

DIRECTIVE NUMBER: 9234.0-02

TITLE: CERCLA Compliance with Other Environmental

Statutes

APPROVAL DATE: October 2, 1985

EFFECTIVE DATE: October 2, 1985

ORIGINATING OFFICE: OERR

**☑ FINAL** 

☐ DRAFT

**LEVEL OF DRAFT** 

☐ A — Signed by AA or DAA

☐ B — Signed by Office Director

☐ C — Review & Comment

REFERENCE (other documents):

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United States
Environmental Protection
Agency

Office of Solid Waste and Emergency Response



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United States Environmental Process of Control Washington			1. Directive Number
SEPA OSWER Directive Initiation Request			Request 9234.0.02
2. Originator Information			
Name of Contact Person Steve Smith	Mail Code WH 548	Office OERR	Telephone Number 382-2200
3. Title CERCLA Compliance with Other Environmental Statutes			
4. Summary of Directive (Include brief statement of purpose)			
Memorandum sets forth the EPA policy on the applicability of the standards, criteria, advisories, and guidance of other State and Federal environmental and public health statutes to actions taken pursuant to sections 104 and 106 of CERCLA.			
5. Keywords On-site, Off-site, Policy,			
6a. Does this Directive Supersede Previous Directive(s)? Yes X No What directive (number, title)			
b. Does It Supplement Previous Directive(s)?			
7, Draft Level			
A — Signed by AA/DAA B — Signed by Office Director C — For Review & Comment In Development			
This Request Meets OSWER Directives System I			
8. Signature of Lead Office Directives Coordinate  MWWW.M X. S			Dete 3-6-37
9. Name and Title of Approving Official			Date

## OSWER OSWER OSWER DIRECTIVE DIRECTIVE



## UNITED STATE: /IRONMINTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

9234.0-02

OCT - 2 1985

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

#### MEMORANDUM

SUBJECT: CERCLA Compliance With Other Environmental Statutes

FROM:

Winston Porter

Assistant Administrator

TO:

Regional Administrator

Regions I-X

This memorandum sets forth the Environmental Protection Agency (EPA) policy on the applicability of the standards, criteria, advisories, and guidance of other State and Federal environmental and public health statutes to actions taken pursuant to sections 104 and 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). This policy addresses considerations for on-site and off-site actions taken under CERCLA.

#### I. Discussion

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the process for determining appropriate removal and/or remedial actions at Superfund sites. In the course of this process, EPA will give primary consideration to the selection of those response actions that are effective in preventing or, where prevention is not practicable, minimizing the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare, or the environment. As a general rule, this can be accomplished by pursuing remedies that attain or exceed the requirements of applicable or relevant and appropriate Federal public health or environmental laws. However, because of unique circumstances at particular sites, there may be alternatives that do not meet the standards of other laws, but that still provide protection of public health, welfare, and the environment.

Although response actions that prevent hazardous substances from migrating into the environment are seen as the most effective under CERCLA, actions which minimize migration must also be considered since CERCLA primarily addresses inadequate past disposal practices and resulting unique site conditions. At certain sites, it may be technically impractical, environmentally unacceptable, or excessively costly to implement a response action that prevents migration or restores the site to its original, uncontaminated condition.

#### II. Policy

Section 104 of CERCLA requires that for off-site remedial actions, storage, destruction, treatment or secure disposition, be in compliance with subtitle C of the Resource Conservation and Recovery Act (RCRA). CERCLA is silent, however, concerning the requirements of other laws with regard to all other response actions taken pursuant to sections 104 and 106.

As a general rule, the Agency's policy is to attain or exceed applicable or relevant and appropriate Federal environmental and public health requirements in CERCLA response actions unless one of the specifically enumerated situations is present. Where such a situation is present and a requirement is not followed, the Agency must document and explain the reasons in the decision documents. Other Federal criteria, advisorie, guidances, and State standards also will be considered and may be used in developing remedial alternatives, with adjustments for site specific circumstances. If EPA does not use, or uses and adjusts any pertinent standards in this category, EPA will fully document the reasons why in the decision documents.

