

**U.S. DEPARTMENT OF THE INTERIOR  
OFFICE OF SURFACE MINING**

**ENVIRONMENTAL ASSESSMENT  
For Rulemaking On  
Stream Buffer Zones and Disposal of Excess Spoil  
RIN 1029-AC04**

**Revising rules in 30 CFR Parts 780, 816, and 817**

**A. Introduction**

When coal is mined by surface mining methods, rock and soil that overlie the coal must be first temporarily removed and stored outside of the immediate mining area. The rock is broken as it is removed, and the broken rock is referred to as “spoil”. Because the broken rock incorporates voids and air, spoil is less dense than undisturbed rock; so the volume of spoil removed during mining becomes greater than the volume of rock that was in place prior to mining. After coal removal, the mine operator returns the spoil to the mined-out area for reclamation.

The operator grades the spoil so that it closely resembles the pre-mining topography. We refer to this as returning the reclaimed mine to the approximate original contour, or simply AOC.

There are situations, particularly in steep terrain, where the volume of spoil is more than sufficient and technically feasible to return to the mined-out area when reclaiming the site. Surplus spoil material disposed of in locations other than the mined-out area, except for material used to blend spoil with surrounding terrain in achieving AOC in non-steep slope areas, is referred to as “excess spoil.”

In steep terrain, the mine operator may place the excess spoil either in adjacent valleys, or on previously mined sites, and in any of several types of steep-slope fills: “valley”, “head-of-hollow”, and “durable rock.” For the purpose of this environmental assessment, we refer to these various types of fills as “excess spoil fills.”

**B. Description of the Proposed Action**

We, the Office of Surface Mining Reclamation and Enforcement (OSM) are considering changes to our regulatory program which implements the Surface Mining Control and Reclamation Act of 1977 (SMCRA), to accomplish two basic goals: (1) minimizing the adverse environmental effects stemming from the construction of excess spoil fills, and (2) clarifying the circumstances in which mining activities, such as the construction of excess spoil fills, may be allowed within the stream buffer zone (SBZ), i.e. the area

within 100 feet of a perennial or intermittent stream<sup>1</sup>. By these changes, we intend to clarify our requirements and reduce the regulatory uncertainty concerning these matters. We also intend for these changes to reduce conflicts and improve consistency between regulation under the Surface Mining Control and Reclamation Act of 1977 (SMCRA) and regulation under the Clean Water Act (CWA).

More specifically, we intend to make explicit the coal operator's obligations to minimize the adverse environmental effects from excess spoil fill construction. The changes we are considering would require the coal mine operator to demonstrate, to the satisfaction of the regulatory authority and to the extent possible, that: (1) the volume of excess spoil is minimized; (2) excess spoil fills associated with a mine are designed to be no larger than needed to accommodate the anticipated volume of excess spoil from that mine; (3) alternative configurations for excess spoil disposal, including alternative sizes, numbers, and locations of fill are considered; and (4) the proposed excess spoil disposal plan minimizes, to the extent possible, adverse impacts to the prevailing hydrologic balance, fish, wildlife, and related environmental values.

We also propose to clarify our rule commonly referred to as the stream buffer zone ("SBZ") rule, because the existing language has led to divergent, conflicting interpretations and litigation; and has raised concern over potential conflicts with the CWA. We intend to clarify our interpretation of the SBZ rule to more closely align with the SMCRA provisions on which the rule is based and with actual implementation of the rule since the inception of the Federal SMCRA program. We intend to clarify in the rulemaking the coal mine operator's obligation to demonstrate, to the satisfaction of the regulatory authority, that the mining operation has been designed to the extent possible to minimize impacts on hydrology, fish and wildlife, and related environmental values and to prevent additional contributions of sediment to streams before the operator is allowed to mine within 100 feet of a perennial or intermittent stream.

Finally, we intend to make a simple technical amendment to our stream diversion regulation by eliminating regulatory language that is redundant of the SBZ rule and instead simply referring to that rule. Since this proposed change is administrative in nature, it will not be discussed further in this document.

### C. Need for the Proposed Action

Issues have emerged regarding the public's uncertainty regarding our regulations. We intend that this action satisfy the need to (1) clarify that disturbances and adverse environmental impacts from the construction of excess spoil fills must be minimized to the maximum extent possible; (2) clarify the standards for configuring excess spoil disposal, (3) clarify the conditions for authorizing a SBZ waiver and reduce the uncertainty and confusion related to the applicability of these conditions, (4) more closely conform SBZ regulations to SMCRA's language, (5) reduce the potential for SMCRA

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<sup>1</sup> The terms "perennial stream" and "intermittent stream" as used in this document are defined in 30 CFR 701.5.

permitting requirements to unnecessarily conflict with CWA regulatory requirements, and (6) balance Congress' purposes in SMCRA of protecting the environment and encouraging energy production as required by SMCRA § 102(f).

As the population and the cumulative extent of surface mines and excess spoil fills have increased, so have the concerns regarding the adverse environmental effects—particularly the effects of constructing excess spoil fills over stream reaches. In the summer of 1998, the West Virginia Highlands Conservancy – an environmental organization – and several citizens filed suit in Federal court against the West Virginia Division of Environmental Protection (WVDEP) alleging that the State was not administering its SMCRA-based coal mining regulatory program in compliance with State requirements. Bragg v. Robertson, Civ. No. 2:98-0636 (S.D. W.Va.) (“Bragg”).

The plaintiffs also sued the U.S. Army Corps of Engineers (USCOE) concerning their implementation of section 404 of the CWA, in permitting of excess spoil fills in waters of the United States. In December 1998, the parties reached an agreement that addressed all outstanding counts directed at the USCOE in Bragg. Pursuant to the settlement agreement, in February 1999, OSM, the U.S. Fish and Wildlife Service (USFWS), the U.S. Environmental Protection Agency (USEPA), USCOE, and WVDEP initiated preparation of a draft programmatic environmental impact statement (EIS) under the National Environmental Policy Act (“NEPA”).

The purpose of the EIS is to consider developing agency policies, guidance, and coordinated agency decision-making processes to minimize, to the maximum extent possible, the adverse environmental effects to waters of the United States and to fish and wildlife resources affected by mountaintop mining operations, and to environmental resources that could be affected by the size and location of excess spoil disposal sites in valley fills in the Appalachian coalfields. The agencies released the draft EIS for public comment on May 29, 2003.

