

**NEW YORK STATE  
DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION**



**6 NYCRR PART 373  
HAZARDOUS WASTE MANAGEMENT PERMIT**

**FOR**

**MPM SILICONES, LLC  
WATERFORD FACILITY  
SARATOGA COUNTY**

**DEC PERMIT No. 5-4154-00002/00357**

**EPA ID No. NYD002080034**

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| D | Permit Modification Log   |

## Documents Incorporated by Reference

1. MPM Silicones, LLC RCRA Facility ID No. NYD002080034 Financial Assurance Pursuant to 6 NYCRR 373-2.8, Irrevocable Standby Letter of Credit TPTS-312850 for Closure and Post Closure Care (February 26, 2007) and the Standby Trust Agreement for Letter of Credit TPTS-312850 (March 5, 2007) <sup>1,2</sup>
2. MPM Silicones, LLC RCRA Facility ID No. NYD002080034 Financial Assurance Pursuant to 6 NYCRR 373-2.8 Irrevocable Standby Letter of Credit TPTS-273658 for Third Party Liability Awards or Settlements (December 18, 2007) and the Standby Trust Agreement for Letter of Credit TPTS-273658 (December 20, 2007) <sup>1,2</sup>
3. “Civil Action No. 83-CV -77” and resulting Consent Order between the State of New York and General Electric Company (August 8, 1985) <sup>1</sup>
4. “Remedial Plan for General Electric Company, Silicone Products Division, Waterford, New York” (December 1987) <sup>1</sup>
5. “Landfill No. 1 Remedial Plan” (May 31, 1995) <sup>1</sup>
6. Letter to NYSDEC regarding the “Proposed Modification to Groundwater Remedial Systems” (July 8, 2005 and subsequently approved in letter from NYSDEC dated January 6, 2006) <sup>1</sup>
7. “Operation and Maintenance Manual – Closed Regulated and Non-Regulated Units” (October 28, 2011) <sup>1</sup>
8. “Interim Corrective Measures Performance Evaluation for Groundwater Remedial Systems” (February 24, 2012) <sup>1</sup>
9. “Cost and Regulatory Basis for Momentive Performance Materials Silicones, LLC RCRA Financial Assurance, Waterford, New York” (February 24, 2012) <sup>1</sup>
10. Letter to NYSDEC regarding “Momentive’s RCRA Permit Renewal Application, Cadigan’s Tomb Revised Proposal” (January 2, 2013) <sup>1</sup>
11. “Momentive Performance Materials Silicones, LLC, Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume I, Sections I, II, III, IV-B, IV-C, IV-D, V, VI, VII, IX and X” (June 2007, Revised November 12, 2012) <sup>1</sup>
12. “Momentive Performance Materials Silicones, LLC, Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume II, Sections I, II and V” (June 2007, Revised November 12, 2012) <sup>1\*</sup>

13. “Momentive Performance Materials Silicones, LLC, Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume III: Integrated Contingency Plan” (June 2007, Revised November 12, 2012) <sup>1,2,\*</sup>
14. “Momentive Performance Materials, Waterford New York , Hazardous Waste Analysis Plan and Quality Assurance/Quality Control Plan” (March 26, 2013) <sup>1,2, partial\*</sup>
15. “Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)” <sup>1,4</sup>
16. Air Emissions Standards Equipment Leaks <sup>3, partial\*</sup>
17. “REVISED MULTIPATHWAY RISK ASSESSMENT Rotary Kiln and Fixed Box Incinerators” (July 2012)<sup>1</sup>
18. “REVISED SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT Rotary Kiln and Fixed Box Incinerators” (July 2012)<sup>1</sup>

**Footnotes:**

*1. Each document referenced by this footnote includes the above dated original submission and any subsequent Department approved document revisions.*

*2. Each document referenced by this footnote includes the referenced document and any subsequent Department approved replacement.*

*3. Updates to the Air Emissions Standards information (e.g. equipment lists and drawings) shall be kept in the facility's operating record and provided to DEC upon request.*

*4. Upon written notice, MPM may choose to comply with the "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" document in lieu of complying with the regulatory requirements for spill reporting. MPM may notify DEC that they wish to discontinue use of the "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" document in writing 10 days prior to the start of any quarter.*

*\* Confidential Business Information may be requested under Freedom of Information Law*

# ACRONYMS

# Acronyms for Part 373 Permit

## **A**

AOC - Areas of Concern  
ACFM - Actual Cubic Feet per Minute  
APCE - Air Pollution Control Equipment  
APS - Acid Polar Solvents  
AWFCO - Automatic Waste Feed Cutoff

## **B**

BTU - British Thermal Unit

## **C**

°C - Degrees Celsius  
CAS - Chemical Abstract Services Registry  
CCS - Counter Current Scrubber  
CE - Calibration Error  
CEMS - Continuous Emissions Monitoring System  
CFM - Cubic Feet per Minute  
CFS - Cross Flow Scrubber  
CMI - Corrective Measures Implementation  
CMS - Continuous Monitoring System or Corrective Measures Study  
CO - Carbon Monoxide  
CPT - Comprehensive Performance Test  
CSA - Container Storage Area  
CSM - Conceptual Site Model

## **D**

DEC - Department of Environmental Conservation  
DER - Division of Environmental Remediation  
DUSR - Data Usability Summary Report

## **E**

EC - Emergency Coordinator  
ECL - Environmental Conservation Law  
EDS - Electronic Document Standards  
ELAP - Environmental Laboratory Approval Program  
ESV - Emergency Safety Vent

## **F**

FAP – Feed Analysis Plan  
FBI - Fixed Box Incinerator  
FER - Final Engineering Report  
FS - Feasibility Study

## **G**

GOL - General Obligations Law  
GPM - Gallons per Minute

## **H**

HCl - Hydrogen Chloride  
HMDZ - Hexamethyldisilazane  
Hr - Hour  
HRA - Hourly Rolling Average  
HWC-MACT - Hazardous Waste Combustors Maximum Achievable Control Technology

## **I**

I & C - Instrumentation and Control  
IC - Institutional Control  
ICM - Interim Corrective Measures  
INST - Instantaneous  
IWS - Ionizing Wet Scrubber

## **K**

kW - Kilowatts

## **L**

Lbs - Pounds  
LDR - Land Disposal Restrictions  
LVM - Low Volatile Metal

## **M**

MACT - Maximum Achievable Control Technology  
MCL - Maximum Contaminant Level  
MCS - Methylchlorosilane  
MM BTU - Million British Thermal Units  
MNA - Monitored Natural Attenuation  
MON-MACT - Miscellaneous Organic Chemical Manufacturing - Maximum Achievable Control Technologies

