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ANL/EES-TM-182

OVERVIEW OF HAZARDOUS-WASTE REGULATION
AT FEDERAL FACILITIES

by

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May 1982

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work sponsored by

U.S. DEPARTMENT OF ENERGY
Assistant Secretary for Environmental Protection,
Safety, and Emergency Preparedness
Office of Operational Safety

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ACKNOWLEDGMENTS

The authors wish to express their gratitude to Thomas Frangos and Charles Campbell of the U.S. Department of Energy for sponsoring and critiquing this effort, to Rita Knorr of Envirodyne Engineers, Chicago, Illinois, for her assistance in understanding federal regulation of hazardous waste transportation, Sharon Ryan and Nancy Panno for their translation and typing skills, and Rene Burd for finalizing the manuscript on the word processor.

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1 INTRODUCTION

The United States Government is a major source of hazardous wastes. For example, the Department of Energy alone is estimated to generate annually some 400 million pounds of nonnuclear hazardous waste and 770 million pounds of mixed hazardous waste containing radioactive materials. Enactment of the Resource Conservation and Recovery Act of 1976 (RCRA), as well as other statutes, created a strong national policy for sound management of these wastes. Understanding the requirements of environmental laws such as RCRA and their application to federal facilities presents a difficult challenge. This report begins the process of meeting this challenge by providing an overview of RCRA and its regulation of federal facilities.

This report is organized in a fashion that is intended to explain the legal duties imposed on officials responsible for hazardous waste at each stage of its existence. Section 2 describes federal hazardous waste laws, explaining the legal meaning of hazardous waste and the protective measures that are required to be taken by its generators, transporters, and storers. In addition, penalties for violation of the standards are summarized, and a special discussion is presented of so-called "imminent hazard" provisions for handling hazardous waste that immediately threatens public health and safety. Although the focus of Sec. 2 is on RCRA, which is the principal federal law regulating hazardous waste, other federal statutes are discussed as appropriate.

Section 3 covers state regulation of hazardous waste. First, Sec. 3 explains the system of state enforcement of the federal RCRA requirements on hazardous waste within their borders. Second, Sec. 3 discusses two peculiar provisions of RCRA that appear to permit states to regulate federal facilities more strictly than RCRA otherwise would require.

It should be noted that this report is intended to provide a background of the regulatory framework for hazardous waste management to support the development of federal policy and guidance. It should not be considered as an official federal legal opinion. Legal advice for policy development or for meeting specific compliance requirements at federal facilities should be obtained from the appropriate departmental Office of the General Counsel or field office counsel.

2 FEDERAL REGULATION OF HAZARDOUS WASTE

The Resource Conservation and Recovery Act of 1976 (RCRA)¹ is the culmination of an evolving federal presence in the area of solid and hazardous waste management. Traditionally a local function, RCRA establishes the first federal regulatory framework for waste management. It creates a complex array of minimum standards and codifies precursor legislation embodied in the Solid Waste Disposal Act of 1965² and the Resource Recovery Act of 1970,³ which shifted federal policy from disposal to waste management and maximum recovery of reuseable materials and energy. Up to the enactment of RCRA, however, Congress had affirmed reliance upon local regulation and enforcement mechanisms.

RCRA also closes the last major gap in environmental law. The Clean Air⁴ and Water⁵ Acts (CAA, FWPCA) extended broad protection to air and water resources. Other statutes established safeguards for particularly fragile or important aspects of the environment, such as wetlands and wildlife habitats.⁶ But before the passage of RCRA, no comprehensive federal scheme addressed the discharge of pollutants on or into land, and the importance of such legislation is summarized in the observation that:

Federal air and water quality legislation has itself contributed largely to the phenomenal industrial growth of solid waste and hazardous waste ...in recent years. It appears that preventing the discharge of growing quantities of industrial residuals into the air and water has resulted in their materialization and accumulation in predominantly solid and liquid forms which require treatment and disposal at land-based waste sites... . Current air and water pollution controls neither destroy nor reduce pollution but merely change its form and situs... .⁷

With the adoption of RCRA, the U.S. Environmental Protection Agency (EPA) and its state counterparts are charged with administering a program whose enormity is arguably unparalleled in the history of health and environmental protection. It is expected that hazardous waste regulation for state and federal governments will involve overseeing:

1. 42 U.S.C. §6901 (1976).
2. Pub. L. No. 89-272, Title II, 79 Stat. 997; Pub. L. No. 90-574, Title V, §506, 82 Stat. 1013 (1968).
3. Pub. L. No. 91-512, Title I, §§101-05, 84 Stat. 1227-34; Pub. L. No. 93-14, 87 Stat. 11 (1973); Pub. L. No. 93-611, 88 Stat. 1974 (1975).
4. 42 U.S.C. §7401 (Supp. I 1977).
5. 33 U.S.C. §1251 (1976).
6. Wetlands Act of 1961, 16 U.S.C. §715 K-3 (1976) and Fish and Wildlife Coordination Act, 16 U.S.C. §661 (1976).
7. Wolf, *Public Opposition to Hazardous Waste Sites*, 8 B.C. Environmental Affairs L. Rev. 463, 535 (1980).

...up to 760,000 hazardous waste generators, granting and monitoring 29,000 hazardous waste facility permits, maintaining and reviewing the over 800,000 annual reports from both hazardous waste generators and service facilities, and, by 1985, keeping tabs on the 690,000 yearly shipments of hazardous wastes.⁸

In contrast, only about 46,000 point sources are covered by the FWPCA and 27,000 stationary sources are subject to the CAA.⁹ Moreover, RCRA differs in emphasis:

Federal air and water quality legislation attacks pollution at its source, seeking source reduction by imposing discharge restrictions on the generators of pollutants that could be released into the air and water... . [The CAA and FWPCA] make the reduction of pollutants the inescapable technical, financial, and legal responsibility of their generator, whereas [RCRA] divorces the generation of pollutants from its treatment and disposal, concentrates on treatment and disposal, and fragments responsibility for the proper care of hazardous waste among generators, transporters, and waste site owners and operators.¹⁰

This is predicted to pose serious problems in assuring safe disposal.¹¹

RCRA is not the only federal law regulating hazardous wastes. Its application is qualified by provisions of other acts, which must be integrated for purposes of EPA administration and enforcement, to the extent that they are not inconsistent.¹² For example, RCRA delegates the performance of any inspection or enforcement function relating to hazardous waste transportation to the Secretary of the Department of Transportation (DOT),¹³ pursuant to regulations promulgated under the Hazardous Materials Transportation Act (HMTA).¹⁴ Laws specifically referenced in RCRA are the CAA, the FWPCA, the Safe Drinking Water Act,¹⁵ the Marine Protection, Research and Sanctuaries Act,¹⁶ the Atomic Energy Act,¹⁷ the Federal Insecticide, Fungicide, and Rodenticide Act,¹⁸ and the Surface Mining Control and Reclamation Act.¹⁹

8. Wolf, supra note 7, at 494-95.

9. R. Loner, Guide to Federal Environmental Law (1981).

10. Wolf, supra note 7, at 531-32.

11. Id. at 533.

12. 42 U.S.C. §6905 (1976); 42 U.S.C.A. §6905 (West Supp. 1981).

13. 42 U.S.C.A. §6912(a)(6) (West Supp. 1981).

14. 49 U.S.C §1801 (1976).

15. 42 U.S.C. §300f (1976).

16. 33 U.S.C. §1401 (1976).

17. 42 U.S.C. §2011 (1976).

18. 7 U.S.C. §136 (1976).

19. 30 U.S.C. §1201 (Supp. I 1977).

Other laws of potential application are the Toxic Substances Control Act²⁰ and the Comprehensive Environmental Response, Compensation, and Liability Act ("Superfund Act").²¹

The focus of this report, and the most controversial aspect of RCRA, is regulation of hazardous wastes under Subtitle C²², which establishes a "cradle to grave" management system from the point of generation to the site of ultimate disposal. Major provisions of the subtitle direct the EPA to identify types, quantities, and concentrations of hazardous wastes, and to establish standards for any person who generates, transports, treats, stores, or disposes of hazardous waste. The remainder of Sec. 2 provides an overview of these requirements.

2.1 DEFINITION OF HAZARDOUS WASTE

As defined in RCRA, the term "hazardous waste" means:

...a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed.²³

Congress set forth criteria for the identification and listing of hazardous wastes that include "toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics."²⁴ Consequently, the EPA has instituted three categories of hazardous wastes: (1) those appearing on an EPA-compiled "hazardous waste list," (2) nonlisted wastes, and (3) excluded wastes.