While work towards finalizing that EIS continues, we recognized the need to expeditiously revise and clarify our national rules to address environmental effects from the construction of excess spoil fills and to remedy the uncertainty regarding our stream buffer zone regulations. The programmatic EIS has a different purpose than this EA. The EIS is intended, among other things, to identify and address broad programmatic concerns, and possibilities for improved coordination among the participating agencies. The participating agencies are cooperating to identify and analyze issues that OSM and the other Federal agencies may address in the future, concerning only the regulation of the effects of mountaintop mining and construction of valley fills in the Appalachian coalfields. The programmatic EIS process was not designed to be the basis for the specific nationwide changes addressed in this rulemaking. By contrast, in this nationwide rulemaking and EA, OSM is addressing only certain well-defined environmental and regulatory issues, the need for which has already been identified. In addition, we intend to eliminate the confusion regarding the stream buffer zone requirements. As an industry expert has pointed out in a report prepared for OSM, the uncertainty and the perception of a hostile regulatory environment has led to a definite “reluctance to invest” in the central

Appalachian coalfields [Hill & Associates, January 2003, p. 23]. Such reluctance might lead to decreased future production of coal needed for the nation's energy supply. It might also lead to decreased employment and lower tax revenues to state and local governments.

*1. What is the Need for Revisions to OSM's Rules Concerning Construction of Excess Spoil Fills?*

In light of increasing concerns over the impacts of excess spoil fills, revisions to OSM's rules are needed in order to minimize adverse environmental effects from construction of excess spoil fills, and to ensure that such fills are no larger than necessary.

Since the early 1970's, large-scale surface mining has become a more prevalent means of coal extraction in the central Appalachian coalfields. Most surface coal mining in the mountainous terrain of central Appalachian coalfields unavoidably generates excess spoil. This excess spoil is often placed in the upper reaches of valleys adjacent to the mine. In the Appalachian coalfields, even the upper reaches of valleys may contain stream channels or watercourses with continual (perennial) or intermittent flow. For example, the United States Geologic Survey studied a sample of streams in West Virginia and found that, on average, perennial streams may begin in watersheds of 40.8 acres and intermittent streams in watersheds of 14.5 acres. [Paybins, 2003, p.1].

An OSM inventory of fills in the central Appalachian coalfields (eastern Kentucky, Tennessee, southwestern Virginia, and southern West Virginia) identified about 5700 excess spoil fills attributed to surface mining constructed between 1985 and 2001. [USEPA, 2003, p. III. K-15] Spoil from fills covered approximately 1.2 percent of the small streams (724 of the estimated 59,000 miles of streams) in the inventory region. [Ibid, p. III. K-47] OSM has estimated that, without changes in production or mining technology, excess spoil fills may potentially impact an additional 724 stream miles in the next seventeen years. [Ibid, p. IV. B-2].

The number of all fills approved for construction in eastern Kentucky, Tennessee, Virginia, and southern West Virginia is shown in the table below. Please note that this table and the following table provides data for all types of fills – not just excess spoil fills. It includes fills approved or constructed on all surface coal mining and reclamation operations including mountaintop removal operations, contour and auger mining operations, underground mine face-ups, processing and loading facilities, preparation plants, roads, or any other facility that had to make use of a spoil or refuse disposal site in order to operate. No distinction was made between spoil and refuse fills. Data on impoundments was added whenever such information was available. This was done in order to provide as complete an inventory as possible and to accurately reflect field conditions. The majority of the fills are permitted as part of surface mining operations. Of the 6697 fills counted in this inventory, 5688 (85 percent) are on surface mining operations, 719 (11 percent) are on underground mining operations, and the remaining 290 (4 percent) are on other types of operations such as preparation plants, tipples and

load-outs, or other types of facilities. It is assumed that all the fills on surface mining operations and most of the fills on underground operations are spoil fills. It is certain that a fair percentage of the fill structures on some underground mines and most of the other types of operations are refuse fills or impoundments.

Table 1 - Number of Fills Approved in the Central Appalachian Coalfields

<b>Year</b>	<b>Kentucky</b>	<b>Tennessee</b>	<b>Virginia</b>	<b>West Virginia</b>
1985	578	2	18	131
1986	420	4	29	42
1987	513	8	28	33
1988	376	6	34	89
1989	321	1	27	129
1990	266	1	36	45
1991	369	5	56	58
1992	348	5	29	99
1993	317	0	26	53
1994	193	0	35	54
1995	231	0	27	92
1996	264	1	23	64
1997	200	2	31	97
1998	170	7	34	19
1999	158	11	26	27
2000	134	2	34	38
2001	137	0	7	77
<b>Total</b>	<b>4995</b>	<b>55</b>	<b>500</b>	<b>1147</b>

[Source: USEPA, 2003, Table III. K-1]

The table that follows shows the total and average areal extent of the fills.

Table 2 – Fill Acreage

Year	Valley Fill Footprint Approved Acres				Valley Fill Footprint Average Size in Acres			
	KY	TN	VA	WV	KY	TN	VA	WV
1985	3935	69	666	2342	6.8	34.5	37	17.9
1986	2640	115	306	1437	6.4	28.8	10.6	34.2
1987	3778	99	154	276	7.4	12.4	5.9	8.4
1988	4342	34	367	1205	11.6	5.7	10.8	13.5
1989	3506	21	325	1735	11.0	21.0	12.0	13.5
1990	2282	3	473	673	8.6	3.0	13.2	15.0
1991	3759	76	582	1229	10.2	15.2	10.8	21.2
1992	4966	73	419	1974	14.5	14.6	15.0	20.0
1993	3635	0	216	1482	11.7	0	9.5	28.0
1994	2475	0	235	1692	15.0	0	7.6	31.3
1995	3202	0	283	2372	17.5	0	10.5	25.8
1996	2988	69	374	2179	14.8	69.0	16.2	38.1
1997	2691	93	425	2062	15.0	46.5	13.7	21.3
1998	2668	109	333	1379	18.9	15.6	9.8	72.6
1999	1240	104	226	580	16.8	9.5	13.3	21.5
2000	2203	44	425	1015	16.3	22.0	12.5	26.2
2001	1465	0	126	1546	10.7	0	18.0	20.1
<b>Total</b>	<b>51775</b>	<b>909</b>	<b>5935</b>	<b>25178</b>	<b>10.4</b>	<b>16.5</b>	<b>11.8</b>	<b>22.0</b>

[Source: USEPA, 2003, Table III. K-2]

