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The Resource Conservation and Recovery Act and Mineral Development

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OUTLINE

THE RESOURCE CONSERVATION AND RECOVERY ACT
AND MINERAL DEVELOPMENT

BY

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POLICIES AND THE DEVELOPMENT
OF NATURAL RESOURCES

THE UNIVERSITY OF COLORADO SCHOOL OF LAW

INTRODUCTION

II.

THE HAZARDOUS WASTE PROGRAM

A. General Program Requirements.

1. Identification and listing of hazardous waste. 42 U.S.C.A. §6921.
2. Notification by persons generating, transporting, treating, storing or disposing of hazardous waste. Id., §6930.
3. Standards for generation, transportation, treatment, storage and disposal of hazardous waste. Id., §§6922-6924.
4. Permit requirements for facilities which treat, store, or dispose of hazardous waste. Id., §6925.
5. Guidelines for states seeking authorization to administer the hazardous waste program. Id., §6926.
6. Enforcement remedies. Id., §6928.

B. Specific program requirements.

1. Identification and listing of hazardous waste.
 - a. Hazardous waste must be solid waste. The term "solid waste" includes any solid, liquid, semi-solid or contained gaseous material resulting from industrial, commercial, mining or agricultural operations which:
 - (1) Is discarded or is being stored or treated prior to being discarded;
 - (2) Has served its intended use and is sometimes discarded; and
 - (3) Is a manufacturing or mining by-product (but not intermediate) and is sometimes discarded. 40 C.F.R. §261.2 (1980).

"Discarded" means to dispose (i.e., place on the ground or in water in such

manner that waste constituents may enter the environment), burn, or treat prior to disposal. Id.

N.B. The definition includes wastes which are used, reused, recycled or reclaimed (e.g., uranium and phosphate mining wastes used in building products). But see infra, p. 4.

b. Certain wastes are not considered solid wastes, including:

(1) Industrial wastewater discharges (e.g., mine water) controlled through NPDES permits. Id., §261.4(a)(2);

N.B. Industrial wastewaters while being collected, stored or treated and sludges generated by treatment are included.

(2) Source, special, nuclear or by-product material regulated under the Atomic Energy Act. Id., §261.4(a)(4); and

(3) Materials subjected to in situ mining techniques which are not removed from the ground. Id., §261.4(a)(5).

c. Certain solid wastes are not considered hazardous wastes, including:

(1) Mining overburden intended for return to the mine site. Id., §261.4(b)(3);

(a) The exemption is limited to "material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine." Id., §260.10 (45);

(b) The exemption may be modified to exclude overburden from uranium and phosphate mining used in construction or land reclamation if it presents an unreasonable risk to human health. 45 Fed. Reg. 33084, 33100-33101 (1980).

N.B. "Mining wastes" are not excluded despite the study authorized by §8002(f) of the environmental impacts of mine waste and

the adequacy of current control measures. 45 Fed. Reg. 33084, 33101 (1980).

But H.R. 3994 would exempt solid waste from the extraction, beneficiation, and processing of ores and minerals including phosphate rock and uranium ore (except where its use in construction or land reclamation presents an unreasonable risk to human health) until at least six months after submission of a new study (to be coordinated with the mining waste study) of the adverse effects of disposal and utilization of such wastes. H.R. 3994, 96th Cong., 2nd Sess. (1980).

In addition both H.R. 3994 and S. 1156 would exempt coal mining wastes and overburden covered by a permit and reclamation plan under SMCRA from major regulatory requirements under RCRA. S. 1156 would eliminate the need for individual permits for such wastes and authorize EPA to issue a general permit covering wastes for which such permits have been issued. S. 1156, 96th Cong., 1st Sess. (1979). Under H.R. 3994 SMCRA permits would be deemed RCRA permits and the regulations for treatment, storage and disposal of hazardous wastes would be inapplicable to such wastes. H.R. 3994, 96th Cong., 2nd Sess. (1980). Pending enactment of such legislation, regulation of coal mining wastes and overburden has been deferred. 45 Fed. Reg. 33154, 33173 (1980).

- (2) Fly ash, bottom ash, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

N.B. Both H.R. 3994 and S. 1156 would amend the Act to specifically exempt such wastes until at least six months after submission of a new study of the adverse effects of disposal and utilization of such wastes.

d. Special requirements for hazardous waste generated by small quantity generators.

- (1) Persons who generate or accumulate in any calendar month less than 2,200 pounds of hazardous waste are not covered. 40 C.F.R. §261.6(a)-(b) (1980).