## **N**

NESHAPS - National Emissions Standards for Hazardous Air Pollutants  
NFPA - National Fire Protection Association  
NIC - Notification of Intent to Comply  
NOC - Notification of Compliance  
NPS - Non Polar Solvents  
NYCRR - New York State Codes, Rules & Regulations  
NYSDEC - New York State Department of Environmental Conservation  
NYSDOH - New York State Department of Health

## **O**

OMA - One Minute Average  
O&M - Operation & Maintenance  
OSHA - Occupational Safety & Health Administration

## **P**

PCBs - Polychlorinated Biphenyls  
PDF - Portable Document Format  
P&ID - Process and Instrumentation Drawing/Diagram  
PIC - Product of Incomplete Combustion  
POHC - Principal Organic Hazardous Constituent  
PR - Preliminary Review  
PRR - Periodic Review Report  
PPM - Parts per Million  
PPMV - Parts per Million by Volume  
PR - Preliminary Review  
PSIG - Pounds per Square Inch Gauge

## **Q**

QA/QC - Quality Assurance/Quality Control

## **R**

RA - Remedial Action or Risk Assessment  
RATA - Relative Accuracy Test Audit  
RCRA - Resource Conservation & Recovery Act  
RD - Remedial Design  
RD/RA - Remedial Design/Remedial Action  
RFA - RCRA Facility Assessment  
RFI - RCRA Facility Investigation  
RI - Remedial Investigation  
RKI - Rotary Kiln Incinerator  
ROD - Record of Decision  
RPL - Real Property Law  
RPM - Rotation per minute  
RSO - Remedial System Optimization

## **S**

SAPA - State Administrative Procedures Act  
SC - Site Characterization  
SCC - Secondary Combustion Chamber  
SEQR - State Environmental Quality Review  
SiO<sub>2</sub> - Silica  
SM - Site Management  
SMP - Site Management Plan  
SOB - Statement of Basis  
SSMP - Startup, Shutdown and Malfunction Plan  
SPDES - State Pollutant Discharge Elimination System  
SWMU - Solid Waste Management Unit  
SV - Sampling Visit  
SVM - Semi-Volatile Metal

## **T**

TSDF - Treatment, Storage & Disposal Facility

## **U**

UL - Underwriters Laboratories  
USDOT - United States Department of Transportation  
USEPA - United States Environmental Protection Agency  
UV - Ultraviolet

**V**

VSI - Visual Site Inspection

**W**

WAP - Waste Analysis Plan

# **MODULE I**

## **General Conditions**

## PART 373 PERMIT

### MODULE I – GENERAL CONDITIONS

**The Permittee is hereby authorized to operate only the hazardous waste units identified in Schedule 1 of Module I of this Permit. This Permit does not authorize the use of any other units to operate other than those identified in Schedule 1 of Module I.** If this Permit conflicts with any regulations which are in effect on the date of final issuance of this Permit, the more stringent requirement applies.

#### A. EFFECT OF PART 373 PERMIT

1. This Permit consists of the general and special conditions contained in this and the attached Modules, including **Schedule 1 of Module I**; the Department-approved Permit Application, including the Attachments and documents incorporated by reference; and the applicable requirements of the New York State Environmental Conservation Law (ECL) Article 27, Title 9, Section 27-0900 et seq., and the following regulations:
  - 6 NYCRR 370 - Hazardous Waste Management System-General;
  - 6 NYCRR 371 - Identification and Listing of Hazardous Wastes;
  - 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities;
  - 6 NYCRR 373 - Hazardous Waste Management Facilities;
  - 6 NYCRR 374 - Management of Specific Hazardous Waste;
  - 6 NYCRR 376 - Land Disposal Restrictions;
  - 6 NYCRR 621 - Uniform Procedures; and,
  - 6 NYCRR 624 - Permit Hearing Procedures.
2. The following Remediation Guidance and Policy Documents are potentially relevant to this Permit. The Permittee shall consider applicable Department guidance when conducting activities required by this Permit.

CP-51 Soil Cleanup Guidance Policy

DER-10 Technical Guidance for Site Investigation and Remediation

DER-23 Citizen Participation Handbook for Remedial Programs

DER-31 Green Remediation

DER-33 Institutional Controls: A Guide to Drafting and Recording Institutional Controls

3. The following Commissioner Policies are potentially relevant to this Permit. The Permittee shall consider applicable Department policies when conducting activities required by this Permit.

CP-29 Environmental Justice and Permitting

CP-43 Groundwater Monitoring Well Decommissioning

CP-44 Natural Resource Damages

CP-45 Procedure to Demonstrate Compliance with Financial Test Requirements (for financial assurance)

CP-51 Soil Cleanup Guidance

4. Compliance with this Permit during its term constitutes compliance, for purposes of enforcement, with 6 NYCRR Parts 370 through 374 and 376 except for the following requirements not included in the Permit:
  - a. requirements which become effective by statute, including amendments thereto;
  - b. requirements which are promulgated under 6 NYCRR 376 restricting the placement of hazardous wastes in or on the land;
  - c. requirements which are promulgated under 6 NYCRR 373-2 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detections system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and will be implemented through the procedures of 6 NYCRR 373-1.7 for major modifications; or,
  - d. requirements which are promulgated under 6 NYCRR 373-3.27, 373-3.28, and 373-3.29, limiting air emissions.
5. The Permittee is authorized to manage hazardous waste in the permitted units identified in **Schedule 1 of Module I** in accordance with the conditions of this Permit. Any storage, treatment or disposal of hazardous waste not authorized by this Permit is prohibited unless exempt under 6 NYCRR Part 373-1.1(d). Issuance of this Permit does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal, State or local laws or regulations.
6. All plans, reports, specifications and schedules required by the terms of this Permit and all subsequent amendments to those documents are incorporated by reference into this Permit when specifically noted in any written approval issued by the Department pursuant to 6 NYCRR 621.13. Upon incorporation, the provisions of each such document will be binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