As part of our oversight activities and separate from the programmatic EIS discussed above, we conducted studies in Kentucky, Virginia, and West Virginia to determine how the regulatory authorities were administering the SMCRA programs regarding AOC and post mining land use requirements. [USDOI-OSM, May 1999; USDOI-OSM, September 1999; USDOI-OSM, May 2000] When permit files and reclaimed mines were examined, we found it difficult to distinguish between the reclamation configuration of mines that were not to be reclaimed to AOC and the reclamation configuration of mines that were to be reclaimed to AOC. There were no clear differences in the number and size of the excess spoil fills, and non-AOC mines should typically have larger or more numerous fills. We determined that typically, coal mine operators could have retained more spoil on mined out areas under applicable AOC requirements than they were actually retaining. We also found that in many instances coal mine operators were overestimating the anticipated volume of excess spoil. As a result, we concluded that coal companies were designing fills larger than necessary to accommodate the anticipated excess spoil. Where fills are larger than needed, more land outside the coal extraction

area is disturbed than necessary. We attributed these problems, in part, to lack of, or inadequate, regulatory guidance.

Following our oversight review, Kentucky, Virginia, and West Virginia developed new guidance to address AOC and the volume of excess spoil. However, we believe the need remains to revise the national regulations concerning excess spoil placement because surface mining throughout the country may generate excess spoil. Our regulations pertaining to excess spoil fill construction are primarily focused on ensuring that fills are safe and stable. These regulations, with minor exceptions, do not explicitly address how the applicants must demonstrate consideration and minimization of the environmental effects of fill construction. We believe that national rulemaking is needed to make explicit the requirements that the volume of excess spoil be minimized by returning as much mine spoil to the mined out area as possible, and that excess spoil fills be designed and constructed to minimize the adverse effects to the hydrologic balance, fish, wildlife, and other environmental resources.

## *2. What is The Need For Action to Clarify OSM's Stream Buffer Zone Rules?*

OSM believes that, in light of the many questions and conflicting interpretations that have been raised over the interpretation of existing stream buffer zone rules, clarification is needed in order to eliminate confusion and confirm OSM's intent as to the circumstances in which mining activities may be allowed in the stream buffer zone.

### Existing Requirements

There is no provision in SMCRA requiring establishment or protection of stream buffer zones. We adopted the concept of a "buffer zone" around intermittent and perennial streams as a means "to protect stream channels from abnormal erosion" from nearby upslope mining activities. [42 FR 62652, December 13, 1977]. The current Federal SBZ rule has been in effect since June 30, 1983. State regulatory programs include similar requirements.

### Evolving Stream Buffer Zone Rule Controversy

The issues and allegations raised in the Bragg lawsuit and related actions, indicate that there remains considerable misunderstanding regarding the meaning of the SBZ regulation at 30 CFR 816.57, particularly as it applies to the placement of excess spoil fills within and near intermittent and perennial streams.

In addition to the concerns expressed in Bragg about USCOE administration of CWA section 404, the plaintiffs alleged that WVDEP violated the West Virginia stream buffer zone rule (38 C.S.R. § 2-5.2(a)), by approving applications for surface mining permits that disturb stream buffer zones, because the State's SBZ rule allows surface mining activities on land within 100 feet of an intermittent or perennial stream only if the

activities are minor incursions, but not if the activities would bury substantial portions of the stream. Plaintiff's December 30, 1998, Amended Complaint for Declaratory and Injunctive Relief at 21 filed in Bragg, supra.

The plaintiffs also argued that valley fills (excess spoil fills) violate the stream buffer zone requirements because such fills bury and destroy substantial portions of intermittent or perennial streams. Plaintiffs contended that such fills adversely affect the normal flow or gradient of the stream, adversely affect fish migration and related environmental values, materially damage the water quantity and quality of the stream, and cause or contribute to violations of applicable state water quality standards in the segment of the stream actually filled. Id at 21-22.

In reply, WVDEP stated that the language of the West Virginia SBZ rule refers not to just the "footprint" of the fill, but to the entire stream segment, so that one part of a stream, usually the headwaters and upper reaches, may be covered by a valley fill, as long as downstream quantity and quality are not adversely affected.

In August 1999, USEPA, USCOE, OSM, and WVDEP signed a memorandum of understanding (MOU) in which they agreed that the CWA section 404(b)(1) Guidelines (40 CFR Part 230 used by USCOE in administering the CWA section 404 program, contain requirements comparable to the SBZ regulations. The MOU states that if a proposed fill complies with the CWA section 404(b)(1) Guidelines and applicable requirements for State certification under CWA section 401, this satisfies the requirements for a buffer zone waiver.

On October 20, 1999, Judge Haden issued a decision in Bragg that rejected WVDEP's interpretation on the grounds that it would lead to the absurd result that miles of stream could be filled and deeply covered with rock and dirt, but if some stretch of water downstream of the fill remains undiminished and unsullied, the stream has been protected. He went on to say that State and Federal SBZ regulations clearly contemplate protecting stream segments.

The October 20, 1999 decision in Bragg granted summary judgment for the Plaintiffs on the SBZ issues, and held that the Director of WVDEP has a non-discretionary duty under the stream buffer zone rule to deny variances for valley fills in intermittent and perennial streams because they necessarily adversely affect various stream environmental values, and violate state and federal water quality standards. He also enjoined the Director of WVDEP from further violations of those non-discretionary duties and from authorizing placement of excess spoil in intermittent and perennial streams for the purpose of waste disposal.

The coal industry and labor officials expressed considerable concern about the impacts of the Bragg decision, because coal mining necessitates stream disturbance.

WVDEP and USCOE appealed the October 1999 decision and order; and the U.S. Department of Justice (DOJ) filed a brief on behalf of Federal Appellants in the appeal,

that asserted:

The district court also correctly granted summary judgment on Count 3, holding that the burial of substantial portions of intermittent or perennial streams in valley fills causes adverse environmental impact in the filled stream segments and therefore cannot be authorized consistent with the stream buffer zone rule. The uncontested evidence demonstrates that the burial of substantial portions of intermittent or perennial [streams] causes adverse environmental effects to the filled stream segments; as such fill eliminates all aquatic life that inhabited those segments.

April 17, 2000, Brief for the Federal Appellants at 23, filed in Bragg v. Robertson, C.A. No. 99-2683. However, DOJ noted that:

The district court's injunction prohibits even minor spoil disposal activities that do not involve the filling of stream segments. Indeed, the district court's injunction would prohibit the placement of even de minimis amounts of excess spoil, such as a single rock or handful of dirt, in any intermittent or perennial stream. Neither the law nor the evidence presented to the district court mandates the conclusion that such spoil disposal inevitably causes adverse environmental effects.

