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The Emerging Federal Law of Mine Waste: Administrative, Judicial and Legislative Developments

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THE EMERGING FEDERAL LAW OF MINE WASTE: ADMINISTRATIVE, JUDICIAL AND LEGISLATIVE DEVELOPMENTS

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I. INTRODUCTION, PURPOSE AND SCOPE

American law relating to mines and mineral lands within the public land states and territories, and governing the acquisition and enjoyment of mining rights in lands of the public domain, is in flux.

The General Mining Law of 1872¹—the property cornerstone of the location-patent system presently in force on the public domain—is the subject of a repeal effort in Congress, either through the Rahall Bill,² the Bumpers Bill,³ or some as yet unknown alternative or compromise. At the same time, the Environmental Protection Agency (EPA) is seeking to establish a system of all-encompassing federal regulation of the mining industry, under the guise of regulating mine waste.⁴ Various western states, while also seeking regulation of mine waste, object to EPA's centralized approach and instead prefer to vest principal regulatory authority in the states.⁵ The Department of Interior also differs with EPA, preferring that a new Subtitle J be added to the Resource Conservation and Recovery Act (RCRA), which should, in Interior's view, be tailored to the unique nature of mine waste.⁶ State mining associations in the West oppose repeal of the

1. Ch. 152, 17 Stat. 91 (the surviving portions of the Act appear at 30 U.S.C. §§ 22-24, 26-28, 29-30, 33-35, 37, 39-42, 47 (1988)).

2. H.R. 918, 102d Cong., 1st Sess. (1991).

3. S. 433, 102d Cong., 1st Sess. (1991).

4. The details of EPA's proposal are set forth in what is known as Strawman II, a regulatory program which would be promulgated pursuant to the Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (codified as amended at 42 U.S.C. §§ 6901-6991 (1988)) [hereinafter RCRA]. RCRA is the nation's waste regulation law. Strawman II is discussed in detail *infra* at text accompanying notes 102-26.

5. Western Governor's Association, Mine Waste Task Force, *Recommendations for a Mine Waste Regulatory Program Under Subtitle D of the Resource Conservation and Recovery Act*, Dec. 8, 1989 [hereinafter WGA Recommendation]. See *infra* notes 127-134 and accompanying text.

6. Interior's official position on amendment of RCRA to address mine waste issues

General Mining Law of 1872 and have been critical of EPA's Strawman II proposal.⁷ They have taken no public position regarding the Department of Interior's proposed new Subtitle J.

This legislative and administrative activity over property rights and mine waste regulation is taking place against a background of judicial construction of one⁸ of only two sections of RCRA which address mine waste.⁹

While all these studies, regulatory determinations, judicial decisions, administrative determinations, and proposals for legislation are being offered, analyzed and debated, Congress is in the midst of reauthorizing RCRA. The reauthorization of the entire statute may take two to four years to complete.¹⁰ RCRA was itself an amendment to the Solid Waste Disposal Act of 1965¹¹ and has been amended six times since.¹²

With such a cauldron of activity at a boil, it is the purpose of this article to identify various positions taken regarding mine waste regulation and legislation, analyze them, and review administrative, judicial, and legislative developments affecting mine waste.

This article will not address the issues surrounding the amend-

is set forth in a proposed bill which was attached to a letter from Harlan L. Watson, Assistant Secretary for Water and Science, and James W. Hughes, Assistant Secretary for Land and Minerals Management, United States Dep't of Interior, to Don R. Clay, Assistant Administrator for the Office of Solid Waste and Emergency Response, United States Env'tl. Protection Agency (June 28, 1990) [hereinafter DOI letter].

7. For a discussion of Colorado Mining Association comments, see *infra* notes 135-138 and accompanying text [hereinafter CMA comments].

8. The Bevill Amendment to RCRA, 42 U.S.C. § 6921(b)(3)(A) (1988). For an analysis of Bevill and its progeny, see *infra* notes 30-32 and accompanying text. The Bevill Amendment itself has been the subject of fifteen years of litigation, judicial interpretation, reinterpretation by EPA, withdrawal of those interpretations, and regulatory determinations made by EPA concerning regulation of mine waste (required by 42 U.S.C. § 6921(c)) and mineral processing waste based upon congressionally mandated studies of mine waste (required by 42 U.S.C. § 6982(f)). Two such studies have been completed. The first was Office of Solid Waste, United States Environmental Protection Agency, Pub. L. No. EPA 530-SW-85-033, Report to Congress, Wastes from the Extraction and Beneficiation of Metallic Ores, Phosphate Rock, Asbestos, Overburden from Uranium Mining, and Oil Shale, Dec. 31, 1985 [hereinafter EPA 1985 Mine Waste Study]. The second study was Office of Solid Waste, United States Environmental Protection Agency, Report to Congress on Special Wastes from Mineral Processing, July 31, 1990 [hereinafter EPA 1990 Mine Waste Study].

9. The other section addressing mine waste is the Simpson Amendment, 42 U.S.C. § 6924(x) (1988). See *infra* note 34 and accompanying text.

10. For a discussion of RCRA reauthorization generally, see Bruninga, Chappie, D'Angelo, Kimmel, Minis, Stimson, Sturges, Ware, *Reauthorization of Waste Law Tops 1991 Congressional Agenda; EPA Faces Massive Regulatory Task in Wake of Clean Air Amendments*, Env't Rep. (BNA), Jan. 11, 1991 [hereinafter Bruninga].

11. Pub. L. No. 89-272, 79 Stat. 997 (1965).

12. Act of Oct. 15, 1968, Pub. L. No. 90-574, 82 Stat. 1013; Resource Recovery Act of 1970, Pub. L. No. 91-512, 84 Stat. 1227; Act of Apr. 9, 1973, Pub. L. No. 93-14, 87 Stat. 11; Act of Jan. 2, 1975, Pub. L. No. 93-611, 88 Stat. 1974; Solid Waste Disposal Act Amendments of 1980, Pub. L. No. 96-482, 94 Stat. 2334; Hazardous and Solid Waste Amendments of 1984, Pub. L. No. 98-616, 98 Stat. 3221.

ment or repeal of the General Mining Law. That topic has been addressed elsewhere.¹³

II. BACKGROUND—LAW OF MINE WASTE

Laws addressing mine waste date from the last century.¹⁴ In order to assist the reader in navigating this historical sea, this section will address definitions of mine waste, technology involved in mine waste production, and historical development of the law of mine waste up to the present day. This history will then serve as background for the analysis of current legislative and administrative proposals now pending before Congress which address regulation of mine waste.

A. *Definitions of Mine Waste*

Given the fact that the term "mine waste" has been used in many different contexts, by many different disciplines (for example, law, economics, and engineering, to name a few), over a number of centuries, a handy but brief definition of that term is not available.¹⁵ However, although not defensible in all situations, a working definition is helpful to orient the reader. Accordingly, for purposes of this introductory discussion of the topic, mine waste will be defined as discarded material produced or generated in the extraction, beneficiation and processing of metallic minerals.

B. *Production of Mine Waste*

It is helpful to briefly discuss how mine waste is produced, for it is the fact of mine waste production which has given rise to the law which governs mine waste.

In an underground mining situation, shafts are sunk or tunnels driven to expose the ore body. Once exposed, the ore may be mined by a number of methods.¹⁶ Waste is generated by removal of barren rock in gaining access and by inefficiencies in the mining process itself.