2.1.1 Listed Waste

The EPA's hazardous waste list²⁵ contains broadly classified wastes and waste streams that were placed on the list because they possess such characteristics as toxicity, carcinogenicity, bioaccumulation potential, radioactivity, and infectiousness.²⁶ These substances are viewed as being

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20. 15 U.S.C. §2600 (1976).
 21. 42 U.S.C.S. §9601 (L. Ed. Supp. 1981).
 22. 42 U.S.C. §6921 (1976); 42 U.S.C.A. §6921 (West Supp. 1981).
 23. 42 U.S.C. §6903(5) (1976).
 24. Id. §6921(a).
 25. 40 C.F.R. §261 subpart D (1981).
 26. 45 Fed. Reg. 33084, 33106-07 (1980).

hazardous, regardless of whether they have been mixed with nonhazardous wastes during storage, treatment, or disposal.²⁷

Polychlorinated biphenyl (PCB) is a special case. While meeting RCRA listing criteria, PCB is so dangerous that it is the only chemical to be singled out for special legislative attention by passage of the Toxic Substances Control Act of 1976 (TSCA).²⁸ As a result, PCB has not been listed under RCRA.

TSCA, however, does not exclude PCB regulation under RCRA as a hazardous waste, because TSCA authority is nonexclusive²⁹ and RCRA covers all dangerous chemicals. The distinction between the two acts is that TSCA regulates all stages of PCB manufacture, processing, distribution, and disposal,³⁰ while RCRA covers the handling and disposal of any hazardous waste. A recent decision under the FWPCA holds that the EPA clearly can regulate toxic substances (particularly PCB) under TSCA, other statutes, or both.³¹

Exemptions from listed wastes may be obtained by generating facilities that can demonstrate in a petition to the EPA that the characteristics deemed hazardous are not present in the waste as generated.³²

2.1.2 Nonlisted Wastes

A separate determination procedure is required of generators of nonlisted wastes. In tests under prescribed EPA protocols, a generator must identify nonlisted wastes that exhibit one of four hazardous characteristics: (1) ignitability, (2) corrosivity, (3) reactivity, and (4) toxicity.³³ It is worth noting that the dangerous chemical properties a generator must test for in nonlisted wastes are measurably less inclusive than those governing a listing by the EPA. A number of wastes, such as mining overburden (including uranium) returned to the minesite, fly ash and slag generated from combustion of coal or other fossil fuels, and drilling fluids and other wastes associated with the exploration for or production of crude oil, natural gas, or geothermal energy, were excluded from RCRA subject to administrative review and separate Congressional approval.³⁴ Current EPA regulations retain these exclusions, and add other substances not considered as solid wastes under RCRA.³⁵

27. 40 C.F.R. §261.3(a)(2)(ii) (1981).

28. 15 U.S.C. §2605(e) (1976).

29. Id. §2608(b).

30. Id. §2605.

31. *Environmental Defense Fund v. EPA*, 598 F.2d 62 (D.C. Cir. 1978).

32. 40 C.F.R. §260.22 (1981).

33. Id. §§262.11(c), 261 subpart C.

34. 42 U.S.C.A. §6921(b) (West Supp. 1981).

35. 40 C.F.R. §261.4 (1981).

2.1.3 Excluded Wastes

Industrial point-source discharges of wastewater subject to permits under the FWPCA and "source, special nuclear, and by-product material" under the Atomic Energy Act (AEA) are precluded from RCRA regulation.³⁶ However, it is unclear which materials are encompassed by the AEA exemption. Particularly troublesome is the meaning of "by-product material," governed by the AEA and defined in part as "any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident in the process of producing or utilizing special nuclear material."³⁷ Unlike the chemical designations for "source" (uranium and thorium)³⁸ and "special nuclear... material" (plutonium and uranium enriched in isotope 233 or 235),³⁹ "by-product material" is defined vaguely in terms of use.

Moreover, it is apparent that coverage of some radioactive wastes is contemplated in RCRA to the extent that these materials are not in the exclusive province of the AEA. First, they are readily encompassed by language in RCRA detailing hazardous characteristics,⁴⁰ and the EPA has accordingly reserved a section in its regulations for non-AEA radioactive wastes.⁴¹ Second, the Committee Report accompanying the Senate version of RCRA, which eventually became law, contains the following declaration:

Materials of major concern are arsenic wastes, insecticide and pesticide residues, waste oil, explosive wastes, sludge contaminated with metals such as chromium and zinc, and radioactive wastes.⁴²

Of some instruction on the issue is the opinion in Train v. Colorado Public Interest Research Group, Inc.,⁴³ holding that the EPA could not control radioactive effluents from nuclear power plants. These, the court decided, were by virtue of the AEA not within the meaning of "pollutant," although EPA could regulate radioactive materials such as radium, accelerator-produced isotopes, and thermal pollution without encroaching on the AEA.⁴⁴ This case suggests a very narrow area of radioactive waste that would be subject to RCRA regulation.

While it is true that the NRC must consider the storage and disposal of radioactive wastes generated at the plants it licenses,⁴⁵ there is evidence

36. 42 U.S.C. §6903(27) (1976).

37. Id. §2014(e) (Supp. II 1978).

38. Id. §2014(e)(2).

39. Id. §2014(aa) (1976).

40. Id. §§6903(5), 6921(a).

41. 40 C.F.R. §§260.22(f), 261, Appendix IV (1981).

42. S. Rep. No. 988, 94th Cong., 2d Sess. 3 (1976) (emphasis added).

43. 426 U.S. 1 (1976).

44. Id. at 11, 17n4, 23.

45. 42 U.S.C. §2021(a) (Supp. II 1978).

of a growing dissatisfaction with the present system. Illustrative of this concern is the following comparison of relative protections afforded by RCRA and the AEA:

Under the former Act hazardous wastes, which may be man-made chemicals or naturally-occurring elements, having toxic lifetimes of hundreds of years, are required to be isolated in a manner that protects 'health and the environment.' Under the general authority of the [Nuclear Regulatory] Commission, however, protection from radioactive wastes, with toxic lifetimes of hundreds of thousands of years need only be isolated so as to 'protect health or to minimize danger to life and property.'⁴⁶

2.2 SUMMARY OF REGULATIONS

Because RCRA is intended to regulate hazardous waste from cradle to grave, it contains standards covering such waste at all stages after its commercial usefulness has ended. In recognition of the fact that each handler in the generation-transportation-treatment-storage-disposal sequence needs to understand what duties the law imposes, this section presents an overview of regulations organized according to each of those activities. In addition, this section includes a discussion of penalties for failing to comply with the regulations and the special "imminent hazard" provisions for emergency situations.

2.2.1 Generators of Hazardous Waste

Hazardous waste generators are strictly regulated. According to the EPA, "the generator is the person who produced the waste...and he properly bears a prime responsibility for ensuring that it is adequately managed."⁴⁷ Generators must meet certain requirements for identification, notification, record-keeping, reporting, and pretransport handling; these are discussed in the subsections to follow.

A "generator" is defined as any person (including federal facilities) "whose act or process" produces hazardous waste,⁴⁸ although EPA regulations have excepted small generators who produce less than 1000 kilograms per calendar month.⁴⁹ A generator who accumulates hazardous waste on site for more than 90 days will be treated as an operator of a "storage facility" and be subject to applicable regulations, such as permitting.⁵⁰ Requirements pertaining to operators of "treatment" and "disposal" facilities can be

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46. Kovacs and Klucsik, *The New Federal Role in Solid Waste Management: The Resource Conservation and Recovery Act*, 3 Columbia J. Environmental L. 205, 261 (1977).
47. 45 Fed. Reg. 12722, 12731 (1980).
48. 40 C.F.R. §260.10 (1981).
49. Id. §261.5.
50. Id. §262.34(b).

triggered, as well, if these activities are conducted on site.⁵¹ Storage, treatment, and disposal regulations are discussed below in Sec. 2.2.3.

2.2.1.1 Identification and Notification Requirements

Three key responsibilities are imposed on the generator of hazardous waste. The first involves identifying which of its wastes are hazardous under the Act, and notifying the EPA of its findings. This determination is made in the two-step process of identifying wastes appearing on the EPA's hazardous waste list, and those non-listed wastes that satisfy chemical tests for hazardous characteristics.⁵²

Filing of a "Preliminary Notification of Hazardous Waste Activity" with the EPA (which was required by August 19, 1980, for existing generators) entitled a generator to an "EPA Identification Number" for handling hazardous wastes, without which off-site transportation is otherwise prohibited.⁵³ After submitting the preliminary notification, a generator need not file again for production of a new hazardous waste not included on the original form, but must identify the new waste and quantities being generated in an annual report to the EPA.⁵⁴ Generators have a continuing responsibility to know whether a waste is hazardous, and must reevaluate wastes whenever "there is a significant change in the materials, processes, or operation which indicate the waste has become hazardous...".⁵⁵

2.2.1.2 Paperwork

The second key responsibility of generators is to insure that wastes actually arrive at facilities that are qualified to store, treat, or dispose of them. This involves compliance with the hazardous waste manifest system, and the establishment of record-keeping and reporting procedures for hazardous waste activity.

