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THE FAILURE OF THE INTERIM REGULATORY PROGRAM UNDER THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977: THE NEED FOR FLEXIBLE CONTROLS

ROBERT J. GAGE*

I. THE SURFACE MINING ACT AS ONE COMPONENT OF A SCHEME OF FEDERAL LEGISLATION BALANCING IMPORTANT POLICY OBJECTIVES.


The Surface Mining Control and Reclamation Act of 1977 conferred a detailed charter of powers upon the Secretary of the Interior and established a new agency, the Office of Surface Mining (OSM), to implement its provisions. Although the legislation was developed in response to a widely recognized need for comprehensive environmental protection in relation to surface mining, this protection was not its sole concern. The Act was enacted during a period when inflation was weakening the national economy and when substantial efforts were underway to increase the proportion of energy derived from coal. In light of this, Congress intended that protection of the environment was to be reasonably attained without needlessly or excessively increasing the cost of coal nor impeding the expansion of production necessary to meet future energy needs. Moreover, the legislation was intended to comple-


This article has been written at the request of the West Virginia Law Review. The author has participated in the Surface Mining Litigation, see note 7, infra, on behalf of the coal mining industry. The views expressed herein, however, are solely those of the author and are not to be attributed to others.

1 Surface Mining Control and Reclamation Act of 1977, §§ 101-908, 30 U.S.C.A. §§ 1201-1328 (West Supp. 1978) [hereinafter referred to as the Act or the SMCRA].

2 The current Administration, in proposing a substantial national energy plan, was particularly concerned that although coal constitutes ninety percent of the United States' conventional energy reserves, it supplied only eighteen percent of domestic energy consumption. PRESIDENT CARTER'S NATIONAL ENERGY PLAN, DETAILED WHITE HOUSE REPORT COVERING STATEMENT BY PRESIDENT, VI (1977).

3 Congress, indeed, explicitly stated that the regulation of surface mining and
ment the broad scheme of federal environmental and energy legis-
lation, and to be balanced with the policy objectives of those stat-
utes.¹

The Secretary is to implement the Act in two phases—an
interim transitional program lasting nearly three years in which
the federal government is to have principal responsibility, and a
permanent regulatory program in which state governments are to
exercise substantial autonomy. The interim program developed by
OSM has been in effect since May 1978, and is the focus of dis-
cussion in this article.

What is particularly evident and noteworthy from a close
analysis of the interim regulatory program is that
OSM, in its
desire to control the adverse environmental impact of surface min-
ing, has not paid sufficient attention to the expense of the regula-
tions to coal mine operators, and the operators’ ability to produce
coal at a reasonable cost. Rather than balancing the environmental
benefits with coal production “costs” and deriving a program re-
sponsive to each, OSM has failed to give weight to the latter.
Although the Department of Interior was promulgating the broad-
est set of regulations in its history, and one of the most pervasive
ever by a federal agency, it nonetheless publicly acknowledged
that it did not deem it necessary to analyze the regulations’ eco-

nomic effects.⁵ The regulations impose undue restriction upon the

reclamation was to be conducted in a reasonable manner. See 30 U.S.C.A. § 1201(e)
(West Supp. 1978).

¹ See, e.g., Clean Air Act Amendments of 1970, 42 U.S.C.A. §§ 7402-7418,
7521-7525, 7541-7546, 7550, 7571-7574, 7601-7615, 7641-7642 (1976); Federal Water
Pollution Control Act Amendments of 1972, 33 U.S.C.A. §§ 1251-1256, 1281-1292,
1311-1328, 1341-1345, 1361-1376 (1978); Federal Land Policy and Management Act
of 1976, Pub. L. No. 94-579 (codified in scattered sections of 10, 22, 30, 33, 40,
6201-6422 (and scattered section of 15 U.S.C.) (1976); Energy Supply and Environ-
1136 (1974); Federal Coal Leasing Amendments Act of 1975, 30 U.S.C. §§ 184,
218, 95th Cong., 1st Sess. 80-81 (1977); Note, Coal Leasing Amendments Act
Should Increase Production and Public Benefits From Coal Leasing On Federal
Land, 16 NAT. RESOURCES J. 1033, 1037 (1976); Drueger, Management of Energy

⁵ 42 Fed. Reg. 62,639, 62,640 (1977) (the Act’s enforcement provisions will be
codified at 30 C.F.R. §§ 700-837); 42 Fed. Reg. 44,920, 44,924 (1977) (record of
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operator because they frequently set forth rigid design criteria and invariable standards. Environmental quality could have been amply protected by less restrictive measures. This failure to neither appreciate the industry's costs from the regulations or to recognize the benefits of a flexible program are a critical defect in OSM's work.

Neither the industry, the public, or other concerned federal and state agencies sat silently through the regulations' developmental process. They submitted substantial comments and testimony to the agency during the notice and comment period preceding the finalization of the regulations. Thereafter, the industry petitioned OSM to reconsider the most onerous regulations and challenged the lawfulness of many in federal court. Although the district court upheld most of the challenged provisions, its decisions in large measure reflect a "hands-off" judicial policy, leaving the regulations to the regulators, rather than to exercise judicial judgment as to their wisdom and propriety.

I do not, however, claim, nor would it be fair to claim, that the development of these regulations represents bad faith or a capricious disregard of the public interest on the part of OSM. On the contrary, OSM appears to have approached its task in a conscientious manner. The agency did, however, produce a voluminous set of regulations in a very short period of time. I believe that the failings of the regulations have resulted, in part, from these circumstances. Moreover, they appear to be a consequence of not giving careful attention to Administrative Procedure Act (APA) rulemaking principles. In particular, the public was not advised of the basis for the regulations during the notice and comment period. Because the public did not know what information and

preliminary hearing on proposed regulations), [all citation to the Federal Register hereinafter cited directly to the page on which the material appears].

4 Section 201(g) of the Act provides that "[a]fter the Secretary has adopted the regulations required by Section 501 of this Act, any person may petition the Director [of OSM] to initiate a proceeding for the issuance, amendment, or repeal of a rule under this Act." 30 U.S.C.A. § 1211(g) (West Supp. 1978).


9 The proposed rules, while urging "full public participation" during the comment period and suggesting that those submitting comments focus on "technical information" (42 Fed. Reg. 44,920-21 (1977)), identified but a single technical study
technical literature OSM was relying upon, they were unable to focus their analysis and remarks accordingly. There was thus no real opportunity for meaningful comments or discussion regarding the technical foundation of the regulations.\(^{10}\)

Notwithstanding the fact that the interim program is relatively short-lived, analysis of these regulations remains timely. The nation will live with the regulation of surface mining for many years to come. As the regulatory scheme is developed and revised, and as states promulgate their own regulations, it is important to recognize the errors made in its incipient stages. It is through such analysis that there can be a constructive and thoughtful evolution.

Analysis of the interim program is further timely in the sense that it will identify problems likely to befall other regulatory programs. Government regulation has increasingly become more pervasive. Concomitantly, instances where government agencies move through rulemaking proceedings with extremely important consequences are increasing. It is thus important to future regulators that we not turn our backs upon the mistakes of their predecessors.

**B. Coal as Energy.**

The most important policy which should have been balanced

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\(^{10}\) For example, had OSM indicated it was relying upon an interim report prepared by the Skelly and Loy Consulting Engineers as the basis for its spoil placement regulations, the authors of the report could have, at that time, informed OSM that such reliance was misplaced. See SKELLY & LOY, ENVIRONMENTAL ASSESSMENT OF SURFACE MINING METHODS, HEAD-OF-HOLLOW FILL AND MOUNTAIN REMOVAL (Interim Report 1977). It was not, however, until the certified index to the administrative record was lodged with the court during subsequent litigation that this reliance became known. Thereafter, during the notice and comment period following OSM's reconsideration of the spoil placement regulations LeRoy D. Loy, Jr. criticized the use of the study as an apparent source for the design requirements of head-of-hollow fills. See 43 Fed. Reg. 52,734 (1978). In a letter to the Director of OSM, he registered "strong disagreement with [the] revised interim rules and the manner in which they were presented." Letter from Leroy D. Loy, Jr., P.E., to Walter N. Heine, Director, OSM (Dec. 4, 1978). See also J. Robins, Skelly & Loy consulting engineers, Testimony During Public Hearings on Proposed Interim Regulations (Sept. 21, 1977), excerpted in note 51, infra.
with the protection of the environment is the attainment of continuous, enhanced coal production to meet future energy needs in the face of diminishing, increasingly expensive petroleum supplies. Section 102(f) of the SMCRA states that OSM must "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 agricultural productivity and the Nation's need for coal as an essential source of energy."