N.B. The exclusion level will be reduced to 220 pounds per month within two to five years. 45 Fed. Reg. 33083, 33104 (1980).

- (2) The exclusion level is lower for certain acutely hazardous commercial chemical products, manufacturing chemical intermediates, off-specification species, unrinsed containers and spill residues. 40 C.F.R. §261.5(c) (1980).

e. Special requirements for hazardous waste which is used, reused, recycled or reclaimed.

- (1) A hazardous waste which is being: (a) beneficially used, reused, recycled or reclaimed or (b) accumulated, stored or physically, chemically or biologically treated prior to beneficial use, reuse, recycling or reclamation is excluded. Id., §261.6(a).

- (2) However, a hazardous waste which is sludge or a listed hazardous waste or contains a listed hazardous waste (see infra, pp. 5-6) and which is transported or stored prior to being used, reused, recycled or reclaimed is subject to the notification requirements and must comply with the requirements applicable to generation, transportation and storage of hazardous waste (see infra, pp. 8-20).

f. Waste which is solid waste and (1) is not categorically excluded from the definition of hazardous waste, or (2) subject to special requirements applicable to small quantity generators or to the use, reuse, recycle or reclamation of hazardous waste is covered if:

- (1) It is waste from a listed specific or non-specific source.

- (2) It is a listed commercial chemical product, chemical manufacturing intermediate, off specification species, unrinsed container or spill residue.

- (3) It possesses specified characteristics.
- g. Waste from listed specific and non-specific sources.
- (1) Waste from listed non-specific sources includes:
- (a) Degreasing solvents;
 - (b) Other listed commercial solvents;
 - (c) Flotation tailings from selective flotation from mineral metals recovery operations;
- N.B. Process used in lead, zinc, copper, silver and molybdenum extraction.
- (d) Cyanidation wastewater treatment tailing pond sediment from mineral metals recovery operations; and
 - (e) Spent cyanide bath solutions from mineral metals recovery operations. Id., §261.31.
- N.B. Processes used primarily in gold and silver extraction.
- (2) Waste from listed sources includes:
- (a) Iron and steel: Ammonia still lime sludge from coking operations; emission control dust/sludge from electric furnace production of steel; spent pickle liquor from steel finishing operations; sludge from lime treatment of spent pickle liquor from steel finishing operations.
 - (b) Primary Copper. Acid plant blowdown slurry/sludge resulting from thickening of blowdown slurry from primary copper production;
 - (c) Primary Lead. Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities;
 - (d) Primary Zinc. Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production; electrolytic anode slimes/sludges from

primary zinc production; cadmium plant leach residue from primary zinc production; and

- (e) Secondary Lead: Emission control dust/sludge from secondary lead smelting. Id., §261.32.

(3) Proposed addition to specific source list:

- . Secondary Lead. Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. 45 Fed. Reg. 33136, 33137 (1980).

(4) Probable additions to the hazardous waste lists.

- (a) Non-specific source list: waste oil;

- (b) Specific source list:

- (i) Subore from underground and surface uranium mines, overburden from surface uranium mines, and waste rock from underground uranium with radium 226 activity in excess of 5 pCi/gm;

- (ii) Leach zone overburden and discarded phosphate ore from phosphate surface mines and slimes from phosphate ore beneficiation;

- (iii) Waste gypsum from processing phosphate ore to produce phosphoric acid; and

- (iv) Slag and fluid bed prills from processing phosphate ore to produce elemental phosphorous. 45 Fed. Reg. 33084, 33087, 33118 (1980).

h. Waste from listed commercial chemical products, manufacturing chemical intermediates, off-specification species, unransed containers and spill residues.

- (1) Acute hazardous wastes. 40 C.F.R. §261.33(e) (1980).

- . Sodium cyanide.
- . Vanadium pentoxide.

- (2) Toxic hazardous wastes. Id., §261.33(f).

i. Basis for hazardous waste listing.

- (1) Waste possesses identified hazardous waste characteristic (see infra, p. 8).
- (2) Waste causes or significantly contributes to an increase in serious irreversible or incapacitating reversible illness regardless of how it is managed.

Based on showing that waste is fatal to humans in low doses or on mammalian studies which show an oral LD 50 toxicity of less than 50 mg/kg, an inhalation LC 50 toxicity of less than 2000 mg/m³ or a dermal LD 50 toxicity of less than 200 mg/kg. 45 Fed. Reg. 33084, 33106 (1980). Explosives are included even if non-toxic.

N.B. Wastes which meet this test are considered acute hazardous wastes.

- (3) Waste poses a substantial present or potential hazard to human health or the environment when improperly managed.