Manifest System. RCRA institutes a unique manifest system⁵⁶ to track wastes, in which the generator, transporter, and operator of storage, treatment, or disposal facilities all play a part. However, the document and copies that constitute the manifest originate with and come back⁵⁷ to the generator, who has the chief role in making the system work.

Whenever hazardous waste is transported off site, the generator must prepare a manifest.⁵⁸ Under Subtitle C regulations, waste is taken

51. Id. §262.10.

52. Id. §262.

53. 42 U.S.C. §6930 (1976); 42 U.S.C.A. §6930 (West Supp. 1981).

54. 45 Fed. Reg. 12746-47 (1980).

55. Id. §12724, 12727 (1980).

56. 42 U.S.C.A. §6922(5) (West Supp. 1981).

57. Id. and §§6923(a)(3), 6924(2) (1976).

58. 40 C.F.R. §262.20(a)(1981).

off site when it is transported along (as distinguished from across) any public right-of-way, regardless of whether the destination is a facility owned by the generator or by another party.⁵⁹

The manifest must contain the generator's EPA identification number, a description of the waste and total quantity, the type and number of containers being transported, a certification that the waste has been packaged and labeled for transportation in accordance with DOT regulations, and designation of a single facility to receive the waste.⁶⁰ It is the generator's responsibility to confirm that the facility selected is permitted to accept the particular waste described in the manifest;⁶¹ although an alternative facility may be indicated, it may only be used when emergency circumstances prevent delivery to the primary site.⁶² There must also be at least enough copies of the manifest to accommodate the records of the generator, each transporter, and the owner or operator of the designated facility.⁶³ Upon shipment, the generator must obtain the handwritten signature of the transporter on the manifest and retain one copy for his files.⁶⁴ The owner or operator of the waste facility must sign the manifest on delivery, note any significant discrepancies, and return a copy to the generator to acknowledge proper receipt by the designated facility.⁶⁵

A generator is further obligated to communicate with the transporter or disposal facility regarding the status of "missing waste," if a copy of the manifest is not received within 35 days after the waste was initially accepted for shipment. Should these efforts fail, the generator must file an "Exception Report" with the EPA within 45 days of that date.⁶⁶ Generators shipping hazardous waste outside the United States are subject to additional special requirements not delegated to authorized state programs.⁶⁷

Record-keeping and Reporting. An annual report must be filed by all generators with the EPA no later than March 1 for the preceding calendar year, identifying types and quantities of hazardous waste, and the EPA identification numbers of transporters and facilities used. Similar reports must be filed for on-site disposal.⁶⁸ All records prepared in compliance with Subtitle C, such as manifests, exception reports, annual reports, and records

59. Id. §260.10.

60. Id. §262.20-21.

61. 42 U.S.C. §6922 (1976 and Supp. II 1978); 42 U.S.C.A. §6922 (West Supp. 1981).

62. 40 C.F.R. §262.20(c) (1981).

63. Id. §262.22.

64. Id. §262.23.

65. Id. §265.71.

66. Id. §262.42.

67. Id. §262.50.

68. Id. §262.41.

of testing, must be kept for three years, a period that is automatically extended during the course of any unresolved enforcement action.⁶⁹

2.2.1.3 Pre-transport Requirements

A third major duty of generators is compliance with DOT pre-transport requirements relating to shippers under the HMTA. These prescribe specifications of the manner in which a generator must package, label, mark, and placard wastes before offering them for off-site transportation.

Waste accumulated on site must be labeled and placed in containers meeting DOT standards,⁷⁰ and managed in accordance with EPA regulations under RCRA for inspection, location, and design.⁷¹ Separate rules apply to tank storage.⁷² Generators must also satisfy personnel training mandates.⁷³

Penalties imposed by the HMTA are civil fines of \$10,000 up to \$25,000 and five years imprisonment for criminal violations.⁷⁴ Another provision authorizes actions for specific relief, including injunctions and punitive damages, and abatement of imminent hazards.⁷⁵

2.2.2 Transporters of Hazardous Waste

Defined as any person "engaged in off-site transportation of hazardous waste by air, rail, highway or water,"⁷⁶ transporter requirements under RCRA are intended to mesh with those of generators, and entail record-keeping, compliance with the manifest system, restrictions on methods of transport, and actions required in the event of an emergency or discharge of hazardous waste.

2.2.2.1 Record-keeping and Manifest System

Several specifications contained in RCRA are intended to assure that the hazardous waste that transporters carry is not lost. First, carriers must submit the preliminary notification of hazardous waste activity and receive an EPA identification number to qualify for transportation of hazardous waste.⁷⁷ Second, the manifest system set out in RCRA and EPA regulations obligates the

69. Id. §§262.40(c), (d).

70. Id. §262 subpart C.

71. Id. and §265 subpart I.

72. Id. and §265 subpart J.

73. Id. §265.16.

74. 49 U.S.C. §1809 (1976).

75. Id. §6910.

76. 40 C.F.R. §260.10 (1981).

77. 42 U.S.C. §6930 (1976); 42 U.S.C.A. §6930 (West Supp. 1981).

transporter to make a signed acknowledgement of receipt of the waste, transport it to the specified destination, obtain the signature of facility owners (or other transporters), and retain manifest copies for three years from the date of shipment.⁷⁸

2.2.2.2 Restrictions on Transport Methods

Paralleling the dual accountability of generators to the DOT and EPA, regulations promulgated under the HMTA remain fully applicable to transporters and independently enforceable by DOT. These rules contain exhaustive lists of shipment specifications for hazardous materials, forbid carriers from accepting wastes that are not properly labeled and packaged, mandate instructions to and compliance by associated personnel, provide standards for classes of vehicles and routing (an area extensively controlled by state authorities as well), and impose responsibility for accident prevention and control.⁷⁹ Shipments of radioactive materials by the Departments of Energy and Defense on public highways for the purpose of national security are exempt from HMTA regulation,⁸⁰ and presumably from any state controls under the preemption doctrine.

2.2.2.3 Emergency Action and Discharge Cleanup

Immediate action to protect health and the environment, including necessary cleanup in the event of a discharge, is required of transporters. They must also immediately notify the National Response Center, which coordinates and directs efforts pursuant to the National Contingency Plan for the removal of discharged oil and hazardous substances, as mandated by section 1321 of the FWPCA. A subsequent written report is required by the DOT, as well.⁸¹

2.2.3 Treatment, Storage, and Disposal

Facilities that treat, store, and dispose of hazardous wastes are required by RCRA to obtain permits and meet performance standards in order to assure that they do so safely.⁸² RCRA defines "storage" as "the containment of hazardous waste on a temporary basis or for a period of years, in such a manner as to not constitute disposal."⁸³ As noted previously, EPA regulations provide that a generator may retain waste on site for a period not exceeding

78. 40 C.F.R. §263, subpart B (1981).

79. 49 C.F.R. §§171-77 (1980), §§178-79 (1981).

80. Id. §177.806(b) (1980).

81. 40 C.F.R. §263.30-31 (1981).

82. 42 U.S.C. §§6924, 6925 (1976); 42 U.S.C.A. §§6924, 6925 (West Supp. 1981).

83. Id. §6903(33).

90 days without being subject to storage classification.⁸⁴ A maximum retention period of 10 days has been specified for transporters.⁸⁵

Treatment means:

...any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste non-hazardous, safe for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it non-hazardous.⁸⁶

"Disposal facilities" are those "at which hazardous waste is intentionally placed into or on any land or water and...will remain after closure."⁸⁷ The subsections that follow discuss the procedures EPA has adopted to implement the relevant provisions of RCRA with respect to these activities, and summarize legal standards contained therein.

2.2.3.1 EPA Implementation of RCRA Treatment, Storage, and Disposal Standards

The difficulty of regulating hazardous waste treatment, storage, and disposal is reflected in the complicated system EPA is using to implement this part of RCRA. Facilities covered by the Act will be required to comply with a phased set of increasingly stringent regulations. Initially, all treaters, storers, and disposers were required to file a preliminary notification of hazardous waste activity,⁸⁸ submit a permit application to achieve interim status,⁸⁹ and comply with Phase I "interim status standards"⁹⁰ implementing RCRA and comprising specific guidelines for conducting treatment, storage, and disposal activities at facilities in existence as of November 19, 1980. These, and provisions of the EPA Consolidated Permit Regulations⁹¹ (promulgated under the CAA, FWPCA, and Safe Drinking Water Act) remain the governing rules for each facility until final administrative disposition of the permit application takes place. A separate set of "interim standards" was formulated for owners and operators of new hazardous waste

84. 40 C.F.R. §262.34(b) (1981).

85. Id. §263.12.

86. 42 U.S.C. §6903(34) (1976).

87. 40 C.F.R. §260.10 (1981).

88. 42 U.S.C. §6930 (1976); 42 U.S.C.A. §6930 (West Supp. 1981).

89. Id. §6925.

90. 40 C.F.R. §265 (1981).