In a surface mining situation, material overlying the deposit is removed and stockpiled, awaiting removal of the ore. This material

13. See Alberswerth, *The 1872 Mining Law: Time to Pull the Plug*, and Hubbard, *Defending the 1872 Mining Law*, *Natural Resources & Environment*, A.B.A. Sec. Nat. Resources, Energy, & Env'tl. L., Vol. 5, No. 3, Winter 1991.

14. For an in-depth historical review of the law of mine waste, see Jacus & Root, *The Law of Mine Waste: A Primer - Mine Waste from Agricola to CERCLA and Beyond*, 35 ROCKY MTN. MIN. L. INST. 9-1 (1990).

15. For an analysis of the multiple definitions of mine waste, see Jacus & Root, *supra* note 14.

16. For a discussion of underground mining methods, see 1 Am. L. of Mining § 1.06[2] (2d ed. 1984 & Supp. 1990).

may be replaced in the resultant pit after ore has been removed.¹⁷

Once ore has been removed from its place in nature ("extraction"), it might be treated in a mill, where the metal of interest is separated from the host rock ("beneficiation").¹⁸ The waste material remaining after the milling process has been completed is known as "tailing," while the material which is the product of milling is referred to as "concentrate."

Smelting is the next process in the fabrication stream ("processing"). Metal-bearing concentrates are mixed with chemicals and fired at high temperatures to separate the metal from the remaining material. The solid waste from smelting is referred to as "slag," although other wastes such as gases and particulate matter are produced.¹⁹ After smelting, material must be subject to further treatment ("refining").

C. *Historical Summary of Mine Waste Law to 1990*

Familiarity with the law of mine waste prior to enactment of RCRA in 1976, and up to the present, will help the reader to place current proposals, decisions, regulations, and legislation in context.

Prior to 1900, the law of mine waste was principally the product of common law development, with sparse legislative input. With regard to ownership of waste, common law focused upon real property concepts.²⁰ Regarding liability for effects of mine waste, the law relied upon tort concepts of negligence, trespass, and nuisance to establish the duties and obligations of private parties.²¹ In the legislative area, the sovereign was silent on most matters affecting mine waste. The General Mining Law of 1872,²² for example, makes no mention of mine waste, with the possible exception of the provision requiring assessment work.²³ However, this provision, enacted to provide an incentive to develop minerals and discourage speculation in mineral lands, focused upon economic waste, not physical waste product.²⁴

After 1900 and until the enactment of RCRA, Congress did not address waste *per se* in legislation, let alone mine waste.²⁵ In 1976,

17. For a discussion of surface mining methods, see *id.* § 1.06[3][b].

18. For a flow chart describing the milling process, see *id.* § 1.07[2].

19. For a brief discussion of the smelting process, see *id.* § 1.07[9].

20. For a discussion, see Reeves & Alfors, *Dumps and Tailings*, 23 ROCKY MTN. MIN. L. INST. 419 (1977).

21. See Jacus & Root, *supra* note 14, at 9-23, 9-26.

22. See *supra* note 1.

23. 30 U.S.C. § 28 (1988). This provision requires the claimholder to expend at least \$100 worth of labor or improvements per year for the benefit of his claim.

24. See *Chambers v. Harrington*, 111 U.S. 350 (1884) for a discussion of this purpose of the assessment work requirement.

25. It is worth noting, for historical purposes, that some states, California in particular, did take legislative action in this area. For a discussion of judicial, administrative, and legislative activity regarding mine waste from 1872-1976 and in particular the

Congress enacted RCRA, which amended the Solid Waste Disposal Act of 1965. RCRA established a comprehensive regulatory program for hazardous waste,²⁶ and provided broad federal guidelines for solid waste disposal.²⁷

RCRA's statutory treatment of mine waste was sparse at best. It contained a provision requiring the study of wastes from surface and underground mines.²⁸ This provision was expanded in 1980,²⁹ and the study was given a specific due date. The study was completed at year end in 1985.³⁰

The 1980 amendments to RCRA contained the "Bevill Amendment," which exempted mine waste from regulation as a hazardous waste under Subtitle C until six months after completion of the EPA 1985 Mine Waste Study and either a determination to promulgate regulations for the various categories of mine waste or a determination that such regulations were unwarranted.³¹ In short, Congress was unsure of whether to regulate mine waste under Subtitle D (solid waste), Subtitle C (hazardous waste), or not at all. Consequently, it ordered the EPA 1985 Mine Waste Study to help in making this decision.³²

In 1984, Congress again amended RCRA.³³ An amendment by Senator Simpson of Wyoming provided that mine waste subject to the

California experience as evidenced by the *Debris* cases, see Jacus & Root, *supra* note 14, at 9-27 to 9-46. Like Congress, the states were reticent on the topic of mine wastes in the period after 1900. However, in the 1970's, in response to the energy crisis, consequent surface mining of western coal, and the influence of the environmental movement generally, states passed various reclamation laws. Among other things, these laws addressed soil removal and replacement, as well as grading, contouring and revegetation of mined areas. See, e.g., CAL. PUB. RES. CODE § 2735 (West 1984); COLO. REV. STAT. § 34-32-101 (1984 Repl. Vol. & Supp. 1988); IDAHO CODE § 47-1503 (1977); MONT. CODE ANN. § 82-4-201 (1987); OR. REV. STAT. § 517.750 (1987); UTAH CODE ANN. § 40-8-4 (1980); WASH. REV. CODE ANN. § 78.44.030 (Supp. 1989); WYO. STAT. § 35-11-101 (1977). See also, Jacus & Root, *supra* note 14, at 9-43 to 9-46.

26. 42 U.S.C. § 6921-6939(b) (1988) [hereinafter Subtitle C].

27. *Id.* § 6941-6949(a) [hereinafter Subtitle D].

28. *Id.* § 6982(f).

29. *Id.* § 6982(p).

30. EPA 1985 Mine Waste Study, *supra* note 8.

31. 42 U.S.C. § 6921(b)(3)(A)-(C). The 1985 Mine Waste Study does not address uranium mill tailings (regulated under Uranium Mill Tailings Radiation Control Act of 1978, Pub. L. No. 95-604, 92 Stat. 3021, codified in scattered sections of 42 U.S.C.; for a discussion, see Am. L. of Mining, § 277.02[3] (2d ed. 1984 & Supp. 1988)) nor coal mine waste (regulated under Surface Mine Control and Reclamation Act, Pub. L. No. 95-97, 91 Stat. 445, codified as amended at 30 U.S.C. §§ 1201-1328 (1988)). The study also excluded wastes generated by "clay, sand and gravel, and stone mining segments, since it [EPA] judged wastes from these sources less likely to pose hazards than wastes from the industries included." 1985 Waste Study Determination, *supra* note 8, at 5.

32. For a discussion of the EPA 1985 Mine Waste Study and activity subsequent thereto, current to July 1989, see Jacus & Root, *supra* note 14. For an update on the topic through December 1990, see Jacus & Root, *RCRA Regulation of Mine Waste: An Overview*, Natural Resources & Environment, A.B.A. Sec. Nat. Resources, Energy, & Env't'l L., Vol. 5, No. 3, Winter 1991, at 26.

33. Hazardous and Solid Waste Amendments of 1984, Pub. L. No. 98-616, 98 Stat. 3221.

EPA 1985 Mine Waste Study, if hazardous, could be regulated less rigorously considering site specific factors (such as geology, hydrology, and soil chemistry of a site, as well as climate) so long as "modified requirements assure protection of human health and the environment."³⁴

Thus, by 1984, the nation's comprehensive waste law had addressed mine waste only in a provision requiring expanded study and two amendments (Bevill and Simpson).

