

MODULE VIII

**CORRECTIVE ACTION PLAN DEVELOPMENT PROCEDURES FOR
GROUNDWATER CONTAMINATION AND/OR SOLID WASTE MANAGEMENT UNITS
AND SCHEDULE OF COMPLIANCE**

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VIII.A. SOLID WASTE MANAGEMENT UNITS

1. Clean Harbors Grassy Mountain Facility (CHGM) shall conduct all facility investigations and develop all corrective action plans (CAPs) in accordance with this module for Solid Waste Management Units (SWMUs) specified in Table VIII-1.
2. The Director of the Division of Waste Management and Radiation Control (Director) may add SWMUs to those in Tables VIII-1 and VIII-2, in accordance with the Utah Administrative Code (UAC) R315-270-41, based on additional information received by CHGM, the Director, the EPA, or any other knowledgeable source.

VIII.B. STANDARD CONDITIONS

1. Failure to submit the information required by Module VIII or falsification of any submitted information is grounds for termination of this permit in accordance with UAC R315-270-43.
2. CHGM shall sign and certify all plans, reports, notifications, and other submissions to the Director and the EPA Region 8 in accordance with Conditions I.Z and I.BB.
3. CHGM shall submit a minimum of two copies of each plan, report, notification, or other submissions within Module VIII, to the Director and the EPA when applicable.
4. If the submission addresses Cell B\6 and Cell 8, the PCB Tank Farm, Drain and Flush Building Warehouse One, or the Surface Impoundment if managing F039 from Cell B\6 and Cell 8, or the Leachate or Stabilization Tanks while managing PCBs, CHGM shall send the submissions to both the Director and EPA Region 8.
5. Upon written approval by the Director, all plans and schedules required by the conditions of this module shall be incorporated by reference into Module VIII upon completion of an appropriate comment period. Any noncompliance with such approved plans and schedules may be subject to enforcement action.
 - a. CHGM shall submit all final reports to the Director and the EPA Region 8 in the time frames specified. The final reports shall incorporate all comments from the reviews of previous drafts.
6. Upon written approval from the Director, CHGM may receive extensions of the specified compliance schedule due dates for the submittals required by Module VIII.
7. If the Director determines that further actions beyond those provided by Module VIII are warranted, CHGM shall petition the Director to modify Module VIII.

8. All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities conducted pursuant to conditions in Module VIII shall be maintained by CHGM for the effective term of this permit, including any post-closure care period. These records must be accessible to the Director and the EPA Region 8 within one working day from the date of request.

VIII.C. RCRA FACILITY INVESTIGATION

1. As required by the Director, CHGM shall conduct a RCRA Facility Investigation (RFI) to determine:
 - a. The nature and extent of known and suspected releases of hazardous waste or hazardous constituents in groundwater originating from any location at CHGM, including from a SWMU, as identified in Table VIII-2.
 - b. To gather data to support the development of a CAP. CHGM shall conduct the RFI in accordance with the schedule specified in Table VIII-3.
2. CHGM shall prepare and submit the RFI Work Plan (designated as Task II) to be reviewed and approved by the Director. CHGM shall then perform the RFI activities as specified in the approved work plan.
3. The RFI work plan shall include:
 - a. A Project Management Plan detailing a discussion of the technical approach to the investigation, schedules, milestone reports, and personnel.
 - b. A Data Collection Quality Assurance Plan to establish and document all monitoring procedures.
 - c. Data Management Plan to track investigation data and results.
 - d. A Health and Safety Plan for the safe conduct of corrective action activities.
 - e. A Community Relations Plan for public dissemination of information.
4. Along with the RFI Work Plan, CHGM shall prepare and submit a Description of Current Conditions (designated as Task I) in accordance with the schedule in Table VIII- 3. The report shall include:
 - a. Background information gathered during previous investigations or inspections and other relevant data.
 - b. Nature, extent, and rate of migration of contamination, if known.
 - c. Past or current activities at CHGM.