Based on presence of a designated hazardous constituent and conclusion that constituent poses a substantial or potential hazard to human health or the environment when improperly managed.

Key factors: (1) toxic threat posed, (2) concentration of toxic constituent, (3) migration potential, (4) persistence and degradation, (5) bioaccumulation potential, (6) potential types of improper management, (7) quantities generated, and (8) other factors. Id., §33107.

j. Petitions for delisting.

- (1) Petition to delist a particular waste--must show waste does not meet the criterion for listing. 40 C.F.R. §260.20 (1980).
- (2) Petition to delist a waste at a particular generating facility--must show waste does not meet the criterion for listing or possess any of the specified hazardous waste characteristics. Id., §260.22.

k. Specified hazardous waste characteristics.

- (1) Ignitability. Id., §261.21.
- (2) Corrosivity. Id., §261.22.
- (3) Reactivity. Id., §261.23.
- (4) Toxicity. Id., §261.24.

Does an extract contain a contaminant in concentrations exceeding 100 times the drinking water standard for the contaminant?

N.B. If a waste possesses any of these characteristics it is by definition "hazardous." There is no opportunity to argue that it is not hazardous under specific conditions.

l. A waste mixture (hazardous + non-hazardous wastes) is hazardous if:

- (1) It contains a listed hazardous waste.
- (2) It possesses one or more of the characteristics of hazardous waste. Id., §261.3(a)(2).

2. Notification requirements.

- a. By August 18, 1980 (90 days after promulgation of the regulations identifying and listing hazardous wastes), persons generating or transporting any hazardous waste or owning or operating any facility for treatment, storage, or disposal of hazardous waste must notify EPA (or an authorized state). 45 Fed. Reg. 12746 (1980).

N.B. The notification requirements do not apply to hazardous waste management facilities which are no longer in operation. Id., 12747.

Query: How do you distinguish an abandoned disposal site from an existing storage site?

- b. Information required: (1) location and general description of the activity and (2) the identified or listed hazardous waste handled.
- c. What is a "facility"?

Facility= All contiguous land, structures, appurtenances and improvements used to

treat, store and dispose of hazardous waste. 40 C.F.R. §260.10 (21) (1980).

N.B. A facility may consist of several treatment, storage or disposal units (e.g., a surface impoundment plus a landfill).

d. What hazardous wastes should be reported?

(1) Mandatory: Any hazardous waste handled during a three-month period prior to the filing date.

(2) Discretionary: Other hazardous wastes which will be handled in the future or will be listed in the future (e.g., waste oil).

e. Consequences of failure to notify.

(1) Failure to notify is a violation of the Act: enforcement remedies (except criminal penalties) apply. See infra, pp. 23-24.

(2) Existing hazardous waste management facilities which fail to give notice are not entitled to "interim status" (i.e., they must have a permit on the effective date of the regulations (i.e., November 19, 1980) or shut down). See infra, pp. 11-12.

3. Standards applicable to generators of hazardous waste.

a. Must determine if solid waste is hazardous. Id., §262.11.

N.B. If waste is not listed may either test for specified characteristic or base determination on knowledge of materials and processes used.

b. Must obtain EPA ID number. Id., §262.12.

N.B. A generator may not treat, store or dispose of, transport or offer for transportation hazardous waste without an ID number.

c. Must use manifest for shipment offsite and designate permitted facility to receive waste. Id., §262.20.

- N.B. Treatment, storage or disposal "onsite" does not require use of manifest or compliance with other generator standards except record-keeping and reporting. Id., §262.10(b).
- d. Must package, label, mark and placard for shipment in accordance with DOT regulations. Id., §§262.30-262.33.
 - e. May not store hazardous waste onsite more than 90 days without a storage permit. Id., §262.34(b).
 - f. Hazardous waste stored onsite for less than 90 days must be:
 - (1) Stored in containers which meet DOT specifications.
 - (a) Containers must be inspected for leaks on a weekly basis.
 - (b) Containers holding ignitable or reactive waste must be stored at least 50 feet from the facility's property line.
 - (2) Marked to indicate date storage begins.
 - (3) Marked and labeled in accordance with DOT regulations. Id., §264.34(a)(2)-(4).
 - g. Must comply with specified requirements for prevention of, and response to, fires, explosions and other releases of hazardous waste. Id., §262.34(a)(5).
 - h. Record-keeping and reporting.
 - (1) Must prepare annual report of hazardous waste shipments by March 1 for preceding calendar year. Id., §262.41.
 - (2) Must prepare exception reports.
 - (a) If manifest is not returned in 35 days, generator must determine status.
 - (b) If manifest is not returned in 45 days, generator must file report with EPA. Id., §262.42.
 - (3) Must keep copies of: (a) hazardous waste determinations, (b) manifests, (c) annual

reports and (d) exception reports. Id., §262.40.