During this same period from 1980-1990, judicial and administrative activity regarding the Bevill Amendment was addressing the issue of exemption from Subtitle C regulation for various types of mine waste. For conceptual simplicity, the developments regarding the Bevill Amendment are analyzed as two separate issues, even though all activities were interrelated and occurring simultaneously.

1. The Bevill Amendment - Construction and Interpretation

RCRA was four years old in 1980 when Congress amended it by passing the Solid Waste Disposal Act Amendments³⁵ which contained the Bevill Amendment.³⁶ The Bevill Amendment states, in part:

[E]ach waste listed below shall . . . be subject only to regulation under OTHER applicable provisions of Federal or State law in lieu of this subchapter until at least six months after the date of submission of the applicable study required to be conducted . . . and after promulgation of regulations . . .

- (ii) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore.

The Bevill Amendment thus prohibited regulation of mine waste until a mine waste study was conducted and regulations were promulgated based upon that study. The study was slow in coming and action was brought to compel EPA to perform the study.³⁷ Among other things, the court ordered EPA to perform the mine waste study by December 31, 1985. The court also required EPA to reinterpret the Bevill exclusion. Pursuant to the court's mandate, EPA published notice of proposed rulemaking to narrow its interpretation of the Bevill exclusion.³⁸

Thus, under the *Adamstown* decision, EPA addressed two issues—the "mine waste study" issue and the "interpretation of the

34. 42 U.S.C. § 6924(x) (1988).

35. Pub. L. No. 96-482, 94 Stat. 2334 (1980).

36. 42 U.S.C. § 6921(b)(3)(A)-(C) (1988).

37. *Concerned Citizens of Adamstown v. EPA*, No. 84-3041 (D.D.C. 1985).

38. 50 Fed. Reg. 40,292 (1985) (proposed Oct. 2, 1985) (later withdrawn 51 Fed. Reg. 36,233 (1986)); see *infra* notes 50-55 and accompanying text.

Bevill Amendment" issue.

a. "*Mine Waste Study*" Issue. Published in 1985, the mine waste study resulted in a regulatory determination, as required by 42 U.S.C. section 6921(b)(3)(C),³⁹ entitled REGULATORY DETERMINATION FOR EXTRACTION AND BENEFICIATION WASTES FROM THE MINING OF ORES AND MINERALS.⁴⁰ The determination stated that Subtitle C of RCRA, which regulates hazardous wastes, was inappropriate because:

- 1) Mining waste is generated in much higher volume than industrial hazardous waste;
- 2) Mine waste facilities are generally much larger than industrial hazardous waste facilities;
- 3) Nearly all mine waste is land disposed on site;
- 4) Most mine wastes have lower exposure and risk potential than hazardous wastes because mines are generally in drier climates, have lower net groundwater recharge, have greater depth to groundwater, are found in low population density areas, and are distant from drinking water receptors.⁴¹

The 1985 Waste Study Determination concluded that RCRA hazardous waste controls "would be either unnecessary to protect human health and the environment, technically infeasible, or economically impractical" when applied to risks posed by mine waste.⁴²

EPA's determination with respect to the specific mineral extraction and beneficiation wastes addressed in the EPA 1985 Mine Waste Study was challenged in *Environmental Defense Fund v. United States Environmental Protection Agency (EDF I)*.⁴³ The court upheld EPA's determination that the EPA 1985 Mine Waste Study wastes were not suitable for Subtitle C regulation as hazardous wastes under RCRA.⁴⁴ Notwithstanding this apparent victory, EPA still needed to decide how to regulate mine wastes as solid wastes under Subtitle D of RCRA.

EPA's response to this problem was to form the Mining Waste Work Group. This EPA Work Group raised issues related to the regulation of mine waste, such as whether programs should include a permit system, whether a lead agency should be identified for liaison with EPA, and whether states should be required to adopt specific statu-

39. Regulatory determinations are a special statutory procedure established by this section, which provides as follows: "The Administrator shall publish his determination, which shall be based on information developed or accumulated pursuant to such study, public hearings, and comment, in the Federal Register accompanied by an explanation and justification of the reasons for it." 42 U.S.C. § 6921(b)(3)(C) (1988).

40. 51 Fed. Reg. 24,496 (1986) [hereinafter 1985 Mine Waste Determination].

41. *Id.* at 24,498-99.

42. *Id.* at 24,500.

43. 852 F.2d 1309 (D.C. Cir. 1988).

44. *Id.* at 1316.

tory provisions authorizing them to manage a RCRA mine waste program. The Work Group then produced a hypothetical regulatory program for regulation of mine waste, the authority for which would be Subtitle D of RCRA.⁴⁵ This hypothetical program, now known as Strawman I, suggested the development of a state-implemented, site-specific, risk-based approach to regulation of mineral extraction, beneficiation, and processing wastes under RCRA Subtitle D. Strawman I was not formal rulemaking, but a potential regulatory program to be criticized, as the name "Strawman" implied. As suggested above, Strawman I was EPA's attempt to fit mine waste issues into the pre-existing RCRA Subtitle D structure.⁴⁶ After comments were received regarding Strawman I, EPA developed and circulated the present Strawman proposal (Strawman II). Strawman II, the latest development in EPA's attempts to resolve the Mine Waste Study issue, is discussed below.⁴⁷

b. "Interpretation of the Scope of the Bevill Amendment" Issue. In 1978, EPA proposed regulations to implement Subtitle C of RCRA.⁴⁸ Part of the proposal was to subject "special wastes" (wastes from the extraction, beneficiation, and processing of ores, kiln dust waste, utility waste, phosphate mining overburden, and uranium mining waste rock) to fewer regulatory requirements than other Subtitle C hazardous wastes.⁴⁹

Before the regulations could take effect, the Bevill Amendment was passed as part of the 1980 Amendments to RCRA. Because the mine waste study required by the Bevill Amendment directed EPA to study those same wastes identified in the 1978 proposed regulations, the proposed regulations were superseded.

EPA originally interpreted the Bevill Amendment to provide that solid waste from "exploration, mining, milling, smelting, and refining of ores and minerals"⁵⁰ would be excluded from regulation under Subtitle C of RCRA until completion of the Mine Waste Study mandated by Bevill and promulgation of appropriate regulations. This broad interpretation of Bevill meant that smelting and refining wastes would not be regulated under Subtitle C.

One of the issues in *Adamstown* was EPA's interpretation affording Bevill exclusion to a waste product of aluminum processing. EPA

45. The hypothetical program was never published in the Federal Register, but instead was circulated to interested parties by EPA under a cover letter executed by Rob Walline, Chairman of the External Relations Committee of the Mine Waste Group, United States EPA, Region VIII (June 13, 1988).

46. For a discussion of Strawman I, see Jacus & Root, *supra* note 14.

47. See *infra* notes 102-126 and accompanying text.

48. 43 Fed. Reg. 58,946 (1978) (proposed Dec. 18, 1978) (superseded by publication of an "interim final amendment" to 40 C.F.R. § 261.4(b), 45 Fed. Reg. 76,618 (1980)).

49. *Id.* at 58,992.