#### A. On-site Response Actions

- (1) For removal actions, EPA's policy is to pursue actions that will meet applicable or relevant and appropriate requirements of other Federal environmental and public health laws to the maximum extent practicable, considering the exigencies of the situation.
- (2) For remedial actions, EPA's policy is to pursue remedies that attain or exceed applicable or relevant and appropriate requirements of other Federal public health and environmental laws, unless the specific circumstances identified below exist.

CERCLA procedural and administrative requirements will be modified to provide safeguards similar to those provided under other laws. Application for and receipt of permits is not required for on-site response actions taken under the Fund-financed or enforcement authorities of CERCLA.

#### B. Off-Site Response Actions

CERCLA removal and remedial activities that involve the removal of hazardous substances from a CERCLA site to offsite facilities for proper storage, treatment or disposal must be in compliance with all applicable or relevant standards of Federal environmental and public health statutes.

Off-site facilities that are used for st. ..e, treatment, or disposal of Superfund wastes must have all appropriate permits or authorizations.

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If the facility or process that is being considered for receipt of the Superfund wastes has not been permitted or authorized, the State or responsible party will be required to obtain all appropriate permits. Furthermore, as stated in the Agency's off-site policy memorandum, "Procedures for Planning and Implementing Off-Site Response Actions, May 6, 1985, barring several exceptions enumerated in that memorandum, no CERCLA hazardous substances shall be taken off-site to a unit in a RCRA facility if the receiving Region's Administrator determines that the unit has significant RCRA violations or other environmental conditions that affect the satisfactory operation of the facility. A State's responsibility for obtaining any appropriate Federal, State or local permits (e.g., RCRA, TSCA, NPDES, UIC, Clean Air, etc.) will be specified in a contract or cooperative agreement with the State as part of its assurances required under section 104(c) of CERCLA.

## III. Other Laws or Guidances That May Be Used to Determine the Appropriate Extent of Response Actions

Federal and State environmental and public health requirements, criteria, guidance and advisories fall into two categories:

- Federal requirements that are applicable or relevant and appropriate,
- \* Other Federal criteria, advisories, guidances, and State standards to be considered.

An initial list of both categories is attached.

#### A. Applicable or Relevant and Appropriate Federal Requirements

"Applicable" requirements are those Federal requirements that would be legally applicable, whether directly, or as incorporated by a federally authorized State program, if the response actions were not undertaken pursuant to CERCLA section 104 or 106.

"Relevant and Appropriate" requirements are those Federal requirements that, while not "applicable", are designed to apply to problems sufficiently similar to those encountered at CERCLA sites that their application is appropriate. Requirements may be relevant and appropriate if they would be "applicable" but for jurisdictional restrictions associated with the requirement.

For example, the RCRA 40 CFR Part 264 Subpart F Ground-Water Protection Standards would be applicable to the management or cleanup of hazardous wastes in ground water from hazardous waste management facilities if such actions

were not taken pursuant to CERCLA sections 104 or 106. Yet RCRA Subtitle C regulations, while not applicable to hazardous wastes disposed of prior to the November 19, 1980, effective date of those regulations, could be relevant to CERCLA response actions regardless of when the wastes were disposed of or managed.

### B. Other Federal Criteria, Advisories, Guidances and State Standards to Be Considered

This category includes other standards, criteria, advisories and guidance that may be useful in developing Superfund remedies. These criteria, advisories and guidances were developed by EPA, other Federal agencies and the States. The concepts and data underlying these requirements may be used at Superfund sites in an appropriate way.

#### IV. Implementation

#### A. Removal Actions

For both on and off-site Fund-financed removal actions, the lead agency should consult with the Regional Response Team within the framework of the Regional Contingency Plan to determine the most effective action.

#### (1) On-site

For on-site removal actions, the lead agency shall, as appropriate, attempt to attain or exceed all Federal applicable or relevant and appropriate public health or environmental requirements. The lead agency also shall, as appropriate, consider other Federal criteria, guidances, and advisories as well as State standards in formulating the removal action. However, because removal actions often involve situations requiring expeditious action to protect public health, welfare, or the environment, it may not always be feasible to fully meet them. In those circumstances where they cannot be attained, the decision documents, OSC reports, or other documents should specify the reasons.

