RCRA Corrective Action Work Plans

BACKGROUND:

The 1984 passage of the Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) strengthened the U.S. Environmental Protection Agency's (EPA's) ability to require hazardous waste management facility owners/operators to perform corrective action to address releases of hazardous waste or hazardous constituents. Under RCRA Section 3008(h), EPA may issue administrative orders compelling corrective action at interim status facilities. Under RCRA Section 3004(u), any permit issued to a treatment, storage, or disposal (TSD) facility after November 8, 1984, must address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU) at the facility. Under RCRA Section 3004(v), EPA may compel a TSD facility owner/operator to remediate releases that migrate beyond the facility's boundary.

On July 27, 1990 (55 FR 30798 *et seq.*), EPA proposed a regulatory framework for implementing aspects of these statutory changes. This framework, proposed under 40 CFR Subpart S, establishes requirements for conducting corrective action investigations and for evaluating, selecting, and implementing appropriate corrective action remedies at SWMUs.

The proposed corrective action framework involves four phases: RCRA Facility Assessment (RFA), RCRA Facility Investigation (RFI), Corrective Measures Study (CMS), and Corrective Measures Implementation (CMI). In addition, a regulator can require an owner/operator to conduct Interim Measures (IM) whenever a release from a SWMU poses a threat to human health or the environment. This Information Brief describes the work plans that owners/operators may have to prepare in conjunction with the performance of corrective action.

STATUTE:

RCRA Sections 3008(h), 3004(u), and 3004(v).

REGULATIONS:

Proposed 40 CFR 264, Subpart S (55 FR 30798 *et seq.*; July 27, 1990).

REFERENCES:

1. "RCRA Corrective Action Interim Measures Guidance - Interim Final," EPA/530-SW-88-029, June 1988.
2. "RCRA Corrective Action Program Guide - Interim Guidance," U.S. Department of Energy, Office of Environmental Guidance, RCRA/CERCLA Division, Guidance Manual, DOE/EH-0323, May 1993.
3. "RCRA Corrective Action Interim Measures Under The Proposed Subpart S Rule," U.S. Department of Energy, Office of Environmental Guidance, RCRA/CERCLA Division, RCRA Information Brief, EH-231-024/0793 (July 1993).
4. "Preparation of RCRA Contingency Plans," U.S. Department of Energy, Office of Environmental Guidance, RCRA/CERCLA Division, Guidance Manual, DOE/EH-0274, July 1992.
5. "RCRA Corrective Action Permit Requirements and Modifications Under Proposed Subpart S Rule," U.S. Department of Energy, Office of Environmental Guidance, RCRA/CERCLA Division, RCRA Information Brief, EH-231-023/0793 (July 1993).

What corrective action activities may require the preparation of a work plan?

The proposed corrective action regulations and RCRA corrective action guidance published by EPA (Reference 1) discuss the preparation of work plans in conjunction with the performance of an RFI, a CMS, CMI, and IM.

- ☐ An RFI is a remedial investigation focusing on the areas of concern identified by the RFA (see Reference 2, Chapter 1).
- ☐ A CMS is a study to identify and evaluate potential remedial alternatives for releases at a facility (see Reference 2, Chapter 4).
- ☐ CMI is the implementation of the corrective action remedy selected by the regulator (see Reference 2, Chapter 6).
- ☐ IMs are measures that can be imposed by the regulator at any time to abate, minimize, stabilize, mitigate, or eliminate releases or the threat of releases (see Reference 2, Chapter 2 and Reference 3).

The imposition of a requirement to prepare a work plan for remedial investigations is at the discretion of the regulator (proposed 40 CFR 264.512).

In general, the more complicated the performance of corrective action appears from the RFA and other analyses, the more likely it is that the regulator will impose work plan requirements (55 FR 30812 *et seq.*; July 27, 1990). Even if work plan requirements are not imposed by a regulator, however, most owners/operators will prepare work plans (or other planning documents) in conjunction with the performance of corrective action processes as a matter of best engineering/management practice.

What information is to be included in corrective action work plans?