50. 45 Fed. Reg. 76,618-19 (1980).

submitted a Regulatory Agenda indicating its intent to undertake rulemaking which would, among other things, deal with the question of whether smelting and refining wastes should come within the Bevill exclusion (and thus be excluded from Subtitle C regulation as hazardous wastes). The court took notice of this Regulatory Agenda and ordered EPA to complete rulemaking by September 30, 1986.⁵¹

On October 7, 1985, EPA published a Notice of Proposed Rulemaking intended to reinterpret the Bevill Amendment. Under this proposal, Bevill would be interpreted to apply only to extraction and beneficiation of ores and minerals.⁵² The Agency noted it had been incorrect in interpreting Bevill to exclude primary smelting and refining waste from Subtitle C regulation.⁵³ The Agency stated that Congress had intended the Bevill Amendment to apply to those "special wastes" contained in its 1978 proposed regulations, and proposed to reinterpret the Amendment accordingly.⁵⁴

On October 9, 1986, EPA withdrew its proposed reinterpretation of Bevill.⁵⁵ The reason given for this action was that EPA had not quantified the terms "high volume" and "low hazard." These terms had characterized those "special wastes" which had been the subject of EPA's 1978 proposed regulations. EPA indicated that until those terms were quantified, EPA could not classify additional wastes suggested to be regulated as "special wastes" by interested parties.

Of course, by withdrawing the reinterpretation, EPA's interpretation of Bevill reverted to its original position—exclusion of smelting and refining wastes from regulation. This position was again challenged in the second case of *Environmental Defense Fund v. Environmental Protection Agency (EDF II)*.⁵⁶ The *EDF II* court focused upon "special wastes" and ordered that six smelter wastes be relisted as hazardous wastes under Subtitle C and not be excluded under the Bevill Amendment.⁵⁷ EDF also requested that the court put EPA on a schedule to determine which high volume processing wastes remained within Bevill, and which did not. The court so ordered, characterizing the Bevill Amendment exclusion as "high volume, low hazard"—the same standard as had been employed in the 1978 proposed regulations.⁵⁸

The last several regulatory determinations made by EPA concerning mineral processing waste and its status under Bevill have each grappled with the *EDF II* court's requirement that high volume and

51. *Concerned Citizens of Adamstown v. EPA*, No. 84-3041 (D.D.C. 1985).

52. 50 Fed. Reg. 40,292 (1985) (proposed Oct. 2, 1985) (later withdrawn 51 Fed. Reg. 36,233 (1986)); see *infra* note 55 and accompanying text.

53. *Id.* at 40,294.

54. *Id.*

55. 51 Fed. Reg. 36,233 (1986).

56. 852 F.2d 1316 (D.C. Cir. 1988).

57. *Id.* at 1331.

58. *Id.*

low hazard criteria be developed.⁵⁹ Each successive determination has further refined the required "special wastes" criteria, while amending and reevaluating proposed action with respect to specific processing wastes.

A significant determination was made in September of 1989.⁶⁰ The most important features of that determination include modifications to the "high volume" criterion and specific procedures incorporated into the new "low hazard" criterion.

The high volume criterion was bifurcated in the September 1989 determination to deal with both liquid and nonliquid processing wastes. Liquid wastes generated in excess of one million metric tons per year per facility, and nonliquid wastes generated in excess of 45,000 metric tons per year per facility, would satisfy the "high volume" criterion. EPA's adoption of those final volume threshold amounts was based upon data obtained from the Agency's survey of hazardous waste treatment, storage, disposal, and recycling facilities already handling large volumes of hazardous waste.⁶¹

The Agency's "low hazard" criterion adopted a new laboratory procedure known as Method 1312, which is based on a probable worst-case acid precipitation event. The criterion also incorporated a pH test for liquid processing wastes. If a mineral processing waste releases metals of concern in leachate tests at levels in excess of 100 times the Maximum Contaminant Level (MCL) for those metals, or if a liquid processing waste has a pH which falls outside the range of 1.0 to 13.5, the low hazard criterion will not have been met, and the waste will be regulated under Subtitle C of RCRA.⁶²

The September 1989 regulatory determination was followed by another EPA determination in January of 1990.⁶³ The later determination withdrew Bevill-exempt status for several processing wastes and conditionally reinstated Bevill status for a number of wastes that had been proposed for removal from the Bevill exemption.⁶⁴ All wastes determined by the January 1990 rule to fall within the scope of the Bevill Amendment were to be the subject of EPA's second mine

59. The several EPA regulatory determinations, required by section 3001(b)(3)(C) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6921(b)(3)(C) (1988), are found at 53 Fed. Reg. 41,288 (1988) (to be codified at 40 C.F.R. part 261) (proposed Oct. 20, 1988); 54 Fed. Reg. 15,316 (1989) (to be codified at 40 C.F.R. part 261) (proposed April 17, 1989); 54 Fed. Reg. 36,592 (1989) (to be codified at 40 C.F.R. part 261) (proposed Sept. 1, 1989); 54 Fed. Reg. 39,298 (1989) (to be codified at 40 C.F.R. parts 260-62) (proposed Sept. 25, 1989); and 55 Fed. Reg. 2,322 (1990) (to be codified at 40 C.F.R. parts 260-62) (Jan. 23, 1990).

60. 54 Fed. Reg. 39,298 (1989) (to be codified at 40 C.F.R. parts 260-62) (proposed Sept. 25, 1989).

61. *Id.* at 39,301.

62. *Id.*

63. 55 Fed. Reg. 2,322 (1990) (to be codified at 40 C.F.R. parts 260-62) (Jan. 23, 1990).

64. *Id.*

waste study, which was submitted to Congress on July 31, 1990.⁶⁶

The 1990 EPA Mine Waste Study concluded that sixteen of the twenty wastes which were the subject of the study satisfied the low hazard and high volume criteria established in prior regulatory determinations. The remaining four wastes studied would be regulated under Subtitle C or D of RCRA, with possible innovative, site-specific approaches based upon the provisions of the Simpson Amendment.⁶⁸ The Agency's final regulatory determination based upon the 1990 EPA Mine Waste Study is scheduled to be published in the spring of 1991.⁶⁷

A number of legal challenges to the recent EPA determinations have been consolidated on appeal in the D.C. Circuit Court of Appeals.⁶⁹ The parties are currently completing briefing and expect to argue their positions in September of 1991.⁶⁹ A decision is not expected until late 1991. It remains to be seen whether the anticipated last determination regarding twenty mineral processing wastes will also prompt litigation.

2. The Bevill Amendment - Present Status and Conclusion

Through a series of regulatory determinations, some of which were and are being challenged in court, EPA has arguably satisfied the mandate of the study provisions in RCRA. EPA is now in the process of finalizing the regulatory determinations required by 42 U.S.C. section 6921(b)(3)(C). When all activity has been completed, and all legal challenges exhausted, the Bevill Amendment should no longer apply to mine wastes—wastes should not be conditionally exempt from regulation as hazardous waste, but should be permanently exempt, or regulated based upon those EPA determinations which have taken into consideration the results of the mandated studies. As noted above, this almost fifteen-year-long process will be completed by EPA with publication of its final regulatory determination concerning regulation of specific mineral processing wastes.⁷⁰

Having outlined the evolution of the Bevill Amendment, the following appears clear:

- 1) EPA has attempted to design a regulatory program for mining and beneficiation of minerals to fit within the Subtitle D program of RCRA. This program (Strawman II) incorporates the high volume, low hazard standard found by the court in

65. For a brief discussion of mine waste studies required by the Bevill Amendment, see *supra* note 8.

66. For discussion of the Simpson amendment, see *supra* note 34 and accompanying text.

67. See 56 Fed. Reg. 525 (1991).

68. *Solite Corp. v. EPA*, No. 89-1629 (D.C. Cir.).

69. Telephone conversation with Clerk of Court (Feb. 22, 1991).

70. See *supra* note 67 and accompanying text.

EDF II to be the basis of the Bevill Amendment.