5. CHGM shall implement (Task III) the approved RFI Work Plan. CHGM shall present data of an adequate technical quality to support the contention that no further action (NFA) is required, or to support the development and evaluation of corrective measures alternatives presented in the CAP. Task III shall consist of:
 - a. Characterization of the environmental setting at CHGM, including the hydrogeology, soils, surface water, sediment, and air.
 - b. Source characterization of all waste management areas at CHGM, including the nature of the unit and the type of waste placed in the unit as described by chemical and physical characteristics.
 - c. Contamination characterization, including analysis of hazardous waste or hazardous constituents from SWMUs and the effects of such hazardous waste or hazardous constituents on groundwater, soils, surface water, sediment, air, and subsurface gasses.
 - d. Potential receptor identification describing the potential for human and environmental impact from contaminant exposure from CHGM.
6. CHGM shall prepare an analysis and summary of the RFI(s) including results. This task, Investigation Analysis, shall be designated as Task IV. The objective of Task IV shall be to ensure that the investigation data are sufficient in quality and quantity to describe the nature and extent of contamination, potential threat to human health and the environment, and to produce the CAP. Task IV shall consist of:
 - a. Data analysis of the type and extent of contamination at each SWMU including sources and migration pathways.
 - b. Protection standards for groundwater, soil, or other relevant protection standards.
7. CHGM shall submit a schedule of activities and reports to the Director as required by Table VIII-3 of this module.

VIII.D. INTERIM MEASURES AND NON-REPORTABLE CLEANUP ACTIONS

1. If during the course of any activity initiated in compliance with the conditions of Module VIII of this permit, the Director or CHGM determines that a release or potential release of hazardous waste or hazardous constituents from a SWMU poses a threat to human health and the environment, CHGM shall be required to perform specific interim measures.
 - a. If any release or potential release of hazardous waste or hazardous waste constituents poses an immediate danger to human health or the environment, CHGM shall inform the Director at once. The Director may then require corrective action to be implemented without delay.

2. The Director shall notify CHGM in writing of the requirement to perform the interim measures specified in the Interim Measures Plan, in accordance with Condition VIII.D.3.
3. Within 30 calendar days of receiving the written notification requiring the Interim Measures Plan as specified in Condition VIII.D.2., CHGM shall provide the Interim Measures Plan to the Director for approval. The Interim Measures Plan shall include the following:
 - a. Mitigation of potential threats to human health and the environment that is consistent with and integrated into any long-term solution at CHGM.
 - b. Data collection quality assurance and data management information.
 - c. Design plans and specifications, construction requirements, operation and maintenance requirements, project schedules, and final design documents.
 - d. Construction quality assurance objectives, inspection activities, sampling requirements, and documentation.
 - e. Schedule for submittal of the following reports: progress reports, interim measures work plan, final design documents, draft interim measures report, and final interim measures report.
4. CHGM shall perform the requirements of the Interim Measures Plan.
5. CHGM may propose to initiate non-reportable interim measures in accordance with Condition VIII.D.6.
6. In determining whether an interim measure may be considered non-reportable, CHGM shall evaluate the following:
 - a. Time required to develop and implement a final remedy.
 - b. Actual and potential exposure of human and environmental receptors.
 - c. Actual and potential contamination of drinking water supplies and sensitive ecosystems.
 - d. The potential for further degradation of the medium absent interim measures.
 - e. Presence of hazardous constituent(s) in containers that may pose a threat of release.
 - f. Presence and concentration of hazardous constituent(s) in soils that have the potential to migrate to groundwater or surface water.
 - g. Weather conditions that may affect the current levels of contamination.
 - h. Risks of fire, explosion, or accident.
 - i. Other situations that may pose threats to human health and the environment.

7. If the Director disagrees with CHGM's determination of non-reportable interim measures, CHGM shall follow the requirements of Condition VIII.D.3.

VIII.E. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY IDENTIFIED SWMUS

1. CHGM shall notify the Director in writing, of any newly identified SWMU(s) not identified in Table VIII-1., within 30 calendar days of discovering the SWMU(s). The notification shall include the location of the new SWMU(s) and information on the suspected or known wastes at the site.
2. Within 150 calendar days following a request from the Director for a SWMU Assessment Plan for any newly discovered SWMU, CHGM shall submit a SWMU Assessment Plan to the Director.
3. The SWMU Assessment Plan shall include:
 - a. A description of past and present operations at the unit(s).
 - b. Any groundwater, surface water, soil (surface or subsurface strata), or air sampling and analysis data needed to determine whether a release of hazardous constituent(s) from such unit(s) is likely to occur. The SWMU Assessment Plan shall demonstrate that the sampling and analysis program, if applicable, can yield representative samples and shall include parameters sufficient to identify the migration of hazardous constituent(s) from the newly discovered SWMUs to the environment.
4. The SWMU Assessment Plan shall be evaluated by the Director and:
 - a. CHGM shall receive written approval from the Director for the SWMU Assessment Plan; or
 - b. CHGM shall receive written notice from the Director of the SWMU Assessment Plan's deficiencies and the written notice will specify a due date for the submittal of a revised assessment plan; or
 - c. CHGM shall receive written notice from the Director of the revisions incorporated by the Director in the SWMU Assessment Plan. The revised assessment plan shall become the approved SWMU Assessment Plan.
5. The SWMU Assessment Plan, as approved by the Director specified in Condition VIII.E.4., shall be incorporated within Module VIII.
6. CHGM shall implement the approved SWMU Assessment Plan within 30 calendar days of receiving written notice of the approval by the Director. CHGM shall complete the assessment within 180 days of approval.