Id. at 45.

OSM was not a party to the Bragg litigation, and the narrow interpretation of the SBZ rule set out in the DOJ brief is not consistent with our historic interpretation of SMCRA rules. Nonetheless, because of the DOJ brief, on April 17, 2000, the Solicitor of the Department of Interior and the acting Director of OSM sent a letter to the Director of WVDEP informing WVDEP that the August 1999 MOU does not represent the federal government's current interpretation of the SBZ rule. The letter stated that the Department no longer felt compliance with CWA 404(b)(1) guidelines and CWA 401 certification equated to compliance with the SBZ requirements.

On May 22, 2000, the acting Director of OSM sent letters to the regulatory authorities in Kentucky, Virginia, and West Virginia. The letters stated that OSM would develop guidance to explain that findings made in applying the CWA Section 404(b)(1) Guidelines cannot be used as a substitute for the finding required to grant a SBZ waiver for the disposal of excess spoil in intermittent or perennial streams. The letter further advised that the guidance would state that the SBZ waiver finding must be applied to each segment of an intermittent or perennial stream in which fill will be placed. The letters also stated:

Pending completion and issuance of that guidance, we believe that

permitting decisions regarding whether an activity is entitled to a waiver of the buffer zone requirement must be made on a case-by-case basis. . . . This analysis must consider all factors identified in the approved SMCRA program for granting the waiver. . . .

On April 24, 2001, the court of appeals for the Fourth Circuit overturned the October 20, 1999, decision in Bragg. The court of appeals said that, under the 11th Amendment to the U.S. Constitution, the district court did not have jurisdiction to hear the case concerning the State's SBZ rule, because of the State's sovereign immunity. (Bragg v Robertson, 248 F.3d 275 (4th Cir. 2001))

In Kentuckians for the Commonwealth, Inc. v. Rivenburgh, 204 F.Supp. 2d 927, 206 F. Supp. 2d 782 (S.D. W.Va. 2002), although neither the SBZ regulations nor SMCRA were at issue, Judge Haden concluded:

In SMCRA, when Congress dealt specifically with surface coal mining overburden, it reinforced its plan that fills were appropriate where, and only where, they were justified by some constructive end use and purpose served by the fill itself. Otherwise, such overburden is just waste, to be returned to the mine site to recreate the AOC of the landscape mined. SMCRA contains no provisions authorizing disposal of overburden waste in streams, a conclusion further supported by the stream buffer zone rule.

204 F. Supp. 942.

The court of appeals for the Fourth Circuit rejected these comments on the SBZ rule, noting that:

[R]egardless of whether the fill has a beneficial purpose, SMCRA does not prohibit the discharge of surface coal mining excess spoil in waters of the United States.

Kentuckians for the Commonwealth, Inc v. Rivenburgh, 317 F. 3d 425, 442 (4th Cir. 2003). The appeals court further stated:

Indeed, it is beyond dispute that SMCRA recognized the possibility of placing excess spoil material in waters of the United States even though those materials do not have a beneficial purpose . . . . It is clear that SMCRA anticipates the possibility that excess spoil material could and would be placed in waters of the United States, and the fact cannot be juxtaposed with § 404 of the Clean Water Act to provide a clear intent to limit the term "fill material" to material deposited for a beneficial primary purpose.

Id at 443.

In light of all the questions and concerns that have been raised concerning SBZ requirements, we are proposing amendments to the SBZ rule, in order to clarify the circumstances in which mining activities, such as the construction of excess spoil fills, may be allowed within the SBZ.

#### D. Alternatives Considered

OSM considered seven alternatives:

- Alternative 1 – No new policies or regulatory changes (“no action”) ✓
- Alternative 2 – Address all concerns through technical and policy guidance as opposed to changing the regulations
- Alternative 3 - Address all concerns by amending several specific regulations ✓
- Alternative 4 - Address excess spoil concerns by amending the applicable regulations and leave unchanged the SBZ rule
- Alternative 5 – Address excess spoil concerns through technical guidance and SBZ rule concerns through rulemaking.
- Alternative 6 – Address excess spoil concerns by amending the applicable regulations and the SBZ concerns by eliminating the SBZ rule.
- Alternative 7 – Address excess spoil concerns by amending the applicable regulations and revising the SBZ rule to prohibit all mining activities within the SBZ.

✓ Indicates the alternatives that will be analyzed in detail in Section G.

#### Alternative 1 (“no action”)

Under this alternative, OSM would neither develop further guidance nor promulgate any rule changes to address the concerns regarding the excess spoil fills or uncertainty regarding the SBZ requirements. The National Environmental Policy Act (NEPA) requires consideration of a “no action” alternative.

#### Alternative 2

Under this alternative, in lieu of regulatory changes, OSM would develop and distribute technical guidance and policy directives to address concerns regarding the generation and disposal of excess spoil and the confusion regarding stream buffer zones. In fact, OSM

has recently developed technical guidance for the Tennessee Federal program and has worked with the Kentucky, Virginia, and West Virginia state SMCRA programs in drafting guidance to minimize the volume of excess spoil generated. OSM would also develop similar guidance related to the disposal of excess spoil, and policy directives to help clear up confusion regarding the SBZ requirements. Technical guidance might provide more information concerning requirements for generation and disposal of excess spoil. However, development of policy directives would unlikely resolve all of the confusion concerning the SBZ rules, because regulatory language would be unchanged; and any policy guidance would not have the same weight and effect as policy changes adopted by notice-and-comment rulemaking. Further, a directive would not significantly improve stability and predictability of SMCRA implementation because directives may be further revised without notice and comment. Such guidance may supplement statutory and regulatory requirements, but it is not an appropriate substitute for clear regulations. Because Alternative 2 would not adequately resolve the uncertainty concerning interpretation of SBZ requirements, and would not more closely conform SBZ regulations to SMCRA's language, we will not analyze this alternative further in this document.

### Alternative 3 (Preferred Alternative)

Under this alternative, OSM would initiate rulemaking to amend certain specific regulations.