- 2) The interpretation, reinterpretation, and so on of the Bevill Amendment with regard to its scope (i.e., inclusion/exclusion of smelting and refining waste) appears to be coming to a close, with legal challenges to EPA determinations to be determined by the D.C. Circuit Court of Appeals after argument in September of 1991.

However, the question of how to regulate mine waste is not yet resolved. RCRA is up for reauthorization, and several proposals, including Strawman II and the Department of Interior's proposal,⁷¹ have been offered to amend RCRA in order to address mine waste.

The law in 1991 seems to be on the verge of addressing mine waste *per se* by statutory enactment. Intense legislative interest in the environment and mining has occurred previously with long-range results.⁷² If one of the legislative approaches is ultimately selected (or a compromise is reached with some elements of each), a law regulating mine waste will likely have a great impact on the mining industry because it will affect how mining operations will be conducted and will determine at what level of government (state or federal) regulatory jurisdiction will reside. The remainder of this article will address those approaches.

III. LEGISLATIVE DEVELOPMENTS—RESOURCE CONSERVATION AND RECOVERY ACT REAUTHORIZATION

A. Introduction

RCRA is presently before the 102d Congress for reauthorization and "is expected to bring a renewed effort to re-write hazardous and solid waste legislation"⁷³

At present, there is an administrative proposal to regulate mine waste (EPA's Strawman II proposal). This proposal goes beyond what RCRA currently authorizes, and would require legislative expansion of RCRA Subtitles C and D for its implementation. EPA's proposal is competing with a legislative proposal⁷⁴ to create a separate subtitle of RCRA specifically directed towards mine waste. RCRA reauthorization will determine the outcome of both proposals.

The Interior approach will be addressed first, followed by an

71. *Supra* note 6.

72. See Jacus & Root, *supra* note 14, for a discussion of such activity with regard to the *Debris* cases (1880-1900), the Conservation Movement (1900-1920), the Atomic Energy Act (1950's), and the Environment Movement, generally (1968-date).

73. Bruninga, *supra* note 10, at 1661. Revision of RCRA is not a new phenomenon; the statute has been amended six times. For a legislative history, see *supra* note 12.

74. See U.S. Dep't of Interior proposal, discussed *infra* at text accompanying notes 77-101.

analysis of EPA's administrative proposal. Comments on Strawman II by the Western Governor's Association⁷⁶ and the Colorado Mining Association⁷⁶ will then be summarized to identify positions of these interest groups on the issues raised by the two approaches—positions which may affect the RCRA reauthorization debate and ultimately the fate of a federal law applicable to mine waste.

B. Suggested Approaches

1. Separate Mine Waste Title in RCRA—Department of Interior Approach

The Department of Interior's proposal was first set forth in a letter to the EPA.⁷⁷ That letter enclosed proposed legislation to amend RCRA and to establish a new subtitle for minerals industry waste management, as well as a summary of the proposal ("Proposed Bill").

The Proposed Bill reflects Interior's position that mine waste does not fit comfortably in either Subtitle C or D, these Subtitles being "designed for the management of municipal or other industrial wastes"⁷⁸

The DOI letter substantiates the case for a separate RCRA subtitle by stating the following:

- 1) Mining wastes are larger in volume than other industrial segments, averaging 125 acres, whereas hazardous waste landfills average 10 acres. Beneficiation waste landfills average 500 acres, whereas hazardous waste impoundments average 6 acres.
- 2) Minerals industry wastes tend to be located in remote areas.
- 3) Minerals industry wastes present less risk to human health and the environment, over half of such wastes being overburden which has not been processed in any way.⁷⁹

Based upon the above,⁸⁰ the DOI letter then described its proposal which "would create a federal program that looks to the states for the regulation of the management of minerals industry wastes."⁸¹

As described in the DOI letter, the Interior proposal for RCRA reauthorization would establish a state administered, locally based program for the management of mineral industry wastes. The program, to be established in a separate subtitle of RCRA, would be

75. See *infra* text accompanying notes 127-34.

76. See *infra* text accompanying notes 135-38.

77. See *supra* note 6.

78. DOI letter, *supra* note 6, at 2.

79. *Id.* at 1-2.

80. Supported by EPA's 1985 Mine Waste Study, *supra* note 8.

81. DOI letter, *supra* note 6.

designed to take into account the peculiarities of mine waste (high volume, lower health risk, remote location). The Interior proposal would avoid "force fitting" mineral industry wastes into existing segments of RCRA (Subtitles C and D) designed for categories of waste which have volume, risk, and location characteristics distinguishable from those categories at which RCRA was first directed.

According to the DOI summary accompanying the Proposed Bill, the proposal includes the following features:

- 1) It establishes a separate subtitle for management of minerals industry wastes—Subtitle J.⁸² It would establish an Office of Mineral Industry Waste.⁸³
- 2) It finds that diversity of physical conditions (geologic, hydrologic, climatic, biologic, and topographic) requires that primary governmental responsibility for regulating mineral industry wastes rests with the states.⁸⁴
- 3) It requires public involvement in development of regulations and permit issuance as well as annual inspections.⁸⁵
- 4) It requires groundwater monitoring and prevention of groundwater contamination.⁸⁶
- 5) It requires closure plans and post-closure maintenance plans.⁸⁷
- 6) It establishes requirements for joint federal-state programs for facilities located on federal lands.⁸⁸
- 7) It provides for civil penalties of up to \$25,000 per day for noncompliance.⁸⁹
- 8) It appropriates federal funds for administrative expenses (\$2 million per year for 1991-93 for EPA, \$1 million per year for 1991-93 for DOI), as well as for grants to states for development and implementation of state programs (\$10 million for 1991 and 1992).⁹⁰

The twenty-seven page DOI proposal contains a number of specific provisions which distinguish it from EPA's administrative proposal to modify Subtitle D of RCRA to accommodate mine waste. For example, section 10004 of the Proposed Bill, entitled "Authorization

82. Proposed Minerals Industry Waste Management Act of 1990 § 10002 [hereinafter Proposed Bill]. On file with the Land & Water Law Review.

83. *Id.* § 10008.

84. In doing so, it echoes the Simpson Amendment to RCRA. *See supra* note 34.

85. Proposed Bill § 10004.

86. *Id.*

87. *Id.*

88. *Id.* § 10005.

89. *Id.* § 10006.

90. *Id.* § 10007.

for State Programs," sets out procedures, deadlines, and requirements for state program submission and approval. Among other things, it requires a coordinated effort among EPA, Interior, and an affected state. It does so by allowing a state with existing extraction, beneficiation, or processing facilities to submit a state program to EPA for carrying out the provisions of the Subtitle.⁹¹ In response, EPA must provide an opportunity for comment and must approve or disapprove the proposed state program within twelve months of receipt, or grant partial approval, with EPA and the state then having twenty-four months to secure approval of a complete program.⁹²

Critical to approval of a state program are the criteria to be used in granting approval of such programs. The DOI proposal requires EPA and DOI to publish these criteria within twenty-four months of enactment of the new Subtitle, after consultation and opportunity to comment by the state. These criteria must take into account variations in waste types, special characteristics of wastes at each facility, practical difficulties associated with the implementation of the requirements, and site-specific factors such as geology, hydrology, hydrogeology, climate, soil chemistry, ecology, fish, and wildlife.⁹³

Equally as important as the *technical* requirement that site-specific features be taken into account is the *jurisdictional* mandate that a state with an approved program has exclusive jurisdiction over regulation of activities covered by the program unless the approval has been revoked.⁹⁴

The DOI proposal also requires joint federal and state programs for facilities located on federal land.⁹⁵ In so doing, it addresses the jurisdictional difficulties occasioned in the public land states where Interior may have surface management responsibilities but the state is administering a federally approved environmental program. Thus, the joint program must address administration and enforcement,⁹⁶ set deadlines for development of such a program,⁹⁷ and require that a joint program be implemented through state-specific regulations.⁹⁸

The DOI proposal also contains enforcement provisions. It allows the Office of Mineral Industry Waste (created by section 10008 of the Proposed Bill) to issue notices of violation⁹⁹ and Compliance Orders or schedules of correction for violations.¹⁰⁰ The Office can assess fines

91. *Id.* § 10004.