91. Id. §§122-24.

land-disposal facilities.⁹² "General Status Standards"⁹³ will be used to issue permits, and apply thereafter, with requirements similar to and enforceable independently of the interim status standards. Phase II regulations are expected to contain site- and waste-specific factors, and a systematic method for evaluating the safety of a facility, which will later be incorporated into the general and interim status standards as appropriate. Final Phase III rules should provide maximum and definitive control over hazardous waste facilities, including detailed technical requirements for operations conducted on site.⁹⁴

2.2.3.2 Interim Status Standards for Existing Facilities

Interim status standards cover a wide variety of activities and constitute specific performance requirements that each treater, storer, or disposer of hazardous waste must satisfy. These include general facility standards, preparedness and prevention, contingency plan and emergency procedures, manifest system, record-keeping and reporting, groundwater monitoring, closure and postclosure maintenance, financial requirements, use and management of containers, tanks, surface impoundments, waste piles, land treatment, landfills, incinerators, thermal treatment, chemical, physical, and biological treatment, and underground injection. The following is but a sampling of the applicable regulations.

General Facility Standards. A detailed analysis of all waste accepted for storage, treatment, or disposal, including information necessary to insure proper handling, as well as a written waste-analysis plan describing procedures for compliance, are mandated by interim status standards. Any significant discrepancy between the type or quantity of waste described on the manifest and the waste as received must be disclosed by the waste facility owner, and reconciled with the generator. Should this effort fail, the facility owner must report to the EPA Regional Administrator.⁹⁵

Inspection of waste facilities for malfunctions and other problems to prevent the discharge of hazardous waste, and adherence to a schedule for inspecting equipment, are required. Whenever problems are discovered, they must be corrected promptly and recorded in an inspection log to be retained for a period of three years.⁹⁶ The owner must take precautions to prevent the accidental ignition or reaction of hazardous waste,⁹⁷ institute a personnel training program to deal with emergencies that arise at the facility, and describe in detail the nature of such training in owner records.⁹⁸ Finally,

92. Id. §267.

93. Id. §264.

94. Wolf, supra note 7, at 502-03.

95. 40 C.F.R. §265.13 (1981).

96. Id. §265.15.

97. Id. §265.17.

98. Id. §265.16.

steps must be taken to prevent unauthorized entry into the facility, including a 24-hour surveillance system and structures designed to control access.⁹⁹

Preparedness and Prevention - Contingency Planning, and Emergency Measures. Facilities must be equipped with an internal communications or alarm system, some device (i.e., telephone) for summoning emergency assistance from local authorities, and fire control equipment to be tested and maintained on a regular basis. The owner is responsible for familiarizing police and fire departments with the facility to enhance emergency response capability, and inform local hospitals of the properties of wastes handled and illnesses likely to result if released into the environment.¹⁰⁰ A written contingency plan with emergency procedures must also be developed.¹⁰¹

Manifest System, Record-keeping, and Reporting. Compliance with the manifest system, and maintenance of a written operating record that includes a description of each hazardous waste and the quantity received, the location where it is kept at the facility, results of waste analysis, reports of emergency incidents, and other reports discussed in the context of specific performance standards are required of waste facility owners. This information must be available for inspection at all times and summarized in abbreviated form in the annual report to EPA.¹⁰²

Groundwater Monitoring. The implementation of a groundwater monitoring program is mandatory¹⁰³ unless "a low potential for migration of hazardous waste" from the facility can be shown.¹⁰⁴

Closure, Postclosure, and Financial Requirements. Waste facility owners must carry liability insurance for sudden and accidental occurrences in the amount of \$1 million per incident, with an annual aggregate of \$2 million to satisfy personal injury and property damage claims.¹⁰⁵ Closure and postclosure plans for the facility must be developed and submitted to the EPA Regional Administrator for review and approval and be accomplished in accordance with the approved plan, as certified by a registered professional engineer. Concurrently, estimates of closure and postclosure care and maintenance costs, as well as financial assurances in the form of trust funds, surety bonds, letters of credit, and guarantees are required.¹⁰⁶

Treatment and Recycling. Hazardous wastes that are: (1) being "beneficially used or legitimately recycled or reclaimed", or (2) "accumulated, stored, or physically, chemically or biologically treated prior to beneficial use or reuse, or legitimate recycling or reclamation" are excluded from EPA

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- 99. Id. §265.14.
 - 100. Id. §265 subpart C.
 - 101. Id. subpart D.
 - 102. Id. subpart E.
 - 103. Id. subpart F.
 - 104. Id. §265.90(c).
 - 105. Id. §265.147.
 - 106. Id. §265, subpart G, subpart H.

regulation under RCRA.¹⁰⁷ However, transportation or storage of a hazardous waste prior to reuse, recycling, or reclamation will trigger the application of standards with respect to those activities.¹⁰⁸

2.2.4 Inspections, Penalties, and Enforcement

2.2.4.1 Inspections

RCRA provides the EPA with broad authority to inspect the premises of hazardous waste facilities and records and other documents, and to obtain samples of wastes at the facility site.¹⁰⁹

2.2.4.2 Penalties and Enforcement

Civil Actions: In General. The EPA Administration may issue a compliance order with or without prior notification, or commence a civil action in federal court seeking temporary or permanent injunctive relief against illegal activities.¹¹⁰ Where a violator fails to comply with an order, or disregards any requirement under Subtitle C, he may be subject to civil penalties of up to \$25,000 per day and revocation of his permit.¹¹¹

Civil Actions: Federal Facilities. Federal facilities are treated in the same manner as any other "person" under RCRA,¹¹² and thus must comply with all applicable federal, state and local regulation (see below for an expanded discussion of state and local regulatory authority and their impact on federal facilities). The only circumstance under which a federal facility may be excused from compliance is in the limited event of a Presidential exemption, where the President must determine that it is in the "paramount interest of the United States" to grant one. The President's power to do so, however, is restricted by a condition imposed in the same section that:

No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.¹¹³

Exemptions are limited to a period not in excess of one year, but extensions may be granted upon the President's making a new determination. The provision

107. Id. §261.6.

108. Id. §261.6(b).

109. 42 U.S.C.A. §6927 (West Supp. 1981).

110. Id. §6928(a).

111. 42 U.S.C. §6928(a)(3) (1976).

112. Id. §6961 (1976 and Supp. II 1978); 40 C.F.R. §260.10 (1981).

113. 42 U.S.C. §6961 (1976 and Supp. II 1978).

also requires that the President make an annual report to Congress each January of all exemptions granted in the preceding calendar year, and the reasons therefor.

It appears from a careful reading of this section, in conjunction with other provisions and regulations defining terms, that an exemption would not be available to generators of hazardous waste (which is the predominant hazardous waste activity of federal facilities). The provision that refers to a Presidential exemption applies, on its face, only to solid waste management facilities and disposal sites, which by definition excludes generators and transporters.¹¹⁴

Criminal Proceedings. Criminal penalties may be assessed against any person who (1) knowingly transports any hazardous waste identified or listed under RCRA to a facility that does not have a permit; (2) knowingly treats, stores, or disposes of identified or listed hazardous waste without a permit; (3) knowingly makes any false material statement or representation in any document used for purposes of compliance with Subtitle C (e.g., permit application, label, manifest, etc.); or (4) knowingly handles hazardous waste and destroys, alters, or conceals any records required by regulations promulgated under Subtitle C. Violators of paragraphs (1) and (2) are subject to a fine of \$50,000 per day and imprisonment for up to two years. The other proscribed acts carry a penalty of \$25,000 per day and one year's imprisonment.¹¹⁵

In addition to the four conventional crimes under RCRA, a new crime of "knowing endangerment" was added in the 1980 amendments, along with separate penalties, special rules for determining state of mind, and an explication of available defenses. The knowing endangerment provision generally outlaws any violation of Subtitle C and covers any person who transports, treats, stores, or disposes of any hazardous waste identified or listed, and knowingly places any person in imminent danger of death or serious bodily injury.¹¹⁶

Aimed at so-called "midnight dumpers" and organized crime,¹¹⁷ the knowing endangerment amendment engendered concern that innocent participants, such as generators contracting for transportation or disposal, might be charged with the felony offense as well. A colloquy during the House debate suggests a strict construction of the statute in which mere good faith would not absolve the generator from liability for acts committed after the waste leaves his property. In an example proffered by Rep. Madigan,

...if in fact one has a awareness of the hazardous propensities of a particular chemical, knows of the difficulties associated with disposal, and... notwithstanding... sells those materials to someone who comes up in a pickup truck, and that person gives him a release, that very well

114. Id.

115. 42 U.S.C.A. §6928(d) (West Supp. 1981).