#### (2) Off-site

Off-site facilities that are used for storage, treatment, or disposal of Superfund wastes must have all appropriate permits or authorizations and, barring certain exceptions, enumerated in the off-site policy, no hazardous substance shall be taken off-site to a unit in a RCRA facility if the Region determines that the unit has significant RCRA violations or other environmental conditions that affect the satisfactory operation of the facility.

#### B. Remedial Actions

#### 1. Presentation and Analysis of Alternatives

To the extent that it is both possible and appropriate, at least one remedial alternative shall be developed as part of the feasibility study (FS) in each of the following categories:

- (a) Alternatives for treatment or disposal in an offsite facility, as appropriate; 1
- (b) Alternatives that attain applicable and relevant and appropriate Federal public health or environmental requirements;
- (c' As appropriate, alternatives that exceed applicable and relavant and appropriate public health or environmental requirements<sup>2</sup>;
- (d) As appropriate, alternatives that do not attain applicable or relevant and appropriate public health or environmental requirements but will reduce the likelihood of present or future threat from the hazardous substances and that provide significant protection to public health, welfare and environment. This must include an alternative that closely approaches the level of protection provided by the applicable or relevant and appropriate requirements;
  - (e) A no action alternative.

#### 2. Selection of Remedy

The decisionmaker will consider all of the alternatives arrayed in the feasibility study and will give primary consideration to remedies that attain or exceed applicable or relevant and appropriate Federal public health and environmental requirements. Where the selected remedy involves an EPA standard, criterion, or advisory, the decisionmaker will ensure appropriate coordination with affected EPA programs.

In appropriate cases, the decisionmaker may select a remedial action that includes both on- and off-site components.

These alternatives must be consistent with EPA's May 6, 1985 off-site policy, "Procedures for Planning and Implementing Off-Site Response Actions". In some cases, off-site disposal or treatment may not be feasible and this alternative may be eliminated during initial screening of alternatives. The decision documents should reflect this screening.

<sup>2</sup> For instance, the Agency might choose incineration as an alternative that exceeds what would be required by applicable standards because it is a more permanent and reliable solution than RCRA closure standards for land disposal facilities.

The decisionmaker may select an alternative that does not attain applicable or relevant standards in one of the five following circumstances:

- (a) Interim Remedy Where the selected alternative is not the final remedy and will become part of a more comprehensive remedy; the lead agency may select an interim remedy;
- (b) <u>Fund-Balancing</u> For Fund-financed responses only, the need for protection of public health, welfare and the environment at the facility under consideration for all of the alternatives that attain or exceed applicable or relevant and appropriate Federal requirements is, considering the amount of money available in the Fund, outweighed by the need for action at other sites that may present a threat to public health or welfare or the environment. In the event of Fund balancing, the lead agency shall select the alternative which most closely approaches the level of protection provided by applicable or relevant and appropriate Federal requirements, considering the specific Fund-balanced sum of money available for the immediate facility. Fund-balancing is not a consideration in determining the appropriate extent of remedy when the response will be performed by a potentially responsible party;
- (c) Technical Impracticality Where no alternative that attains or exceeds applicable or relevant and appropriate Federal public health or environmental requirements is technically practical to implement, the lead agency shall select the alternative that most closely approaches the level of protection provided by the applicable or relevant and appropriate requirements, and which is reasonable to implement from an engineering perspective;
- (d) Unacceptable Environmental Impacts Where all the alternatives that attain or exceed Federal public health or environmental requirements, if implemented, will result in significant adverse environmental impacts, the lead agency shall select the alternative that most closely approaches the level of protection provided by applicable or relevant and appropriate requirements, without resulting in significant adverse environmental impacts; or
- (e) Overriding Public Interest Related to Enforcement Where the remedy is to be carried out pursuant to CERCLA section 106, the Fund is unavailable, there is a strong public interest in expedited cleanup, and the litigation probably would not result in the desired remedy, the lead agency will select the alternative that most closely approaches applicable or relevant and appropriate Federal public health and environmental statutes in light of the need to invoke the exception.