92. *Id.* § 10004(a)(2).

93. *Id.* § 10004(a)(3).

94. *Id.* § 10004(a)(1).

95. *Id.* § 10005.

96. *Id.* § 10005(b).

97. *Id.* § 10005(e).

98. *Id.* § 10005(f).

99. *Id.* § 10006(a).

100. *Id.* § 10006(b).

of up to \$25,000 per day for failure to correct a violation.¹⁰¹

Thus, the DOI proposal is a detailed, comprehensive proposal with exclusive jurisdiction in a state which has received approval for its plan.

Perhaps the most important feature of the proposal is its mandatory coordination between EPA, DOI, and the affected states. By setting time schedules for review and approval of programs, and by requiring the coordination referred to, the DOI proposal would place authority for making decisions regarding mine waste at the same level where those decisions would be executed—at the state—while at the same time providing for coordination at the federal level between the environmental regulatory agency and the primary federal proprietary agency.

Equally as important, the DOI proposal is on solid technical ground when it requires the consideration of site-specific factors in development of state programs to regulate mine waste. The need to consider such factors is precisely one finding of the EPA 1985 Mine Waste Study.

2. Administrative Adaptation of RCRA to Fit Mine Waste Into Existing Regulatory Framework—Environmental Protection Agency Approach

As indicated previously, Strawman II is the latest version of EPA's comprehensive proposed program to regulate mine waste pursuant to Subtitle D of RCRA. It is the direct result of the EPA 1985 Mine Waste Study which characterized mine waste as "high volume, low toxicity" material inappropriate for regulation as hazardous waste under Subtitle C.

As an initial matter, EPA acknowledges that Strawman II "goes beyond current RCRA jurisdiction for solid waste to address materials with the potential to release."¹⁰² This expansion was explained by EPA as follows:

The Strawman approach is not confined to the regulation of mining wastes . . . it addresses a broader range of regulated materials that have a potential for releases that posed a threat to human health or the environment.¹⁰³

As EPA proceeds with Strawman II, it is to be expected that stat-

101. *Id.* § 10006(c).

102. United States Env'tl. Protection Agency, Office of Solid Waste and Emergency Response, Mining Waste Program Briefing for Hank Habicht 5 (Dec. 12, 1990).

103. United States Env'tl. Protection Agency, Office of Solid Waste and Emergency Response, Strawman II, Recommendations for a Regulatory Program for Mining Waste and Materials Under Subtitle D of the Resource Conservation and Recovery Act 30 (May 21, 1990).

utory authorization will be introduced in conjunction with RCRA reauthorization legislation. Hearings on RCRA reauthorization are expected in the House before the House Energy and Commerce Committee and in the Senate before the Environment and Public Works Committee.¹⁰⁴

Because no bill has been introduced as yet, an analysis similar to that of the DOI Proposed Bill is not possible.¹⁰⁵ However, the objectives of EPA do appear in the Strawman II proposal and are addressed immediately below.

The Strawman II package has two parts—the “Forward,” which contains a history of the Strawman process, as well as a major issues analysis, and the “Regulatory Approach,” which is a set of mockup regulations demonstrating how the program would appear if fully adopted through formal rulemaking.

The “Regulatory Approach” is the principal focus here, for it contains the language which EPA would put into effect if so authorized by Congress, after compliance with the Administrative Procedures Act.

The starting point for discussion is the jurisdiction sought over state programs by Strawman II. In 40 C.F.R. XXX, discussed below, EPA sets out general requirements for State Mining Waste and Materials Management Plans.¹⁰⁶ It states that the Strawman II regulations establish *minimum* requirements by which state plans may be submitted and codified (approved) by EPA. Specifically, it provides that a state plan must meet technical criteria set forth in 40 C.F.R. XXY as well as the EPA-established requirements for development, codification, oversight, and enforcement set forth in 40 C.F.R. XXX.¹⁰⁷ Therefore, although Strawman II purportedly will result in a state-administered program, the reality is that EPA will dictate the components of the program, standing ready to exert oversight authority if a state does not meet EPA-mandated minimum requirements.

After jurisdiction, the next point of discussion is the regulatory approach itself, which is divided into three parts:

- 1) 40 C.F.R. XXX, Guidance for State Mining Waste and Materials Management Plan Development, Codification, Oversight, and Enforcement.
- 2) 40 C.F.R. XXY, Technical Criteria for Management of Regulated Materials and Units.

104. Bruninga, *supra* note 10, at 1661.

105. RCRA reauthorization was introduced in the 101st Congress, 1st Sess., but was not acted upon. See H.R. 3735 (Luken Bill) and S. 1113 (Baucus Bill).

106. United States Env'tl. Protection Agency, Office of Solid Waste, Strawman II Regulatory Approach 1 (May 21, 1990).

107. *Id.*

- 3) 40 C.F.R. XXZ, Guidelines for EPA Implementation of Mining Waste and Materials Management Programs in Non-Primary States.

A brief discussion of these parts follows.

3. 40 C.F.R. XXX

40 C.F.R. XXX of the Regulatory Approach addresses, among other things, the relationship between states and the EPA. Divided into twelve subparts, it establishes general and specific requirements for state mining waste and materials management plans (Subparts B and C, respectively), state authority requirements (Subpart D), development, submission, renewal, revision, and codification of state plans (Subparts E, F, and G) and federal oversight and enforcement in states with codified plans (Subparts H and I).

General requirements mandate that "regulated units" meet the technical criteria set forth in XXY (discussed below) or be closed.¹⁰⁸ Regulated units are defined in the Appendix to the Regulatory Approach as including, but not limited to the following:

*free-standing processing units that generate Bevill wastes that are not subject to Subtitle C; surface impoundments, tailings ponds, and waste piles containing mining waste; active heap and dump leaching units; any production unit such as an open pit, mine shaft, or tunnel which has the potential for release of hazardous constituents*¹⁰⁹

Thus, the Regulatory Approach would divide a mining operation into regulated units (e.g., mine, mill, mine dump, tailing pile) and would regulate each separately under the technical criteria.

Specific requirements for a state mining waste and materials management plan include: identification of all agencies responsible for implementation of components of the plan; procedures which describe coordination between agencies; procedures which describe each agency's planned implementation of the plan; each agency's authority; and a description of the regulatory mechanism a state intends to use to implement the plan (i.e., permits and approvals).¹¹⁰ These requirements are very detailed and suggest that the states would be implementing a federal program, not administering a state program.

In order to implement a plan, Subpart D of the Regulatory Proposal requires that a state have the authority to issue permits, enter and inspect regulated units, copy records, sample regulated materials, and issue administrative orders, civil orders, and injunctions.¹¹¹ As

108. *Id.*

109. *Id.* at 112.

110. *Id.* at 2-7.