116. Id. §6928(e).

117. S. Rep. No. 172, 96th Cong. 1st Sess. 4 (1980); Cong. Rec. H1107 (daily ed. Feb. 20, 1980) (statement of Rep. Mikulski).

may be, notwithstanding the conditions of the release, construed as reckless disregard.¹¹⁸

Criminal penalties for knowing endangerment, and their severity, depend upon state of mind. Conduct manifesting "an unjustified and inexcusable disregard for human life" is punishable by a fine of \$250,000 and two years' imprisonment. Acts exhibiting "an extreme indifference for human life" are subject to the same fine, but an increased maximum imprisonment of five years. Organizations (other than a government) that violate the knowing endangerment provision may be fined as much as \$1 million.¹¹⁹ Like any other violation of Subtitle C, a civil penalty of \$25,000 per day also may be imposed.¹²⁰

Congress defined the word "knowing" in RCRA to confine liability under the provision to persons with an actual awareness or belief that an endangerment exists, and knowledge possessed by one party (such as an agent) may not be attributed to another (such as a principal) under the statute. However, a person's efforts to shield himself from relevant information may be proved by circumstantial evidence.¹²¹

An affirmative defense based on consent of the person endangered and reasonable foreseeability of the hazards of an occupation, business, profession, medical treatment, and medical or scientific experimentation is specifically established by the section.¹²² Otherwise, all general and affirmative defenses that would normally be available at common law with respect to federal criminal offenses are applicable. The courts, by virtue of the Act's language, are seemingly given great latitude in the development of concepts of justification and excuse.¹²³

Citizen Suits. Civil actions under RCRA may be brought by any person against any person (expressly including the federal government) who is alleged to be in violation of the Act. The citizen suit provision also authorizes the awarding of litigation costs, reasonable attorney and expert-witness fees, and bond requirements for actions seeking preliminary injunctions.¹²⁴ Of significance to federal agencies is the operation of such provisions as a second line of enforcement for those that fail to effectively police their own facilities. In fact, as noted in the House Committee Report with respect to this section, the Supreme Court, in two companion cases under the CAA and FWPCA, viewed the citizen suit provisions contained therein as the only means for a state to remedy noncompliance by federal facilities with local environmental standards.¹²⁵ Further, nothing in the citizen suit provision impairs a person's right to other statutory or common law remedies.¹²⁶

118. Id. at H1108 (statement of Rep. Madigan).

119. 42 U.S.C.A. §6928(e) (West Supp. 1981).

120. Id. §6928(g).

121. Id. §6928(f)(2).

122. Id. §6928(f)(3).

123. Id. §6928(f)(4).

124. 42 U.S.C. §6972 (1976 and Supp. II 1978).

125. H.R. Rep. No. 1491, 94th Cong. 2d Sess. 45-46 (1976).

126. 42 U.S.C. §6972(f) (1976).

2.2.5 Imminent Hazard Provisions

Imminent hazard provisions are said to represent a modification of common law public nuisance remedies; they incorporate legal theories used to assess liability, such as intentional tort, negligence, and strict liability. However, as indicated in the Senate Committee Report to the 1980 amendments,

Some terms and concepts, such as person "contributing to" disposal resulting in a substantial endangerment, are meant to be more liberal than their common law counterparts. For example, a company that generated hazardous waste might be someone "contributing to" an endangerment under section 7003 even where someone else deposited the waste in an improper disposal site (similar to strict liability under common law), where the generator had knowledge of the illicit disposal or failed to exercise due care in selecting or instructing the entity actually conducting the disposal.¹²⁷

This construction of RCRA's imminent hazard provision is compatible with the duty imposed upon generators under the Act, and with Congressional statements on the application of the crime of "knowing endangerment."

Under Sec. 6973 of RCRA, the EPA is authorized to bring a civil action for equitable relief from an "imminent and substantial endangerment to public health, welfare, or the environment." Imminent hazard provisions of five other environmental protection statutes, including the CAA, FWPCA, the Safe Drinking Water Act of 1974 (SDWA), TSCA, and the Superfund Act, grant similar relief. Federal facilities, treated in the same manner as any other person under the six statutes, are answerable to the EPA and state officials with imminent hazard authority.¹²⁸

None of the statutory provisions authorize emergency powers to protect from all types of harm, and thus each has inherent jurisdictional limitations. One must look to the resource that is threatened (such as air or groundwater), and the interest(s) the provision is meant to protect (i.e., the environment or a person's livelihood), to ascertain the provision or combination of provisions that would authorize enforcement measures in particular situations. A brief summary of the relevant sections follows.

2.2.5.1 RCRA

The EPA may bring suit under RCRA for any handling of hazardous waste that presents an imminent and substantial endangerment to health or the environment, and may impose a fine of \$5,000 per day for willful violations.¹²⁹

127. S. Rep. No. 172, 96th Cong. 1st Sess. 5 (1980).

128. See, e.g., 42 U.S.C. §7418 (Supp. I 1977), 33 U.S.C. §1323 (1976 and Supp. I 1977), 42 U.S.C. §300(f)(12) (1976), 42 U.S.C.S. §9607(8) (L. Ed. Supp. 1981).

129. 42 U.S.C.A. §6973 (West Supp. 1981).

2.2.5.2 Clean Air Act

Emergency powers under Sec. 7603 of the Clean Air Act are restricted to pollution sources that endanger health, but could be applied along with RCRA in the event of a release of hazardous waste into the air that endangers the environment.

2.2.5.3 Clean Water Act

Section 1364(a) of the FWPCA authorizes relief against a pollution source that endangers health and welfare (including protection of a person's livelihood) but Sec. 1364(b), which established an emergency fund for claimants, was repealed by the Superfund Act. The money in the emergency fund was transferred to the Hazardous Substance Response Trust Fund.¹³⁰ The "spill provision" of the FWPCA, administered by the U.S. Coast Guard, imposes reporting requirements, penalties, and maximum liability limits (excepting willful negligence or misconduct, where full damages may be assessed) and provides for cleanup and removal under the National Contingency Plan. Costs may be recovered from a revolving fund established by that section for discharges of oil and hazardous substances into navigable waters and rivers. Federal facilities are responsible for their own cleanup costs, and may not make a claim against the fund.¹³¹

Enforcement actions have also been brought under Sec. 1311(a) of the FWPCA, generally prohibiting any pollutant discharge that is not in compliance with the Act (e.g., from a nonpermitted point source); but not including groundwater contamination, which falls under the jurisdiction of the SDWA. In addition, the Refuse Act of 1899 (or Rivers and Harbors Act)¹³² has proved to be an effective weapon in policing discharges, when invoked as alternative or supplemental authority in enforcement actions against water polluters. This is so because the Act has been held to operate independently of the FWPCA, and forbids any discharge into navigable water, regardless of whether federal water quality standards are violated.¹³³ An important restraint on the use of this provision, which imposes absolute liability on the offending person, is that the sole remedy is criminal prosecution.¹³⁴

2.2.5.4 Safe Drinking Water Act of 1974

Emergency powers authorized by the SDWA are limited to the protection of public health from contaminants present in or likely to enter a public water system.¹³⁵ This provision could potentially be applied along with RCRA in the event of a discharge that threatens the environment and/or does not involve a designated contaminant within the meaning of the RCRA.

130. 42 U.S.C.S. §9652(a) (L. Ed. Supp. 1981).

131. 33 U.S.C. §1321 (1976).

132. Id. §407.

133. 33 U.S.C.S. §407 n.7 (L. Ed. Supp. 1980).

134. 33 U.S.C. §411 (1976).

135. 42 U.S.C. §300(i) (1976).

2.2.5.5 Toxic Substances Control Act of 1976

Unlike parallel provisions of the statutes discussed above, imminent hazard measures designated under TSCA differ in emphasis by authorizing a civil action for seizure as an appropriate vehicle for controlling dangerous chemicals.¹³⁶ Another distinctive feature is its authority to obtain relief from an unreasonable risk present at any point in the manufacturing-consumption cycle, to protect health or the environment.¹³⁷ TSCA is subordinated by its own language to other federal laws designed to remedy chemical emergencies, if these would adequately relieve the danger.¹³⁸ However, TSCA is the only Act that expressly regulates PCB.¹³⁹

2.2.6 Comprehensive Environmental Response, Compensation, and Liability Act (Superfund Act)

More than a cursory discussion of the Superfund Act's imminent hazard provision is warranted here, because of that Act's magnitude in the scheme of federal environmental protection. While RCRA is designed to assure the safe handling and disposal of hazardous waste, the Superfund Act is remedial. As its name connotes, this is the first comprehensive law to address liability, compensation, cleanup, and emergency response for hazardous substances released into the environment. In so doing, the Superfund Act reiterates the standards of liability found in the FWPCA and in RCRA; imposes treble damages on violators, as well as costs and other penalties; and establishes two special trust funds for recovery of response costs and the cleanup of inactive hazardous waste disposal sites.¹⁴⁰

The Superfund Act, moreover, contains the broadest definition of "hazardous substance" to date: it incorporates materials designated pursuant to Sec. 1317(a) and 1321 of the FWPCA, Sec. 6921 of RCRA, Sec. 7412 of the CAA, and the imminent hazard provision in TSCA.¹⁴¹ Additionally, the Administrator is authorized to list other substantially dangerous substances in specified reportable quantities as appropriate.¹⁴²

Two provisions allow the President to take action with respect to an actual or threatened release of a hazardous substance that presents an imminent and substantial danger. The first, Sec. 9604, confers general response authority for removal and remedial measures, consistent with the National Contingency Plan, to protect the environment from hazardous substances and from pollutants and contaminants that endanger health and welfare.