Concerning excess spoil, 30 CFR sections 780.18(b)(3) and 780.35(b) of the proposed rule would require the permit applicant to:

- (1) demonstrate to the satisfaction of the regulatory authority (RA) that the volume of excess spoil will be minimized to the maximum extent possible in accordance with 30 CFR 816.105 (§ 780.18(b)(3)), and
- (2) describe the steps to be taken to minimize the adverse environmental effects stemming from the construction of excess spoil fills, and provide analyses of the environmental impacts of alternative disposal plans to accommodate the volume of excess spoil, in which the configurations of fills, including location, number, and size, vary.

The proposed revised performance standards for disposal of excess spoil, at 30 CFR 816.71 would require that excess spoil be placed in designated disposal areas in a controlled manner so as to:

- (1) ensure that the cumulative volume of excess spoil fill is no larger than necessary to accommodate the cumulative excess spoil volume generated, and
- (2) after considering alternative fill locations, sizes, and numbers, minimize to the extent possible, adverse impacts to the prevailing hydrologic balance and to fish, wildlife, and related environmental values.

Proposed revisions to the stream buffer zone (SBZ) requirements of § 816/817.57 would revise current paragraphs (a)(1) and (2) to provide that surface and underground mining activities may occur in the SBZ only if the regulatory authority finds that the activities will, to the extent possible, use the best technology currently available<sup>2</sup> to:

- (1) Prevent additional contributions of suspended solids to the section of stream within 100 feet downstream of the mining activities, and outside the area affected by mining activities; and
- (2) Minimize disturbances and adverse impacts on fish, wildlife, and other related environmental values of the stream.

The revisions to paragraph (a)(1) are intended to accord with the requirement in SMCRA section 515(b)(10)(B)(i) to prevent additional contributions of suspended solids to streams outside the permit area. The revisions to paragraph (a)(2) are intended to recognize that at least some impacts on environmental values of a stream are inevitable when mining activity occurs in a stream buffer zone, but that an operation may be allowed in the SBZ if it uses BTCA to minimize such impacts. For example, if excess spoil would be located in the SBZ, the operator would have to use BTCA to the extent possible to minimize fills and choose a fill configuration alternative that causes the least environmental harm.

This alternative will be analyzed further in this document because it would address all of the needs for this action, including the needs to (1) clarify that disturbances and adverse environmental impacts from the construction of excess spoil fills must be minimized to the maximum extent possible; (2) clarify the standards for configuring excess spoil disposal, (3) clarify the conditions for authorizing a SBZ waiver and reduce the uncertainty and confusion related to the applicability of these conditions, (4) more closely conform SBZ regulations to SMCRA's language, (5) reduce the potential for SMCRA permitting requirements to unnecessarily conflict with CWA regulatory requirements, and (6) balance Congress' purposes in SMCRA of protecting the environment and encouraging energy production.

#### Alternative 4

Under this alternative, OSM would leave the SBZ regulations at 30 CFR 816/817.57 unchanged. OSM would initiate rulemaking to amend the regulations applicable to excess spoil disposal as described in detail in Alternative 3 above. The proposed changes for excess spoil disposal regulations would require the applicant to more clearly and consistently demonstrate that adverse impacts of valley fills on the environment (i.e. fish, wildlife and other values) have been minimized to the extent possible. However, this alternative will not be further analyzed in this document, because it does not fully resolve the regulatory uncertainty regarding the SBZ requirements.

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<sup>2</sup> The term "best technology currently available" is defined in 30 CFR 701.5.

### Alternative 5

Under this alternative, OSM would initiate rulemaking to revise the SBZ rule in a manner similar to the changes described in Alternative 3. No action would be initiated to amend the regulations applicable to excess spoil. Although this alternative would address the confusion concerning OSM's interpretation of SMCRA in the SBZ regulations, it would not address the need to clarify the standards for configuring, or the need to clarify the requirements to minimize disturbances and adverse impacts of excess spoil fills. Because this alternative would not fully address all of the issues identified, this alternative will not be further analyzed in the document.

### Alternative 6

Under this alternative, OSM would initiate rulemaking to amend the regulations applicable to excess spoil disposal as described in detail in Alternative 3 above. The proposed changes for excess spoil disposal regulations would clarify the standards for configuring excess spoil disposal, and would require the applicant to more clearly and consistently demonstrate that adverse impacts of valley fills on the environment (i.e. fish, wildlife and other values) have been minimized to the extent possible. Under this alternative, the SBZ rule at 30 CFR 816.57 and 817.57 would be removed from the Federal regulatory program.

This alternative would address the issues pertaining to excess spoil generation and disposal, as well as the issues concerning uncertainty in SBZ regulatory requirements. However, while the stream buffer zone rules are not required by SMCRA, OSM continues to believe that the SBZ rules are one of the effective means in the Federal regulatory program for preventing abnormal sedimentation in streams. The SBZ rules are also a way to minimize the environmental harm to stream and riparian habitat. The concept of a stream buffer zone has been part of the Federal regulatory program since its inception. This alternative would eliminate regulatory uncertainty regarding the buffer zone and eliminate potential future litigation concerning interpretation of the stream buffer zone rules. However, this alternative would eliminate an effective and proven means of reducing environmental harm. For the latter reason, we do not consider this alternative to be a viable alternative and it will not be further analyzed in this document.

### Alternative 7

Under this alternative, OSM would initiate rulemaking to amend the regulations applicable to excess spoil disposal as described in detail in Alternative 3 above. The proposed changes for excess spoil disposal regulations would require the applicant to more clearly and consistently demonstrate that adverse impacts of valley fills on the environment (i.e. fish, wildlife and other values) have been minimized to the extent possible. The SBZ rules would be amended to prohibit all surface mining activities and all surface operations incident to underground mining within 100 feet of a perennial or intermittent stream.

During the process of adopting the current SBZ regulation, OSM analyzed the effect of a similar proposal in the 1983 EIS. The alternative was rejected as not viable:

OSM could eliminate the exemption from the general stream buffer zone requirements (section 816.57), and all mining would be prohibited within 100 feet of any perennial or intermittent stream. Although this would provide maximum protection to streams, the potential impacts on coal recovery could be significant in those areas with large coal reserves and extensive water resources.

(OSM, 1983, p. IV-84). OSM continues to believe that this is not a viable alternative, because it would significantly affect coal recovery in areas with extensive water resources, in a way not required by SMCRA; and thus would not be consistent with Congress' explicit purpose, in SMCRA section 102(f), to:

assure that the coal supply essential to the Nation's energy requirements, and to its economic and social well-being is provided and strike a balance between protection of the environment and . . . the Nation's need for coal as an essential source of energy."