111. *Id.* at 7.

with specific requirements for a plan, the state legislative authority for a plan required by EPA is very detailed and would not be the product of state legislation designed to address state needs, but rather would be a state program designed by a federal agency.

Among other things, Subparts E, F, and G of the Regulatory Proposal detail scoping of a state plan, consultation with EPA, submission of a plan to EPA, review of state plans, and EPA codification of such plans.¹¹² To obtain codification, a plan must have met *all* of the *required* elements of a mining waste and materials management plan, addressed above, and ensure that all elements of the plan are sufficient to attain the Technical Criteria set out in Part XXY, discussed below.¹¹³

Once a plan has been codified, Subparts H and I address federal oversight of plans and federal enforcement in those states with codified plans.¹¹⁴ Subpart H requires review of a state plan at least every five years to evaluate implementation.¹¹⁵ Federal oversight may include involvement in specific permit issuance when there is a threat of imminent danger to health or safety, or when EPA finds interstate or international issues present.¹¹⁶ EPA can become involved in enforcement actions under a state plan when a state requests EPA action, if EPA finds a state has failed to follow its plan, when there is a threat of imminent danger to human health and the environment, or when interstate or international issues are present.¹¹⁷

4. Subpart XXY—Technical Criteria for Regulated Material and Units

As previously discussed, Strawman II would divide mining operations into “regulated units” and address each individually. Another new concept in Strawman II is that of “regulated material.” As defined in the Appendix to the Regulatory Approach, “regulated materials” means:

Wastes and other materials generated by exploration, extraction, beneficiation and processing of ores and minerals that are not subject to regulation as hazardous under Subtitle C of RCRA, but that have the potential to pose risks to human health and the environment.¹¹⁸

Subpart XXY sets forth the Technical Criteria for regulated ma-

112. *Id.* at 10-12.

113. *Id.* at 10.

114. *Id.* at 12-17.

115. *Id.* at 12.

116. *Id.* at 14.

117. *Id.*

118. *Id.* at 111.

terial and units.¹¹⁹ These Technical Criteria are divided into subparts as follows:

Subpart A - Purpose

Subpart B - Scope

Subpart C - Performance Standard

Subpart C - Design and Operating Criteria

Subpart D - Design and Operation

Subpart E - Monitoring and Verification Criteria

Subpart F - Corrective Action Criteria

Subpart G - Closure and Post-Closure Care Criteria

Subpart H - Financial Responsibility Criteria

Subpart I - Pollution Prevention

Subpart A is instructive when it states that the purpose of the Technical Criteria is to:

- 1) protect human health and the environment from improper management of mining wastes *and other regulated materials*; and
- 2) establish *minimum federal criteria* for management of regulated materials and units.¹²⁰

It is this provision for "other regulated materials" which requires additional RCRA congressional authorization. EPA noted that the scope of Subpart XXY would "go beyond the traditional RCRA solid wastes to include active heap and dump leaching units . . . subgrade ore piles (i.e., dumps) and units in which mine wastes may accumulate"¹²¹

Thus, although ostensibly proposed as a regulatory program under the federal waste statute, Strawman would involve comprehensive regulation of active operations unrelated to wastes and impose federal requirements on these operations. These requirements could be administered by a state under a codified program, with EPA oversight.

5. Subpart XXZ—EPA Programs in Non-Primary States

Subpart XXZ would establish regulatory programs applicable to those states which do not have a codified plan.¹²² Such programs

119. *Id.* at 19-95.

120. *Id.* at 19 (emphasis supplied).

121. *Id.*

122. *Id.* at 96-106.

would be administered by EPA and would, at a minimum, contain the following features:

- 1) Provide for management of regulated materials.
- 2) Require new and existing regulated units to operate, close, and conduct post-closure care in compliance with Subparts XXY and XXZ.
- 3) Ensure all regulated materials are managed in accordance with the Plan (XXX) and Technical Criteria (XXY).¹²³

The EPA 1985 Mine Waste Study and the immediately subsequent Waste Study Determination concluded that hazardous waste controls "may be technically infeasible, economically impractical, and in some cases unnecessary to protect human health and the environment."¹²⁴ While not overtly rejecting those conclusions, EPA has suggested Strawman II, a federal program containing national standards, national oversight, and national enforcement.

As the discussion of WGA and CMA comments on Strawman II will demonstrate, Strawman II has met with considerable opposition from those states having programs in place which they believe adequately address mine waste, as well as from mining associations which object to the Strawman II proposal as unauthorized, duplicative of state regulation, and counterproductive. In response to these reactions to Strawman II, EPA staff briefed Mr. Hank Habicht, Assistant Administrator of EPA, on December 12, 1990, on the status of the mining waste program. At that meeting, conducted by the Office of Solid Waste and Emergency Response, the EPA noted that it had four options regarding Strawman II:

- 1) Suspend Strawman II activities pending RCRA reauthorization.
- 2) Develop a model mine waste program with regulations for states to review.
- 3) Develop a Subtitle D rule without "regulated materials."
- 4) Continue seeking additional legislative authority for "regulated materials" and other Strawman II provisions.¹²⁵

According to the American Mining Congress, EPA is reported to have adopted Option 4.¹²⁶ Hence, Strawman II remains EPA staff's position, awaiting action favorable to EPA during the RCRA

123. *Id.* at 96.

124. 1985 EPA Mine Waste Determination, *supra* note 42. Recall that these conclusions resulted in the Strawman I proposal, a state-implemented, site-specific, risk-based approach to mine waste regulation.

125. Copies of briefing materials were distributed and the EPA position discussed at a meeting of state mining associations sponsored by the American Mining Congress in Denver, Colorado, January 23, 1991.

126. See *supra* note 125.

reauthorization process.

C. Comments on Legislative and Administrative Approaches

1. Western Governor's Association (WGA)

Twenty-one states are represented in the Western Governor's Association Mine Waste Task Force (which includes non-WGA states from the East and Midwest). These states collectively represent more than 88% of mine waste produced in the United States under those categories identified in the EPA 1985 Mine Waste Study.

In the spring of 1988, in response to Strawman I, the Western Governor's Association, at the request of Governor Bangerter of Utah, agreed to work with EPA in the development of a mine waste program under Subtitle D of RCRA. In adopting this position, WGA stated:

The WGA believes that EPA should expeditiously propose and promulgate a regulatory program for any mining wastes found by the agency to warrant regulation as a solid waste under RCRA Subtitle D. However, the timing of the development of this program by EPA should be structured to allow sufficient time for meaningful state input through the WGA mining waste work group prior to proposing draft regulations. Final regulations will be in place more quickly with this vital state input. The regulatory program should establish a state-based approach for protection of public health and the environment, taking into account site-specific, waste-specific, and waste management specific practices that are in use. To the maximum extent feasible, consistent with this objective, the EPA program should allow reliance on existing state regulatory programs for mining waste.¹²⁷

On June 19, 1990, Mr. Fred Banta, Director, Mined Land Reclamation Division, State of Colorado, and Mr. Don Ostler, Director, Bureau of Water Pollution Control, State of Utah, testified before the House Committee on Interior and Insular Affairs, Subcommittee on Mining and Natural Resources on behalf of the Mine Waste Task Force of WGA regarding Strawman II.¹²⁸ With regard to legislative approaches, Mr. Banta stated the WGA position that "any federal program should be state-based and take into account site-specific,

127. Western Governor's Association, Mine Waste Task Force, Recommendations for a Mine Waste Regulatory Program Under Subtitle D of the Resource Conservation and Recovery Act 1, 3 (Dec. 8, 1989) [hereinafter WGA Recommendation].