7. Within 60 days of completion of the assessment, CHGM shall submit a SWMU Assessment Report to the Director.
8. The SWMU Assessment Report shall provide all results obtained from the implementation of the approved SWMU Assessment Plan, including:
 - a. The SWMU location, identified on a map.
 - b. The type and function of the unit, including general dimensions and a structural description.
 - c. The period during which the unit was operated.
 - d. A list of all wastes managed at the SWMU and results of all sampling and analysis used to determine whether releases of hazardous waste or hazardous constituents have occurred, are occurring, or are likely to occur from the unit.
9. Based on the results of the SWMU Assessment Report, the Director shall determine the need for further investigations at specific SWMUs included in the SWMU Assessment Report. If the Director determines that such investigations are needed, the Director shall require CHGM to prepare a RCRA Facility Investigation (RFI) Work Plan under Section VIII.C.

VIII.F. DETERMINATION OF NO FURTHER ACTIONS

1. At any time during an investigation of a SWMU, CHGM may petition the Director for a determination of NFA.
2. The NFA petition shall contain information based on the SWMU Assessment Report, the RFI, or any other information that demonstrates that:
 - a. Hazardous waste or hazardous constituents are not detected; or
 - b. Hazardous waste or hazardous constituents have been detected, but are below background concentrations; or
 - c. Hazardous waste or hazardous constituents have been detected but are below risk levels as defined in UAC R315-101.
3. A determination of NFA, in accordance with Condition VIII.F.1., shall not preclude the Director from requiring further investigations, studies, or remediation later if new information or subsequent analysis indicates a release or potential of a release from a SWMU at the Facility. In such a case, CHGM shall modify the Corrective Action Schedule of Compliance of Module VIII.

VIII.G. CORRECTIVE ACTION PLAN

1. Based on the results of the RFI, CHGM shall submit to the Director for review and approval a Corrective Action Plan (CAP) for all SWMUs that have been identified to have a release of hazardous waste or hazardous constituents, in accordance with the schedule specified in Table VIII- 4 of Module VIII. The CAP shall include:
 - a. Target cleanup objectives.
 - b. Corrective action(s) that shall satisfy target cleanup objectives.
 - c. Summary of all corrective measure alternatives examined for the CAP.
 - d. Schedule for implementation of the corrective action(s) according to the timeframe and schedule contained in Module VIII.
2. If the CAP addresses Cell B\6, Cell 8 or any new RCRA/TSCA cells, the PCB Tank Farm or Storage Building, or the Surface Impoundment if managing F039 from RCRA/TSCA cells, or the Leachate or Stabilization Tanks while managing PCBs, the EPA Region 8 shall also receive the submissions identified in VIII.G.1.a through VIII.G.1.d.
3. Within 30 days upon receipt of comments of the Director (and the EPA Region 8 if applicable) CHGM shall modify the CAP or submit a new CAP for the Director's approval.
4. The Director (and EPA Region 8, if applicable) shall consider performance, reliability, implementability, safety, human health, and the environmental impact of the measure(s) in approving the CAP.
5. Upon approval of the CAP, CHGM shall implement the corrective action(s) according to the schedule as approved in the CAP. The approved schedule for the CAP shall be incorporated in Table VIII- 4, Corrective Action Compliance Schedule.
6. CHGM shall furnish or retain all personnel, materials, and services necessary for the implementation of the CAP.

