

RCRA Closure and Corrective Action Program Guide



Office of Land Quality
Permits Branch

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PURPOSE AND SCOPE

The goal of the Resource Conservation and Recovery Act (RCRA) Program is “cradle-to-grave” management of hazardous wastes, from the point of generation through final disposition. IDEM has an authorized hazardous waste management program that operates in lieu of, and under the oversight of, the United States Environmental Protection Agency (U.S. EPA) for delegated portions of the program, using U.S. EPA’s guidance documents. IDEM’s authorized RCRA program issues permits to facilities that store, treat, or dispose of hazardous wastes in order to:

- Ensure proper management of hazardous waste
- Ensure appropriate closure of hazardous waste facilities
- Ensure post-closure care of closed units, if required

Regulatory requirements apply to permitting, closure, and post-closure of hazardous waste management units for treatment, storage or disposal (TSD) facilities.

Corrective Action requirements¹ apply to facilities that:

- Are operating or have operated as a TSD facility
- Had interim status at any time
- Operated without a permit or interim status when they should have had it

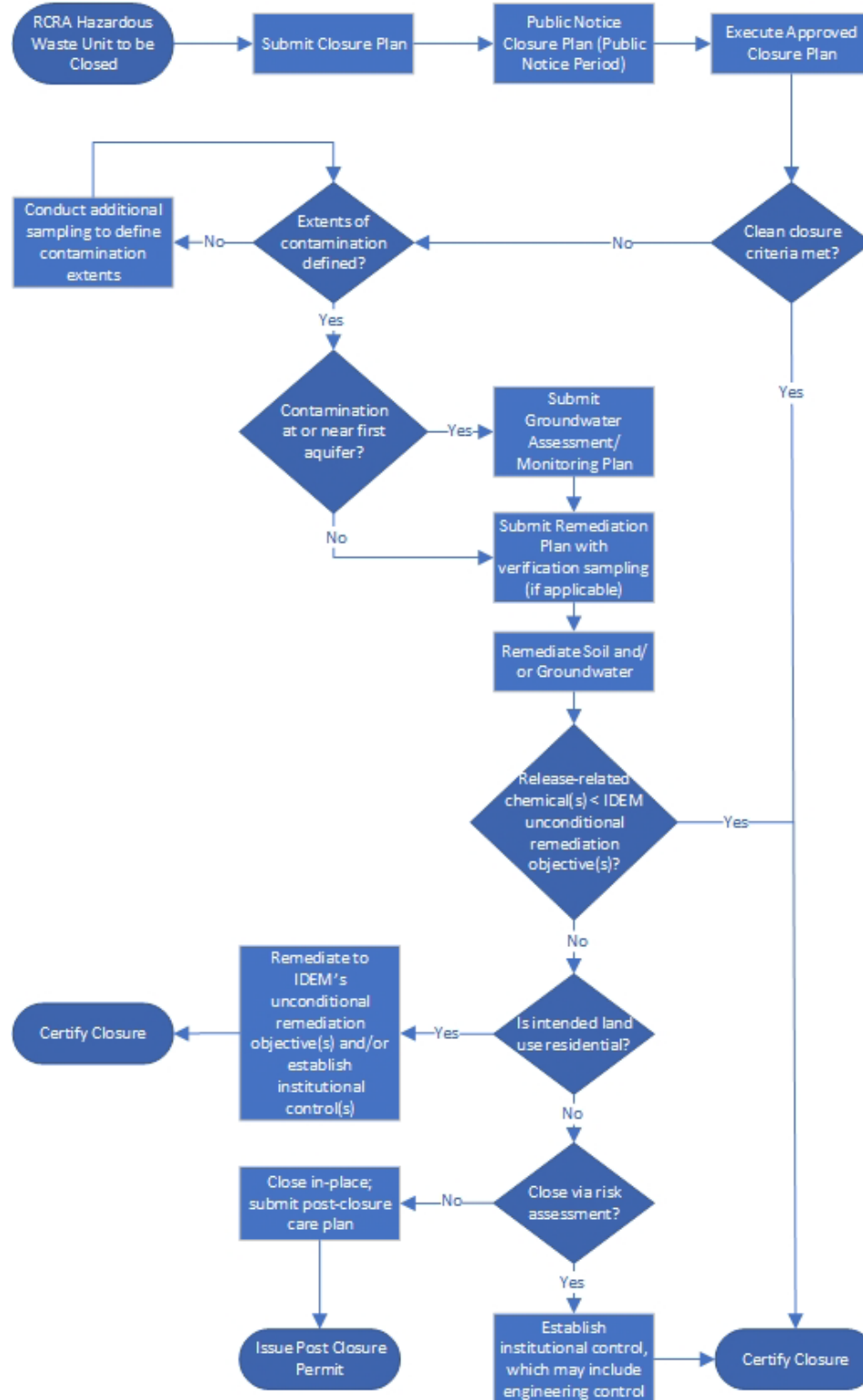
Owners and operators of those facilities² are required to investigate and remediate contamination resulting from any activity at the facility. Owners and operators of TSD facilities are required to implement corrective action for all releases of hazardous waste or hazardous constituents that may cause a threat to human health or the environment. Corrective action also can be required for releases of hazardous waste or hazardous constituents that have migrated beyond the owner or operator’s property boundary. While IDEM has the authority to require corrective action through enforcement orders under Indiana Code (IC) 13-22-13, U.S. EPA did not delegate its corrective action enforcement authority to any state agency. Therefore, U.S. EPA may compel corrective action through its federal enforcement authority under sections 7003 (emergency orders) or 3008(h) (corrective action orders) of RCRA at any time. U.S. EPA will generally confer with IDEM prior to filing a federal order pursuant to the 2004 RCRA Memorandum of Understanding (MOU). The 2004 MOU sets out both the conditions facilities must meet (the corrective action objectives) and the conditions under which U.S. EPA may overfile.