4. Standards applicable to transporters of hazardous waste.
 - a. Apply only to offsite transporters. Id., §263.10 (b).
 - b. Must obtain EPA ID number. Id., §263.11.
 - c. May not transport hazardous waste without a manifest. Id., §263.20.
 - d. Must deliver waste only to a permitted facility or another transporter. Id., §263.21.
 - e. Must keep copies of manifests. Id., §263.22.
 - f. In the event of a discharge during transportation:
 - (1) Must take appropriate immediate action to protect human health and the environment. Id., §263.30 (a).
 - (2) Must notify proper authorities and file required reports. Id., §263.30 (b).
 - (3) Must clean up discharge or take such action as may be required by federal, state and local officials to eliminate hazard to human health or the environment. Id., §263.31.
5. Standards applicable to owners and operators of facilities for treatment, storage and disposal of hazardous waste.
 - a. Two types of standards: interim status standards and general status standards.
 - (1) Interim status standards.
 - (a) Operating requirements applicable to existing facilities which provide notification by August 18, 1980 and file a permit application by November 19, 1980.

N.B. Existing facilities are facilities in operation or for which construction had commenced on October 21, 1976. Id., §260.10(20). However, the date for determining whether a facility is an existing facility

would be changed under H.R. 3994 to the effective date of the regulations (November 19, 1980) and under S. 1156 to the date of promulgation of the regulations (May 19, 1980).

A facility has "commenced construction" on the grandfather date if all federal, state and local preconstruction approvals have been obtained and either (1) a continuous physical onsite construction program has begun, or (2) the owner has entered into contractual obligations which cannot be cancelled without substantial loss (cost to cancel greater than 10% of the total project cost is presumptively substantial) for construction of the facility to be completed within a reasonable time. Id.

- (b) Less stringent than general status standards.
 - (c) Must be met by existing facilities on November 19, 1980.
- (2) General status standards: three phases.
- (a) Phase I standards.
 - (i) Standards applicable to new facilities and to existing facilities which fail to qualify for interim status.
 - (ii) Primarily operational requirements which parallel interim status requirements.
 - (iii) Must be met on November 19, 1980 by new facilities and existing facilities which fail to qualify for interim status.
 - (b) Phase II standards.
 - (i) Technical standards (i.e., design/construction criteria) to be promulgated in fall, 1980 and used by permit writers to issue permits to

new and existing facilities beginning in spring, 1981.

- (ii) Will include various factors which must be considered by the permit writer who will issue permits based on his "best engineering judgment" of the technical requirements that must be met by individual facilities to ensure protection of human health and the environment.

N.B. H.R. 3994 would require EPA, where appropriate, to establish separate standards for new and existing facilities. H.R. 3994, 96th Cong., 2nd Sess. (1980). S. 1156 would authorize EPA to distinguish between existing and new facilities in establishing standards. S. 1156, 96th Cong., 1st Sess. (1979).

In addition, H.R. 3994 would exempt an existing wastewater treatment system from compliance with the standards if the system is designed to prevent releases of hazardous waste into the soil or groundwater and compliance with the standards would require major reconstruction. The owner/operator, however, must show that no significant release of hazardous waste into an underground water supply is occurring or is likely to occur (groundwater monitoring can be required to support exemption).

(c) Phase III standards.

- (i) More definitive standards intended to replace Phase II standards.
- (ii) May include standards for specific types of facilities, specific industries or specific wastes.

N.B. A facility issued a permit based on Phase II standards is protected from

having to meet more stringent Phase III standards during the life of the permit. 40 C.F.R. §122.15(a)(3) (1980).

b. Interim status standards.

(1) General facility standards: operational requirements applicable to all existing treatment, storage and disposal facilities.

(a) Identification number. Id., §265.11.

(b) Required notices. Id., §265.12.

(c) General waste analysis. Id., §265.13.

(i) Must obtain information regarding hazardous waste necessary for proper treatment, storage, or disposal.

N.B. Generators may be requested to provide the information.

(ii) Must develop and follow a written waste analysis plan.

(d) Security. Id., §265.4.

. Must have 24-hour surveillance system which controls entry to active portion or artificial or natural barriers and means to control entry to active portions at all times unless physical contact with waste will not cause injury or disturbance of waste will not violate the regulations.

(e) Facility inspections. Id., §265.15.