This purpose can only be achieved if the agency's regulations are reasonable, flexible and based on an understanding of what is physically, technologically and economically possible. In all too many instances, as will be illustrated herein, the regulations fail to take these important factors into account. The inflexibility of the regulations will result in the dislocation of many small operators, disruptions of energy supply and unnecessarily increased costs that will impose additional hardships upon the electric utility consumer with no significant improvement in the reclamation of mined land. The problem is most acute at the onset of the program for the small operator who is incapable of spreading the increased costs over a large tonnage of coal, and who may be sandwiched into fulfilling fixed-price long-term contracts made at relatively low prices under different market conditions during an earlier period.

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[T]he Secretary . . . has decided to consult with [the President's Council of Economic Advisors] prior to promulgation of final regulations. This will assure that the final rules now under consideration will strike the proper balance between protection of the environment and agricultural productivity and the Nation's need for coal as an essential source of energy.


12 Congress was concerned that the small operator would be severely impacted by the regulations. For example, § 502(c) of the Act, 30 U.S.C.A. § 1252(c) (West Supp. 1978), gave these companies an additional eight months to comply with the interim environmental performance standards. See also notes 13 and 14, infra.

13 The House Committee, considering predecessor legislation during the 94th Congress, warned that the Interim Program should "not threaten the continuous supply of coal by the sudden imposition of new performance criteria" and should
The situation is analogous to that which arose shortly after the implementation of the Federal Mine Safety and Health Act of 1969. A significant number of small tonnage operators, particularly those mining in mountainous terrain, were unable to afford the expensive safety machinery required by the FMHSA and went out of business.

C. Inflationary Impact.

Under the SMCRA, Executive Order, the Department’s own regulations and the Administrative Procedure Act, the Department had an obligation to take heed of the inflationary impact of the regulations on the nation’s economy before finally promulgating the regulations. But the Department’s records show that it be implemented “without an interruption of the delivery of coal.” H.R. Rep. No. 45, 94th Cong., 1st Sess. 84, 85 (1975). However, 65% of all surface mines produce less than 50,000 tons per year and nearly 90% of the auger mines produce less than 50,000 tons per year. The economic impact upon small operators resulting from prior obligations, and the requirement that they report to a multitude of agencies and conform to different design standards is obvious. Id. at 172-73. While it may be true that many of the large western operators have not only economies of scale but also new sales contracts with a profit margin that may allow them to conform to the regulations, the smaller eastern operators are not likely to be in the same position. Until 1972, the coal industry was “going out of business” for about 25 years and many operators are stuck with bad long-term delivery contracts.

A study conducted by the Mining and Reclamation Council of America in December of 1978 gave a preliminary indication of the impact or surface mining regulations on small operators. The survey revealed that 60% of the operators who responded to the survey and who produce 100,000 tons of coal per year or less were planning to leave the coal business due to the full OSM regulatory program. See 9 ENVIR. REP. (BNA) 2070 (1979).


See, e.g., 120 Cong. Rec. 24,618 (1974) (remarks of Rep. Hosmer). Evidence that small operators mining in mountainous terrain are being put out of business has been presented in a recent case filed against the Secretary of Interior in the United States District Court for the Western District of Virginia. Judge Glen Williams, in issuing a temporary injunction against the enforcement of the environmental performance standards of the Act on February 14, 1979, found that “since the passage of the Surface Mining Control and Reclamation Act of 1977, twenty-six (26) Virginia coal producing companies have gone out of business, due partly to the restrictions imposed by the Act.” Virginia Surface Mining and Reclamation Ass'n, Inc. v. Town of Wise, Virginia, No. 78-0244-B (W.D. Va. Feb. 14, 1979) (memorandum opinion and order). See also, 125 Cong. Rec. S7259 (daily ed. June 7, 1979) (testimony of Mr. Phillip Trent); 9 ENVIR. REP. (BNA) 2070 (March 9, 1979) (A survey by the mining and Reclamation Council of America reports that the Surface Mine Regulations could close up to 1000 small operators.)

Executive Order No. 11,821, issued under authority of the Council on Wage and Price Act. 12 U.S.C. § 1904 (1976), requires agencies proposing the promulga-
never undertook an analysis of this impact. Although OSM attempted to justify its deferral of this analysis in various ways, its ultimate justification was actually based on a single study authorized by the Congressional Budget Office which did not even deal with the regulations.\footnote{See H.R. Rep. No. 218, 95th Cong., 1st Sess. 142-49 (1977); H.R. Rep. No. 896, 94th Cong., 2d Sess. 93-98 (1976) (cost analysis of proposed legislation).} In fact, the study was written before the regulations were even drafted, and addressed the question of whether legislation in this general area would cause the expenditure of a substantial amount of federal funds. Apart from direct expenditures from the federal treasury, the study never touched on the question of the economic impact of OSM's program.

The Department's own regulations, expressly incorporating OMB's \textit{Circular No. A-107}, require that an economic impact statement be prepared if the agency determines that any of a list of criteria is satisfied, including the likelihood that the action will give rise to national costs in excess of $150 million in a two year period or of $100 million in any year; or to costs of half those amounts in any industry; or if the action is expected to cause a decrease in supply of any energy material in excess of the equivalent of 25,000 barrels of oil per day. \textit{See Dep't of Interior, Regulations Respecting Economic Impact Statements} (as revised Oct. 7, 1975). The Interim Regulations certainly meet these criteria and thus OSM was bound to make the necessary analysis even in the absence of any independent legal requirement. \textit{Cf.} Service v. Dulles, 354 U.S. 363 (1957).

The SMCRA specifically incorporated APA requirements to promulgate reasonable regulations and it incorporated the arbitrary and capricious standard as a basis for judging them. 30 U.S.C.A. §§ 1202, 1276(a)(1) (West Supp. 1978). In view of the aforementioned Congressional concern about the effects of the regulations on the economy and coal supplies, the broad scope of the regulations and the agency's knowledge from its own record, \textit{see} P. Reeves, Director of OSM Task Force, \textit{Notes on Interim Regulations} (1977), that at least appreciable effects on the nation's economy and supplies were inevitable, the Department was obligated to take a "'hard look' at the salient problems," (including economic effects), and should have demonstrated that it had "genuinely engaged in reasoned decision making." Greater Boston Television Corp. v. FCC, 444 F.2d 841, 851 (D.C. Cir. 1970), cert. denied, 403 U.S. 923 (1971).
II. IN LIGHT OF THE IMPORTANT POLICY OBJECTIVES, SUBSTANTIAL FLEXIBILITY MUST BE AFFORDED OPERATORS.

A. Heterogeneity Of The Coal Industry.

Coal is mined in pockets throughout the United States. The SMCRA governs the operation of roughly six thousand mines in twenty-nine states. These mines appear in almost every conceivable geographic and climatic circumstance—the mountains and hollows of West Virginia, the coastal plains of Texas, the mid-west prairie lands, the deserts of Arizona and the snow laden Colorado Rockies. Wet, dry, steep and flat land mining are all encompassed by the Act. Both surface mining and, to some degree, the surface effects of underground mining will be regulated.18

Regulation of mines operating under such diverse conditions requires a very flexible approach. What may prevent adverse environmental impacts under one set of conditions may cause them under another.19 What may be a practical and economically viable approach under one set of conditions may prove to be financially disastrous (if not impossible) under others.

Because of the diversity of the industry, Congress vested primary responsibility in the states, rather than in the federal government, to develop and implement the control and reclamation program. In the opening paragraphs of the SMCRA, Congress stated that "because of the diversity in terrain, climate, biologic, chemical, and other physical conditions in areas subject to mining operations, the primary governmental responsibility for developing, authorizing, issuing, and enforcing regulations for surface mining and reclamation operations subject to this [Act] should rest with the States."20 Thus, it was the intention of Congress that the states' primacy was to be respected, and that the regulatory program was to be developed in accordance with the diversity of conditions.21

19 "[T]he most environmentally sound control measures are designed to account for the climate, geology, and the size of each mine." Dep't of Energy, Comments on Draft Permanent Regulations § I.C.1 (Aug. 18, 1978).
21 Congress further acknowledged the need to take into account differences in mining conditions in its creation of and charge to OSM. "The Secretary, acting through [OSM], shall . . . assist the States in the development of State Programs for surface coal mining and reclamation operations which meet the requirements of the Act, and at the same time, reflect local requirements and local environmental
Notwithstanding this, the OSM interim regulatory program was structured on an across-the-board basis. Not only did OSM set specific design criteria for the construction of mining facilities and establish precise methods for conducting certain mining operations, it also refused, in many instances, to permit variances which would take specific circumstances (which may make the regulations unsuitable) into account.