7. The Permittee must submit plans, reports, specifications, implementation schedules and any subsequent amendments to those documents required by this Permit to the Department for review and comment. Following its review of a document, if the document requires formal Department approval (as determined by the Department), the Department may either approve the document as submitted or issue comments on the submittal. If the Department issues comments on the document, subsequent activities for the document must proceed in accordance with the following schedule:
  - a. Meeting between the Permittee and the Department to discuss the document comments, if requested by the Permittee or deemed necessary by the Department; and,
  - b. Submission of a revised document to the Department for approval within thirty (30) calendar days of the above-described meeting. (If the above referenced meeting is determined not to be necessary, the Permittee must submit a revised document for Department approval, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days of the Permittee's receipt of comments from the Department).
  - c. If the submission is not revised to the Department's satisfaction, the Department may revise the document and send the Permittee a notice of intent to modify the Permit to incorporate the revised document into the Permit, pursuant to 6 NYCRR 621.13.
8. The documents listed in **Condition B of Schedule 1 of Module I** are made part of this Permit, are binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.
9. Informal advice, guidance, suggestion, or comment by the Department must not be construed as relieving the Permittee of the Permittee's obligation to obtain such formal approvals as may be required by this Permit. In the event of a conflict between the requirements within this Permit or between the terms of this Permit and any plans, reports, specifications and schedules submitted pursuant to this Permit, the more stringent requirement shall always control. The Permittee consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Permit.
10. The Permittee must also comply with the following:
  - 6 NYCRR 373-1.1(f) – Uniform Procedures
  - 6 NYCRR 373-1.1(g) – Enforcement
  - 6 NYCRR 373-1.1(h) – Severability
11. The Permittee must maintain a current and complete paper copy of this Permit, including all Modules, Attachments and documents incorporated by reference, in at least one location at the Facility for review by the Department upon request.

12. For any Environmental Monitor(s) assigned to the Facility, the Permittee must maintain a complete set of paper copies of all submittals required by this Permit in the office of the Environmental Monitor or as otherwise directed by the Environmental Monitor(s).

**B. DEFINITIONS**

1. For the purposes of this Permit, the terms used herein shall have the same meanings as those provided in 6 NYCRR 370 through 376, and the terms defined in **Condition B.2** of this Module unless this Permit specifically states otherwise. Where the terms are not otherwise defined, the meanings associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industry meaning of the term.
2. The following additional terms used in this Permit are defined as such:
  - a. Action Levels. For the purposes of this Permit, “action levels” are hazardous constituent concentrations for a specific environmental medium which if exceeded indicate a potential threat to human health or the environment. The exceedance of action levels may trigger further investigations, studies and corrective measures. Where available, action levels are based on appropriate promulgated standards established for a specific environmental medium. When promulgated standards are not available, action levels can be media-specific hazardous constituent concentrations derived from non-promulgated human health risk data or environmental risk data with the latter levels being protective of aquatic life or wildlife. An action level may be set at the background level for a hazardous constituent for which data are inadequate to set a human health or environmental health-based level. The action levels for groundwater are the more stringent of the following for each compound or constituent: 6 NYCRR 703.5, New York State Department of Health’s Drinking Water Standards and the United States Environmental Protection Agency’s Maximum Contaminant Levels (MCLs).
  - b. Areas of Concern (AOC). Pursuant to the authority granted by 6 NYCRR 373-1.6(c)(2), an “area of concern” has been defined for purposes of this Permit to mean an area at the facility, or an off-site area, which is not at this time known to be a solid waste management unit (SWMU), where hazardous waste and/or hazardous constituents are present, or are suspected to be present, as a result of a release from the facility. The term shall include areas of potential or suspected contamination as well as actual contamination. Such area(s) may require a study and a determination of what, if any, corrective action may be necessary. All Permit references to and conditions for SWMUs shall apply to areas of concern.
  - c. Corrective Action. For the purposes of this Permit, “corrective action” is a process that includes all activities related to the investigation, characterization and cleanup of a release of hazardous/mixed wastes or hazardous constituents from a solid waste management unit (SWMU) at a permitted or interim status treatment, storage and disposal facility (TSDF) to any environmental medium, including groundwater.

**Module II** of this Permit contains a more detailed discussion of the corrective action process.

- d. Environment. Pursuant to ECL Article 27, Title 9, Section 27-0901, “environment” means any water; water vapor; land, including land surface or subsurface; air; and, fish, wildlife, biota and all other natural resources
- e. Hazardous Constituents. For the purposes of this Permit, “hazardous constituents” are those constituents listed in Appendix 23 of 6 NYCRR 371 or any constituent listed in Appendix 33 of 6 NYCRR 373-2.
- f. Permittee. For the purposes of this Permit, “Permittee” herein refers to the party(ies) subject to this Permit. In addition, refer to **Conditions R.2 and R.3** of this Module.
- g. Priority Pollutant. Pursuant to 6 NYCRR 750 1.2(a)(67), “priority pollutant” means those pollutants listed in 40 CFR 122, Appendix D (see 6 NYCRR 750 1.24) as Organic Toxic Pollutants (volatiles, acid compounds, base/neutral compounds and pesticides), Metals, Cyanide and Total Phenols.
- h. Release. For purposes of this Permit, “release” includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment of any hazardous waste, including hazardous constituents, unless expressly authorized under the terms of this Permit or otherwise permitted under law (e.g., SPDES permitted discharges).
- i. Solid Waste Management Unit (SWMU). For purposes of this Permit, a “solid waste management unit” includes any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of hazardous or solid wastes. Such units include any area at the facility at which solid wastes have been routinely and systematically released. These units include certain areas associated with production processes that have become contaminated as a result of routine and systematic releases.

C. GENERAL PERMIT CONDITIONS [6 NYCRR 373-1.6]

1. 6 NYCRR 373-1.6 provides conditions applicable to all Part 373 Permits which are therefore incorporated into this Permit. The provisions are incorporated into, and made enforceable under this Permit.
2. Oral Reports: The Permittee must orally report any noncompliance that may endanger health or the environment immediately from the time the Permittee becomes aware of the circumstances. The oral reports must be made to the Department using the New York State 24-hour oil and hazardous material spill notification number (800) 457-7362 and the National Response Center using its 24-hour number (800) 424-8802, or any designated telephone numbers which may subsequently replace those listed above. The Permittee must also provide such oral reports to Department staff that are on-site

at the time of, or subsequent to, a reportable incident. The information reported must include that listed at 6 NYCRR 373-2.4(g)(4)(ii).