Where one of these situations is present, the decisionmaker may select an alternative which does not attain or
exceed applicable or relevant and appropriate Federal public
health or environmental requirements, yet still provides
protection of the public health and welfare and the environment.
The basis for not meeting the requirements must be fully
documented and explained in the appropriate decision documents.
The Agency anticipates that most final CERCLA remedial actions
will attain or exceed applicable or relevant and appropriate
public health or environmental requirements.

Other Federal criteria, advisories, guidances, and State standards also will be considered and may be used in developing remedial alternatives, with appropriate adjustments for site specific circumstances. If EPA does not use, or uses and adjusts any pertinent standards in this category, EPA will fully document the reasons why in the decision documents.

For Fund-financed actions, where State standards are part of the cost-effective remedy, the Fund will pay to attain those standards. Where the cost-effective remedy does not include those State standards, the State may pay the difference to attain them.

#### 3. Administrative and Procedural Aspects

The following modifications will be made to the Superfund community relations program to ensure that it provides a similar level of public involvement to that provided by the permitting programs of other environmental laws:

- A fact sheet should be included with the public notice and feasibility study which is provided to the public 2 weeks before the 3 week public comment period. The fact sheet will clearly summarize the feasibility study response alternatives and other issues, including which alternatives attain or exceed Federal public health and environmental requirements. For those alternatives that do not attain applicable or relevant and appropriate requirements of other public health and environmental laws, the fact sheet shall identify how they do not attain the requirements and explain how they nonetheless meet the goals of CERCLA. The public notice should include a timetable in which a decision will be reached, any tentative determinations which the Agency has made, the location where relevant documents can be obtained, identification of community involvement opportunities, the name of an Agency contact, and other appropriate information.
- A public notice and updated fact sheet should be prepared upon (1) Agency selection of the final response action and (2) completion of the final engineering design. Prior to selecting the final engineering design, the Agency may hold a public meeting to inform the public of the design alternatives and to solicit comments.

"If a remedy is identified that is materially different from those proposed during the feasibility study public comment period, a new 3 week public comment period may be required prior to amending the Record of Decision, taking into consideration the features of the alternatives addressed in the public comment period.

The CERCLA enforcement community relations program will also be modified to provide for an enhanced public participation program for both consent decrees and administrative orders. This program will be substantially equivalent to the revised program for Fund-financed actions. Furthermore, consent decrees and administrative orders will incorporate administrative requirements (i. e. recordkeeping, monitoring) similar to those mandated by other environmental programs.

#### V. Applicability of Policy

This policy applies to two situations:

- \* a site-specific FS has not yet been initiated; the FS must fully comply with this policy.
- the FS has been initiated, but the remedy has not yet been selected; the requirements of this policy shall be incorporated into the FS and Record of Decision (ROD) as practicable.

This policy does not apply to RODs signed before February 12 1985, the date of proposal of this policy.

If you have any questions or comments, please contact James Lounsbury, Director, Policy Analysis Staff (202 382-2182) or Stephen M. Smith of his staff (202 382-2200).

Attachment

- Land Treatment (40 CFR 264.270-264.299, 265.270-
- Landfills (40 CFR 264.300-264.339, 265.300-265.316).
- Incinerators (40 CFR 264.340-264.999, 265.340-265.369).
- Dioxin-containing Wastes, (50 FR 1978). Includes the the final rule for the listing of dioxin containing waste.
- 2. EPA's Office of Water administers several potentially applicable or relevant and appropriate statutes and regulations issued thereunder:
  - a. Section 14.2 of the Public Health Service Act as amended by the Safe Drinking Water Act as amended (Pub. L. 93-523, 88 Stat 1660, 42 U.S.C. 300f et seq.)
    - Maximum Contaminant Levels (for <u>all</u> sources of drinking water exposure). (40 CFR 141.11-141.16)
    - Ounderground Injection Control Regulations. (40 CFR Parts 144, 145, 146, and 147)
  - b. Clean Water Act as amended (Pub. L. 92-500, 86 Stat 816, 33 U.S.C. 1251 et. seq.)
    - Requirements established pursuant to sections 301, 302, 303 (including State water quality standards), 306, 307, (including Federal pretreatment requirements for discharge into a publicly owned treatment works), and 403 of the Clean Water Act. (40 CFR Parts 131, 400-469)