. Must develop and follow a written inspection schedule.

(f) Personnel training. Id., §265.16.

. Must provide classroom or on-the-job training and maintain certain records regarding training.

(g) Ignitable, reactive or incompatible wastes. Id., §265.17.

(i) Must segregate from sources of ignition or reaction.

(ii) May mix or commingle such wastes only after taking certain precautions.

(2) Preparedness and prevention. Id., §§265.30-265.37.

(3) Contingency plan and emergency procedures. Id., §§265.50-265.56.

N.B. Contingency plan may be amended SPCC plan.

(4) Manifest system, record-keeping and reporting. Id., §§265.70-265.77.

(a) Must sign and return manifest to generator.

(b) Significant discrepancies must be resolved with the generator. Notice to EPA required in 15 days if discrepancy not resolved.

(c) Operating records and annual reports required for both onsite and offsite treatment, storage or disposal.

(5) Groundwater monitoring. Id., §§265.90-265.94.

(a) By November 19, 1981, must have groundwater monitoring system for surface impoundments, landfills and land treatment facilities unless owner/operator demonstrates there is low potential for migration of hazardous wastes to water supply wells or surface water.

N.B. Demonstration must be certified by a geologist or geotechnical engineer.

(b) Where groundwater monitoring is required:

(i) Must have upgradient (1) and downgradient (3) wells.

(ii) Must place downgradient monitoring wells at the boundary of the waste management area (not property line).

(iii) Must monitor for:

- . Contaminants limited in primary drinking water standards (quarterly during first year only).
 - . Contaminants which determine water quality for other uses (quarterly during first year and annually thereafter).
 - . Contaminants (4) which indicate whether facility is leaking (quarterly during the first year and semiannually thereafter).
- (iv) If comparisons of monitored results for indicator contaminants show a significant increase (per student's t-test) (or pH decrease), must conduct additional monitoring.
- (v) If additional monitoring confirms significant increase (or pH decrease), must notify EPA and submit groundwater quality assessment plan.
- (vi) If further assessment indicates no hazardous waste constituents have entered the groundwater, may revert to indicator monitoring and evaluation program. If, however, assessment indicates hazardous waste constituents have entered groundwater, must continue to monitor and evaluate until final closure.

N.B. Permissible extent of groundwater contamination to be determined in Phase II.

- (6) Closure and post-closure. Id., §§265.110-265.120.
- (a) Owners/operators of treatment, storage and disposal facilities must have written closure plan.
 - (b) Owner/operator of disposal facilities must have written post-closure plans for

maintenance and monitoring for at least 30 years after closure.

(7) Financial requirements. Id., §§265.140-265.144.

- (a) Owner/operator of treatment, storage or disposal facility must make cost estimate of closure.
- (b) Owner/operator of disposal facility must make cost estimate of post-closure care.

N.B. Proposed regulations would also require:

(i) Site life liability insurance for sudden and accidental occurrences (\$1,000,000/\$2,000,000).

- . No self insurance.
- . No post-closure liability insurance required.

(ii) Financial assurance for implementation of closure and post-closure plans.

- . Assurance required equals highest cost of closing facility at any given point prior to closure or at the point of final closure.
- . Annual inflation adjustments required.
- . Mechanisms which can be used to provide assurance: trust funds, surety bonds, letters of credit, guarantees, financial test. 45 Fed. Reg. 33260 (1980).

(8) Specific facility standards: additional operating requirements applicable to specific types of facilities.

(a) Containers. 40 C.F.R. §§265.170-265.177 (1980).

Covers portable devices in which material is stored, transported, treated, disposed or otherwise handled. Id., §260.10(9).

- (b) Tanks. Id., §§265.170-265.177.

Covers stationary devices designed to contain an accumulation of hazardous wastes which are constructed of non-earthen materials which provide structural support. Id., §260.10 (68).

- (c) Surface impoundments. Id., §§265.220-265.230.

Covers a natural topographic depression, man-made excavation, or diked area formed by earthen materials which is designed to hold liquid wastes and which is not an injection well. Id., §260.10 (67).

- (d) Waste piles. Id., §§265.250-265.257.

Covers any non-containerized accumulation of non-flowing hazardous waste that is used for treatment or storage. Id., §260.10 (44).

- (e) Land treatment. Id., §§265.270-265-282.

Covers any facility at which hazardous waste is applied onto or incorporated into the soil surface if the waste will remain after closure. Id., §260.10 (39).

- (f) Landfills. Id., §§265.300-265.351.