128. Testimony of Fred Banta, Director, Mine Land Reclamation Division, Colorado Dep't of Natural Resources, and Don Ostler, Director, Bureau of Water Pollution Control, Utah Dep't of Health, before the Subcommittee on Mining & Natural Resources of the House Comm. on Interior and Insular Affairs, United States House of Representatives (June 19, 1990) [hereinafter Banta testimony]. A copy of Banta testimony was obtained from the Mined Land Reclamation Division, State of Colorado, Denver, Colorado.

waste-specific, and waste management-specific practices,"¹²⁹ regardless of whether Congress adopts a separate subtitle of RCRA to address mine waste (DOI Proposal) or adopts a mine waste program within the current structure of RCRA (EPA Strawman II Proposal). Thus, the gist of the WGA concern with both proposals is the federal/state relationship which may result from congressional activity.

The concern over the respective roles of the states and the federal government regarding mine waste is reflected in the formal comments of WGA on Strawman II contained in a letter dated October 16, 1990, from Kenneth L. Alkema, Chairman of WGA Mine Waste Task Force, to Jeff Denet, EPA Office of Solid Waste.¹³⁰ Unlike WGA comments on Strawman I, which involved a line-by-line analysis, the WGA letter was more general, being divided into areas of agreement and areas of concern.

With respect to EPA/state relations in a state-approved plan, the WGA letter noted that the Strawman II process "could cause substantial delays in a state's ability to implement a state plan."¹³¹ The WGA proposed that EPA and a state should together scope a state plan and that "once the state plan meets the criteria laid out in an EPA state plan guidance document, the state would begin implementation of the plan without need for prior EPA approval."¹³² WGA expressed serious concern regarding the extensive oversight role described by EPA in Strawman II.¹³³ WGA noted that a state program jointly developed with EPA would require less oversight, resulting in administrative economies of manpower and cost. WGA sought similar limitations regarding Strawman II provisions for frequency of program audits, reporting, and EPA involvement in permitting and enforcement.¹³⁴

Although the WGA letter addressed other matters, the principal issue was clearly the integrity of state programs already in place and the principle that states should be primarily responsible for mine waste programs, given their ability to regulate on a site-specific, as contrasted with a nation-wide, basis. Understandably, the letter contained little commentary on Technical Criteria or EPA-administered state programs: if the EPA/state relationship is not resolved to the WGA's satisfaction, the remaining points will likely be moot. RCRA will have been reauthorized as requested by EPA, with the result that EPA would have congressionally-mandated control over state mine waste programs.

129. Banta testimony, *supra* note 128, at 3.

130. Letter from Kenneth L. Alkema, Chairman, Western Governor's Association Mine Waste Task Force, to Jeff Denet, Deputy Director, Office of Solid Waste, United States Env'tl. Protection Agency (Oct. 16, 1990) (discussing Strawman II recommendations) [hereinafter WGA letter].

131. *Id.* at 2.

132. *Id.* at 3.

133. *Id.* at 4.

134. *Id.* at 3-4.

2. Colorado Mining Association (CMA)

On August 31, 1990, the Colorado Mining Association sent comments on Strawman II to the EPA.¹³⁵ The CMA letter made the following points:

- 1) EPA lacks authority to implement Strawman II.¹³⁶
- 2) Colorado has a comprehensive mine waste program in effect; EPA's proposal would be duplicative and, in some cases, counter to what has been successful in Colorado.¹³⁷
- 3) Strawman II ignores the "risk-based" approach previously advocated by EPA, seeking instead to regulate from a "zero risk-based approach," and consequently discourages innovation which can minimize risk at reasonable cost.¹³⁸

Thus, the CMA letter evidenced concern that Strawman II was a comprehensive federal program imposed on an existing state program which would result in inhibition of technological development at increased cost.

IV. CONCLUSION

Simply because of its magnitude—706 million metric tons of mine waste, 481 metric tons of milling tailings, 211 million metric tons of leaching wastes¹³⁹—mineral industry waste disposal presents a monumental task for all concerned.

The debate over how to approach the problem is presently taking place in judicial, administrative, and legislative councils at both the state and federal levels.

One approach is to vest in the states the authority to regulate mine wastes, given site-specific factors, such as climate, geology, hydrology, and economics, which are not susceptible of a uniform federal program. This approach finds general expression in the DOI proposal to amend RCRA to include a separate mine waste title, as well as in the WGA letter regarding Strawman II, with echoes in the CMA comments on Strawman II.

Another approach is to vest authority to regulate mine wastes and related mineral industry materials at the federal level in the EPA with administration of the program left to the states, subject to oversight and some enforcement by EPA. This comprehensive regulation of an

135. Letter from David Cole, President, The Colorado Mining Association, to Stephen Hoffman, Office of Solid Waste, United States Evtl. Protection Agency (Aug. 31, 1990) (discussing Strawman II recommendations) [hereinafter CMA letter].

136. *Id.* at 2.

137. *Id.* at 4.

138. *Id.* at 11, 13.

139. 1985 EPA Mine Waste Study, *supra* note 8.

industry's operations is found in EPA's Strawman II proposal.

While EPA and Interior have written proposals on the table, the environmental community seems to be concentrating a considerable amount of legislative effort on repeal of the General Mining Law,¹⁴⁰ through either the Rahall Bill¹⁴¹ or the Bumpers Bill.¹⁴² Inasmuch as mine waste is but one issue on RCRA reauthorization which involves all wastes, the environmental community's position on the mine waste issue will become clear over time.

While all of the above activity (involving administrative, judicial, and legislative input, as well as private and public sector political input) is occurring, some observers are reconsidering the regulatory structure of environmental law itself. One thoughtful critic of environmental law has suggested that before 1980:

Congress relied almost entirely on command and control regulation to prevent harmful pollution. Under this system, government agencies prescribe in detail how regulated communities may manage dangerous chemicals. To determine regulatory needs and priorities, the government generally conducts chemical-by-chemical assessments of the risks posed by environmental pollutants. Regulators use this information to develop standards to protect the public and environment from harmful exposures. Finally, the government attempts to mandate these standards into permit requirements governing specific facilities and enforce compliance.¹⁴³

He notes, however, that the command and control system is failing:

Command and control regulation presupposes the government's ability to identify environmental hazards, set national priorities, develop practical regulations, and enforce those regulations. In the area of environmental regulation, none of these presumptions have proved true. The enormous scope and complexity of environmental problems and deficiencies in various anti-pollution statutes and regulations . . . explain much of this failure. A more basic cause, however, is the seeming inherent inability of large government bureaucracies to accomplish their mission effectively.¹⁴⁴

Thus, the structure of environmental regulation is under scrutiny at a time when mine waste *per se* is for the first time being considered for express RCRA regulation. This will undoubtedly quicken the upcoming congressional debate.

140. 30 U.S.C. §§ 22-24, 26-28, 29-30, 33-35, 37, 39-42, 47 (1988).

141. H.R. 918, 102d Cong., 1st Sess. (1991).

142. S. 433, 102d Cong., 1st Sess. (1991).

143. Babich, *A New Era in Environmental Law*, 20 *COLO. LAW.* 435 (1991).

144. *Id.* at 436.

That debate will take place in the 102d Congress, and will involve state versus federal regulatory control. The debate promises to be an extended one, involving fundamental issues and interests, such as federal/state supremacy, public health and safety, private industry response to cost of regulation, and possibly the very structure of environmental regulation itself.