3. Entry Upon Facility:

- a. The Permittee must allow, pursuant to 6 NYCRR 373-1.6(a)(9), entry upon the Facility (or areas in the vicinity of the Facility which may be under the control of the Permittee) at reasonable times by any duly designated officer or employee of the United States Environmental Protection Agency (USEPA), the Department or any State agency having jurisdiction with respect to matters addressed pursuant to this Permit, and by any agent, consultant, contractor or other person so authorized by the Department, upon presenting identification, for inspecting, sampling, copying records that must be maintained by this Permit, testing, and any other activities necessary to evaluate the Permittee's compliance with this Permit.
- b. Upon request, the Permittee must: (i) provide the Department with suitable work space at the Facility, including access to a telephone, to the extent available, and (ii) allow the Department full access to all records relating to matters addressed by this Permit. Raw data must be provided to the Department upon request.
- c. In the event the Permittee is not the owner of the Facility property and is unable to obtain any authorization from third-party property owners necessary to provide access, the Permittee must immediately notify the Department and provide any requested assistance in obtaining such authorizations.
- d. The Department shall have the right to take its own photographs, samples and scientific measurements and to obtain split samples, duplicate samples or both. The Department shall make the results available to the Permittee in accordance with Department policy.

D. PERMIT MODIFICATION AND PERMIT TRANSFER [6 NYCRR 373-1.7 and 621]

1. Proposed modifications to this Permit, including modifications to the Attachments and documents incorporated by reference into this Permit, must be addressed in accordance with 6 NYCRR 373-1.7 and 621.
2. The Permittee must contact the Department (or its representative) with respect to any and all proposed permit modifications requested by the Permittee. The Department shall make the determination as to whether a proposed permit modification is a minor or major modification in accordance with 6 NYCRR 373-1.7. For the purposes of this Permit, as described in **Condition D.2.a** of this Module, the Department will entertain proposed administrative modifications to this Permit that would not otherwise be required to follow the requirements of **Conditions D.2.b and/or D.2.c** of this Module. Administrative changes generally include in-kind replacements or minor updates to plans attached to this Permit or incorporated by reference. **However, the Department must determine whether any and all changes are administrative modifications to this Permit.**

- a. For modifications determined by the Department to be administrative, the Permittee shall make the change in the Permittee's copy of all affected Attachment(s) and/or document(s) incorporated by reference. Submittal to the Department of a change that the Department has determined is administrative in nature is not necessary. However, at the time of Permit renewal, the Permittee must incorporate all administrative changes into this Permit. The Permittee must record all administrative changes in the Permit Modification Log provided as Attachment D of this Permit in accordance with **Condition D.3** of this Module. Note: The Department reserves the right to have its project manager, environmental monitor and/or permit writer request proposed administrative changes in writing by the Permittee's submission of a cover letter, written description of the proposed administrative modification and a clean copy of the modified affected pages for the Department's review and approval.
  - b. For modifications determined by the Department to be minor pursuant to 6 NYCRR 373-1.7(c) and 40 CFR 270.42(a), the Permittee must receive written approval from the Department before implementing the modification into this Permit, and subsequently follow the requirements of 6 NYCRR 373-1.7(e) and Department guidance for minor modifications.
  - c. For modifications determined by the Department to be major, the Permittee must treat the modification as a new application in accordance with 6 NYCRR 621.11 and follow the applicable requirements of 6 NYCRR 621.
3. The Permittee must maintain a log of all modifications requested and made to this Permit, including modifications made to the Attachments and documents incorporated by reference into this Permit. The log must conform to the Department-approved format presented in Attachment D of this Permit and must be submitted with each modification request. The log must be filled out in its entirety, except for the issuance date. Upon issuance of each Permit modification, the Permittee must place the updated log in Attachment D of this Permit along with a copy of the Department's approval letters, when applicable, and replace all affected pages in the Modules, Attachments and/or documents incorporated by reference with the modified pages.
  4. The Department may at any time, at its discretion, modify this Permit under the terms of 6 NYCRR 621.13 in accordance with the requirements contained therein.
  5. Permit Transfer: The Permittee must process all changes in Facility ownership and/or operational control in accordance with the requirements of 6 NYCRR 373-1.7(a) including the timeframes specified therein. Prior to undertaking a change in Facility ownership and/or operational control, the Permittee must provide written notification to the Department and receive written approval from the Department to allow transfer of this Permit. The Permittee must demonstrate to the Department's satisfaction that the prospective transferee will be able to comply with all applicable laws and regulations, Permit conditions, financial assurance and other requirements to which the Permittee is subject. The written notification must include the identity of the transferee and the nature and proposed date of the conveyance, and must notify the transferee in

writing, with a copy to the Department, of the applicability of this Permit including the corrective action program, as appropriate. The Department will determine whether transfer of this Permit is acceptable and will require either a minor or major modification.

E. EXPIRATION AND CONTINUATION OF PERMITS [6 NYCRR 373-1.8]

1. Requests for continuation of this Permit must be submitted in accordance with 6 NYCRR 373-1.8 and 621.11.
2. No sooner than one (1) year and no later than 180 days before the expiration of this Permit, the Permittee must provide the Department with a report regarding the matters identified in ECL 27-0913(3) occurring within two years of the date of the report. The report must include any such matters involving the permitted Facility, all other facilities owned or operated by the Permittee and any duly incorporated parent or subsidiary managing hazardous wastes within the United States. The Permittee must supply such documents and pertinent details regarding the matters in the report as may be requested by the Department.
3. The Permittee must schedule a “Pre-Application” meeting with the Department at least 270 days prior to the expiration date of this Permit. Renewal applications with a significant change (as defined at 6 NYCRR 373-1.10(a)(1)) are subject to the requirements of 6 NYCRR 373-1.10.
4. Complete applications for permit renewal must be submitted at least 180 days before the expiration date of this Permit pursuant to 6 NYCRR 373-1.8(b).
5. At any time during the review of the renewal application, the Department may request that the Permittee submit any additional information in writing which is necessary for determining the completeness of the application. Failure to provide such information by the date specified in the request may be grounds for denial of the application and the extension allowed pursuant to Section 401(2) of the State Administrative Procedures Act.

F. TERMINATION OF PERMIT ACTIVITIES

1. Should the Permittee cease the hazardous waste management activities allowed by this Permit prior to the expiration of this Permit, then, pursuant to 6 NYCRR 373-1.6(d), the Permittee must continue to comply with the applicable closure, post-closure and corrective action conditions and requirements stipulated in this Permit.
2. If the Permittee certifies closure of all hazardous waste management units at the Facility, and the Department accepts these closure certifications during the term of this Permit, and post-closure care or corrective action is determined to be necessary by the Department, the Department will make a determination whether a permit or other enforceable commitment document is appropriate, pursuant to Environmental Conservation Law (ECL) Section 71-2727(3). Based on that determination, the

Permittee must enter into the appropriate enforceable commitment prior to the expiration of this Permit.