Further information can be found in the [Risk-based Closure Guide \(Waste-0046-R2\)](#). The [Risk-based Closure Guide](#) supplements RCRA standards. The [Risk-based Closure Guide](#) provides guidance to determine the cleanup levels necessary to control, minimize, or eliminate threats to human health and the environment.

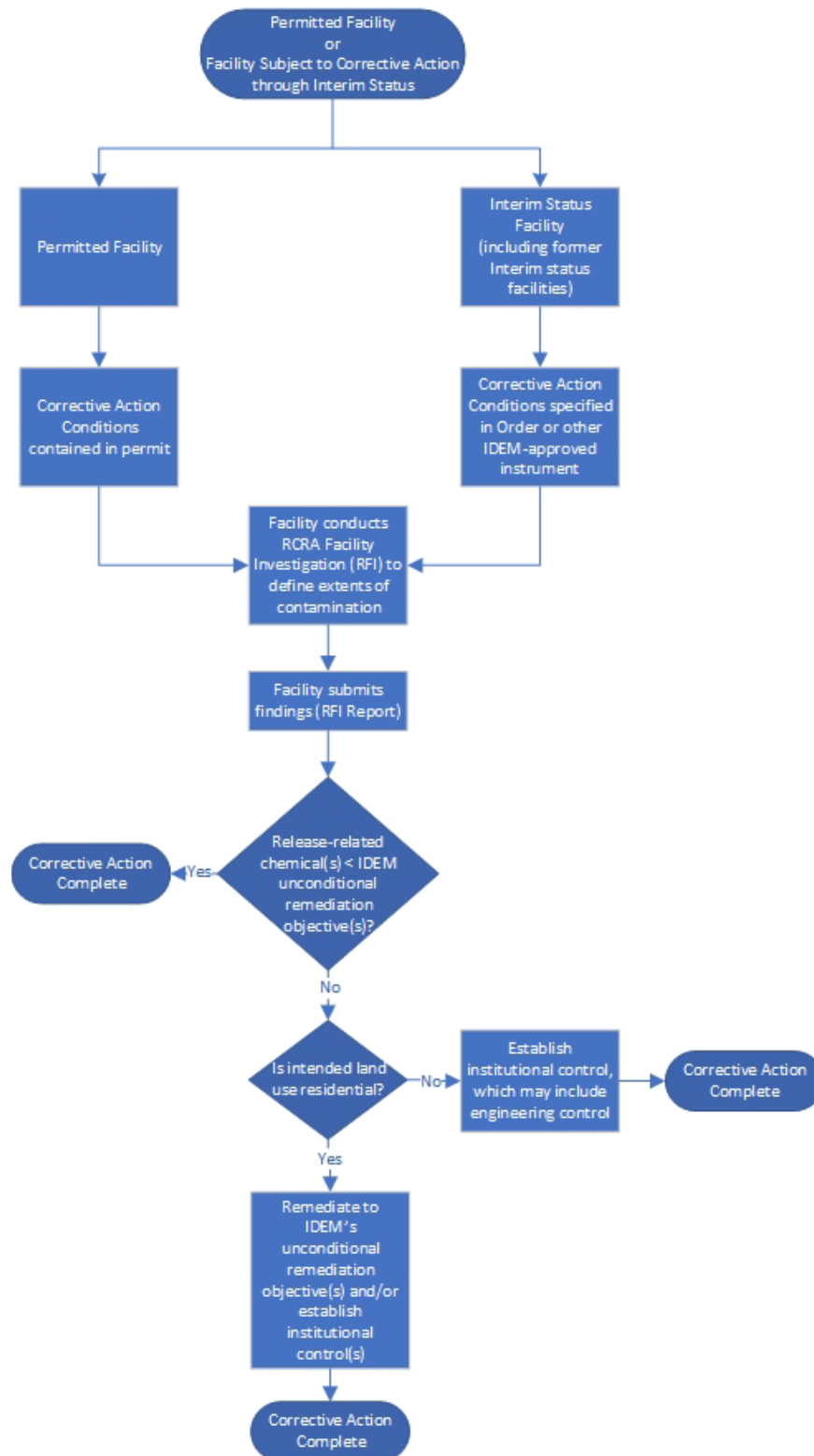
¹ See Figure 1 for laws and rules related to RCRA Corrective Action.