OSM should have tread more softly with its short-range interim program. To fully appreciate the diversities of mine site areas, further experience in the operation of mining under the SMCRA is required. The Secretary should have taken this need for experience into account by promulgating an interim regulatory program which requires operators to comply with practical operational changes rather than strict performance criteria. This would have better served the basic purposes of the Act. In essence, the

and agricultural conditions . . . .

30 U.S.C.A. § 1211(c) (West Supp. 1978) (emphasis added). See also 30 U.S.C.A. § 1221(b) (West Supp. 1978), emphasizing that federally funded research was to take into account “the varying conditions and needs of the respective States,” and 30 U.S.C.A. § 1222(c) (West Supp. 1978), requiring that the Secretary select research facilities on the basis of “special geographic, geologic, or climatic conditions within the immediate vicinity of the institute in relation to any special requirements of the research project . . . .”

Substantial responsibility has been given to the Federal Government to develop and implement what was intended to be a limited interim program. 30 U.S.C.A. §§ 1251(a), 1252(c) (West Supp. 1978).

Note that the U.S. Council on Wage and Price Stability (CWPS) has criticized OSM for its propensity of relying upon design criteria, rather than numerical controls, to implement performance standards. Referring to EPA's pollution control practices as a guide, CWPS concluded that:

[D]esign is best left unspecified so that the entity affected can comply in the least costly way. We feel this to be especially the case for the Surface Mining Regulations, because of the great diversity of conditions under which the industry operates including rainfall, depth of overburden, topography, pH levels of discharges, pollution density in surrounding areas, etc. . . . [W]e prefer numerical standards rather than specifications of method . . .

CWPS letter to Joan Davenport, Assistant Secretary for Energy and Minerals, Dep't of Interior (Oct. 7, 1977).

This need for experience was emphasized by the Secretary of the Interior in a letter to the Chairman of the Senate Committee on Energy and Natural Resources only a few months before the legislation's enactment: “It has become increasingly clear that we lack information about how successfully strip mined lands can be reclaimed.” Letter from Cecil D. Andrus, Secretary, Dep't of Interior to the Honorable Henry M. Jackson, Chairman, Committee on Energy and Natural Resources, United States Senate (April 22, 1977).
interim program presented the opportunity to utilize flexible regulations in order to permit OSM to gain the necessary experience and insight.

B. Technological Advances.

A further disadvantage of OSM's inflexible regulatory approach is the likelihood that it will stifle technological advances. Since the agency has specified the exact manner in which operators should accomplish certain objectives, construct facilities and conduct certain operations, there is little room for engineers to develop more efficient or effective means of so doing. The regulations may effectively "freeze" the "state of the art" in surface mining and land reclamation technology. If engineers are not allowed to use creative and innovative designs to achieve a final product, it will be difficult for them to improve on the present techniques for mining coal and to develop more economical methods for producing energy in the future.

III. The Surface Mining Act Intended That Operators Have The Necessary Flexibility.

Flexibility can most appropriately be achieved in two ways. First, regulations should be geared toward achieving certain objectives and standards rather than establishing the specific methods of achievement. Second, regulations should contain procedures whereby individual operators can obtain relief, in the form of variances, from particular provisions. Needless to say, the need for variances is most acute if the regulations establish specific, universally applicable design and construction criteria.

A. Statutory Language.

From the onset, Congress intended flexibility in regulation. As was set forth above, the opening sections of the SMCRA immediately acknowledge the diversity in mining conditions and the need for states to develop their own means of meeting the Act's performance standards. The Act authorizes the Secretary to establish detailed design criteria in only one provision which was relative to the construction of waste dams. Section 515(b)(13) required operators to design waste pile dams "in accordance with the standards and criteria developed pursuant to subsection (f) of [Section

22 See supra note 20 and accompanying text.
Section 515(f), in turn, provided that such standards and criteria were to be developed by the Secretary in cooperation with the Chief of the Army Corps of Engineers in a separate rulemaking proceeding having a unique 135 day time schedule, as opposed to the ninety day rulemaking period for all of the other interim regulations under section 501(a) of the Act.27

In sharp contrast to the waste dam construction standard, there is not a word within the other operational or reclamation standards which suggests that Congress intended to authorize the Secretary to dictate nationwide design and construction criteria. Rather, the Act repeatedly directs compliance with performance, not design standards. Given the Act’s approach relative to waste pile dams, Congress in all likelihood intended to distinguish them from other regulated subjects.28

This scheme becomes even more apparent when viewed in conjunction with the Environmental Protection Agency’s enabling legislation. EPA, for the most part, is limited to establishing numerical effluent standards to regulate pollution levels.29 Industry has wide latitude to select the means of meeting those limitations. Although EPA had, in fact, attempted more pervasive regulation, in Adamo Wrecking Co. v. United States the United States Supreme Court determined that Congress’ failure to specifically authorize detailed “work practice” procedures foreclosed the EPA from doing so.30 The Court relied on the fact that the 1977 Amendments to the Clean Air Act, authorizing EPA to promulgate design, equipment, work practice or operational standards, stood in stark contrast to the earlier enabling legislation at issue. The fact that Congress specifically authorized more detailed standards in its later legislation implied that the earlier provision did not allow EPA such latitude. Following the Court’s rationale in Adamo,

27 30 U.S.C.A. § 1251(a) (West Supp. 1978). The longer period and separate proceeding were undoubtedly a recognition that it would require considerably greater effort and input to develop detailed design criteria than to develop more general operating standards.
Congressional authorization of specific design and construction criteria solely for waste dams, in the context of surface mining, is a significant indication that such criteria were not intended elsewhere.

B. Legislative History.

Not only does the statute indicate that regulation should take into account the differences in conditions from one mine to another, but substantial commentary in its early legislative history of prior unsuccessful legislative proposals demonstrates concern that such regulation be flexible. Congress addressed the need for both viable standards and variances from standards:

[F]lexibility is a necessary element in a rational program of surface mining regulation. While performance standards should be cast in terms of general applicability, the Committee recognizes that land use considerations may justify a variance from the general standard or that a variable standard should be implemented in recognition of the distinctions in climate, terrain, and other physical features.\(^1\)

A distinction was drawn between reclamation goals and the methods of achieving those goals—leaving the latter to the operator in accordance with the peculiarities of his particular mine site.

The emphasis on return to the approximate original contour should not obscure the fact that the appropriate methodology will vary from site to site. Responsibility for devising methods for reaching any necessary reclamation goals should be left up to the operator. Within the limits of economic constraints, the available equipment and his own ingenuity, the surface mining operator will develop whatever approach best suits his needs and the peculiarities of his mining site.\(^2\)

Congress assumed that variances to the regulations would be granted by OSM. In addressing the problems operators would en-

\(^1\) H.R. REP. No. 1072, 93rd Cong., 2d Sess. 73 (1974).
\(^2\) Id. at 65. When the statutory provision requiring operators to return mined land to its approximate original contour, 30 U.S.C.A. § 1265(d)(2) (West Supp. 1978), was discussed by the Senate Committee, it had been erroneously suggested that the Committee preferred a specific reclamation practice used in Pennsylvania. The Committee responded that "this is not the case. The Committee is prescribing performance standards to achieve a certain degree of reclamation—the Committee has no intention of dictating how those standards are achieved." See S. REP. No. 402, 93rd Cong., 1st Sess. 44-45 (1973).
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counter in attaining compliance with OSM's regulations, the House Committee stated:

[A]n operator may have to accomplish significant adjustments in his operations to achieve initial compliance . . . [W]here an operator is attempting to obtain a variance under the Act to allow the continuation of a particular operation, it is not the intention of the Committee that the operation be interrupted if action on the variance application is not taken prior to the implementation of the interim standards . . . [T]he operator acting in good faith should not be unfairly penalized.33

It was most important to the Congress that an operator's compliance with the statutory requirements be meaningful, that any given requirement not become a matter of mere ritual. "[I]f the mine design objectives include the environmental performance standards as elements to be thoroughly integrated in the overall mining process instead of treated as separate rituals to be performed merely because they are required, then it is quite probable that accomplishment of environmental practices will become cost-effective."34

The requirements were to be general in order to achieve an "element of flexibility" and not preclude beneficial practices. The House Committee emphasized that "[w]orkable Federal requirements must be appropriate to the mining setting and such standards should not preclude practices which are beneficial from a planning viewpoint."35 Thus, in reviewing the history of prior legislative surface mining proposals, it appears that Congress did not intend to establish nationwide design criteria nor did it intend to have performance standards which could not accommodate local characteristics, problems or practices.