The contents of corrective action work plans, like requirements to prepare work plans, are subject to the regulator's discretion. Suggested minimum requirements for the contents of work plans contained in

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proposed regulations and EPA guidance are listed below

RFI plans (proposed 40 CFR 264.512) should include:

- ☐ An explanation of the overall approach to conducting the RFI, including objectives, schedule, and qualifications of personnel conducting investigations;
- ☐ The technical and analytical approach and methods for investigations;
- ☐ Quality Assurance procedures, including the data collection strategy, sampling and chain-of-custody procedures, and methods of sample analysis; and
- ☐ Data management procedures, including formats for documenting analytical results and tracking sample custody, and other results of investigations.

CMS plans (proposed 40 CFR 264.523) should include:

- ☐ A description of the general approach to investigating and evaluating potential remedies;
- ☐ A definition of the overall objectives of the CMS;
- ☐ A description of the specific remedy(ies) which will be studied;
- ☐ A description of methods of compliance with waste management requirements for remedies;
- ☐ Schedules for conducting the study; and
- ☐ A proposed format for information presentation.

CMI plans [proposed 40 CFR 264.527(a)] should include:

- ☐ Designs and specifications for units in which hazardous wastes and nonhazardous solid wastes will be managed, as specified in the approved remedy;
- ☐ Implementation and long-term maintenance plans;
- ☐ A project schedule; and
- ☐ A Construction Quality Assurance program.

Interim measures plans (Reference 1) should include:

- ☐ A discussion of interim measures objectives;
- ☐ A health and safety plan; and
- ☐ A community relations plan.

If interim measures are implemented during emergencies, the facility's existing contingency plan should be implemented (see 40 CFR 264.50-56, 40 CFR 265.50-56, and Reference 4). The regulator also may require the owner/operator to submit detailed information such as workplans if the interim measure extends beyond the time required to correct the emergency.

How much time is an owner/operator given to prepare a work plan?

The proposed Subpart S rule does not identify any requirements regarding the amount of time an owner/operator has to prepare a work plan. EPA considered a requirement that would impose a definite deadline for every owner/operator required to submit an RFI plan (i.e., 90 days after permit issuance). EPA recognized, however, that the circumstances at some facilities could be highly complex, which could mean that more than 90 days would be required to develop an adequate plan. Also, EPA wanted to retain the flexibility to require a plan to be developed more quickly at facilities having serious contamination (55 FR 30812 *et seq.*; July 27, 1990).

Is there an official approval process for work plans?

Required work plans are subject to the review and approval of the regulator [proposed 40 CFR 264.512(a), 264.523(a), and 264.527(a)]. Once they are approved, RFI, CMS, and CMI work plans become part of the schedule of compliance in the facility permit [proposed 40 CFR 264.512(b), 264.523(b), and 264.527(a)]. Reference 5 provides additional information about permit requirements.

Can a work plan be modified after it is approved by the regulator?

Modification of an approved RFI, CMS, or CMI work plan that is initiated by the owner/operator requires applying for a RCRA permit modification in accordance with 40 CFR 270.42. Modification of an approved work plan initiated by the regulator requires the regulator to modify the permit in accordance with proposed 40 CFR 270.34(c). Typically, such modifications would be Class 1 or Class 2 modifications. Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation [40 CFR 270.42(d)(2)(i)]. Class 2 modifications apply to changes that are necessary to respond to variations in the types and quantities of the wastes managed, technological advances, and changes necessary to comply with new regulations [40 CFR 270.42(d)(2)(ii)].

What is the most common reason for work plan modifications?

Schedule delays are the most common reason for work plan modifications. Schedules of compliance are often developed before complete information about the nature and extent of contamination caused by releases is available. This makes it difficult to predict the timing of all of the actions that must be taken to perform a RFI, CMS, CMI, or IM. Therefore, facility managers should, to the extent possible, build flexibility into schedules of compliance.

Questions of policy or questions requiring policy decisions will not be dealt with in EH-231 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the subject material covered in this Information Brief to Jerry Coalgate, RCRA/CERCLA Division, EH-231, (202)586-6075.

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