² RCRA laws and regulations are written such that the obligation to act rests with “owners” and “operators”. This document may use “owner and operator” and “facility” interchangeably when discussing required actions.

CLOSURE PROCESS OVERVIEW



CORRECTIVE ACTION PROCESS OVERVIEW



HOW DOES THE SITE ENTER THE PROGRAM?

A site enters the program in one of three ways: through either an operating or post-closure permit; authorization under interim status; or as a facility found to be operating without a permit or interim status.

For permitted facilities, at the time of closure, owners and operators must implement the approved closure plan contained within their permit. Each permit also contains Corrective Action conditions that must be met.

Owners and operators of facilities authorized under interim status begin the closure process after receiving IDEM's request for a closure plan. The corrective action process may be performed concurrently with closure or at a latter date. Corrective Action requirements are often stipulated in a Corrective Action Agreed Order.

If IDEM determines that a hazardous waste handler illegally operated as a TSD facility (i.e., without a permit or interim status), the site will be subject to RCRA Closure and Corrective Action.

EMERGENCY AND IMMEDIATE ACTIONS

Permit conditions require permitted facility personnel to notify the IDEM Spill Line (888) 233-7745, within 24 hours of any noncompliance which may endanger health or the environment.

Facility personnel should handle emergencies that develop during corrective action remediation in accordance with the Health and Safety Plan. The facility Health and Safety Plan shall be consistent with:

- a. OSHA regulations, particularly 29 CFR 1910 and 1926;
- b. *NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities* (1998);
- c. U.S. EPA Order 1440.1-Respiratory Protection;
- d. U.S. EPA Order 1140.3-Health and Safety Requirements for Employees engaged in Field Activities;
- e. Facility Contingency Plan; and
- f. *U.S. EPA Standard Operating Safety Guide* (1984).

HOW IS THE PUBLIC INVOLVED OR NOTIFIED?

IDEM notifies the public of permit actions in accordance with 329 IAC 3.1-13-10. Permit actions are often of interest to a broad segment of the public who may or may not live in the immediate area. IDEM prepares a Fact Sheet, sends notices to known interested parties, and publishes the notice in a daily or weekly major newspaper of general circulation and on the IDEM website (www.IN.gov/idem/). In order to most effectively reach the interested audience, IDEM prefers to publish the notice in a daily newspaper of large circulation near the facility.

When facilities propose corrective action remedies, IDEM seeks public input on the findings of the RCRA Facility Investigation (RFI) and the Corrective Measures Study (CMS) by publishing public notices in an appropriate newspaper. This newspaper will be chosen based on its circulation within the community most affected by the corrective action.

For new permits, prior to the submittal of an application, facilities are required to hold a public meeting in accordance with 329 IAC 3.1-13-18.

When a remedy will include the use of an Environmental Restrictive Ordinance (ERO) as an institutional control, it is important to obtain feedback from the water utility and from the local government unit that has enacted or that has proposed adoption of the ERO. Consultants are encouraged to work directly with the local government unit. Because IDEM must rely on local governments to enforce EROs, municipal involvement throughout the review process will help IDEM evaluate the effectiveness of proposed EROs. Local governments should be contacted for information including:

- Current and future local water resource planning
- Procedures for granting exceptions and variances to the ERO
- Local point of contact for ERO monitoring and compliance
- Notification provisions for EROs

For an ordinance to be used, evidence that the ordinance has been passed by the local unit of government must be provided. IDEM must approve the use of the ordinance as an ERO and as adequate to prevent unacceptable risk to potential receptors. The owner/operator of the RCRA facility must obtain written acknowledgement from the local government that the ERO is requested to be used as part of the remediation strategy at a site. IDEM will notify local government units and water utilities in writing of any formal proposal to utilize an ERO at a particular site; and will request input on the items listed above if the information has not already been provided in the work plan. If IDEM decides that the ordinance is adequate, IDEM will provide note to the local government that it has approved its use as an ERO.