IV. PRINCIPLES OF DUE PROCESS SHOULD ENSURE OPERATOR FLEXIBILITY.

Not only are OSM's requirements that operators design, construct or operate in accordance with specific criteria or methodology an apparent violation of its enabling legislation, but they also raise questions of due process of law. These problems are most pronounced in situations where OSM requirements make it financially impracticable to mine certain reserves or make it impossible

34 Id. at 92.
for an operator to continue an ongoing operation. But even short of closure of all or parts of an operation, the unreasonability of the regulations must be questioned.\footnote{4}

It is a fundamental principle of administrative law that persons should be able to obtain timely and effective relief from general regulations where application of such regulations will cause hardship and where the goals of the underlying statute can be obtained reasonably by imposing lesser burdens on the regulated party. As stated in the decision of \textit{WAIT Radio v. FCC}, an \textit{"agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances . . . . [A] system where regulations are maintained inflexibly without any procedure for waiver poses legal difficulties."}\footnote{37}

More specifically, the Court of Appeals for the District of Columbia Circuit reasoned that:

\begin{quote}
[A] rule is more likely to be undercut if it does not in some way take into account considerations of hardship, equity or more effective implementation of overall policy, considerations that
\end{quote}

\footnote{4 \textit{"The modern, prevailing view is that any substantial interference with private property which destroys or lessens its value (or by which the owner's right to its use or enjoyment is in any substantial degree abridged or destroyed) is, in fact and in law, a 'taking' in the constitutional sense. . . ." 2 J. Sackman, Nichols' \textit{The Law of Eminent Domain} \S 6.3 (3rd ed. 1976) (citing Dugan v. Rank, 372 U.S. 609 (1965) and Todd v. United States, 292 F.2d 841 (Ct. Cl. 1961). The taking need not be either a physical appropriation, United States v. Causby, 328 U.S. 256, 261-62 (1946), or permanent in nature. Kimball Laundry Co. v. United States, 338 U.S. 1 (1949).)

an agency cannot realistically ignore, at least on a continuing basis. The limited safety valve permits a more rigorous adher-
ence to an effective regulation.\textsuperscript{35}

Thus, procedures to treat hardship situations are central to the integrity of the administrative process.\textsuperscript{35} A regulation standing alone with no provision for relief from rather drastic commands, may pose constitutional problems under the fifth amendment.\textsuperscript{40} And quite significantly, if a mechanism for granting such relief is afforded, it must be effective.\textsuperscript{41}

Variances are, in fact, most important in situations such as this where it is unlikely that the hasty imposition of such a highly technical nationwide regulatory scheme on an entire industry will afford the operators and OSM a sufficient opportunity to consider the full range of impacts the regulations are likely to have. It is inevitable that problems will arise that could not have been fore-
seen when the regulations were under consideration. It is these problems that variance procedures are equipped to resolve. An administrative variance procedure is most capable of ensuring

\textsuperscript{35} WAIT Radio v. FCC, 418 F.2d 1153, 1159 (D.C. Cir. 1969), cert. denied, 409 U.S. 1027 (1972). WAIT Radio had requested that the FCC waive certain broadcast rules (clear channel rules) and thus enable it to operate for extended hours. The Federal Communications Commission gave little attention to the application for waiver, as such a waiver would have gone against the policy underlying the clear channel rules. \textit{Id.} at 1157. The court of appeals emphasized the need to allow for waivers if an agency is to regulate by general rule, and thus remanded to enable the FCC to consider WAIT's particular circumstances. \textit{Id.} at 1160. Similarly, the failure to grant a zoning variance upon presentation of evidence of social and economic hardship has also been held to be arbitrary, capricious and an abuse of discretion. Consolidated Edison Co. of N.Y. v. Hoffman, 43 N.Y.2d 598, 403 N.Y. Supp. 193 (N.Y. Ct. App., February 14, 1978).

\textsuperscript{36} Such variance procedures "ameliorate the rigors of mechanical application of the rules in appropriate cases without making the application of the rules unduly complex for the agency." Gulf Oil Corp. v. Hickel, 435 F.2d 440, 447 (D.C. Cir. 1970). They impart a construction of "reasonableness" to the standards as a whole and create a more flexible system of regulation than can be had by a system devoid of flexibility. Portland Cement Ass'n v. Ruckelshaus, 466 F.2d 375, 399 (D.C. Cir. 1973), \textit{cert. denied}, 417 U.S. 921 (1974); see Int'l Harvester Co. v. Ruckelshaus, 478 F.2d 615, 641 (D.C. Cir. 1973).

\textsuperscript{37} Community Service, Inc. v. United States, 418 F.2d 709, 711-12, (6th Cir. 1967).

prompt, efficient resolution of technical issues as they arise.\(^2\) It would thus instill a sense of "fairplay" into the regulatory process.

Furthermore, OSM's approach raises what may be considered an irrebuttable presumption. The Surface Mining Act establishes environmental protection as a primary objective.\(^3\) The regulations provide that in certain instances the only way in which the statutory objectives may be met is to follow the Secretary's design criteria. If not followed, there is no opportunity to show that one can otherwise meet these objectives. Hence, an irrebuttable presumption is established, \(i.e.\) a failure to meet the design criteria automatically amounts to a failure to meet the performance objectives of the Act. Such a presumption may in itself amount to a violation of due process of law.\(^4\)

\(^{1}\) There can be no doubt of OSM's authority to promulgate exemption procedures. \"It is well established that an agency's authority to proceed in a complex area . . . by means of rules of general application entails a concomitant authority to provide exemption procedures in order to allow for special circumstances.\" United States v. Allegheny-Ludlum Steel Corp., 406 U.S. 742, 755 (1972). \See also\ Permian Basin Area Rate Cases, 390 U.S. 747, 784-86 (1968). Indeed, OSM acknowledged, while promulgating its regulations, that \"the Secretary has the duty, within the constraints of the Act, to resolve practical problems on a case-by-case basis.\" 42 Fed. Reg. 62,641 (1977). Provisions for variances, modifications, and exceptions are appropriate to the regulatory process. NRDC v. EPA, 537 F.2d 642, 646 (2d Cir. 1976); Portland Cement Ass'n. v. Ruckelshaus, 486 F.2d 375, 399 (D.C. Cir. 1973), \textit{cert. denied}, 417 U.S. 921 (1974). Addressing itself to the analogous EPA water pollution control program, the court in \textit{NRDC} explained:

\begin{quote}
In the context of the Federal Water Pollution Control Act Amendments the variance provision is peculiarly appropriate. The sheer number of point sources potentially subject to regulation and the rapidly approaching statutory deadlines required the EPA to restrict itself in the regulation promulgation process to a representative sampling of plants. It is entirely possible that the resulting regulations will prove ill-suited to some of the unsampled individual plants to which they will be applied in the permit process. Unless the variance clause is established, there is no guarantee that such a defect could be effectively remedied if it occurred . . . .
\end{quote}

537 F.2d at 647. Moreover, Section 201(c)(2) of the SMCRA authorizes the Secretary to "publish and promulgate such rules and regulations as may be necessary to carry out the purposes of the Act." 30 U.S.C.A. § 1211(c)(2) (West Supp. 1978). \See also\ Hooker Chemical & Plastics Corp. v. Train, 537 F.2d 620 (2d Cir. 1976).


V. THE OSM "COOKBOOK" APPROACH, COMPOUNDED BY INADEQUATE VARIANCE PROVISIONS, AMOUNTS TO GOVERNMENTAL INSENSITIVITY TO THE PRACTICALITIES OF MINING OPERATIONS.