Covers a disposal facility where hazardous waste is placed in or on land and which is not a land treatment facility, surface impoundment or injection well. Id., §260.104 (39).

- (g) Incinerators. Id., §§265.340-265.351.

Covers enclosed devices using controlled flame combustion which are used to thermally break down wastes. Id., §260.10 (30).

- (h) Thermal treatment. Id., §§265.370-265.382.

Covers treatment devices which use elevated temperatures as the primary means to change the chemical, physical

or biological character of the hazardous waste. Id., §260.10(69).

- (i) Chemical, physical and biological treatment. Id., §§265.400-265.406.

Covers facilities which treat hazardous wastes by chemical, physical or biological methods in other than tanks, surface impoundments and land treatment facilities. Id.

- (j) Underground injection. Id., §265.430.

Covers wells into which fluids are injected. Id., §260.10(34).

N.B. EPA has proposed detailed interim status standards for Class I and Class IV wells. See 45 Fed. Reg. 33280 (1980).

6. Permit requirements for treatment, storage or disposal facilities.

- a. Who requires permits?

All treatment, storage or disposal facilities require permits unless specifically exempt.

Applicable exemptions: (1) generators who accumulate hazardous waste onsite for less than 90 days, (2) facilities which treat, store or dispose excluded hazardous wastes (see, supra, pp. 2-3).

N.B. Underground injection wells will be permitted by rule once permits are issued under state UIC programs approved or promulgated under the Safe Drinking Water Act. 45 Fed. Reg. 33154, 33171 (1980).

- b. When are permits required?

- (1) Existing facilities.

Permits are required on November 19, 1980, unless the facility is entitled to interim status.

- (2) New facilities.

Permits are required prior to commencement of construction. 40 C.F.R. §122.22(b) (1980).

c. EPA issues the permit unless the state is authorized to administer the permit program.

N.B. EPA takes the position that issuance of a RCRA permit does not require NEPA compliance. 45 Fed. Reg. 33154, 33173 (1980).

d. When must application be filed?

(1) Existing facilities: a partial application (Part A) is required by November 19, 1980. Further information (Part B) must be submitted within six months of the time such information is requested. 40 C.F.R. §122.22 (a) (1980).

(2) New facilities: Parts A and B must be filed 180 days before construction is scheduled to commence. Id., §122.22(b).

e. Amendment of the permit application during the interim status period.

(1) A revised permit application is required if new hazardous waste not specified in the initial application is treated, stored or disposed. Id., §122.23(c)(1).

(2) Additional quantities of hazardous waste specified in the initial application may be treated, stored or disposed without submittal of a revised permit application if within the design capacity of the facility.

N.B. No approval by permitting authority required for either type of change.

(3) Increases in design capacity or changes in the processes used may only be made after submittal and approval of a revised permit application. Id., §122.23(c)(2).

N.B. Changes to an existing facility will be disapproved if so extensive as to amount to construction of a new facility.

f. Duration of permit: up to ten years. Id., §122.9 (b).

7. Guidelines for state hazardous waste management (HWM) programs.

a. Interim authorization.

(1) States which have HWM programs in existence within 90 days following the date of promulgation of the final RCRA regulations may receive interim authorization to administer the federal program for a two-year period beginning six months after promulgation of the final regulations if they are "substantially equivalent" to the federal program. 42 U.S.C.A. §6926(c).

(2) Phased implementation.

(a) Phase I - from May 19, 1980 to spring, 1981 (six months after promulgation of Phase II regulations). 45 Fed. Reg. 33290, 33387 (1980).

(b) Phase II - from fall, 1980 (expected promulgation date of Phase II regulations) to October, 1981 (six months after effective date of Phase II regulations). Id.

N.B. The interim authorization period extends for a 24-month period from the commencement of Phase II (i.e., until fall, 1982).

(3) Coverage of Phase I and Phase II programs.

(a) Phase I - covers identification and listing of hazardous wastes, standards for generation and transportation of hazardous waste and interim status standards for hazardous waste treatment, storage and disposal facilities. 40 C.F.R. §123.128 (1980).

(b) Phase II - covers the permit program for hazardous waste treatment, storage and disposal facilities. Id., §123.129.

(4) Phase I program requirements.

(a) Universe of wastes controlled must be "nearly identical to" wastes controlled under federal program. Id., §123.128(a).

(b) Similar standards for generation and transportation of hazardous waste except

compliance with manifest system not required. Id., §123.128(b)-(d).

(c) Facility standards must be "substantially equivalent" (i.e., "to a large degree or, in the main, equal in effect") to the interim status standards. Id., §123.128(e).