136. 15 U.S.C. §2606(a)(1)(A).

137. Id. §2606(a)(1)(B).

138. Id. §2608(b) (1976).

139. Id. §2605(e) (1976).

140. 42 U.S.C.S. §9601 (L. Ed. Supp. 1981).

141. 15 U.S.C. §2606 (1976).

142. 42 U.S.C.S. §9602 (L. Ed. Supp. 1981).

These are defined as:

...any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.¹⁴³

This breadth renders the Superfund Act even more sweeping, although petroleum and natural gas are exempt¹⁴⁴ and the meaning of "release" does not encompass exposure in the workplace. Also not included are special nuclear and by-product materials covered by the AEA.¹⁴⁵ Persons failing to comply with removal or remedial orders issued pursuant to this section can be assessed treble damages.¹⁴⁶

The second provision addressing an imminent and substantial endangerment authorizes the President to initiate an abatement action against the actual or threatened release of a hazardous substance that endangers public health, welfare, or the environment. Willful violations are punishable by a \$5,000 fine¹⁴⁷ and punitive damages.¹⁴⁸

Revision and re-publication of the National Contingency Plan, under which response measures are taken, is mandated by Sec. 9605. Originally prepared pursuant to Sec. 1321 of the FWPCA for the removal of oil and hazardous substances, a special section is designated for the "National Hazardous Substance Response Plan." The key prerequisite to implementation of the plan is that operators of onshore facilities must give immediate notification to the National Response Center as soon as they have knowledge of a hazardous substance release in the reportable quantity. This provision is enforceable by a \$10,000 fine and one year's imprisonment.¹⁴⁹

A central aspect of the Superfund Act is its liability provision, which extends to any person who arranges for the transportation, treatment, or disposal of a hazardous substance in his possession.¹⁵⁰ In contrast to RCRA (which imposes penalties solely in case of releases) financial responsibility under the Act includes all costs of removal or remedial action incurred by the U.S. Government, a state, or another person in accordance with the National

143. Id. §9604(a)(2).

144. Id. and §9601(14).

145. Id. §9601(22).

146. Id. §9607(c)(3).

147. Id. §9606.

148. Id. §9607(c)(3).

149. Id. §9603(b)(3).

150. Id. §9607(a)(3).

Contingency Plan, as well as damages for injury to natural resources.¹⁵¹ This liability is subject to well-recognized affirmative defenses,¹⁵² and a general limitation of costs plus \$50,000,000. Limited liability is lost, however, with respect to releases resulting from willful misconduct, negligence, or failure to provide reasonable cooperation and assistance, and treble damages, based on the amount of costs incurred by the fund as a result of inaction, are authorized.¹⁵³ With regard to federal facilities, it should be noted that, in the language of the provision,

Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government shall be subject to, and comply with, this Act in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity, including liability under this section.¹⁵⁴

Further, like RCRA, the Superfund Act preserves other statutory and common law remedies, such as damages for personal injury, property loss and removal, or remedial action under theories of negligence or strict liability, for ultra-hazardous activities.¹⁵⁵ Another provision expressly disclaims any intent to preempt states from imposing additional requirements and liabilities with respect to the release of hazardous substances.

The landmark feature of the Superfund Act is the establishment of two separate trust funds to satisfy costs for response efforts directed at both abandoned and licensed waste sites. The "Hazardous Substance Response Trust Fund" is available for cleanup of abandoned hazardous waste sites, and consists of approximately \$1.38 billion in taxes on oil, organic chemicals, and heavy metals,¹⁵⁶ with the remainder of the \$1.6 billion fund coming from government expenditures.¹⁵⁷ Claims against the fund are generally confined to response (i.e., immediate cleanup)¹⁵⁸ costs,¹⁵⁹ and when paid, claims are subrogated to the federal government, which may commence an action on behalf of the fund to recover costs of removal or damages from the responsible party.¹⁶⁰ Remedial (i.e., permanent solution) costs may only be reimbursed with respect to property owned, managed, or protected by state or federal governments, and only when those entities are free of liability for the original hazard.¹⁶¹

151. Id. §9607(a)(4).

152. Id. §9607(b).

153. Id. §9607(c).

154. Id. §9607(g).

155. Id. §9607(a).

156. 26 U.S.C.S. §4611; 42 U.S.C.S. §9631 (L. Ed. Supp. 1981).

157. 42 U.S.C.S. §9631 (L. Ed. Supp. 1981).

158. Id. §9601(23).

159. Id. §9611.

160. Id. §9612(c).

161. Id. §§9601(24), 9611(c), 9611(e)(3).

The "Post-Closure Liability Trust Fund" is created by section 9641 and funded by a tax on hazardous waste received at qualified disposal facilities. Expenditures are limited to the purpose of satisfying liabilities imposed by the Act on owners or operators of hazardous-waste management facilities that have been permitted and closed in accordance with Subtitle C regulation under RCRA.¹⁶²

162. Id. §9607(k)(1).

3 STATE REGULATION OF HAZARDOUS WASTE

Like a number of other environmental statutes, RCRA permits state governments to assume primary responsibility for administration and enforcement.¹⁶³ This is especially important to federal facilities, because the effect of these provisions is to require them to comply with state and local standards where they are located. This section will briefly describe the state role in RCRA and what it means to federal facilities. For illustrative purposes, Table 3.1 summarizes the status of hazardous waste programs in a number of states with Department of Energy facilities.

3.1 OVERVIEW OF STATE ROLE IN RCRA

RCRA is a statute that envisions federal-state cooperation. Dual regulation of hazardous waste is reflected by the Congressional finding in RCRA that:

...while the collection and disposal of solid wastes should continue to be primarily the function of state, regional, and local agencies, the problems of waste disposal... have become a matter national in scope and in concern and necessitate Federal action...¹⁶⁴

Thus, while RCRA constitutes a federal policy initiative into what traditionally had been an area of exclusive state regulation, the law is intended to recognize and accommodate the longstanding state role.

Several provisions of RCRA operate to define state authority in hazardous waste regulation. These authorize states to implement hazardous waste programs in lieu of the federal government, provide federal assistance to states and regions for solid waste planning, and grant federal permission for states to enact hazardous-waste management laws that are more stringent than federal standards.

3.1.1 State Implementation of Hazardous Waste Programs

Section 6926 of RCRA authorizes states to administer and enforce a hazardous waste program in lieu of the federal program. Two stages of state programs, both of which require application to and approval by EPA, are contemplated: interim authorization¹⁶⁵ and final authorization.¹⁶⁶ Interim authorization is to be granted for a two-year period to any state whose

163. See, e.g., Water Pollution Control Act, as amended, 33 U.S.C. §1313 (1976).

164. 42 U.S.C. §6901(a)(4) (1976). The term "solid wastes" is defined to include hazardous wastes. Id. §6903(5).

165. 42 U.S.C.A. §6926(c) (West Supp. 1981).

166. Id. §6926(b).

Table 3.1 Status of Hazardous Waste Programs in States with Department of Energy Facilities

State	Facility	EPA Approved Phase I Program ^a	Draft Application to EPA for Phase II Program ^a	State Solid Waste and/or Hazardous Waste Statute ^b	State Administering Agency ^b	State Solid Waste and/or Hazardous Waste Regulations, if any ^b
Alaska	Alaska Power Administration	No	No	Alaska Stat. §§44.46.010 to 44.46.020 (solid waste)		18 Alaska Admin. Code §§60.010-60.130
• Arizona	Western Area Power Administration(Page) Buckeye Substation Bouse Substation ED-2 Substation Casa Grande Substation Nogales Substation ED-4 Substation Liberty Substation Cochise Substation Wellton Mohawk Mesa Substation Phoenix Substation Pinnacle Peak Substation Maricopa Substation Oracle Substation ED-5 Substation Gila Substation Prescott Substation Tucson Substation Coolidge Substation Davis Substation Parker Substation	No	No	Ariz. Rev. Stat. §§36-2801 to 36-2805 (hazardous waste)	Dept. of Health	
California	Naval Petroleum Reserves Lawrence Livermore National Laboratory Lawrence Livermore National Lab.-site 300 Stanford Linear Accelerator Lawrence Berkeley Laboratory Energy Technology Engineering Center Sandia National Laboratories-Livermore Western Area Power Administration Knob Substation Blythe Substation Tracy Line Shop Elverta Field Office Shasta Line Maintenance Center	Yes	No	Calif. Health & Safety Code Ann. §§25100-25240 (West) ("California Hazardous Waste Control Act")	Dept. of Health	Calif. Admin. Code §§66016-66898