The interim regulatory program, in place and likely to be effective for over two years, brings potential difficulty to surface and underground operators. Notwithstanding the tremendous diversity of operations noted above, OSM's basic regulatory scheme is, with relatively few exceptions, applicable to the industry across-the-board. Although differences in size and geography are alluded to in a few places, they are for the most part disregarded on the ground that "uniform standards ensure consistent enforcement and avoid conflicting interpretations of the regulations in different regions." Rather, OSM has proceeded with specific design criteria for construction and land reclamation, with mandatory limitations, and with strict prohibitions. To make the situation even worse for operators, OSM also rejected variance mechanisms which would take into account, and provide relief for, specific circumstances in which the broad regulations are particularly inappropriate. Thus, as will be illustrated herein, the combination of such "cookbook" requirements and inadequate procedures for obtaining variances therefrom, will inevitably lead to situations where the cost and production of coal are needlessly subordinated to apparent environmental protection. The costs to the industry, and ultimately to the energy consumer, are often likely to outweigh any prospective environmental benefits. Although it is almost universally agreed that control over surface mining and reclamation efforts is beneficial to the public and worthy of some costs of production, such costs must be reasonable. They must yield an appreciable benefit in return for any given expense. Examples

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44 The Department of Energy criticized OSM's use of "design-specific standards" generally.
[I]n a number of instances, the regulations specify design-specific standards either in addition to or in lieu of performance standards. While we are aware of the argument that design-specific standards simplify enforcement of the regulations, we feel that such an approach limits the ability of the States and OSM Regional Directors to take into account regional diversity in terrain, climate and other physical conditions. Furthermore, mining operations may be prohibited in instances where surface mining is technically, economically and environmentally feasible. Dep't of Energy, Comments on Draft Permanent Regulations 2-3 (Aug. 18, 1978).
where OSM has failed to demonstrate sufficient sensitivity to the practicalities of mining operations and to operators’ particular circumstances follow.

A. Underdrains for Head-of-Hollow

Or Valley Fills.

A substantial amount of the overburden which is removed to uncover a coal seam in surface mining and the spoil from tunneling in underground mines is disposed of by construction of “fills” elsewhere in the permit area. The regulations recognize two classes of fills; those constructed in valleys or heads-of-hollows and those constructed elsewhere. OSM’s regulations broadly define a “valley fill and head-of-hollow fill” as any fill placed so as to encroach upon or obstruct to any degree any natural drainage channel. The regulations further state that “[i]f any portion of the fill interrupts, obstructs, or encroaches upon any natural drainage channel then the entire fill is to be classified as a valley or head-of-hollow fill.” Such fills must be constructed in accordance with rigorous design standards set forth in section 715.15(b) of the regulations. These standards include specific means to attempt to obtain proper drainage and maintain fill stability.

OSM’s goal of achieving fill stability and drainage is certainly appropriate and adequately authorized by section 515(b)(22) of the Surface Mining Act. Its employment, however, of a single inflexible set of design criteria was unjustified. The regulations require that all surface drainage from the surface area of the fill itself and from other surface areas above the fill be diverted away from the fill to prevent saturation of the fill and to curtail soil erosion on the fill’s surface. Moreover, the regulations require the installation of a system of underdrains in every fill. They must be constructed

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42 Fed. Reg. 62,683 (1977) (to be codified in 30 C.F.R. § 715.15(b)).
30 U.S.C.A. § 1265(b)(22) (West Supp. 1978). The Secretary is directed to develop performance standards requiring the mine operation to place all excess spoil material resulting from coal surface mining and reclamation activities in such a manner that—(A) spoil is transported and placed in a controlled manner in position for concurrent compaction and in such a way to assure mass stability and to prevent mass movement; [and] (C) appropriate surface and internal drainage systems and diversion ditches are used so as to prevent spoil erosion and movement . . . . Id.
in accordance with particular specifications, including minimum dimensions, and minimum and maximum durable rock size out of which the drain is to be constructed.

Substantial documentation was received by the agency during the notice and comment period that there were generally accepted alternative means of achieving these results. The Bureau of Mines criticized that "unreasoned adherence to [underdrain] dimensions may result in considerable unnecessary cost for some fill construction." The Administrator of MESA commented that underdrains should be designed using criteria dictated by the particular site. The Department of Agriculture stated that experience has proved that valley fill stability and hydrological system protection can be achieved with site-specific criteria for underdrains. In general, it should have been clear to the agency that site-specific construction was most appropriate—taking into account the fill's location in relation to the drainage channel in question, the amount of drainage, site topography, available material, intended land use and the revegetation and construction techniques of the particular fill.

This problem is most acute in West Virginia, where accepted engineering practices included a rock core drainage system which channeled surface water to and through the rock core rather than diverting the water around it. The rock core system maintains the

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51 The underdrain requirements in interim regulation § 715.15(b)(6) drew almost universal criticism for their lack of flexibility. 42 Fed. Reg. 62,683 (1977) (to be codified in 30 C.F.R. § 715.15(b)(6)). Nearly every critical comment urged the adoption of either site-specific underdrain requirements or provisions for variances upon approval of a certified engineer. Criticism came not only from industry (Allied Chemical Corp., Consolidation Coal Co., Mapco Coals, Monterrey Coal Co., National Mines Corp., North American Coal Corp., Peabody Coal Co., R & F Coal Co., United States Steel Corp., and West Virginia Surface Mining and Reclamation Ass'n) but also from a number of private consulting engineering and surveying firms (Bowser-Mornier Testing Lab., Inc.; D'Appalonia Consulting Engineers; Dunlop Surveying, Inc.; and Skelly & Loy) and several agencies of the Federal Government (Bureau of Mines, the Department of Agriculture, and MESA).


54 Dep't of Agriculture, Comments Submitted in Response to OSM's Proposed Interim Regulations (1977).

natural course of the stream flow and also reduces the amount of sedimentation in the runoff, functioning as a filter. Needless to say, reconstruction of existing fill underdrains would be extraordinarily expensive if not physically impossible due to the nature of the problem. Moreover, substantial expert opinion has questioned the propriety of OSM's design standards in West Virginia's steep slope terrain. Nearly all excess spoil fills constructed in such mountainous terrain will be classified as head-of-hollow or valley fills, thus the regulation has far-reaching effects. Secondly, OSM's design standards may themselves be environmentally unsound and possibly hazardous. The fact that conformance with these standards will end the shift towards rock core underdrains in steep-slope mining areas is a perfect example of the regulations' tendency to discourage what many consider to be technological advances.1

B. Compaction of Spoil in Head-of-Hollow or Valley Fills.

A second costly problem with OSM's spoil disposal regulations pertains to the requirements for compaction when spoil is

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56 The fact that OSM's design standards channel drainage around the valley of head-of-hollow fill raises the question of whether such standards are consistent with Congress' intent. Section 515(b)(22)(G) of the SMCRA requires that excess spoil material must be placed in such a manner that "the final configuration is compatible with the natural drainage pattern." 30 U.S.C.A. § 1265(b)(22)(G) (West Supp. 1978). The regulation, however, alters the flow of drainage water from the center to the sides of the valley in which the fill is located.

57 Furthermore, the same stringent design criteria intended to ensure fill stability will be applicable, where fills are placed in drainage ways, to such areas as the flat or gently sloping terrain of the midwest. See 42 Fed. Reg. 62,679 (1977) (to be codified in 30 C.F.R. § 710.5).

58 It is claimed that locating drainage ditches pursuant to OSM's design criteria has resulted in spoil erosion in West Virginia. Affidavit of William S. Ritchie, President, Hobet Mining and Construction Company, Inc., In Re Surface Mining Regulation Litigation, 456 F. Supp. 1301 (D.D.C. 1978), appeal docketed, Nos. 78-2190, 78-2191, 78-2192 (D.C. Cir. Nov. 20, 1978). Section 515(b)(22)(C) of the Act, however, requires "appropriate surface and internal drainage systems and diversion ditches [to be] used so as to prevent spoil erosion and movement." Thus, the propriety of this regulation is further called into question. 30 U.S.C.A. § 1265(b)(22)(C) (West Supp. 1978).

58.1 It should be noted that the Secretary of the Department of the Interior was directed to reconsider § 715.15(b) of the interim regulations in light of allegations in Surface Mining Litigation that an update of the Skelly & Loy Interim Report, supra note 10, undermined these design criteria. See Skelly & Loy, Environmental Assessment of Surface Mining Methods, Head-of-Hollow Fill and Mountaintop Removal (Interim Report, 1978).
INTERIM REGULATORY CONTROLS placed in head-of-hollow or valley fills. Section 715.15(b)(7) of the regulations requires that spoil be compacted "in lifts that are less than 4 feet thick in order to achieve the densities designed to ensure mass stability, to prevent mass movement, to avoid contamination of the rock underdrain and to prevent formation of voids." Here again, OSM's adoption of detailed design criteria is not an appropriate means of regulation. The need for flexibility of design was almost the universal criticism of commentators on this regulation during the public comment period. In fact, one noted engineering firm, the D'Appalonia Consulting Engineers, stated that of all of the regulations, the four foot lift requirement was the one to which they had the strongest objection.