(d) Enforcement authority may be less stringent than federal enforcement authority (i.e., authority to seek civil and criminal penalties up to \$1,000 per day is required). Id., §123.128(f).

b. Final authorization:

(1) States which have HWM programs which are "equivalent" to" and "consistent with" the federal program are entitled to final authorization. 42 U.S.C.A., §6926(a).

(2) "Consistency" means that state programs must not conflict with each other or impose undue burdens on interstate commerce. 40 C.F.R. §123.32 (1980).

(3) "Equivalence" means that state programs must contain substantive requirements equal in effect to the federal requirements. Id., §§123.33-123.39.

c. Cooperative agreements.

(1) State/EPA agreement for states which cannot qualify for interim authorization by the effective date of the federal program. 45 Fed. Reg. 33784 (1980).

(2) Two uses where states do not qualify for interim authorization:

(a) Coordinate existing state program with federal program. Id.

(b) Assistance to EPA in administering federal program. Id.

(3) No grant awards for FY-81 if state does not have interim authorization or a cooperative agreement with EPA. Id., §33785.

8. Enforcement remedies.

- a. Compliance orders: 42 U.S.C.A. §6928(a).
 - May include penalty assessment based on seriousness of violation and good faith efforts to comply.
- b. Permit suspension or revocation: Id., §6928(a)(3).
- c. Civil penalty: Id.
 - (1) Up to \$25,000 per day penalty for violation of a compliance order.
 - (2) S. 1156 would extend the civil penalty remedy to any violation of the Act.
- d. Criminal penalty: Id., §6928(d).

- (1) Up to \$25,000 per day fine or up to one year in prison or both for knowingly,
 - (a) Transporting hazardous waste to an unpermitted facility.
 - (b) Disposing of hazardous waste without a permit.
 - (c) Making false statements in specified documents.

N.B. H.R. 3994 would add two offenses: (1) knowing generation, treatment, transportation, disposal or handling hazardous waste (at any time) and destruction, alteration or concealment of records; (2) transportation, treatment, storage or disposal of hazardous waste in "reckless disregard" of the danger or risk to human life or health.

Penalties are doubled for (a), (b) and (2) above.

- (2) Citizens' suit. Id., §6972.

• Citizens can initiate suits for violation of any requirement of the Act if EPA or the state fails to take appropriate action.

e. Injunctive relief: Id., §6973.

- (1) Must be evidence that handling, storage, treatment, transportation or disposal of hazardous waste presents an imminent hazard to human health or the environment.

N.B. H.R. 3994 would allow injunctive relief where such activities "may" present an imminent hazard.

- (2) Applies to active and inactive sites.

III.

THE NON-HAZARDOUS WASTE PROGRAM

A. General program requirements.

1. Classification criteria for distinguishing open dumps from sanitary landfills. 42 U.S.C.A. §6944(a).
2. Publication of an inventory of open dumps. Id., §6945(b).
3. Development of state plans which prohibit the establishment of new open dumps and provide for the closure or upgrading of existing open dumps. Id., §6943.
4. Enforcement remedies.

B. Specific program requirements.

1. Classification criteria for distinguishing open dumps from sanitary landfills.
 - a. An "open dump" is a facility or site that is not a sanitary landfill. Id., §6945(a).

A "sanitary landfill" is a disposal site where there is no "reasonable probability of adverse effects on health or the environment from disposal of solid waste." Id., §6903(26).

b. Specific classification criteria.

- (1) Floodplains. 40 C.F.R. §257.3-1 (1980).
- (2) Endangered species. Id., §257.3-2.

- (3) Surface water. Id., §257.3-3.
- (4) Groundwater. Id., §257.3-4.
- (5) Disposal on land used for the production of food chain crops. Id., §257.3-5.
- (6) Disease. Id., §257.3-6.
- (7) Air. Id., §257.3-7.
- (8) Safety. Id., §257.3-8.

c. The groundwater criterion.

- (1) Facilities may not contaminate an underground drinking water source beyond the solid waste boundary (or an alternate boundary established in an approved state plan). Id., §257.3-4(a).

An "underground drinking water source" is
(a) an aquifer supplying drinking water, or
(b) an aquifer in which groundwater contains less than 10,000 mg/l total dissolved solids. Id., §257.3-4(c)(4).

"Contaminate" means to increase the concentration of a substance beyond the concentration permitted under the national interim primary drinking water standards or to increase the concentration of the containment at all where the existing concentration exceeds the interim national primary drinking water standard. Id., §257.3-4(c)(2).

N.B. Use of the national secondary drinking water standards is proposed. 44 Fed. Reg. 53465 (1979).

