



11.0 CORRECTIVE ACTION



The objective of the California corrective action program at a hazardous waste management facility is to identify releases or potential releases of hazardous waste or constituents requiring further investigation; to evaluate the nature and extent of the releases; and to identify, develop and implement appropriate corrective measure or measures to protect human health and environment.

The essential stages of corrective action program and their objectives are as follows:

- ! RCRA Facility Assessment (RFA) - to identify SWMUs, collect existing information on contaminant releases, and identify releases or suspected releases needing further investigation.
- ! Interim Measures (IM) - to control and abate the spread of hazardous waste and constituents, and the subsequent endangerment of human health and the environment. This phase can be used at any time in the process if an immediate threat to human health and the environment is recognized. It is an optional tool anywhere in the corrective action program.
- ! RCRA Facility Investigation (RFI) - to characterize the nature, extent, and rate of the releases of hazardous waste and constituents through comprehensive field investigations. The findings will be used to gather necessary data to support the Corrective Measures Study.
- ! Corrective Measures Study (CMS) - to develop and evaluate a corrective measure alternative(s) and to recommend the final corrective measure(s).
- ! Remedy Selection and Statement of Bases - to select appropriate remedy(ies) and set media cleanup standards, provide opportunity for public involvement in the remedy selection process, and modify schedule of compliance in the permit or order.
- ! Corrective Measures Implementation (CMI) - to design, construct, operate, maintain, and monitor the performance of the corrective measure(s) selected.

The Permitting Division prepared the "Corrective Action Orientation Manual" Draft Working Copy in June of 1994. Any permit writer carrying out corrective action activities should have access to the orientation manual.

No Evidence of Release

If there is no evidence whatsoever that any releases or SWMUs exist at the proposed facility, the permit writer should prepare a memo to file in lieu of a formal RFA report explaining the non-release/non-SWMU finding. This memo should contain all of the details for any investigation made to help justify not preparing a formal RFA report.

Required Permit Conditions

The Office of Solid Waste and Emergency Response (OSWER) Directive 9902.3 provides guidance in developing corrective action requirements in permit application and permits. RCRA section 3004(u)&(v) provides authority to require corrective action at RCRA facilities, and H&SC section 25200.10 provides similar authority for corrective action at the state only facilities.

For sample permit conditions, the permit writer is directed to draft Module XII(B), Corrective Action for

Solid Waste Management Units, located in the Model RCRA Permit for Hazardous Waste Management Facilities, which was distributed to states in 1988. (This is one of the blue 3-ring binders sent to the states in 1988. The other binder is the RCRA Permit Quality Protocol.)

KEY QUESTIONS

Has a comprehensive RFA been completed and a final RFA report prepared?

Are there conditions at the site which pose an imminent and substantial endangerment to facility workers or the community? If so, what interim clean-up measures must be taken to protect human health and the environment?

How do the proposed permit conditions fully address all corrective action needed at the site?

REQUIRED OUTPUTS

RFA

RFA report or memo to the file.

Completed Corrective Action portion of the checklist.

Draft permit conditions requiring an RFI and corrective action.

APPLICABLE REGULATIONS AND STATUTES

State Laws and Regulations:

Cal. H&S Code

Section

25200.10

Required corrective action

Ch. 6.8, Div. 20

General state Superfund authority

Title 23, Cal. Code of Regs.

Subchapter 15 and 16

Waste Discharge Requirements

Title 22, Cal. Code of Regs.

Sections

66264.100

Corrective Action Program under this section include Water Quality Monitoring (section 66264.90) --- ground water monitoring. Applies to Disposal Units, Surface Impoundment, waste pole, land treatment, landfill units.

66264.708

Corrective Action Program under this section include Environmental Monitoring (section 66264.700) -- air, soil pore gas, land surface. Applies to Storage and Treatment units and Disposal units.