A recent study in the central Appalachian coalfields indicates the draconian effect that prohibiting all mining in the SBZ could have on our nation's energy supply . Assuming that mining activities could not be conducted within the SBZ, this OSM study has estimated that 92.5 percent of the available coal reserves in the central Appalachian coal fields could not be mined. (Sandberg et al., July 2000, p.1)

In addition, while eliminating the waiver provision in the SBZ rule would eliminate regulatory uncertainty, this change would preclude mining that, under certain circumstances might be allowed under section 404 of the Clean Water Act ("CWA"). In such instances, this change might thus be deemed to supersede the CWA, in violation of section 702 of SMCRA, which prohibits construing SMCRA to supersede the CWA.

Because this alternative is not required by SMCRA, would be inconsistent with one of Congress' explicit purposes for SMCRA, and would risk violating a prohibition in SMCRA, OSM does not consider this alternative viable, and it is not further analyzed in this document.

#### E. Affected Environment

Detailed descriptions of the physical environment in the various coal regions of the nation and a more comprehensive description of the regulatory environment are found in OSM-EIS-1 (January 1979) and OSM-EIS-1-SUPP (January 1983). We are tiering off (i.e. relying on the extensive background information and analyses of previous documents) both of these documents in accordance with NEPA. Below is some additional information regarding the affected environment that is pertinent to the actions we are considering.

<b>Coal Production by Region and Type in 2002</b>			
	Surface (million short tons)	Underground (million short tons)	Total (million short tons)
Appalachian	145.4	250.7	396.2
Interior	92.1	54.5	146.6
Western	498.3	52.1	550.4

[[www.eia.doe.gov/cneaf/coal/page/acr/table1p2.html](http://www.eia.doe.gov/cneaf/coal/page/acr/table1p2.html)]

### Appalachian Region

Coal production in the Appalachian Region dropped dramatically in 2002 to a total of 396.0 million short tons, a level not seen since 1983, as some of the largest coal companies in the region idled mines over the course of the year. The decline in coal production in the Appalachian Region was a result of several factors. Among them were the continued decreases in U.S. coal exports (primarily exports of coal produced in the eastern United States), as well as lower customer demand for coal.

In West Virginia, the largest coal-producing State in the region and the second largest in the U.S., coal production declined 7.3 percent in 2002, to 150.6 million short tons. Part of the decrease in production in West Virginia was the result of the idling of several mines in the State for varying periods of time due to lack of demand for coal. Eastern Kentucky produced 98.9 million short tons of coal in 2002, down by 10.2 million short tons from the previous year's production, and a level not seen since 1978. Pennsylvania produced 68.7 million short tons, a drop of 7.4 percent from 2001 production. Maryland was the only State in the Appalachian Region to show an increase in coal production in 2002. Maryland produced 4.7 million short tons of coal, an increase of 1.6 percent. The remaining four States in the region (Alabama, Ohio, Tennessee, and Virginia) had decreased coal production levels ranging from a 3.2 percent decline in Alabama to a 16.1 percent decline in Ohio.

[[www.eia.doe.gov/cneaf/coal/page/special/feature.html](http://www.eia.doe.gov/cneaf/coal/page/special/feature.html)]

### Interior Region

The Interior Region experienced a slight decrease in coal production in 2002, declining 0.7 million short tons, or 0.5 percent. The primary reason coal production for the Interior Region did not fall further is that Mississippi, with its fourth year of recorded coal production, increased production by 1.7 million short tons, to a level of 2.3 million short tons. This additional production was a result of the increased coal needs of a Mississippi mine's customer, a power plant. Texas, the largest coal-producing State in the region showed a slight increase in coal production, ending the year at 45.2 million short tons, up 0.3 percent. This was the first increase in Texas coal production in three years. In Indiana, the second-largest coal producing State in the Interior Region, production

declined in 2002 by 3.3 percent to 35.5 million short tons. Coal production in both Illinois and Western Kentucky decreased slightly in 2002, down by 1.4 percent and 1.1 percent, respectively. In the other States in the Interior Region (Arkansas, Kansas, Louisiana, Missouri, and Oklahoma), which accounted for only 3.7 percent of the entire region's production in 2002, coal production fluctuated to some extent from 2001 production levels.

[Ibid]

### Western Region

Coal production in the Western Region increased slightly in 2002, rising by a total of only 2.9 million short tons, or 0.5 percent. This increase was the smallest experienced in the Western Region since 1992. Of the nine States in the Western Region, only four had increased coal production in 2002: Colorado, North Dakota, Washington, and Wyoming. The other five States had declines in coal production ranging from 0.4 to over 1.8 million short tons. These declines resulted from various causes, including lost coal contracts and mine closings. Wyoming continued to be the biggest coal-producing State in the nation, as it has been for 15 years. In 2002, Wyoming produced a record 373.5 million short tons of coal, an increase of 1.3 percent for the year. Colorado produced 35.1 million short tons of coal in 2002, an increase of 1.7 million short tons. The majority of this higher production level is attributable to the 1.5 million short ton increase in production at the West Elk mine. Coal production in Washington was up in 2002, at 5.8 million short tons, an increase of 1.2 million short tons. The increase was used to generate electricity to supplement low hydroelectric generation in the State. Coal production in North Dakota rose by 1.1 percent in 2002, at 30.8 million short tons.

Montana, the second largest coal-producing State in the Western Region, had a decline in coal production in 2002 of 1.8 million short tons, to 37.4 million short tons. The decrease was partly due to a lost coal contract. Coal production in Utah fell to 25.3 million short tons, a drop of 1.7 million short tons, as a result of the closing of three mines in 2001. Alaska had a drop of 0.4 million short tons in 2002, to 1.1 million short tons, because a long-term coal contract expired and was not renewed. All of the remaining States in the Western Region experienced declines in their coal production levels in 2002.

[Ibid]

Both the physical environment in the various regions of the country and the mining method chosen by a coal mining operator will have a great influence on the extent to which any regulatory changes concerning excess spoil disposal and SBZ's might affect the environment in those regions. Surface coal mining generally results in creation of much greater volumes of excess spoil than does underground coal mining. Thus, generally the potential impact of regulatory changes concerning excess spoil disposal is greater for surface mines than for underground mines. However, the topography of a specific area to be surface mined will have an even greater effect on the creation of excess spoil. In the flatter or more gently rolling topography that is more typical of the

midwestern and western United States, area mining is the prevalent form of surface mining. In area mining, topography allows placing mine spoil back on the reclaimed mine site. Spoil properly placed back on the mine site is not excess spoil. However, surface mining in much of the eastern coal region is conducted in the steep hills and mountainous areas of Appalachia where topography generally precludes safe placement of all surface mine spoil back on the mine site during reclamation. As a result, the mine operator must otherwise dispose of the excess spoil. This means that, in general, change in the excess spoil rules will probably have little impact on Interior and Western coal fields, but could have impacts on eastern mining areas, particularly in the central Appalachian coalfields.