Table 3.1 (Cont'd)

State	Facility	EPA Approved Phase I Program ^a	Draft Application to EPA for Phase II Program ^a	State Solid Waste and/or Hazardous Waste Statute ^b	State Administering Agency ^b	State Solid Waste and/or Hazardous Waste Regulations, if any ^b
Colorado	Solar Energy Research Institute Western Area Power Administration Operations (Montrose) Hayden Substation Kremmling Lines Section Loveland Field Branch Brush Field Branch	No	No	Col. Rev. Stat. §§30-20-101 to 30-20-115 (solid waste)	Dept of Health	6-CCR-1007-2 (solid waste)
Connecticut	Knolls Atomic Power Laboratory (Windsor Site)	No	No	Conn. Gen. Stat. §§19-5240 to 19-524nn ("Solid Waste Management Act")	Dept. of Environmental Protection	Conn. Regulations §§19-524-1 to 19-524-12 (solid waste)
Florida	Pinellas Plant (St. Petersburg)	No	No	Fla. Stat. §§403.701-403.713 ("Florida Resource Recovery & Management Act")	Dept of Environmental Regulation	Fla. Admin. Code §§17-7.01 to 17-7.44 (solid waste); §17-7.251(4) (hazardous waste)
Idaho	Idaho National Engineering Laboratory Naval Reactors Facility	No	No	Idaho Code §§31-4401 to 31-4411 (solid waste)	Dept. of Environmental & Community Services	Idaho Solid Waste Regulations and Standards, June 28, 1975.
Illinois	Argonne National Laboratory Fermi National Laboratory	No	No	Ill. Rev. Stat. Ch. 111 1/2, §1001 et. seq. ("Illinois Environmental Protection Act")	Environmental Protection Agency	Illinois Pollution Control Board Regulations Ch. 7, Ch. 9 (solid waste)
Iowa	Ames Laboratory Western Area Power Administration Sioux City/Hinton Denison Substation Creston Substation Spencer Substation	Yes	No	Iowa Code §§455B.75-455B.120 ("Iowa Dept. of Environmental Quality Act")	Dept. of Environmental Quality	Iowa Admin. Code, Environmental Quality Dept. Title V, Ch. 45 (hazardous waste)
Kentucky	Paducah Gaseous Diffusion Plant	Yes	No	Ky. Rev. Stat. §§224.012 to 224.884 ("Kentucky Environmental Protection Act")	Dept. of Natural Resources & Environmental Protection	401 Kentucky Admin. Regulations §§2:050-2:080 (hazardous waste)
Minnesota	Western Area Power Administration Morris Substation Granite Falls	No	No	Minn. Stat. Ann. §§116F.01 to 116F.08 (wast) (solid waste)	Pollution Control Agency	Minnesota Code of Agency Rules, Title 6, Part 4 - Pollution Control Agency; Solid Waste Disposal Regulations

Table 3.1 (Cont'd)

State	Facility	EPA Approved Phase I Program ^a	Draft Application to EPA for Phase II Program ^a	State Solid Waste and/or Hazardous Waste Statute ^b	State Administering Agency ^b	State Solid Waste and/or Hazardous Waste Regulations, if any ^b
Montana	Western Area Power Administration Havre Substation Fort Peck	Yes	No	Mont. Rev. Code Ann. §75-10 ("Montana Solid Waste Management Act"); §75-10-211 refers to hazardous waste	Dept. of Health and Environmental Science	Mont. Admin. Code §§ 16.44.202-16.44.612 (solid waste)
Nebraska	Western Area Power Administration Gering Field Branch O'Neill Substation Belden Substation Grand Island	No	No	(1) Neb. Rev. Stat. §§81-1516 to 81-1525 ("Nebraska Environmental Protection Act," solid waste sections) (2) Neb. Rev. Stat. §§19-4101 to 19-4122 (regulation of disposal sites) (3) Neb. Rev. Stat. §§19-2101 to 19-2113 ("Garbage Disposal Facilities Act")	Dept. of Environmental Control	Dept. of Environmental Control, Rules and Regulations Pertaining to Solid Waste Management
Nevada	Western Area Power Administration Amargosa Substation Hend Substation Basic Substation Reynolds Electrical & Engineering, Inc.	No	No	Nev. Rev. Stat. §§444.440 to 444.630 (hazardous waste)	Dept. of Conservation and Natural Resources	Dept. of Conservation and Natural Resources, Division of Environmental Protection. - Regulations Governing Hazardous Waste Management. Adopted Sept. 10, 1980
New Jersey	Princeton Plasma Physics Laboratory	No	No	(1) N.J. Stat. Ann. §§13:1E-1 to 13:1E-48 ("Solid Waste Management Act") (2) N.J. Stat. Ann. §§48:13A-1 to 48:13A-12 ("Solid Waste Utility Control Act of 1970") (3) N.J. Stat. Ann. §§131-1 to 131-10 ("Waste Control Act")	Dept. of Environmental Protection	N.J. Admin. Code §§ 7.26-1.1 to 7.26-4.9
New Mexico	Lovelace Inhalation Toxicology Institute Sandia Laboratories (Albuquerque)	No	Yes	N.M. Stat. Ann. §74-4-1 ("Hazardous Waste Act")	Environmental Improvement Agency	c
New York	Brookhaven National Laboratory Bettis Atomic Power Laboratory Knolls Atomic Power Laboratory Main Kesselring	No	No	N.Y. Environ. Conserv. Law §§27-0101 to 27 1315; especially 27-0900 to 27-0919, 27-1101 to 27-1107, and 27-1301 to 27-1315 (McKinley)	Dept. of Environmental Conservation	N.Y. Compilation of Rules and Regulations, Title 6, Ch. 360 (solid waste)

Table 3.1 (Cont'd)

State	Facility	EPA Approved Phase I Program ^a	Draft Application to EPA for Phase II Program ^a	State Solid Waste and/or Hazardous Waste Statute ^b	State Administering Agency ^b	State Solid Waste and/or Hazardous Waste Regulations, if any ^b
North Dakota	Grand Forks Energy Technology Center Western Area Power Administration Bisbee Substation Bismarck Substation Carrington Substation Custer Trail DeVaul Substation Devils' Lake Edgely Substation Ellendale Substation Fargo Substation Forman Substation Grand Forks Substation Jamestown Substation Killdeer Substation Lakota Substation Leeds Substation Sneke Creek Substation Holla Substation Rugby Substation Valley City Washburn Substation Watford City	Yes	No	N.D. Cent. Code §§23-29-01 to 23-29-15 ("Solid Waste Management and Land Protection Act")	Dept. of Health	Rules of the N. Dak. Dept. of Health, §23-29-01
Ohio	Portsmouth Gaseous Diffusion Plant	No	No	Ohio Rev. Code Ann. §§3734.01 to 3734.99 (Page) (solid waste) ^c	Ohio Environmental Protection Agency	Ohio Admin. Code §§ 3745-27-01 to 3745-27-11 and 3745-37-01 to 3745-37-11 (solid waste) ^c
Oklahoma	Southwestern Power Administration	Yes	No	Okla. Stat. Title 63, §§2751-2769 ("Controlled Industrial Waste Disposal Act")	Dept. of Health	Dept. of Health, Industrial Waste Division, Rules and Regulations for Industrial Waste Management (1979) ^c
Pennsylvania	Pittsburgh Energy Technology Center Hatsco/General Electric	Yes	No	35 PA. Cons. Stat. Ann. §§ 6018.401-6018.405 (Purdon) (hazardous waste)	Dept. of Environmental Resources	Penn. Code, Title 25, §§75.260-75.267 (hazardous waste)
South Carolina	Savannah River Plant	Yes	No	S.C. Code §§44-56-10 to 44-56-140 ("South Carolina Hazardous Waste Management Act")	Board of Health and Environmental Control	Dept. of Health and Environmental Control Regulations §§R.61-79. to R.61-79.10 (hazardous waste)

Table 3.1 (Cont'd)

State	Facility	EPA Approved Phase I Program ^a	Draft Application to EPA for Phase II Program ^a	State Solid Waste and/or Hazardous Waste Statute ^b	State Administering Agency ^b	State Solid Waste and/or Hazardous Waste Regulations, if any ^b
South Dakota	Western Area Power Administration Newell Substation Watertown Substation Sioux Falls Rapid City Pierre Substation Philip Field Huron Maintenance Center Fort Thompson Armour Substation	No	No	S.D. Compiled Laws Ann. §§ 34A-6-1 to 34A-6-50 (solid waste)	Dept. of Environmental Protection	Administrative Rules of South Dakota, Title 34, Chapter 34: 13
Tennessee	Feed Materials Production Center U.S.D.O.E. Y-12 Plant Univ. of Tenn. Space Institute Oak Ridge National Laboratory Comparative Animal Research Laboratory	Yes	No	Tenn. Code Ann. §§53-6301 to 53-6316 ("Tennessee Hazardous Waste Management Act") ^c	Dept. of Public Health, Bureau of Environmental Health Sciences, Division of Solid Waste Management	^c
Washington	D.O.E. Richland Operations Office, Hanford	No	No	Wash. Rev. Code §§70.95.010 to 70.95.911 (solid waste) ^c	Dept. of Ecology	^c
West Virginia	Morgantown Energy Technology Center	No	No	W.Va. Code §§7-1-3E; 7-1-3F; 7-16-1 to 7-16-8; 16-1-1 to 16-1-20; 16-3-6; 16-9-2 ^c (solid waste)	Dept. of Health	Board of Health Solid Waste Disposal Regulations, Ch. 1, Art. 12
Wyoming	Laramie Energy Technology Center Western Area Power Administration Thermopolis Lines Section Cheyenne Lines Section Cody Field Branch Casper Field Branch	Yes	No	(1) Wyo. Stat. §§35-462 to 35-466 (solid waste) (2) Wyo. Stat. §§35-11-101 to 35-11-11-4 ("Environmental Quality Act")	Dept. of Environmental Quality	Dept. of Environmental Quality Solid Waste Management Rules and Regulations

^aPersonal communication from Chester Ozman, U.S. EPA Office of State Programs (July 31, 1981).