66264.800

Corrective Action Program for Solid Waste Management Units (SWMUs)

66270.14(c)(8)

Corrective Action Program for general. This is inclusive, it covers SWMUs, regulated units, storage, treatment and all types of disposal. It requires ground water characterization. References H&SC 25000.10.

Federal Laws and Regulations:

RCRA

Sections

3004(u) Requires a facility to take response actions through permit procedures.

3004(v) Requires a facility to take response actions for releases beyond the facility boundary through either an enforcement order or permit conditions.

3008(a) Requires a facility to comply with hazardous waste requirements within a specific time frame.

3008(h) Requires a facility to take response actions through an enforcement order mechanism.

3013 Requires a facility to collect data to ascertain the nature and extent of a hazard.

7003 Requires a facility to take response actions for operations which represent an imminent and substantial threat.

CERCLA

104 Requires actions in response to releases or threatened releases.

106 Requires responsible parties to take response actions.

107 Allows recovery of expenditures for response actions by the federal government.

Other Laws and Regulations:

POLICIES

DTSC Policies:

Permitting/Site Mitigation interface, OPP#87-12

EPA Policies:

National RCRA Corrective Action Strategy, October 1, 1986,
OSW: 530/SW-86-045

Other Policies:

INSTRUCTIONS TO APPLICANTS

Handouts to be Given to Applicants:

Examples to be Given to Applicants:

CEQA CONSIDERATIONS

Federal and state requirements mandate the inclusion of correction actions measures in a facility permit when a known or suspected release is present. As a result, the CEQA analysis must be expanded to include the corrective action scenario. Caution must be taken not to separate the corrective action situation from the permit decision in light of these requirements.

LEGAL CONSIDERATIONS

INTERAGENCY AGREEMENTS & MOUs

COORDINATION WITH OTHERS

Other DTSC Units:

Environmental/Legislative/Industry Groups:

Other Agencies:

Special Requests:

Flow Charts:

TECHNICAL REFERENCES

Corrective Action Orientation Manual, Cal-EPA - DTSC Draft Working Copy of June 1994

RCRA Facility Assessment Guidance, October 9, 1986,
OSW: 530/SW-86-059

Interim Final Corrective Action Plan, November 14, 1986,
OSWER Directive # 9902

RCRA Facility Investigation Guidance, July 1987, OSW: 530/SW-87-001
Volume I -- Development of an RFI Work Plan and General Considerations for RCRA Facility Investigations
Volume II -- Soil, Ground Water and Subsurface Gas Releases
Volume III -- Air and Surface Water Releases
Volume IV -- Case Study Examples

RCRA Corrective Action Interim Measures, June 10, 1987,
OSWER Directive 9902.4

Compendium of ORD and OSWER Documents Relevant to RCRA Corrective Action, May 1988,
EPA/530/SW-88-010

Guidance on RCRA Corrective Action Decision Documents: The Statement of Basis, Final Decision and Response to Comments, February 1991, OSWER Directive 9902.6

Corrective Measures for Releases to Soil from Solid Waste Management Units,
NTIS PB88-185227

Corrective Measures for Releases to Groundwater from Solid Waste Management Units, NTIS, PB88-185251

Miscellaneous EPA OSWER Directives: See Appendix 11.0-1 to this chapter for a key word vs. OSWER Directive listing. Copies of directives listed are filed in the compendium of directives located in each regional office.

U. S. EPA, Office of Research and Development Center for Environmental Research Information. ORD operates a computer bulletin board (513) 569-7610 that lists ORD and OSWER documents relevant to RCRA corrective action which are available to state regulatory personnel. Permit writers are encouraged to call this bulletin board periodically and download their listing of documents. Many newer documents can be ordered directly (for free) on the bulletin board by just filling in an on-line form. No account number or special password is needed to access this system.

EXAMPLES OF COMPLETED WORK PRODUCTS

TIMELINE AND PLANNING

Workload Standards:

Statutory & Other Deadlines:

List of Examples:

List of Appendices:

11.0-1 Miscellaneous EPA OSWER Directives

List of References: