

Attachment 5  
Closure Plan

## A11 - CLOSURE AND POSTCLOSURE CARE PLANS

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (Act 451), R 299.9613 and Title 40 of the Code of Federal Regulations (CFR), Part 264, Subpart G, establishes requirements for the closure and, if necessary, postclosure care of hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003. This license application template addresses requirements for the proper closure and, if necessary, postclosure care of the hazardous waste management units and the hazardous waste management facility for Petro-Chem in Detroit, Michigan. The information provided in this template was used to prepare the closure and postclosure care cost estimate provided in Template A12, "Closure and Postclosure Care Cost Estimates."

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### A11.A CLOSURE PLAN

#### A11.A.1 Closure Performance Standard [R 299.9613 and 40 CFR §264.111]

This Closure Plan is designed to ensure that the facility will be closed in a manner that achieves the following:

- a. Minimizes the need for further maintenance; and
- b. Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, postclosure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition byproducts to the groundwater, surface water, or atmosphere; and, as applicable
- c. Complies with the unit-specific closure requirements for each of the following units:

Use and management of containers R 299.9614 and 40 CFR §264.178

Tank systems R 299.9615 and 40 CFR §264.197

**A11.A.2 Unit-Specific Information**  
 [R 299.9613 and 40 CFR §§264.112(b)(3) and (6)]

**Table A11.A.1 Hazardous Waste Management Units Information**

The following table identifies each hazardous waste management unit at the Petro-Chem facility subject to the closure requirements of this hazardous waste management facility operating license. The table also includes: each unit's maximum licensed hazardous waste inventory, a list of the waste codes managed in the unit, the anticipated date of closure (if known), and the estimated duration of closure activities once closure begins. Unit-specific methods for closure and detailed schedules are discussed in Section 11A.5 of this template.

Unit Designation	Maximum Inventory (Include Units)	Waste Codes of Hazardous Wastes Managed	Scheduled Closure Date
CMB Storage Areas	3,304 drums	See Appendix 1	Unknown
Container Staging/QC	392 drums	See Appendix 1	Unknown
Pumping Room	106 drums	See Appendix 2	Unknown
Lab Pack Area	86 drums	See Appendix 1	Unknown
CMB TK 001	6,000 gallons	See Appendix 2	Unknown
CMB TK 002	6,000 gallons	See Appendix 2	Unknown
Tank System 1	420,000 gal.	See Appendix 2	Unknown
Tank System 2	168,000 gal.	See Appendix 2	Unknown
Tank System 3	180,000 gal.	See Appendix 2	Unknown
1 <sup>st</sup> Floor Operations (North Storage)	700 drums	See Appendix 1	Unknown

Unit Designation	Maximum Inventory (Include Units)	Waste Codes of Hazardous Wastes Managed	Scheduled Closure Date
Drum Dock 2	294 drums	N/A	Unknown
Drum Dock 3 (Truck Well)	300 drums	See Appendix 1	Unknown
Drum Dock 4 (Truck Well)	352 drums	See Appendix 1	Unknown
SBS Tote Storage Building	655 drums	See Appendix 1	Unknown
SBS Dock Storage Area	600 drums	See Appendix 1	Unknown
SBS Solids Area	147 drums	See Appendix 1	Unknown
72 Hr Truck Staging Pad	363 drums	See Appendix 1	Unknown

\* drum = 55 gallon capacity

**A11.A.3 Schedule of Final Facility Closure**  
 [R 299.9613 and 40 CFR §264.112(b)(6)]

The Petro-Chem facility:

- Has not determined when the facility will close and does not anticipate completing final closure of the entire facility prior to expiration of the facility's hazardous waste operating license.

Closure Activity	Time Completed
Initiate Closure; Cease Acceptance of Waste	Immediate
Process Containers in Storage Areas or transfer compatible waste to tank systems	1 Week
Transfer other containers off-site for disposal/recycling	6 Weeks
Transfer bulk wastes off-site to cement kiln/incinerator	6 Weeks
Decontaminate and Remove Equipment in Pump Room	1 Week

Closure Activity	Time Completed
Decontaminate and Remove Equipment in Lab Pack Room	1 Week
Decontaminate Pumping Room	1 Week
Decontaminate Surfaces in Container Storage	2 Weeks
Decontaminate and Remove Pumps, Piping and Other Equipment	8 Weeks
Decontaminate and Remove Tanks	6 Weeks
Decontaminate Containment Area Surfaces	7 Weeks
Sample Containment Area Surfaces	2 Weeks
Obtain P. E. Certification of Closure Performance	7 Weeks
Prepare and Submit Closure Report to MDNRE	9 Weeks

**A11.A.4 Notification and Time Allowed for Closure**

[R 299.9613 and 40 CFR §§264.112(d)(2) and 264.113(a) and (b)]

Final closure activities will be initiated within 90 days of receipt of the final volume of hazardous wastes and completed within 180 days of receipt of the final volume of waste. The tasks and estimated time required for partial closure shall follow the schedule specified in Section 11A.3. The Director will be notified by the Petro-Chem facility 60 days before final closure begins. Final closure will be certified by both the Petro-Chem facility and an independent, qualified, registered professional engineer of the state of Michigan.

**A11.A.4(a) Extensions for Closure Time**

[R 299.9613 and 40 CFR §264.113(a) and (b)]

In the event that an extension for closure for the facility or any unit is necessary, the Petro-Chem facility will request an extension in accordance with the requirements of 40 CFR §264.113(a).

**A11.A.5 Unit-Specific Closure Procedures**

Unit-specific closure procedures are provided for each unit identified in Section A11.A.2 of this template.

**A11.A.5(a) Closure of Container Storage Areas**

[R 299.9614 and 40 CFR §264.178]

This section describes the procedures for closure of all container storage areas. The general closure requirement and specific closure procedures are discussed below.





