VIII.H. REPORTING REQUIREMENTS

1. CHGM shall submit to the Director and the EPA, when applicable, written quarterly progress reports of all activities conducted after the effective date of the approved CAP. CHGM shall submit the first quarterly progress reports no later than 90 calendar days after the effective date of the approved CAP.
2. The quarterly progress reports shall contain:
 - a. A description of the work completed.
 - b. Summaries of all findings and all raw data.
 - c. Summaries of all problems encountered during the reporting period and actions taken or to be taken to rectify problems.
 - d. Projected work for the next reporting period.
3. CHGM shall maintain copies of the reports, drilling logs, and data at CHGM during the effective period of this permit.

Table VIII. 1. List of SWMUs

NUMBER	SWMU DESCRIPTION
1	Landfill Cell 1 ¹
2	Landfill Cell 2 ¹
3	Landfill Cell 3 ¹
4	Landfill Cell 4 ¹
5	Landfill Cell 5 ¹
6	Landfill Cell 7 ¹
7	Industrial Waste Cell 1 ¹
8	Industrial Waste Cell 2 ¹
9	Reserved
10	Leachate Area and Tank ¹
11	Waste Stabilization Unit and Tanks ¹
12	RCRA storage units ¹
13	Reserved (formally Solvent Storage Tank)
14	Surface Impoundment A ¹
15	Reserved ¹
16	Old operations area (lab, septic system, etc.)
17	Heat Tent ¹
18	Wheel wash stations (including TSCA X, Y, Z Station, Cell B/6 Station, and Cell 8 Station)
19	90-Day Areas, 90-Day Accumulation Tanks, and associated piping ¹
20	Runoff control ponds
21	Maintenance buildings
22	Solvent recovery tanks (removed) and caustic pipe ¹
23	Scrapyard
24	Container holding areas prior to disposal and empty roll-off box area
25	Closed AST fuel tanks south of Surface Impoundment A and active AST north of Surface Impoundment A
26	TSCA Landfill Cells X, Y, and Z ²
27	RCRA/TSCA Landfill Cell B/6 ¹
28	RCRA/TSCA Landfill Cell 8-13 ¹
29	Surface Impoundment B
¹ Addressed in the facility Closure Plan. ² Addressed in the TSCA facility Closure Plan.	
This list of SWMUs was compiled in June of 1993 and kept current with permit modifications.	

Table VIII. 2. List of SWMUs that will be addressed in an RFI Work Plan.

NUMBER	SWMU DESCRIPTION
16	Old operations area (lab, septic system, etc.)
17	Heat Tent
18	Wheel wash stations (including X, Y, and Z stations) and RCRA empty container wash
19	90-day areas, 90-day accumulation tanks, and associated piping
20	Runoff control ponds
21	Maintenance buildings
22	Solvent recovery tanks (removed) and caustic pipe
23	Scrapyard
24	Container holding areas prior to disposal and empty roll-off box area
25	Closed AST fuel tanks south and active AST north of Surface Impoundment A
<p>This list of SWMUs was compiled in June of 1993 and kept current with permit modifications. This list of SWMUs was initially compiled in June of 1993 by inspection of the waste management units located at CHGM.</p>	

Table VIII. 3. RCRA Facility Investigation Compliance Schedule.

Activity		Due Date
1.	Submit Task I - Current Conditions Report	Within 180 days of the detection of contamination or directive from the Director
2.	Submit Task II - Draft RFI work plan and schedule	Within 90 days from submission of Task I Current Conditions Report
3.	Begin Task III - Facility Investigation according to the approved Task II RFI work plan and schedule	Within 60 days of the Director's approved Task II RFI Work Plan and schedule
4.	Submit Task IV - Investigation Analysis	As indicated in the Director's approved Task II RFI Work Plan and schedule
5.	Submit Tasks III and IV Summary and Final reports	As indicated in the Director's approved Task II RFI Work Plan and schedule

Table VIII. 4. Corrective Action Compliance Schedule

Facility Submission		Due Date
1.	Draft CAP	Within 180 days of the Director's approval of the final RFI Report
2.	Final CAP	Within 60 days of receiving the Director's comments on the Draft CAP
3.	CAP Construction and Implementation reports	As specified in CAP as approved of by the Director
4.	Draft Construction Quality Assurance (CQA) program plan	Prior to construction
5.	Final CQA program plan	Within 60 days of the Director's approval of draft CQA plan
6.	Construction of corrective measures	As approved in final CAP
7.	Construction certification inspection	As approved in the final CQA plan
8.	Corrective measure construction report	90 days following completion of construction
9.	Progress Reports	Quarterly, within 90 days after the CAP is approved