Streams exist in all of the coal regions around the country. However, some generalizations can be made. Mining in the western region often occurs in semi-arid conditions, so that relatively few streams might be affected by a given mine, compared to the number of streams that would be likely on a mine site in the Interior or Appalachian coalfields. Although western mine sites may typically include fewer streams than do midwestern and eastern mines, this may, to some extent, be reflected in a higher value that is placed on stream resources in the west. Thus, any change in the SBZ rule could have impacts in all regions of the country. However, the likelihood or frequency of impact on the environment in the eastern and midwestern regions of the country would typically be greater than in the western U.S.

Additionally, surface coal mining activities other than excess spoil fills may also involve disturbance of stream channels. Coal deposits underlie many streams at shallow depths, and mining activities routinely divert and relocate a watercourse to remove the coal.

Underground mining development involves excavating rock and soil on the surface to expose the coal seam and to provide access for people, equipment, and ventilation for the underground mining operation. This process is referred to as “facing up.” In steep terrain, excavated material from these “face-up” areas may result in small fills if the excavation is limited to providing coal seam access, or larger fills if facilities such as miners’ bathhouses, office buildings, coal storage, and coal preparation areas are needed. Some face-up fills are constructed on valley hillsides and other face-up fills must be placed in adjacent valleys. Underground mining may also involve excavating non-coal waste rock underground. Because underground mining typically brings this waste rock material to the surface, the mine operator typically constructs fills to accommodate the material.

The mine operator may have to place fill in small streams adjacent to the preparation facility within embankments or impoundments, in order to dispose of coal waste from the cleaning and preparation of coal. Similarly, the operator of a preparation facility may need an impoundment in an adjacent stream valley for withdrawal of cleaning process water. In order to minimize sedimentation and comply with CWA or state effluent standards, an operator of a surface or underground coal mine may need to place sediment control structures or ponds in streams below the mine. Road crossings also may impact streams.

Because of such mining necessities, SMCRA and the implementing regulations on protecting the hydrologic balance and on other subjects, recognize that certain stream impacts may be necessary during coal mining. However, such impacts must be carefully and thoughtfully evaluated, planned, conducted, and minimized to assure the environment is protected during and after mining. See SMCRA § 102(d) and §507(b). The rule proposal described in this environmental assessment is consistent with this approach. It would clarify and supplement existing requirements and require a permit applicant to provide relevant information and analysis concerning mine planning and design to minimize environmental impacts.

### Regulatory Environment.

Information on the regulatory environment for this action is given in Section C above. Under SMCRA, states that develop regulatory programs that meet the requirements of SMCRA and implementing regulations may obtain regulatory primacy (i.e., the right to administer the surface mining regulatory program in their state). In those states, OSM operates only in an oversight capacity. Primacy states' coal mining regulatory programs, including requirements for SBZ's, have been approved by OSM as meeting the SMCRA standards.

Excess spoil. As discussed above, in steep terrain the mine operator may place excess spoil either in adjacent valleys, or on previously mined sites. Our rules at §§ 816.71-74 allow design and construction of several types of steep-slope fills: "valley", "head-of-hollow", and "durable rock". Valley and head-of-hollow fills are limited by definition in § 701.5, to steep slope areas (valley side slopes of greater than 20 degrees or valley profile (stream) gradient of greater than 10 degrees). Durable rock fills are not limited to steep slopes, but in practice have been the most common fill construction technique in steep slope areas.

Existing regulatory requirements primarily address the need to ensure that excess spoil fills are not subject to erosion, are stable, and do not cause landslides or washouts. However, SMCRA section 515(b)(22)(I) requires that operators place all excess spoil material so that all other provisions of SMCRA are met. Under this requirement, hydrologic balance, water quality, revegetation, and other performance standards must be addressed in excess spoil design and construction plans.

Accounting for the volume of excess spoil material is standard engineering practice in mine design, and is clearly envisioned by section 515(b)(3) of SMCRA. Concerning thick overburden, this section requires the operator to demonstrate that, due to volumetric expansion of the overburden and other spoil and waste material, more than sufficient material is available to reclaim the site to AOC. In response to a comment on the proposed rule adopted in 1983 on thick overburden performance standards, at 30 CFR 816.105, we stated:

In a thick-overburden situation the operator must meet all of the performance

standards of the rules except that the operator, after achieving AOC, may exceed the AOC requirement. The amount of excess overburden is a site-specific condition and easily documented. Therefore, each permit application requesting consideration under this section should be evaluated by the regulatory authority.

[48 FR 23365, May 24, 1983]

We recommended that each regulatory authority work with us to develop enhanced guidance on determining backfill and excess spoil volumes, spoil management, and approximate original contour. Kentucky, Virginia and West Virginia have developed such guidance; and we also developed such guidance for the Tennessee Federal program. These guidance documents are attached to this document as appendices A, B, C, and D, respectively. We continue to review the implementation and effectiveness of this guidance.

Stream buffer zones. Some states, such as Iowa and Kansas, have adopted requirements like those in 30 CFR 816.57, while Mississippi's 150-foot buffer zone for perennial streams, exceeds the 100-foot Federal requirement. Information on the existing regulatory environment relevant to SBZ protection in each primacy state is provided in Appendix E. In the non-primacy states such as Tennessee and Washington, OSM administers the coal regulatory program under SMCRA and implementing regulations.

#### F. Environmental Justice

On February 11, 1994, President Clinton issued Executive Order 12898, "Federal actions to address environmental justice in minority populations and low-income populations." This Executive Order requires among other things that "[E]ach Federal agency shall analyze the environmental effects, including human health, economic, social effects, of Federal actions, including effects on minority and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. section 4321 *et seq.* Mitigation measures outlined or analyzed in an environmental assessment, environmental impact statement, or record of decision, whenever feasible, should address significant and adverse environmental effects of proposed Federal actions on minority communities and low-income communities."

Coal mining is occurring in 25 states in the United States. The location of economically mineable coal reserves is dictated by topography and geology. The characteristics of the population that could be impacted either positively or negatively by future coal mining varies and is site-specific. We are considering a national rulemaking. We do not have reason to believe that the actions that we are considering will have discriminatory effect on low-income communities or minorities of a certain race, color, or national origin.