INVESTIGATION

The RCRA Corrective Action Program identified and prioritized facilities that need to be investigated based on the National Corrective Action Prioritization System list, which U.S. EPA developed based on information compiled by subcontractors in the early 1990s. For facilities that are subject to RCRA corrective action other than via an operating or post-closure permit, RCRA Corrective Action may be implemented through a Corrective Action Order or Voluntary Agreement. If the findings of the RCRA Facility Assessment indicate the need for further investigation or corrective action, the facility will be required to perform a RCRA Facility Investigation (RFI). The RFI may propose that no further action is necessary. If, however, corrective measures are determined to be necessary, the facility must conduct a Corrective Measure Study (CMS) and submit the results in a CMS Report for IDEM approval.

A facility may perform the investigation and any necessary remediation simultaneously through the RCRA Program and the Voluntary Remediation Program, or through an enforcement tool such as an Agreed Order. Investigations are tailored to unit or site circumstances, and should be conducted in accordance with the [Risk-based Closure Guide \(Waste-0046-R2\)](#).

REMEDY DECISION

After the Corrective Action investigation has been completed and public comment has been received, IDEM may approve or require revision of the CMS Report. IDEM will indicate its approval of the selected remedial option or combination of options by issuing a Final Decision and Response to Comments. If the RFI indicates no corrective measures are necessary, IDEM may issue a Statement of Basis for public notice recommending “no further action.” Based on the administrative record and any public comments received, IDEM will make a Corrective Action Completion determination for the facility or a portion of the facility.

REMEDIAL ACTION

Facilities carry out the Corrective Action remedy by following the approved Corrective Measures Implementation Plan (CMIP). A facility with RCRA permitted hazardous waste management units must conduct closure of those units in accordance with the approved closure plan.

A facility must conduct corrective actions for releases to the environment from solid waste management units (SWMUs) or areas of concern (AOCs), in accordance with its permit conditions, a Corrective Action Order, or a Voluntary Corrective Action Agreement, as applicable.

CLOSURE

A facility may accomplish closure of interim status and permitted hazardous waste management units by following the IDEM-approved closure plan. When the facility has completed closure, the facility must submit a Closure Certification Report that includes a signed Closure Certification Statement, in accordance with 40 CFR 264.115. Upon review and acceptance of the Closure Certification Report, IDEM will issue a closure certification acceptance letter.

A Corrective Action Complete determination will be issued to facilities that have investigated and addressed all contamination related to SWMUs and AOCs. Corrective Action Complete determinations may be made “With” or “Without” controls in place. The approved controls may be engineered controls and/or institutional controls. Engineered controls will require the use of an institutional control such as an environmental restrictive covenant to ensure that the engineered control remains protective over time.

Further information can be found in the [Risk-based Closure Guide \(Waste-0046-R2\)](#).

CONDITIONS SUBSEQUENT

When contamination remains above unconditional remediation objectives, RCRA post-closure measures may be required.

WHEN ISSUES ARISE

Issue resolution can be informal or formal. Most disagreements regarding the technical aspects of a proposed closure plan or corrective action remediation requirement can be resolved through discussions between the project manager and the other parties. The facility representative or consultant should first discuss project specific disagreements with the project manager. If it is not possible to resolve issues between the technical staff, the facility representative or consultant may ask the Hazardous Waste Permit Section Chief to intervene. An issue may be raised through IDEM's chain of command for resolution.

However, in some cases, formal dispute resolution procedures may be necessary. When an owner/operator does not agree to perform a cleanup in accordance with an approved closure plan, IDEM may issue an administrative order to compel the cleanup. Similarly, if an owner/operator does not satisfactorily address releases at and from its facility, IDEM may issue an administrative order to compel corrective action or another response measure deemed necessary to protect human health or the environment.

A facility may appeal IDEM's decisions using the procedures established in IC 4-21.5, Administrative Orders and Procedures (<http://iga.in.gov/legislative/laws/2021/ic/titles/004>).

DOCUMENT AND ELECTRONIC DATA FILE SUBMITTAL GUIDELINES

IDEM now encourages electronic submittal (e-Submission) of documents to reduce the need to mail paper documents or submit documents via CD/DVD or flash drive. E-Submissions must be less than 75 megabytes (MB). If a file cannot be reduced to less than 75MB, it must be broken into multiple files per the [OLQ's Document Submittal Guidelines](#). Electronic data files (maps, GPS locations, and sampling data) must also be submitted as an email attachment to olqdata@idem.in.gov per OLQ's [Electronic Data File Submittal Guidelines](#).

E-Submission access is available to individual email addresses and shared email accounts. To request or modify e-Submission access, IDEM's [e-Submission Enrollment form](#) must be completed. Once enrolled, instructions on how to submit documents will be provided.

FORMS AND CHECKLISTS

There are no forms specific to RCRA Closure and Corrective Action at this time.

Figure 1

LAWS AND RULES RELATED TO RCRA CORRECTIVE ACTION