G. FACILITY OPERATION

1. In accordance with 6 NYCRR 373-2.3(b), the facility must be designed, constructed, maintained and operated to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste(s) or hazardous waste constituents to air, soil, surface water or groundwater that could threaten human health or the environment.
2. The Permittee must at all times construct, operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee as designed in accordance with this Permit including **Schedule 1 of Module I**.
3. The Permittee must inspect the Facility to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of hazardous waste(s) or hazardous waste constituents to the environment, or a threat to human health pursuant to 6 NYCRR 373-2.2(g).

H. COMPLIANCE SCHEDULE

1. The Permittee must complete any activities referenced in **Condition C of Schedule 1 of Module I** within the timeframes set forth therein and in accordance with 6 NYCRR 373-1.6(d).
2. The Permittee must submit reports in a Department approved format no later than 14 days following each interim and the final compliance date that summarize the status of each of the activities listed in **Condition C of Schedule 1 of Module I**.

I. WASTE ANALYSIS [6 NYCRR 373-2.2(e)]

1. The Permittee must perform general waste analysis in accordance with the requirements of 6 NYCRR 373-2.2(e) and this Permit, including the Department-approved Waste Analysis Plan incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
2. All laboratories utilized for the analysis of any closure, post-closure and/or corrective action samples must be certified under the New York State Department of Health's Environmental Laboratory Approval Program (ELAP). Any laboratory tests or sample analyses for which the commissioner of the New York State Department of Health (NYSDOH) issues certificates of approval must be performed by a laboratory certified to perform such tests or analyses pursuant to the NYSDOH Environmental Laboratory Approval Program.

J. PERSONNEL TRAINING PROGRAM [6 NYCRR 373-2.2(h)]

1. The Permittee must conduct personnel training in accordance with 6 NYCRR 373-2.2(h)(1), (2) and (3), and this Permit, including the Department-approved Personnel Training Program incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
2. The Permittee must maintain training documents in accordance with 6 NYCRR 373-2.2(h)(4) and (5), and this Permit, including the Department-approved Personnel Training Program incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.

K. PREPAREDNESS AND PREVENTION, CONTINGENCY PLAN AND EMERGENCY PROCEDURES [6 NYCRR 373-2.3 and 2.4]

1. The Permittee must comply with the preparedness and prevention requirements in accordance with 6 NYCRR 373-2.3 and this Permit.
2. The Permittee must comply with contingency plan and emergency procedure requirements in accordance with 6 NYCRR 373-2.4 and this Permit, including the Department-approved Integrated Contingency Plan incorporated by reference by **Condition B of Schedule 1 of Module I** of this Permit.

L. WASTE REDUCTION REQUIREMENTS

1. The Permittee must comply with the requirements of Article 27, Title 9, Section 27-0908 of the ECL and 6 NYCRR 373-2.5(c)(ix) relative to waste reduction requirements.

M. REQUIREMENTS FOR RECORDING AND REPORTING OF MONITORING RESULTS [6 NYCRR 373-1.6(b)]

1. The Permittee must comply with the recording, reporting and monitoring requirements listed in this Permit.
2. The Permittee must install, use and maintain monitoring equipment, utilize the approved methods, and report monitoring results as specified in this Permit, including **Schedule 1 of Module I** and 6 NYCRR 373-2.

N. DATA AND DOCUMENT STANDARDS

1. All analytical data required by this Permit, as well as all analytical data requested by the Department, must be submitted to the Department in the standardized format in accordance with the Department's Electronic Data Deliverable guidance within 30 days of receipt from the laboratory (see <http://www.dec.ny.gov/chemical/62440.html>). The Permittee may obtain Category A deliverables for routine sampling activities. At decision points, the Permittee must obtain Category B deliverables and have all data validated by a third party prior to submission to the Department. The individual

performing the third party validation must prepare a Data Usability Summary Report (DUSR) in accordance with the requirements of the Department's Technical Guidance for Site Investigation and Remediation (DER-10). The DUSR must be submitted with the report containing the data in accordance with **Condition N.2** of this Module. The data deliverable submitted to the Department must include the results of the data validation.

2. The Permittee must deliver to the Department preliminary or final reports, specifications or drawings prepared pursuant to this Permit in an electronic format that complies with the Department's Electronic Document Standards (EDS) or as otherwise directed by the Department. All final documents are to be submitted in an electronic format that complies with the most recent DER EDS. Until such time as the Department establishes an EDS, final documents are to be submitted as a PDF document (see <http://www.dec.ny.gov/regulations/2586.html>). Also, the Permittee must, at the request of the Department, provide electronic versions of technical documents in MS Word and/or MS Excel, and plan drawings and/or other site drawings in AutoCAD, or other format suitable to the Department.
3. In addition to electronic copies, the Permittee must provide paper copies of any document (e.g., reports, plans, data, specifications, drawings, etc.) requested by the Department in paper format or as may be specified in paper format in **Schedule 1 of Module I**.

O. FINANCIAL ASSURANCE

1. The Permittee must comply with all of the applicable requirements of 6 NYCRR 373-2.8 and this Permit. The definitions contained in 6 NYCRR 373-2.8(b) are applicable to the financial requirements within this Permit.
2. The Permittee must comply with this Permit and 6 NYCRR 373-2.6(l) for meeting the financial assurance requirements for corrective action for releases from any solid waste management unit located at the Facility, regardless of the time the waste was placed in the unit.
3. The Permittee must adjust for inflation all cost estimates required by 6 NYCRR 373-2.6(l), 373-2.8 and this Permit annually, and provide additional financial assurance for this adjustment in accordance with 6 NYCRR 373-2.8. These adjustments must be independent of any requests to decrease cost estimates, unless the Department has previously approved such a decrease (i.e., the inflationary adjustment must be made separately from any unapproved request for a decrease in the cost estimate). In addition, the total amount of any post-closure cost estimate must be established and maintained throughout the life of this Permit in at least the amount derived by multiplying the annual post-closure cost estimate by a minimum of 30 years, unless the Department has approved a decrease in the post-closure care period for a unit or the Facility in accordance with 6 NYCRR 373-2.7(g)(1)(ii).

4. The Department-approved closure, post-closure and corrective action cost estimates are incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**. These cost estimates must be adjusted annually for inflation in accordance with **Condition O.3** of this Module.
5. The Permittee must obtain approval in writing from the Department prior to any reduction in the approved cost estimates and for any changes to the instrument(s) and/or mechanism(s) (e.g., type of instrument(s) and/or mechanism(s), the issuing company(ies)/institution(s) and/or a reduction in the dollar amount(s)).
6. Corrective Action Cost Estimates: For any and all corrective actions required under the authority of this Permit for any newly identified Solid Waste Management Units, both final and interim, the Permittee must submit for the Department's approval, written estimates, in current dollars, which reflect all costs involved in implementing corrective action through Department-approved completion. Such estimates must reflect the cost of hiring a third party to perform the corrective action in accordance with 6 NYCRR 373-2.8(e)(1)(i). For the final corrective measure(s), the Permittee must provide such estimates with the submission of the Corrective Measures Implementation (CMI) work plan. For Interim Corrective Measures (ICM) requiring work plans, the Permittee must provide such estimates with the submission of each ICM work plan required by this Permit.
7. Short-Term Corrective Measures: For financial assurance of final or interim corrective measures for any newly identified Solid Waste Management Units required by Department-approved work plans where the implementation schedule in the approved work plan(s) indicates anticipated completion of said action(s) within one (1) year, the Permittee must provide the Department with a letter certifying that the Permittee has sufficient liquid financial resources to perform and complete the approved corrective measure(s) based on the Department-approved cost estimate(s) required by **Condition O.6** of this Module. This letter must include a certification in accordance with 6 NYCRR 373-1.4(a)(5) and must be provided for the Department's acceptance with the Permittee's submission of a final or interim corrective measures work plan(s). If the Department notifies the Permittee that the certification is not acceptable, the Permittee must establish financial assurance for corrective measures in accordance with the requirements of financial assurance for Long-Term Corrective Measures as specified in **Condition O.8** of this Module within sixty (60) days of said notification. If the corrective action(s) are not completed within one year of the initial certification, the Permittee may request and the Department, at its discretion, may approve up to a one (1) year extension of the certification. If the corrective action(s) has not been completed to the Department's satisfaction at the end of the first year or a Department-approved extension, the Permittee must, within sixty (60) days, provide financial assurance in accordance with the requirements of financial assurance for Long-Term Corrective Measures as specified in **Condition O.8** of this Module.
8. Long-Term Corrective Measures: For final or interim corrective measures required for any newly identified Solid Waste Management Units by a Department-approved work plan(s) where the implementation schedule in the approved work plan(s) indicates that

the anticipated completion of the final or interim corrective action(s) will take longer than one (1) year, the Permittee must establish and maintain a Department-accepted financial assurance instrument(s) in accordance with 6 NYCRR 373-2.8(f). This financial assurance must be equal to the current dollar amount of the most recent Department-approved final or interim corrective measures cost estimate(s) required by **Condition O.6** of this Module. The Department-accepted financial assurance must be one, or a combination, of the financial assurance instruments, specified in 6 NYCRR 373-2.8(f)(1) through (4) and these instruments must be issued by an entity, or entities, that are legally and fiscally separate and distinct from the Permittee and any parent or subsidiary thereof. If the Permittee chooses to use either 6 NYCRR 373-2.8(f)(2) or (3) (or a combination thereof), the Permittee must revise or establish a Standby Trust Fund in accordance with said regulations. The Permittee must submit the instrument(s), for the Department's approval, no later than sixty (60) days after the Department's approval of corrective measures work plan(s), or as required by the requirements of financial assurance for Short-Term Corrective Measures as specified in **Condition O.7** of this Module.

9. For any Permit modification request pertaining to the Closure Plan or Post-Closure Plan provided as Attachment C of this Permit involving an increase in the cost of closure or post-closure, the Permittee must also submit a revised cost estimate, in current dollars, which includes the increase in these costs with appropriate third party justification. For any new or modified corrective measure required by this Permit and submitted by the Permittee subsequent to the issuance of this Permit which involves an increase in the cost of corrective action, the Permittee must also submit for Department approval, a revised cost estimate, in current dollars, which includes the cost increase associated with implementing the corrective measure with appropriate third party justification.
10. Within sixty (60) days of a modification of this Permit or Department approval of a new or modified corrective measure involving an increase in a cost estimate, the Permittee must establish additional financial assurance to cover the amount of the increase in the cost estimate in accordance with the requirements of 6 NYCRR 373-2.8.
11. The Permittee must maintain the Department-accepted financial assurance instruments for closure, post-closure and corrective action, which shall be those incorporated by reference into this Permit by **Schedule 1 of Module I**, and any Department-accepted revisions thereof, or Department-accepted replacements for these financial instruments selected by the Permittee from the instrument types previously specified in this condition. Changes in existing financial assurance instruments or replacement of existing financial assurance instruments must be accepted by the Department. The Permittee must provide annual evidence to the Department within thirty (30) days prior to the anniversary on which the initial accepted financial assurance instrument was established that all instruments, incorporated by reference into this Permit by **Schedule 1 of Module I** including any accepted revisions or replacements thereof, have been maintained and not allowed to lapse.

12. Within sixty (60) days after any increase in the approved cost estimate, the Permittee must, in accordance with 6 NYCRR 373-2.8, either:
  - a. Revise one or more of the Department accepted financial assurance instrument(s) for closure to increase the instrument(s) amount by at least the amount of the increase in the approved cost estimate and submit the revised instrument(s) for Department approval; or
  - b. Submit an additional financial assurance instrument, or instruments from the instrument types specified in 6 NYCRR 373-2.8 with an amount equal to at least the amount of the increase in the approved cost estimate and submit the additional instrument(s) for Department approval.
13. If the Permittee elects to replace any of the instruments incorporated by reference into this Permit by **Schedule 1 of Module I** for financial assurance, with new financial assurance instrument(s) as specified by 6 NYCRR 373-2.8, the new instruments must be issued by an entity, or entities, that are legally and fiscally separate and distinct from the Permittee and any parent or subsidiary thereof. Also, if applicable, any replacement instruments pertaining to post-closure and corrective action must be worded in accordance with 6 NYCRR 373-2.8(j) except that the words “post-closure and corrective action” must be substituted for the words “post-closure” in any such replacement instrument.

P. COMMUNICATIONS

1. The Permittee must transmit all communications pursuant to this Permit to the Department via electronic delivery to the recipients specified in **Schedule 1 of Module I** of this Permit. All deliverables must be transmitted in a Department-approved format as specified in **Condition N** of this Module.
2. If requested by the Department in lieu of, or in addition to, an electronic deliverable, the Permittee must transmit the requested written communications pursuant to this Permit to the Department by United States Postal Service, by private courier service or by hand delivery to the following address:

Chief, RCRA Permitting Section  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway, 12th Floor  
Albany, NY 12233-7017
3. The Permittee must submit additional copies of the specific deliverables identified in **Schedule 1 of Module I** to the addresses and agencies listed therein.

Q. PENALTIES

1. Permittee's Obligations

- a. The Permittee's failure to comply with any term of this Permit constitutes a violation of this Permit and the ECL. Nothing herein abridges the Permittee's right to contest any allegation that it has failed to comply with this Permit.
- b. Payment of any penalties must not in any way alter the Permittee's obligations under this Permit.

R. MISCELLANEOUS

1. The paragraph headings set forth in this Permit are included for convenience of reference only and must be disregarded in the construction and interpretation of any provisions of this Permit.
2. If there are multiple parties subject to this Permit, the term "Permittee" must be read in the plural, the obligations of each such party under this Permit are joint and several, and the insolvency of or failure by any Permittee to implement any obligations under this Permit must not affect the obligations of the remaining Permittee(s) under this Permit.
3. If the Permittee is a partnership, the obligations of all general partners (including limited partners who act as general partners) under this Permit are joint and several and the insolvency or failure of any general partner to implement any obligations under this Permit must not affect the obligations of the remaining partner(s) under this Permit.
4. In any administrative or judicial action to enforce a condition of this Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Permit.
5. Whenever materials or equipment are specified or described in this Permit using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function, quality, performance and design criteria required. In all cases, unless the name is followed by words indicating that "no 'or equal' or substitution is allowed" or similar language, materials or equipment of other suppliers may be accepted by the Department if sufficient information is submitted by the Permittee to allow the Department to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of "or equal" or substitute items of material and equipment will not be accepted by the Department from anyone other than the Permittee. If the Permittee wishes to furnish or use an "or equal" or substitute item of material or equipment, the Permittee must make written application to the Department for acceptance thereof, certifying that the proposed "or equal" or substitute will perform the same functions and achieve the same results called for by the general design, be similar and of equal substance and quality to that specified, and be suited to the same use as that specified.

6. The Permittee may submit a written request to the Department for a clarification on compliance with any condition in this Permit. Any such request must be submitted at least 30 days prior to the date on which the Permittee must comply with the condition identified in the clarification request. In response, the Department will provide the Permittee with a written clarification, detailing what constitutes compliance with the identified Permit condition. This clarification process shall in no way relieve the Permittee from the obligation to comply with all the terms and conditions of this Permit.

# **SCHEDULE 1 of MODULE I**

## **Facility-Specific Conditions**

PART 373 PERMIT

SCHEDULE 1 OF MODULE I  
FACILITY-SPECIFIC CONDITIONS

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**DEC Facility Name:** **Momentive Performance Materials**  
DER Site ID No.: 546003  
EPA RCRA ID No.: NYD002080034

**Facility Address:** 260 Hudson River Road  
Waterford, New York 12188  
Saratoga County

Hereinafter referred to as “Facility” or “Site”

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A. PERMITTED ACTIVITIES

The following hazardous waste management units, activities and types and quantities of hazardous waste to be managed are authorized by this Permit:

| <b>Unit Type<sup>1</sup></b> | <b>No. of Areas/Units</b> | <b>Activity Type</b> | <b>Waste Type<sup>2</sup></b> | <b>Quantity</b>              |
|------------------------------|---------------------------|----------------------|-------------------------------|------------------------------|
| Containers (S01)             | 2 areas<br>3,960 units    | Storage              | Solid & Liquid Waste          | 217,800 <sup>3</sup> gallons |
| Transfer Areas (S99)         | 10 areas<br>12 units      | Storage              | Solid & Liquid Waste          | 37,000 gallons               |
| Miscellaneous Units (XXX)    | 3 units                   | Treatment            | Solid & Liquid Waste          | N/A                          |
| Tanks (S02)                  | 11 areas<br>18 units      | Storage              | Liquid Waste                  | 197,325 <sup>4</sup> gallons |
| Tanks (T01)                  | 1 area<br>1 unit          | Treatment            | Liquid Waste                  | 34,000 gallons/day           |
| Incinerators (T03)           | 2 areas<br>2 units        | Treatment            | Solid & Liquid Waste          | N/A                          |

**Footnotes:**

1. Unit codes are as described in the Part A Application.
2. Specific waste types and waste codes are presented in **Exhibit C** (containers) of this Schedule, **Exhibit D** (tanks) of this Schedule and the Department-approved Waste Analysis Plan incorporated by reference by **Condition B of Schedule 1 of Module I** of this Permit.
3. This represents the maximum permitted storage quantity. The Permittee must comply with additional requirements limiting storage capacity in accordance with **Condition D.3 of Module III** and **Condition C Item 6** of this Schedule.
4. Quantity includes Tank 15.

**B. PERMIT DOCUMENTS**

The following Modules, Attachments and documents incorporated by reference are considered part of this Permit:

Modules

- I General Conditions  
Schedule 1 of Module I
- II Corrective Action Requirements
- III Use and Management of Containers
- IV Tank Systems
- V RESERVED
- VI RESERVED
- VII Incinerators
- VIII RESERVED
- IX RESERVED
- X Hazardous Waste Miscellaneous Units

Attachments:

- A RESERVED
- B Engineering Drawings – “MPM Silicones, LLC, Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume II, Sections III and IV” (June 2007, Revised November 12, 2012)
- C Closure Plan, Post-Closure and Financial Assurance - “MPM Silicones, LLC, Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume I, Sections IV-A, and VIII” (June 2007, Revised November 12, 2012)
- D Permit Modification Log