- c. Marine Protection, Research, and Sanctuaries Act (33 U.S.C. 1401).
  - Incineration at sea requirements. (40 CFR Part 220-225, 227, 228. See also 40 CFR 125.120-125.124)
- 3. EPA's Office of Pesticides and Toxic Substances

  Toxic Substances Control Act (15 U.S.C. 2601).
  - PCB Requirements Generally: 40 CFR Part 761; Manufacturing Processing, Distribution in Commerce, and Use of PCBs and PCB Items (40 CFR 761.20-761.30); Markings of PCBs and PCB Items (40 CFR 761.40-761.45); Storage and Disposal (40 CFR 761.60-761.79). Records and Reports (40 CFR 761.180-761.185). See also 40 CFR 129.105, 750.
  - Disposal of Waste Material Containing TCDD. (40 CFR Part 775.180-775.197).
- 4. EPA's Office of External Affairs
  - Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230).
  - Procedures for denial or Restriction of Disposal
    Sites for Dredged Material (\$404(c) Procedures, 40
    CFR Part 231).
- 5. EPA's Office of Air and Radiation administers several potentially applicable or relevant and appropriate statutes and regulations issued thereunder:
  - a. The Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. 2022).

- 1. EPA's Office of Solid Waste administers, <u>inter</u> alia, the Resource Conservation and Recovery Act of 1976, as amended (Pub. L. 94-580, 90 Stat 95, 42 U.S.C. 6901 <u>et seq.</u>). Potentially applicable or relevant requirements pursuant to that Act are:
  - a. Open Dump Criteria Pursuant to RCRA Subtitle D criteria for classification of solid waste disposal facilities (40 CFR Part 257).

Note: Only relevant to nonhazardous wastes.

- b. In most situations Superfund wastes will be handled in accordance with RCRA Subtitle C requirements governing standards for owners and operators of hazardous waste treatment, storage, and disposal facilities: 40 CFR Part 264, for permitted facilities, and 40 CFR Part 265, for interim status facilities.
  - Ground Water Protection (40 CFR 264.90-264.109).
  - Ground-Water Monitoring (40 CFR 265.90-265.94).
  - Closure and Post Closure (40 CFR 264.110-264.120, 265.110-265.112).
  - Containers (40 CFR 264.170-264.178, 265.170-265.177).
  - Tanks (40 CFR 264.190-264.200, 265.190-265.199).
  - Surface Impoundments (40 CFR 264.220-264.249,
     265.220-265.230).
  - Waste Piles (40 CFR 264.250-264.269, 265.250-265.258).

- Uranium mill tailing rules Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings, (40 CFR Part 192).
- b. Clean Air Act (42 U.S.C. 7401).
  - National Ambient Air Quality Standards for total suspended particulates (40 CFR Part 50.6-50.7)
  - National Ambient Air Quality Standards for ozone (40 CFR 50.9).
  - Standards for Protection Against Radiation high and low level radioative waste rule, (10 CFR Part 20). See also 10 CFR Parts 10, 40, 60, 61, 72, 960, 961.
  - National Emission Standard for Hazardous Air Pollutants for Asbestos, (40 CFR 61.140-61.156).
    See also 40 CFR 427.110-427.116, 763.
  - National Emission Standard for Hazardous Air Pollutants for Radionuclides (40 CFR Part 61, 10 CFR 20.101-20.108).
- 6. Other Federal Requirements
  - a. OSHA requirements for workers engaged in response activities are codified under the Occupational Safety and Health Act of 1970 (29 U.S.C. 651). The relevant regulatory requirements are included under:
    - Occupational Safety and Health Standards (General Industry Standards) (29 CFR PArt 1910).
    - The Safety and Health Standards for Federal Service Contracts (29 CFR Part 1926).