Since February 11, 1994, site-specific permitting decisions on Federally-issued mining permits are made with thorough analysis of effects of the decision on low-income and minority populations. The rulemaking that we are considering will not affect the

agency's analysis of those effects, and will not affect the opportunities afforded to communities potentially affected by coal mining, to participate fully in the permitting process.

#### G. Environmental Impacts of the Proposed Action and Alternatives

As indicated in Section D., only the environmental impacts of Alternative 1 – “no action” and Alternative 3 – “preferred alternative” will be analyzed in this section.

##### Alternative 1 – “No Action”

Under this alternative, we would not initiate any changes to our regulations or put out new guidance, to minimize the environmental effects of excess spoil or to clarify the SBZ regulatory requirements.

Assuming no major changes in technology, market conditions or other extraneous factors, and assuming mining would continue as it has for the last decade or so, excess spoil fills associated with surface mining would continue to be built. As discussed in Section C, OSM estimates that around 5700 excess spoil fills have been constructed and that these fills have directly impacted 724 miles of 59,000 miles of stream in central Appalachian coalfields. Thus, we assume that under this alternative an additional 724 miles of streams, primarily in the Appalachian coal region, could be affected by coal mining in the next 17 years.

In addition, a number of other streams would continue to be directly impacted by other mining activities. These would include, but are not limited to, mining through streams; disposing of coal refuse; relocating streams; and constructing roads, offices, impoundments, underground mine access areas.

All of these activities would continue to have some adverse effects on fish, wildlife, and similar environmental values. There would also be limited indirect adverse effects on water quality and quantity. Adverse impacts would continue to be mitigated as required by existing permitting and performance standards pursuant to SMCRA and other requirements established by the Clean Water Act, Clean Air Act, and other State and Federal environmental laws.

##### Alternative 3 – “Preferred Alternative”

Excess spoil amendments. Under this alternative, we are considering changing the permitting regulatory requirements pertaining to excess spoil at 30 CFR 780.18 and 780.35. These changes would add requirements that the applicant provide specific information demonstrating that the volume of spoil has been minimized to the maximum

extent possible and that alternative configurations for excess spoil disposal be described and analyzed to demonstrate that the proposed configuration will minimize adverse environmental effects.

We would also change the performance standard applicable to excess spoil at 30 CFR 816.71. The proposed language would require that fills be designed to be no larger than necessary to accommodate the anticipated excess spoil volume, and that fills be located to minimize, to the extent possible, adverse impacts on the prevailing hydrologic balance and on fish, wildlife, and related environmental values.

In tandem, these changes to the excess spoil disposal regulations would incrementally enhance the environmental protections provided under SMCRA. Through technical guidance, OSM and the states in the central Appalachian region have informed coal operators of the need to minimize the volume of excess spoil. The proposed rule changes would provide a clearer basis for doing so, and would establish a level playing field nationally. In addition, the changes would more clearly and explicitly require the applicant to configure and locate fills where they will cause the least environmental harm. Since the proposed revised standards for excess spoil disposal would apply to each new application and each excess spoil fill constructed, the adverse environmental effects of excess spoil fill construction would likely be reduced. Fewer miles of streams would be impacted by excess spoil fill construction. Because the siting criteria for locating fill would direct construction of fills to degraded streams where feasible, as opposed to pristine streams, the number of higher quality headwater streams impacted would be reduced. Because the impact of these changes will depend upon site-specific criteria, it is not possible to quantify the impacts of implementing these changes.

Both the permit applicant and SMCRA permitting authority would experience a slight increase in workload as the result of the actions of this alternative. This additional workload would be attributed to the collection and analysis of additional data; designing, analyzing, documenting, and reviewing alternative spoil management plans. The proposed changes might also require some primacy states to revise their regulatory programs to be consistent with the proposed regulatory changes. However, any workload impacts on the applicant would be limited because the information required by this alternative would likely support and be consistent with any similar data collection, analyses, and documentation required by the COE under the CWA section 404 program. Thus, this alternative would decrease the likelihood of unnecessary expense (from unnecessarily repeated permit revision and review) for both the regulatory authority and the applicant. In instances when waters of the U.S. were not involved (e.g. side-hill fills), the applicant might incur additional permitting costs and possibly mining costs if the fill disposal alternative that met the revised standards was not also the lowest cost for the applicant.

SBZ amendments. The proposed SBZ regulatory changes at 30 CFR 816.57 and 817.57 are meant to clarify our interpretation of the SBZ requirements to more closely reflect both the SMCRA provisions on which the rule is based, and actual regulatory practices in

implementing the rule. We anticipate that these changes to the SBZ rule would essentially be “impact neutral” as compared to the interpretation of existing SMCRA regulatory requirements. OSM is proposing to revise certain SBZ regulations [30 CFR 816.57(a)(1) and (2) and 817.57(a)(1) and (2)] to require two findings by the regulatory authority that would be conditions for granting a waiver to SBZ requirements. The first finding would be that surface activities would, using “best technology currently available,” prevent, to the extent possible, additional contributions of suspended solids to streams within 100 feet of the mining activity. The second required finding would be that surface activities would minimize disturbances and adverse impacts to fish, wildlife, and other related environmental values.

State primacy programs have generally interpreted their SBZ rules in a manner similar to OSM’s interpretation. However, any primacy state that has a somewhat different requirement (see appendix E) may do so as long as the state program is no less effective than the Federal regulations. Thus any state program that might include SBZ requirements more environmentally protective than OSM’s implementing regulations would not be required to change their program to comport with the proposed revised SBZ regulation.

OSM is proposing the finding in 816/817.57(a)(1) to replace the existing requirement for a finding that mining activities will not cause or contribute to a violation of State or Federal water quality standards. OSM believes this proposed change would be impact neutral because, whether or not OSM regulations include this statement, an applicant or operator would still be subject to applicable Federal and state water quality requirements and enforcement concerning matters such as effluent limits, in-stream water quality standards, storm water run-off, and anti-degradation.

#### G. Summary

This environmental assessment evaluates the potential environmental impacts of various ways to address the issues of minimizing the adverse effects from excess spoil constructions and regulatory uncertainty applicable to the SBZ rule. Only alternative 3 fully addresses both issues and is the preferred alternative. The implementation of this alternative will enhance existing regulatory protection and reduce regulatory uncertainty.

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