanent Program Regulations Implementing Section 522(e) of the Surface Mining Control and Reclamation Act of 1977, and Proposed Rulemaking Clarifying the Applicability of Section 522(e) to Subsidence from Underground Mining OSM–EIS–29 (September, 1995) and Draft Economic Analysis prepared for this rulemaking. OSM also evaluated the impact of various policy options for this rulemaking in the DEIS and EA prepared for this proposed interpretive rulemaking. OSM encourages comments on the DEIS and EA.

Summary of Analysis

Under Section 516, OSM has ample authority to regulate surface effects of underground mining under existing regulations or under any additional regulations that OSM might reasonably conclude are necessary to implement the Act. There would be no regulatory hiatus if section 522(e) does not apply to subsidence. However, if OSM were to identify any environmental values or public interests that warrant additional protection, OSM has full authority under section 516 and other SMCRA provisions, to develop standards to protect such values or interests, without the disruption in the longwall mining industry that would result from applying section 522(e) prohibitions to subsidence.

Based on analysis of the language and the legislative history of sections 516, 522(e) and 701(28) of SMCRA, and a consideration of the congressional findings and purposes set out in sections 101 and 102, OSM proposes to interpret section 522(e) as not applying to subsidence from underground mining activities, or to the underground activities that may lead to subsidence. OSM bases this proposal in part on its conclusion that subsidence from underground mining is properly and adequately regulated under sections 516 and 720. OSM believes that this interpretation will promote the general statutory scheme of SMCRA and fully protect the environment and public interest. OSM is soliciting comments on the need to amend 30 CFR to indicate that section 522(e) does not apply to subsidence from underground coal mining activities, or the underground activities that may lead to subsidence.

III. Procedural Matters

Federal Paperwork Reduction Act

This rule does not contain collections of information which require approval by the Office of Management and Budget under 44 U.S.C. 3501 et seq.

Executive Order 12630

In accordance with E.O. 12630, the Department has determined that the proposed interpretive rule does not have significant takings implications.

Executive Order 12866

This rule has been reviewed under E.O. 12866. It is considered significant and OSM has prepared an economic analysis which is now available to the public for review and comment.

Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601 et seq., the Department of the Interior has determined that this rule would not have a significant economic impact on a substantial number of small entities.

National Environmental Policy Act

On April 28, 1994 (59 FR 21996), OSM published a notice of intent to prepare a revised environmental impact statement (EIS) analyzing both VER and the applicability of the prohibitions in section 522(e) of the Act to underground coal mining. OSM has completed a revised draft EIS (OSM–EIS–29), which is now available to the public for review and comment.

Executive Order 12988 (Civil Justice Reform)

This proposed rule has been reviewed under the applicable standards of section 3(b)(2) of E.O. 12988, “Civil Justice Reform.” (61 FR 4729). In general, the requirements of section 3(b)(2) are covered by the preamble discussion of this rule. Individual elements of the order are addressed below:

1. What is the preemptive effect, if any, to be given to the regulation? This interpretive rule is not intended to have a preemptive effect on
existing state law. To the extent that this rule might ultimately result in the preemption of state law, the provisions of SMCRA are intended to preclude inconsistent State laws and regulations unless they provide for more stringent land use or environmental controls and regulations. This approach is established in SMCRA and has been judicially affirmed.

2. What is the effect on existing federal laws or regulations, if any, including all provisions repealed or modified?

This proposed rule would affect the implementation of SMCRA as described in the preamble. It is not intended to modify the implementation of any other federal statute. The preamble discussion specifies the federal regulatory provisions that would be affected by this rule.

3. Does the rule provide a clear and certain legal standard for affected conduct rather than a general standard, while promoting simplification and burden reduction?

As discussed in the preamble, the standards proposed in this rule are as clear and certain as practicable, given the complexity of the topics covered, the mandates of SMCRA and the legislative history of section 522(e) of SMCRA.

4. What is the retroactive effect, if any, to be given to this regulation?

This proposed rule is not intended to have retroactive effect.

5. Are administrative proceedings required before parties may file suit in court? Which proceedings apply? Is the exhaustion of administrative remedies required?

Since this rule is only in proposed form, these questions are not applicable. However, if the rule is adopted as proposed, the following answers would apply:

No administrative proceedings are required before parties may file suit in court challenging the provisions of this rule under section 526(a) of SMCRA, 30 U.S.C. 1276(a). However, administrative procedures must be exhausted prior to any judicial challenge to the application of this rule. In situations involving OSM application of this rule, applicable administrative procedures may be found at 30 CFR 775.11 and 43 CFR Part 4. In situations involving state regulatory authority application of provisions analogous to those contained in this rule, applicable administrative procedures are set forth in each state regulatory program.

6. Does the rule define key terms, either explicitly or by reference to other regulations or statutes that explicitly define those items?

Terms important to the understanding of this rule are set forth in 30 CFR 700.5, 701.5 and 761.5.

7. Does the rule address other important issues affecting clarity and general draftsmanship of regulations set forth by the Attorney General, with the concurrence of the Director of the Office of Management and Budget, that are determined to be in accordance with the purposes of the Executive Order?

The Attorney General and the Director of the Office of Management and Budget have not issued any guidance on this requirement.

Unfunded Mandates

For purposes of compliance with the Unfunded Mandates Reform Act of 1995, this rule will not impose any obligations that individually or cumulatively would require an aggregate expenditure of $100 million or more by State, local, and Tribal governments and the private sector in any given year.

Author: The principal author of this proposed rule is Nancy Broderick, Rules and Legislation, Office of Surface Mining Reclamation and Enforcement, 1951 Constitution Avenue, N.W., Washington, DC 20240; Telephone (202) 208-2700.

List of Subjects in 30 CFR Part 761

Historic preservation, National forests, National parks, National trails system, National wild and scenic rivers system, Surface mining, Underground mining, Wilderness areas, Wildlife refuges.

Dated: April 30, 1996.

Bob Armstrong,
Assistant Secretary, Land and Minerals Management.

[FR Doc. 97-2183 Filed 1-30-97; 8:45 am]
BILLING CODE 4310-05-M