- The Shipyard and Longshore Standards (29 CFR Parts 1915, 1918).
- Recordkeeping, reporting, and related regulations
   (29 CFR Part 1904).
- b. Historic Sites, Buildings, and Antiquities Act (16U.S.C. 461).
- c. National Historic Preservation Act, 16 U.S.C. 470.
  Compliance with NEPA required pursuant to 7 CFR Part
  650. Protection of Archaelogical Resources: Uniform
  Regulations -- Department of Defense (32 CFR Part
  229, 229.4), Department of the Interior (43 CFR Part
  7, 7.4).
  - D.O.T. Rules for the Transportation of Hazardous
    Materials, 49 CFR Parts 107, 171.1-171.500.
    Regulation of activities in or affecting waters of the
    United States pursuant to 33 CFR Parts 320-329.
    The following requirements are also triggered by Fundfinanced actions:
  - Endangered Species Act of 1973, 16 U.S.C. 1531. (Generally, 50 CFR Parts 81, 225, 402). Wild and Scenic Rivers Act, 16 U.S.C. 1271. Compliance with NEPA required pursuant to 36 CFR Part 297.
  - Fish and Wildlife Coordination Act, 16 U.S.C. 661 note.
  - Fish and Wildlife Improvement Act of 1978, and Fish and Wildlife Act of 1956, 16 U.S.C. 742a note.

- Fish and Wildlife Conservation Act of 1980, 16 U.S.C. 2901. (Generally, 50 CFR Part 83).
- Coastal Zone Management Act of 1972, 16 U.S.C. 1451. (Generally, 15 CFR Part 930 and 15 CFR 923.45 for Air and Water Pollution Control Requirements).

### OTHER FEDERAL CRITERIA, ADVISORIES, GUIDANCES, AND STATE STANDARDS TO BE CONSIDERED

#### 1. Federal Criteria, Advisories and Procedures

- Health Effects Assessments (HEAs)
- Recommended Maximum Concentration Limits (RMCLs)
- \* Federal Water Quality Criteria (1976, 1980, 1984).

  Note: Federal Water Quality Criteria are not legally enforceable. State water quality standards are legally enforceable, developed using appropriate aspects of Federal Water Quality Criteria. In many cases, State water quality standards do not include specific numerical limitations on a large number of priority pollutants.

  When neither State standards nor MCLs exist for a given pollutant, Federal Water Quality Criteria are pertinent and therefore are to be considered.
- Pesticide registrations.
- Pesticide and food additive tolerances and action levels.
  Note: Germane portions of tolerances and action levels
  may be pertinent and therefore are to be considered in certain situations.
- \* Waste load allocation procedures, EPA Office of Water.
- Federal sole source aguifer requirements.

- Public health basis for the decision to list pollutants
   as hazardous under section 112 of the Clean Air Act.
- EPA's Ground-water Protection Strategy.
- New Source Performance Standards for Storage Vessels for Petroleum Liquids.
- ° TSCA health data.
- Pesticide registration data.
- TSCA chemical advisories (2 or 3 issued to date).
- Advisories issued by FWS and NWFS under the Fish and Wildlife Coordination Act.
- Executive Orders related to Floodplains (11988) and Wetlands (11990) as implemented by EPA's August 6, 1985, Policy on Floodplains and Wetlands Assessments for CERCLA Actions.
- TSCA Compliance Program Policy.
- OSHA health and safety standards that may be used to
   protect public health (non-workplace).
- Health Advisories, EPA Office of Water

#### 2. State Standards

- State Requirements on Disposal and Transport of Radioactive wastes.
- State Approval of Water Supply System Additions or Developments.
- State Ground Water Withdrawal Approvals.
- Requirements of authorized (Subtitle C of RCRA) State

- hazardous waste programs.
- State Implementation Plans and Delegated Programs
  Under Clean Air Act.
- All other State requirements, not delegated through
   EPA authority.
- Approved State NPDES programs under the Clean Water Act.
- Approved State UIC programs under the Safe Drinking
   Water Act.

Note: Many other State and local requirements could be pertinent. Forthcoming guidance will include a more comprehensive list.