60 This criticism was posited in comments submitted by industry, including Carter Oil Company, Consolidation Coal Company, Mapco Coals, National Mines Corp., NCA/AMC Joint Committee On Surface Mining Regulations, North American Coal Corp., Peabody Coal Company, Chaco Energy Company, Island Creek Coal Company, R&F Coal Company, Kentucky Coal Association. It was also criticized in comments submitted by independent consulting engineers, including D'Appalonia Consulting Engineers and Bowser-Morner Testing Lab, Inc. Among those suggesting that the four-foot lift requirement be deleted in favor of a site-specific approach was the Administrator of MESA. MESA's expertise was specifically recognized by Congress in its requirement that the written concurrence of the head of the department administering the Coal Mine Health and Safety Act be obtained prior to promulgation of underground mining regulations. 30 U.S.C.A., § 1266(b) (West Supp. 1978). See H.R. REP. No. 493, 95th Cong., 1st Sess. 109 (1977), reprinted in [1977] U.S. CODE CONG. & AD. NEWS 728, 740, and S. REP. No. 337, 95th Cong., 1st Sess. 109 (1977). The fact that the Administrator failed to concur with this regulation was sidestepped by the court in the Surface Mining Litigation upon the finding that obtaining the concurrence of the Administrator of MESA, because he was "a subordinate of the Secretary," would have been only a formality. In Re Surface Mining Litigation 452 F. Supp. 327, 336 (D.D.C. 1978).

61 The D'Appalonia Engineers were retained by OSM to perform most of the government's economic analysis of the permanent regulatory program.

62 As a broadly accepted alternative design method, D'Appalonia referred the Secretary to Chapters 5 and 8 of MESA's Engineering and Design Manual for Coal Refuse Disposal Facilities. Another prominent engineer, John Robins, stated in public rulemaking hearings in Charleston, West Virginia, that design flexibility was necessary because "spoil composition and physical properties are extremely site-specific factors," and that "some spoils require restrictive lifts to achieve stability while others are inherently stable in much larger lifts." J. Robins, Skelly & Loy (consulting engineers), Transcript of Public Hearings on Proposed Interim Regulations at Charleston, West Virginia, 376 (Sept. 21, 1977) (Mr. Robins was one of the authors of the Skelly & Loy report which OSM attempted to rely upon as the basis for its inflexible four-foot lift requirement during litigation).
As indicated in the language of the regulation itself, the essential purpose of the requirement is purported to be to ensure mass stability of the fill. However, mass stability is a function of a series of variables, only one of which includes compaction. The relevant variables are foundation strength, water infiltration, fill material strength and embankment geometry. Each variable can be adjusted by varying an element of the design or a technique of construction. An accepted means of ensuring stability is to adjust each of the variables for a particular site until an aggregate "safety factor," or strength is achieved. Many different combinations can be effective in achieving this mass stability. By mandating that operators compact spoil in four foot lifts, the regulations severely limit an engineer's ability to achieve the necessary "safety factor." It forecloses the possibility of using their construction techniques or a range of lift heights to achieve the appropriate spoil density, or to vary spoil density with other stability variables. Moreover, it ignores the size of the fill and the degree to which it actually encroaches upon a watercourse. Most significantly, it ignores the almost universal warnings of the importance in the differences between fill sites, fill materials, and the effect which fill materials have on spoil stability.

C. Hydrology: Suspended Solids in Discharge Water.

OSM has also been too inflexible in regulating the suspended solids contained in waters flowing through or from a mining opera-

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63 Foundation strength can be increased by providing keyway cuts or rock buttresses. Water infiltration will vary depending upon the size of underdrains, the degree to which surface drainage is not successfully directed away from the fill, and the permeability of the material in the fill. Fill material strength can be varied by compaction and other construction techniques. Embankment geometry can vary considerably, too.

64 Compaction, or compaction in lifts of a maximum thickness, may or may not be a satisfactory method of establishing the appropriate spoil density to insure mass stability. The minimum spoil density is itself a site-specific variable that will be determined by engineers in the course of stability analysis. Upon such determination, engineers can then establish the degree of compaction and technique of compaction needed to achieve that density. That determination can vary in relation to the other variables, all of which will vary depending on site and fill material.

65 The unreasonableness of the four-foot life compaction requirement becomes even more apparent when given a concrete application. If a fill were thousands of feet wide and hundreds of feet thick, the fact that tiny intermittent streams flowing only for a few months in a year intercepted a corner of it should not provide a basis for such compaction.
In order to reduce the amount of solids, the agency requires that operators pass all drainage from "disturbed areas" through sedimentation, or settling, ponds where suspended matter is intended to "settle out" of the water before the water passes out of the mining area. In addition, the agency requires that all such water meet specified numerical effluent limitations. OSM has promulgated this requirement notwithstanding EPA's comprehensive regulation of the same subject in a similar manner. Thus, the very fact that OSM has established such a comprehensive regulatory scheme duplicative in purpose to EPA's program must be questioned. Not only has it taken costly bureaucratic work to establish, administer and enforce the extra scheme, but operators are now forced to comply with and respond to a second set of regulations and participate in a second set of reporting requirements on an ongoing basis. If OSM believed EPA's work to be inadequate, then it would seem that the appropriate solution should have been to work through administrative channels for improvement.

1. *Sedimentation Ponds.*

Putting aside the costly problems due to duplication of federal efforts, OSM's regulatory scheme, as originally promulgated, was inflexible in its requirement that sedimentation ponds be constructed pursuant to specific design criteria. After substantial industry criticism, OSM amended its original regulations but continued to take an approach requiring the construction of ponds pursuant to fixed design criteria.

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66 OSM's technical definition of "suspended solids" is "organic or inorganic materials carried or held in suspension in water that will remain on a 0.45 micrometer." 42 Fed. Reg. 62,679 (1977) (to be codified in 30 C.F.R. § 710.5).

67 42 Fed. Reg. 62,685 and 62,696 (1977) (to be codified in 30 C.F.R. §§ 715.17(a) and 717.17(a)).


69 OSM's authority for promulgating these particular regulations has undergone challenge by industry in the *Surface Mining Litigation.* See supra note 7. The substance of that challenge is, for the most part, beyond the scope of this article.

70 42 Fed. Reg. 62,686 (1977) (to be codified in 30 C.F.R. § 715.17(e)).

71 43 Fed. Reg. 8090 to 8093 (1978) (to be codified in 30 C.F.R. §§ 710.11, 715.17, 717.17). The House Committee specifically acknowledged that this approach was inappropriate for sedimentation control:

Similarly, technology exists to prevent increased sediment loads resulting from mining from reaching streams outside the permit area. Sedi-
The first problem with these regulations was that they failed to consider the variations in terrain where the ponds were to be built. In consideration of the steep-slope mountainous areas, alternatives for sedimentation control should have been permitted. In steep-slope areas, there may be insufficient land available for the appropriately sized ponds and, in some instances, excessively high dams might have to be constructed to meet the design requirements. Thus, the use of ponds as primary sediment control structures may prove to be unsafe, technically difficult and, consequently, quite costly. Either the use of site-specific designs or the

H.R. REP. No. 218, 95th Cong., 1st Sess. 114, 115, reprinted in [1977] U.S. CODE CONG. & AD. NEWS 647-648. The Department of Energy criticized OSM's proposed interim regulations on this basis also: "The design criteria are too specific and could result in the construction of ponds too large or too small depending on local sediment loads and microclimatic variability. Overly designed structures could conceivably disturb more land than necessary and more reliance should be given to local engineering practices and policies." Dept of Energy, Comments Submitted to OSM's Proposed Interim Regulations (Oct. 7, 1977). The Bowser-Morner Testing Lab, Inc. gave OSM some sense of the magnitude of the problem caused by the pond design criteria as originally proposed: "This regulation will require the complete reconstruction of practically every sedimentation pond in the United States. No state currently has regulations as stringent as those imposed by this particular section." D. Cowherd, Bowser-Morner Testing Lab, Inc., Comments Submitted in Response to OSM's Proposed Interim Regulations (Oct. 1977).

OSM received commentary that construction of ponds in West Virginia pursuant to OSM design could result in ponds wider than the valleys in which they were to be constructed and the disturbance of more land than the entire mining operation would disturb. Building such large ponds on steep slopes was said to create potentially hazardous conditions. See V. Green, Eagle Coal & Rock Co.,
use of means other than settling ponds could have avoided these problems. In addition, the use of specific design criteria largely ignores differences in climate, soil composition and size of the relevant disturbed area. All of these factors affect the degree of sedimentation and thus the propriety of particular pond designs. Each could be addressed by on-site engineering analysis.  