^bBureau of National Affairs, Inc., Environmental Reporter (Aug. 7, 1981).

^cNew legislation or regulations are pending as of August 7, 1981, according to Bureau of National Affairs, Inc.

hazardous waste program exists by January 1982 and is "substantially equivalent" to the federal program.¹⁶⁷ EPA has administratively split the interim authorization process into two phases, with Phase I covering most activities short of issuing permits for hazardous waste activities, and Phase II encompassing state permitting of storage and incineration. Final authorization is available for state programs that are "equivalent" and "consistent" with federal standards more stringent than those for interim authorization. As of August 1981, some 28 states have EPA-approved Phase I interim-authorization programs, and two are authorized for Phase II. No final authorization applications have been made because the EPA has yet to promulgate land disposal standards.¹⁶⁸

3.1.2 Federal Assistance to States and Regions

Subtitle D of RCRA encourages state and interstate bodies to develop solid waste plans. It suggests criteria and planning procedures, as well as authorizing the appropriation of federal funds for assistance to states whose plans are approved by the EPA Administrator.¹⁶⁹

3.1.3 More Stringent State Hazardous Waste Programs

Federal minimum standards created by RCRA, which states must meet if they wish to administer a hazardous-waste management program, do not also operate as a ceiling. Section 6929 explicitly permits states or their political subdivisions to enact hazardous waste laws that are stricter than the federal requirements.

3.2 EFFECTS OF STATE HAZARDOUS WASTE LAWS ON FEDERAL FACILITIES

Under accepted principles of constitutional federalism, a federal facility would not ordinarily be required to comply with state hazardous waste laws. However, RCRA contains a policy decision to the contrary. Section 6961 requires all federal facilities to comply with each state, local, and interstate hazardous waste law just as if they were privately owned. The President may exempt particular facilities from compliance, but only if the exemption is "in the paramount interest of the United States."¹⁷⁰

The effect of this provision is to require federal facilities to comply both with federal and state hazardous waste standards. When read in conjunction with Sec. 6929, state and local governments can impose substantive and procedural requirements that are more stringent. While the exact meaning of these provisions has yet to be determined through litigation, an analysis of pertinent legislative history and constitutional issues may be helpful.

167. Id. §6926(c); 46. Fed. Reg. 8301 (1981).

168. Telephone interview with Chester Oszman, U.S. Environmental Protection Agency Office of State Programs, March 26, 1981.

169. 42 U.S.C. §6941 et. seq. (1976).

170. Id. §6961 (1976).

3.2.1 Legislative History of Section 6961

Two disparate approaches to the continuing controversy surrounding compliance by federal facilities with state environmental laws are reflected in the House and Senate Reports to RCRA in 1976.¹⁷¹ The House Interstate and Foreign Commerce Committee relied primarily on a study conducted by the Administrative Conference of the United States, proposing that a single federal agency be delegated exclusive authority to develop and administer procedures to ensure compliance by federal facilities with nonfederal environmental standards. Considerations underlying this recommendation included the lack of uniformity among the state programs with which some 20,000 existing federal facilities were obliged to comply, recurring questions of supremacy and sovereign immunity, and a uniform response from state officials that this was the proper solution. In the words of the Administrative Conference report,

State and local officials repeatedly indicated in interviews their willingness to transfer Federal facility enforcement programs to an effective Federal level enforcement program.¹⁷²

As a result, Sec. 601 of the House bill was reported out with language providing that federal facilities would only be answerable to the Administrator of the EPA for compliance with federal hazardous waste regulations.¹⁷³

The Senate version, on the other hand, contained the present wording of RCRA Sec. 6961, which is parallel to provisions in the CAA and FWPCA¹⁷⁴ that had provoked federal-state conflict, culminating in litigation. Two cases¹⁷⁵ under those environmental laws were addressed by the Supreme Court in 1976; in these cases federal officials had agreed in principle to conform with substantive state standards, but challenged state authority to impose procedural requirements, such as permitting. As interpreted by the Court, Congressional intent to direct federal compliance with substantive state standards under the CAA and FWPCA provisions was clearly and affirmatively expressed, but legislative intent with regard to procedural requirements was not.¹⁷⁶

It was with these decisions in mind, according to the Chief Counsel for the House Subcommittee on Transportation and Commerce, that the current federal facility provision was drafted and enacted. The word "procedural" was deliberately incorporated into its text,¹⁷⁷ and the Senate Report expressly

171. H.R. Rep. No. 1491, 94th Cong. 2d Sess. 45-51 (1976).

172. Id. at 50.

173. Cong. Rec. H11,162 (daily ed. Sept. 27, 1976); H.R. Rep. No. 1491, 94th Cong. 2d Sess. 24-25 (1976).

174. Id. at H11,174; S. Rep. No. 988, 94th Cong. 2d Sess. 23-24 (1976).

175. *Hancock v. Train*, 426 U.S. 167 (1976); *EPA v. California*, 426 U.S. 200 (1976).

176. *Hancock v. Train*, 426 U.S. 167 (1976).

177. Kovacs and Klucsik, supra note 46, at 252.

singles out permitting as a state procedural requirement that federal facilities must satisfy.¹⁷⁸ Why it was elected to discard the House provision is not apparent, because the compromise bill was arrived at informally. Thus, there is no conference report for the 1976 Act, and the Congressional debate is silent on this point. However, it can surely be said that this section is not a product of inadvertence, and the mandate expressed therein becomes formidable when combined with the 1980 amendment to Sec. 6929, allowing more stringent state standards than those federally prescribed.

3.2.2 Legislative History of Section 6929

As enacted in 1976, Sec. 6929 simply prohibited states from imposing requirements that did not meet minimum federal standards under RCRA. In 1980 the following language was added:

Nothing in this title shall be construed to prohibit any State or political subdivision thereof from imposing any requirements, including those for site selection, which are more stringent than those imposed by such regulations.¹⁷⁹

Offered as a floor amendment by Senator Bumpers of Arkansas, this part of the provision was summarily adopted with no debate, and remained unchanged through conference.¹⁸⁰ Interestingly, the Senate bill and report for the 1976 Act had included the same wording, which was dropped prior to final enactment.¹⁸¹ Again, there is no conference report or discussion in the Congressional Record to explain the earlier omission or the 1980 reversal.

3.2.3 Constitutional Issues

Commerce clause restrictions on state hazardous waste laws are important. Soon after the passage of RCRA the Supreme Court rendered the City of Philadelphia v. New Jersey decision, involving a state import ban on solid and liquid waste.¹⁸² In it the court invalidated the measure as violating the commerce clause of the United States Constitution.¹⁸³ Generally, the commerce clause was held to prevent states from prohibiting out-of-state waste, unless there is some reason for the prohibition apart from the waste's origin.¹⁸⁴ This ruling was extended in Hardage v. Atkins, which invalidated an Oklahoma statute requiring sister states to maintain substantially similar standards before out-of-state waste could be disposed in Oklahoma.¹⁸⁵ Short

178. S. Rep. No. 988, 94th Cong. 2d Sess. 24 (1976).

179. 42 U.S.C.A. §6929 (West Supp. 1981).

180. Cong. Rec. S6824-27 (daily ed. June 4, 1979).

181. S. Rep. No. 988, 94th Cong., 2d Sess. 23 (1976).

182. 437 U.S. 617 (1978).

183. Id. at 629.

184. Id. at 628-29.

185. 619 F.2d 871 (10th Cir. 1980).

of limitations enunciated in the two opinions, RCRA encourages regional and interstate compacts,¹⁸⁶ and the implementation of individual state programs that are substantially equivalent to those of contiguous states.

186. 42 U.S.C. §§6904, 6943(c) (1976).