#### 3. USEPA RCRA Guidance Documents

- . Praft Alternate Concentration Limits (ACL) Guidance
- A. EPA's RCRA Design Guidelines
  - Surface Impoundments, Liners Systems, Final Cover and Freeboard Control.
  - 2. Waste Pile Design Liner Systems.
  - 3. Land Treatment Units.
  - 4. Landfill Design Liner Systems and Final Cover.
- B. Permitting Guidance Manuals
  - Permit Applicant's Guidance Manual for Hazardous Waste
     Land Treatment, Storage, Disposal Facilities.
  - Permit Writer's Guidance Manual for Hazardous Waste Land Treatment, Storage, and Disposal Facilities.
  - 3. Permit Writer's Guidance Manual for Subpart F.
  - 4. Permit Applicants Guidance Manual for the General Facility Standards.

- 5. Waste Analysis Plan Guidance Manual.
- 6. Permit Writer's Guidance Manual for Hazardous Waste Tanks.
- 7. Model Permit Application for Existing Incinerators.
- 8. Guidance Manual for Evaluating Permit Applications for the Operation of Hazardous Waste Incinerator Units.
- 9. A guide for Preparing RCRA Permit Applications for Existing Storage Facilities.
- 10. Guidance Manual on closure and post-closure Interim
  Status Standards.
- C. Technical Resource Documents (TRDs)
  - 1) Evaluating Cover Systems for Solid and Hazardous Waste.
  - 2) Hydrologic Simulation of Solid Waste Disposal Sites.
  - 3) Landfill and Surface Impoundment Performance Evaluation.
  - 4) Lining of Water Impoundment and Disposal Facilities.
  - 5) Management of Hazardous Waste Leachate.
  - 6) Guide to the Disposal of Chemically Stabilized and Solidified Waste.
  - 7) Closure of Hazardous Waste Surface Impoundments.
  - 8) Hazardous Waste Land Treatment.
  - 9) Soil Properties, Classification, and Hydraulic Conductivity Testing.
- D. Test Methods for Evaluating Solid Waste
  - 1) Solid Waste Leaching Procedure Manual.
  - 2) Methods for the Prediction of Leachate Plume Migration and Mixing.

- 3) Hydrologic Evaluation of Landfill Performance (HELP)

  Model Hydrologic Simulation on Solid Waste Disposal

  Sites.
- 4) Procedures for Modeling Flow Through Clay Liners to

  Determine Required Liner Thickness
- 5) Test Methods for Evaluating Solid Wastes
- 6) A Method for Determining the Compatibility Of Hazardous Wastes
- 7) Guidance Manual on Hazardous Waste Compatibility
- 4. USEPA Office of Water Guidance Documents
- A. Pretreatment Guidance Documents
  - 304(g) Guidance Document Revised Pretreatment Guidelines
     (3) Volumes)
- B. Water Quality Guidance Documents
  - Ecological Evaluation of Proposed Discharge of Dredged
     Material into Ocean Waters (1977)
  - 2) Technical Support Manual: Waterbody Surveys and Assessments for Conducting Use Attainability Analyses (1983)
  - 3) Water-Related Environmental Fate of 129 Priority Pollutants (1979)
  - 4) Water Quality Standards Handbook (1983)
  - 5) Technical Support Document for Water Quality-based Toxics Control.

- C. NPDES Guidance Documents
  - NPDES Best Management Practices Guidance Manual (June 1981)
  - 2) Case studies on toxicity reduction evaluation (May 1983).
- D. Ground Water/UIC Guidance Document
  - 1) Designation of a USDW
  - 2) Elements of Aquifer Identification
  - 3) Interim guidance for public participation
  - 4) Definition of major facilities
  - 5) Corrective action requirements
  - 6) Requirements applicable to wells injecting into, through or above an aquifer which has been exempted pursuant to \$146.104(b)(4).
  - 7) Guidance for UIC implementation on Indian lands.
- 5. USEPA Manuals from the Office of Research and Development
  - 1) EW 846 methods laboratory analytic methods
  - 2) Lab protocols developed pursuant to Clean Water Act §304(h).