Regardless of the effectiveness of these specific design criteria, it was inappropriate to require operators to undertake a costly reconstruction of all their existing ponds to comply with these standards without a showing that their present ponds are inadequate. Moreover, requiring reconstruction in such a short time frame caused costs to be exacerbated and may have created greater environmental problems than those the regulations were designed to alleviate.


Notwithstanding that OSM required operators to construct

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71 Requiring that settling ponds be used and that they be constructed to particular specifications is an exemplification of the regulations' propensity to deter technological advance. According to comments submitted to OSM, a current experimental project being conducted by West Coal Company near Huntsville, Tennessee has demonstrated that fabric silt fences and fabric silt basins are very effective in sedimentation control and may be used in lieu of settling ponds in many locations. See Univ. of Tenn., Comments Submitted in Response to OSM's Proposed Interim Regulations (Oct. 7, 1977).

72 The Interim Regulations require that all operations be in compliance with the initial regulatory program by May 3, 1978. 42 Fed. Reg. 62,679 (1977) (to be codified in 30 C.F.R. § 710.11(a)(3)(ii)). Operators were granted a limited extension of time, to November 4, 1978, to bring into compliance "[a]ny pre-existing, non-conforming structure or facility . . . used in connection with or to facilitate mining after the effective date of [the] regulations." 42 Fed. Reg. 62,679 (1977) (to be codified in 30 C.F.R. § 710.11(d)(2)).

74 Note that the short period for bringing facilities into compliance meant that many operators were forced to either work in winter (to the extent possible in areas not covered by ice and snow) or under spring melting conditions. However, after ice and snow melts the underlying soil would be saturated with moisture and thus compaction characteristics of the earth which would be needed to construct sedimentation ponds would be very erratic and poor. If the heavy machinery necessary to construct ponds was taken into the mountainous areas while the soil was saturated with moisture it would result in both extremely difficult working conditions and substantial environmental damage. Moreover, during the substantial period of reconstruction, it is likely that the water quality standards presently maintained would not be met.
sedimentation ponds according to its own particular design criteria to reduce suspended solids in discharge water, it also required operators to meet specified numerical effluent standards which included a limitation for "total suspended solids." Thus, even if operators construct or reconstruct ponds as required, there is no guarantee that these operations will be in compliance with federal sedimentation requirements. In fact, a common criticism from the industry was that the designated pond design standards had never been shown by even a single test pond to be capable of achieving the numerical effluent limitations. Moreover, the limitations in question were, with three critical omissions, duplicative of EPA effluent limitations. These three omissions, however, represent a substantial failure on the part of OSM to attend to the problems and circumstances of individual operators.

OSM omitted EPA's variance mechanism under which effluent limits could be modified for particular mining operations upon a showing of good cause. Under EPA guidelines, the operator is entitled to request a variance from the limitations by presenting relevant data to the agency. This regulatory variance procedure

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77 42 Fed. Reg. 62,685 (1977) (to be codified in 30 C.F.R. § 715.17(a)).
78 See 40 C.F.R. §§ 434.22, 434.32, 434.42 (1977). Congress had intended that OSM's regulations not conflict with those of EPA.

The EPA has been directed by the Congress to insure the environmental well-being of the country. EPA has established water quality standards, air quality standards, and implementation and compliance requirements for the coal mining and processing industry, and issues permits to the industry to insure appropriate pollution abatement and environmental protection. The committee concluded that because of the likeness of EPA's abatement programs and the procedures, standards, and other requirements of this bill, it is imperative that maximum coordination be required and that any risk of duplication or conflict be minimized.


79 EPA was particularly concerned that conformance with its strict standards may require the use of unsafe construction techniques under certain circumstances. Where safety considerations conflict with the effluent limits, for example, EPA made it clear that the numerical effluent standards would give way:

Should any evidence be submitted to the Agency to indicate that the impoundment facilities needed to meet these regulations would necessitate construction of a structure which would violate safety standards set out by a State or Federal Agency, EPA will consider the granting of a variance on an expedited basis. Under no circumstances will an owner or operator be required to violate applicable safety standards in order to meet these regulations.

was designed as a pressure valve to dissipate unfair or impractical applications of standards in particular instances of demonstrable harm. As such, it is an integral element of EPA's regulatory scheme. OSM, however, made the same effluent limitations invariable.

OSM next omitted EPA's provision for exempting from the limitations overflows from effluent control facilities constructed in conformity with EPA regulations. Thus, the fact that an operator constructs his ponds pursuant to the regulatory authority's standards was deemed to be insufficient compliance to OSM, though satisfactory to EPA. The omission of EPA's exemption provision means that an operator will have to make more substantial and apparently less cost-effective efforts to ensure conformance with the numerical limits.

OSM's third omission was a procedure whereby the operator was "credited" for the suspended solids in its water prior to flowing through the disturbed area. In other words, OSM is holding the operator responsible for the total suspended solids discharged from mining areas rather than the increment added to the water by the coal mining operation. It would appear to be unreasonable to require one operator to assume, as part of its cost of coal production, the responsibility of attending to the pollutants caused by other


11 Under EPA regulations, a mine operator who constructs a facility or pond which can contain waters from a design precipitation event (this is the maximum rainfall that statistically can be expected during any 24 hour period over the course of a ten year measuring period) is entitled to an absolute exemption for all effluents from the pond:

This does not mean that only after a rainfall equalling or exceeding the 10-year, 24-hour precipitation event may untreated effluent be discharged. It means that after a precipitation event or other cause (snowmelt, for example) which forces an overflow, by-pass, or increase in the volume of point source discharge from a facility designed, constructed and maintained to contain or treat the amount of water which will result from the 10-year, 24-hour, precipitation event, the overflow, by-pass or increase in volume of the point source discharge shall be permitted.

42 Fed. Reg. 21,381 (1977). Whereas EPA exempts all overflows from a design facility, OSM exempts only those overflows which the operator can prove actually result from a 10-year, 24-hour precipitation event. 42 Fed. Reg. 62,685 (1977) (to be codified in 30 C.F.R. § 715.17(a)(1)). Not only does OSM unreasonably require compliance with effluent limitations under circumstances exempted by EPA, but in those instances where an exemption is available it has imposed on operators a heavy burden of proof not present under the EPA program.

operators or by natural means. EPA, under principles which appear to be applicable to OSM, regulates only those pollutants added to the water by a given party.\footnote{40 C.F.R. §§ 125.24(c), 125.28 (1977). See, e.g., American Iron and Steel Inst. v. EPA, 543 F.2d 521 (3d Cir. 1976); American Petroleum Inst. v. EPA, 540 F.2d 1023, 1034-35 (10th Cir. 1976), cert. denied, 430 U.S. 922 (1977); American Iron and Steel Inst. v. EPA, 526 F.2d 1027, 1056 (3d Cir. 1975), modified, 550 F.2d 589 (3d Cir. 1977), cert. denied, 435 U.S. 914 (1978). EPA's net-gross regulations are an integral part of its regulatory scheme. Provision for them is required by law. Appalachian Power Co. v. Train, 545 F.2d 1351, 1377-78 (4th Cir. 1976); American Iron and Steel Inst. v. EPA, 543 F.2d at 524, n.6; American Petroleum Inst. v. EPA, 540 F.2d at 1034-35; Hooker Chemicals & Plastics Corp. v. Train, 537 F.2d 620, 637 (2d Cir. 1976); American Iron and Steel Inst. v. EPA, 526 F.2d at 1056. OSM would appear to be subject to a similar requirement. Although a discussion of this is beyond the scope of this article, it should be noted that requiring operators to be responsible for sediment already in the water before it reaches the operation likely violates two separate sections of the SMCRA as well as principles of due process. 30 U.S.C.A. § 1265(b)(10)(B)(i) (West Supp. 1978) requires operators "to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area." (Emphasis added). The legislative history of Section 515(b)(10) indicates that Congress intended to regulate only additions to suspended solids contributed by mining, as opposed to background suspended solids from other sources. See S. Rep. No. 128, 95th Cong., 1st Sess. 25 (1977). Moreover, the courts of appeals' analysis and due process concerns set forth in the EPA cases cited in this note should be applicable here. In addition, Section 702(a)(3) of the Surface Mining Act, 30 U.S.C.A. § 1292(a)(3) (West Supp. 1978) appears to prohibit the inevitable conflict in effluent regulation which would result if OSM is not constrained to regulating only the incremental increase in suspended solids. Section 702(a) states that:

Nothing in this Chapter shall be construed as superseding, amending, modifying or repealing . . . any of the following Acts or with any rule or regulation promulgated thereunder, including, but not limited to—

(3) The Federal Water Pollution Control Act . . . , the State laws enacted pursuant thereto, or other federal laws relating to preservation of water quality. 30 U.S.C.A. § 1292(a) (West Supp. 1978).}

\footnote{Both of these provisions, §§ 715.18(b)(ii) and (vii), were enjoined by the court in In Re Surface Mining Regulation Litigation to permit the Secretary to}

D. Waste Dam Construction.

The construction of dams made of waste was another subject which OSM regulated by design criteria which does not permit operators sufficient flexibility. Two provisions cause particular concern: the minimum drawdown criteria and the required freeboard height.\footnote{493 C.F.R. §§ 125.24(c), 125.28 (1977). See, e.g., American Iron and Steel Inst. v. EPA, 543 F.2d 521 (3d Cir. 1976); American Petroleum Inst. v. EPA, 540 F.2d 1023, 1034-35 (10th Cir. 1976), cert. denied, 430 U.S. 922 (1977); American Iron and Steel Inst. v. EPA, 526 F.2d 1027, 1056 (3d Cir. 1975), modified, 550 F.2d 589 (3d Cir. 1977), cert. denied, 435 U.S. 914 (1978). EPA's net-gross regulations are an integral part of its regulatory scheme. Provision for them is required by law. Appalachian Power Co. v. Train, 545 F.2d 1351, 1377-78 (4th Cir. 1976); American Iron and Steel Inst. v. EPA, 543 F.2d at 524, n.6; American Petroleum Inst. v. EPA, 540 F.2d at 1034-35; Hooker Chemicals & Plastics Corp. v. Train, 537 F.2d 620, 637 (2d Cir. 1976); American Iron and Steel Inst. v. EPA, 526 F.2d at 1056. OSM would appear to be subject to a similar requirement. Although a discussion of this is beyond the scope of this article, it should be noted that requiring operators to be responsible for sediment already in the water before it reaches the operation likely violates two separate sections of the SMCRA as well as principles of due process. 30 U.S.C.A. § 1265(b)(10)(B)(i) (West Supp. 1978) requires operators "to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area." (Emphasis added). The legislative history of Section 515(b)(10) indicates that Congress intended to regulate only additions to suspended solids contributed by mining, as opposed to background suspended solids from other sources. See S. Rep. No. 128, 95th Cong., 1st Sess. 25 (1977). Moreover, the courts of appeals' analysis and due process concerns set forth in the EPA cases cited in this note should be applicable here. In addition, Section 702(a)(3) of the Surface Mining Act, 30 U.S.C.A. § 1292(a)(3) (West Supp. 1978) appears to prohibit the inevitable conflict in effluent regulation which would result if OSM is not constrained to regulating only the incremental increase in suspended solids. Section 702(a) states that:

Nothing in this Chapter shall be construed as superseding, amending, modifying or repealing . . . any of the following Acts or with any rule or regulation promulgated thereunder, including, but not limited to—

(3) The Federal Water Pollution Control Act . . . , the State laws enacted pursuant thereto, or other federal laws relating to preservation of water quality. 30 U.S.C.A. § 1292(a) (West Supp. 1978).}

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1. Minimum Drawdown.

Section 715.18(b)(vii) of the regulations requires that dams impounding water must be constructed in such a manner that the facility can be evacuated by spillways or decants (channels or pours) of ninety percent "of the volume of water stored during the design precipitation event within 10 days." This requirement applies across the board, regardless of either the dam's location or its size. There is no provision for an administrative variance.

In promulgating the regulation, OSM's Statement of Basis and Purpose set forth no rationale for its inflexibility. Other than a general allusion to safety requirements, no specific purpose was cited. The agency merely stated, in rebuttal to public comment, that "[t]hese criteria have been retained for compliance with Corps of Engineers safety criteria for similar structures." The Corps of Engineers, however, requires a seventy-five percent evacuation, not a ninety percent evacuation. Moreover, the Corps of Engineers permits exceptions to its requirements on a cite specific basis. Thus, the Statement of Basis and Purpose was inaccurate and indicates that the requirements really had no support. It is important to note that MESA also has a more limited safety standard; i.e. the approval of the construction of large dams when it is shown that they can sufficiently contain storm waters as an alternative to a ninety percent drawdown design criteria.


69 See supra note 69 (definition of "design precipitation event").


DEP'T OF THE ARMY, ENGINEERING MANUAL No. 1110-2-1101 at 6 (Office of the Chief of Engineers 1968).

Id. See also 43 C.F.R. § 220.1 (1978).

By constructing embankments which can impound a greater amount of water, operators avoid the potential unsafe condition caused by substantial water flowing into the impoundment in a short period of time. During the pendency of In re Surface Mining Resulution Litigation, 456 F. Supp. 1301 (D.D.C. 1978), appeal docketed, nos. 78-2190, 78-2191, 78-2192 (D.C. Cir. Nov. 20, 1978), the Government attempted to rely on a study by the D'Appalonia Consulting Engineers as the basis for its requirement. That study, however, falls short of justifying the agency's invariable requirement. Although generally subscribing to the need for a ninety percent drawdown capability, it cautioned that dams could be designed larger than is necessary to impound the waters from one design precipitation event and that evacuation for such dams should be examined in greater depth—such considerations being beyond the scope of the study. D'APPALONIA CONSULTING ENGINEERS, D'APPALONIA ENGINEERING AND DESIGN MANUAL 6.60-61 (1977). Furthermore, the
What OSM has apparently assumed is that all dams will be hazardous to life and property, without regard to the terrain or size of the watershed in which they are situated. But the dangers associated with faulty dams located in deep valleys in populated areas simply do not exist in flatter rural and unpopulated areas, particularly in the western states where so much of the country's surface mining is conducted. The agency's single nationwide rule does not take account of these differences.

To meet OSM's ninety percent evacuation requirement, operators must construct expensive emergency spillways. The volume capacity of these spillways depends upon expected runoff during a design precipitation event. Not only may this type of flood control system be much more costly that necessary, but it may also prove to be less safe. A rapid drawdown could be a danger in and of itself. If the drawdown is too rapid, it can result in "embankment slumps" and ultimate dam failure. The use of storage facilities as a flood control system, as suggested here, could therefore add an extra safety factor by eliminating the need for rapidly passing flood waters from the impoundment area.

2. Dam Freeboard.

Section 715.18(b)(3)(ii) of the interim program requires that a minimum three foot freeboard (the section of the dam wall above the water surface) be maintained with respect to all dams.90 OSM again stated that this standard came from Corps of Engineers safety criteria.91 The Corps, however, has no such rigid requirement here either.92 In fact, the agency has essentially adopted MESA regulations for freeboard height but omitted MESA's provisions for flexibility. MESA's requirements only apply to large ponds having a dam five feet high with twenty acre feet of volume or dams twenty feet high.93 To require a three foot freeboard on every small dam seems anomalous. Such a freeboard adds significantly to the cost of the structure without any public benefit.94

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94 The ninety percent drawdown and three foot freeboard requirements were enjoined in In re Surface Mining Regulation Litigation and remanded to the Secre-
VI. Conclusion.

These are but a few examples of needlessly inflexible provisions. The interim regulations also set forth specific criteria for, *inter alia*, filter strips (buffer zones) alongside streams, access and haul road gradients, blasting distances and velocity and decibel levels, backfilling, grading and terracing, topsoil segregation and waste cover. In all too many instances, OSM's concern for protecting the environment has led it to neglect the other important Congressional objectives—enhancing the production and use of coal and restraining double digit inflation. These too are important policy concerns and should have been given substantial attention by a federal agency developing such comprehensive nationwide regulations. While the new legislation was intended to establish strict controls on surface mining and reclamation and the surface effects of deep mining, such controls should have been more carefully imposed to enable each operator to comply with the Act in the most cost-effective manner. Regulation must be reasonable for our national economy can afford no less.

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Id. at 62,688 (to be codified in 30 C.F.R. § 715.17(1)).

Id. at 62,690 (to be codified in 30 C.F.R. §§ 715.19(e)(1)(vi), (vii), (2)(ii), (iii)).

Id. at 62,681 (to be codified in 30 C.F.R. § 715.14).

Id. at 62,684 (to be codified in 30 C.F.R. § 715.16(a)).

Id. at 62,686 (to be codified in 30 C.F.R. § 715.17(g)).