- (2) Potential issues:
 - (a) The requirement that no alternative solid waste boundary may be established unless the state has an approved solid waste plan.
 - (b) The failure to defer classification of dumps until action is taken on requests for alternative boundaries.
 - (c) The requirement that all underground drinking water sources be protected.

(d) The failure to afford an opportunity to demonstrate that contaminants in the underground drinking source will be removed by existing water supply treatment plants.

2. Publication of an inventory of open dumps.

a. One year after promulgation of the classification criteria (i.e., by September 13, 1980), EPA is required to publish an inventory of all open dumps. 42 U.S.C.A. §6945(b).

b. Sites for inclusion in the inventory will be determined by the states. 40 C.F.R. §256.23(a) (1979).

c. Consequences of inclusion in the inventory.

(1) Must comply with measures promulgated by EPA to eliminate health hazards and minimize potential health hazards. 42 U.S.C.A. §6945(c).

(2) Where other alternatives are not available, state plans must provide for the establishment of compliance schedules for open dumps leading to compliance within a reasonable time (i.e., up to five years after publication of the inventory). Id.

d. Do "notice and hearing requirements" apply to inclusion of a facility in the inventory?

(1) The issue: §4005(b) requires EPA to publish an inventory of open dumps. Independently, §4005(c) prohibits any practice which constitutes open dumping except where a compliance schedule has been issued. Thus, listing is tantamount to a conclusion that future disposal constitutes open dumping unless a compliance schedule has been issued.

Citizens may file suits to enforce the open dumping prohibition based on the inventory listing prior to the time states develop plans (i.e., compliance schedules) for listed facilities.

(2) The regulations: no notice or hearing required for listing.

- (3) Industry: EPA should require states to provide notice and opportunity for hearing prior to listing.
- (4) Proposed compromise:
 - (a) Expanded public participation requirements to ensure that facility owner has opportunity to participate in state planning process, but no opportunity for APA type hearing.
 - (b) Expedited approval of portions of state plans that provide for schedules leading to compliance with the open dumping prohibition.

3. State plan requirements.

- a. Must reflect legal authority to prohibit the establishment of new open dumps. Id., §6943(2).
 - (1) Legal authority requires:
 - (a) Statutory or common law authority to prohibit new disposal sites that fail to satisfy the criteria. 44 Fed. Reg. 45066, 45070 (1979).
 - (b) Some type of permitting mechanism to enforce the prohibition against new open dumps. Id. But such a mechanism need not exist as a condition of initial plan approval. Id.
 - (2) When does the prohibition take effect?
 - (a) Six months after the promulgation of the classification criteria (effective October 15, 1979) or the date of approval of the state plan, whichever is later. 42 U.S.C.A. §6944(c).
 - (b) State plans must be submitted by January 31, 1981 (18 months after promulgation of the final guidelines) and must be approved or disapproved within six months of the date of submittal. Id., §6947(a).
 - (c) So by July 31, 1981, state plans should be approved. Accordingly, the prohibition

on new open dumps would take effect not later than July 31, 1981.

- b. Must reflect the legal authority to close or upgrade existing open dumps.
- c. Must include (though not as a condition of initial approval) regulatory powers necessary to implement the plan.
 - (1) Power to enforce standards at least as stringent as the classification criteria. 40 C.F.R. §256.21(a) (1979).
 - (2) Power to inspect and monitor solid waste disposal facilities and to establish operator monitoring and reporting requirements. Id., §256.21(b).
 - (3) Power to require permits to enforce the prohibition against the establishment of new open dumps. Id., §256.21(c).
 - (4) Power to ensure compliance with plan requirements through appropriate judicial and administrative enforcement procedures. Id., §256.21(d).

4. Enforcement remedies.

- a. No provision for direct federal enforcement of state plans but:
 - (1) Federal financial assistance for implementation of state plans is limited to implementation of "approved" plans. 42 U.S.C.A. §6948(a) (1).
 - (2) Moreover, applicants for federal financial assistance must agree to comply with the requirements of §4005 regarding the upgrading of open dumps and must apply management practices, methods and levels of control consistent with any guidelines published under §1008. Id., §6948(a) (2) (B).
- b. EPA can seek injunctive relief where the handling, storage, treatment, transportation or disposal of solid waste creates an imminent hazard to human health or the environment. Id., §6973.
- c. Citizens can initiate suits for violation of any requirement of the Act (e.g., the prohibition of

open dumping) if the state (or EPA in the case of an imminent hazard) fails to take appropriate action. Id., §6972.

IV.

CONCLUSION