## Documents Incorporated by Reference

1. MPM Silicones, LLC RCRA Facility ID No. NYD002080034 Financial Assurance Pursuant to 6 NYCRR 373-2.8, Irrevocable Standby Letter of Credit TPTS-312850 for Closure and Post Closure Care (February 26, 2007) and the Standby Trust Agreement for Letter of Credit TPTS-312850 (March 5, 2007) <sup>1,2</sup>
2. MPM Silicones, LLC RCRA Facility ID No. NYD002080034 Financial Assurance Pursuant to 6 NYCRR 373-2.8 Irrevocable Standby Letter of Credit TPTS-273658 for Third Party Liability Awards or Settlements (December 18, 2007) and the Standby Trust Agreement for Letter of Credit TPTS-273658 (December 20, 2007)<sup>1,2</sup>
3. “Civil Action No. 83-CV -77” and resulting Consent Order between the State of New York and General Electric Company (August 8, 1985)<sup>1</sup>
4. “Remedial Plan for General Electric Company, Silicone Products Division, Waterford, New York” (December 1987)<sup>1</sup>
5. “Landfill No. 1 Remedial Plan” (May 31, 1995)<sup>1</sup>
6. Letter to NYSDEC regarding the “Proposed Modification to Groundwater Remedial Systems” (July 8, 2005 and subsequently approved in letter from NYSDEC dated January 6, 2006)<sup>1</sup>
7. “Operation and Maintenance Manual – Closed Regulated and Non-Regulated Units” (October 28, 2011)<sup>1</sup>
8. “Interim Corrective Measures Performance Evaluation for Groundwater Remedial Systems” (February 24, 2012)<sup>1</sup>
9. “Cost and Regulatory Basis for Momentive Performance Materials Silicones, LLC RCRA Financial Assurance, Waterford, New York” (February 24, 2012)<sup>1</sup>
10. Letter to NYSDEC regarding “Momentive’s RCRA Permit Renewal Application, Cadigan’s Tomb Revised Proposal” (January 2, 2013) <sup>1</sup>
11. “Momentive Performance Materials Silicones, LLC Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume I, Sections I, II, III, IV-B, IV-C, IV-D, V, VI, VII, IX and X” (June 2007, Revised November 12, 2012) <sup>1</sup>
12. “Momentive Performance Materials Silicones, LLC Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, Volume II, Sections I , II and V” (June 2007, Revised November 12, 2012) <sup>1</sup>

13. "Momentive Performance Materials Silicones, LLC, Waterford, New York; NYSDEC Part 373 Hazardous Waste Permit Application, EPA ID No. NYD002080034, Volume III: Integrated Contingency Plan" (June 2007, Revised November 12, 2012) <sup>1,2</sup>
14. "Momentive Performance Materials, Waterford New York , Hazardous Waste Analysis Plan, Quality Assurance/Quality Control Plan" (March 26, 2013) <sup>1,2</sup>
15. "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" <sup>1,4</sup>
16. Air Emissions Standards Equipment Leaks <sup>3, partial\*</sup>
17. "REVISED MULTIPATHWAY RISK ASSESSMENT Rotary Kiln and Fixed Box Incinerators" (July 2012)<sup>1</sup>
18. "REVISED SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT Rotary Kiln and Fixed Box Incinerators" (July 2012)<sup>1</sup>

**Footnotes:**

*1. Each document referenced by this footnote includes the above dated original submission and any subsequent Department approved document revisions.*

*2. Each document referenced by this footnote includes the referenced document and any subsequent Department approved replacement.*

*3. Updates to the Air Emissions Standards information (e.g. equipment lists and drawings) shall be kept in the facility's operating record and provided to DEC upon request.*

*4. Upon written notice, MPM may choose to comply with the "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" document in lieu of complying with the regulatory requirements for spill reporting. MPM may notify DEC that they wish to discontinue use of the "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" document in writing 10 days prior to the start of any quarter.*

C. COMPLIANCE SCHEDULE

The Permittee must complete the following compliance activities within the timeframes indicated on the following table:

| Item No. | Title                                  | Description <sup>1</sup>  | Compliance Date  |
|----------|--|---|--|
| 1.       | Financial Assurance Requirements       | Provide financial assurance as per 6 NYCRR 373-2.8 in the amount of \$26,476,000 for corrective action, closure and post closure care costs.  | Within 90 days of the effective date of this Permit  |
| 2.       | Final Cover Program for Landfill No. 2 | <p>Design and implement the final cover program for Landfill No. 2 in accordance with NYSDEC requirements:</p> <ul style="list-style-type: none"> <li>• Proposal to perform inspection and destructive testing within five years from the date of the prior inspection and every three years thereafter</li> <li>• Engineering Design Report (including implementation schedule)</li> <li>• In the event replacement is determined to be necessary: Engineering Drawings (35%, 65%, 95%)</li> <li>• In the event replacement is determined to be necessary: Technical Specifications and Work Schedule (35%, 65%, 95%)</li> </ul> | <p>Within 90 days of the effective date of this Permit</p> <p>Within 90 days of completion of the NYSDEC approved inspection/testing</p> <p>Within 90, 135 and 180 days, respectively, of NYSDEC approval of the Engineering Design Report</p> <p>Within 90, 135 and 180 days, respectively, of NYSDEC approval of the Engineering Design Report</p> |

| Item No.     | Title   | Description <sup>1</sup>  | Compliance Date   |
|--------------|---|---|---|
| 2.<br>cont'd | Final Cover Program for Landfill No. 2 (cont'd)           | <ul style="list-style-type: none"> <li>• Implementation</li> <br/> <li>• Certification Report<br/><i>See Footnote 2</i></li> </ul>  | <p>Within the time frames defined on the NYSDEC-approved Work Schedule.</p> <p>Within 30 days of NYSDEC acceptance of substantial completion of any repairs or replacement.</p> |
| 3.           | Secondary Containment Capacity - Loading/ Unloading Areas | <p>Submit a Work Plan, including implementation schedule, to apply impermeable coatings to all surfaces included in secondary containment calculations to the NYSDEC for review and approval. Include a design in the Work Plan that demonstrates that all containers will be situated completely within the impermeably coated containment areas.</p> <ul style="list-style-type: none"> <li>• Work Plan</li> <br/> <li>• Implement Work Plan</li> </ul> | <p>Within 60 days of the effective date of this Permit</p> <p>Within 90 days of NYSDEC approval of Work Plan, unless an extension is granted by the Department</p>              |

| Item No. | Title   | Description <sup>1</sup>  | Compliance Date  |
|----------|---|---|--|
| 4.       | Secondary Containment Capacity - Interconnected Tanks 539A and 539B and Containment Areas | <p>a. Isolate the 539A and 539B tanks to operate as independent tanks by installing automated valves.</p> <p>b. Evaluate interconnected containment areas specifically the Tank 28 B vault and Cadigan's Tomb. Identify and reconcile all compatibility issues with any waste or other material which may enter the shared containment area.</p> <p>Submit Work Plan, including implementation schedule, to NYSDEC for review and approval.</p> <ul style="list-style-type: none"> <li>• Work Plan</li> <li>• Draft Engineering Report</li> <li>• Final Engineering Report</li> <li>• Implement Tank/Containment Modifications</li> </ul> | <p>Within 60 days of the effective date of this Permit</p> <p>Within 45 days of NYSDEC approval of Work Plan</p> <p>Within 30 days of NYSDEC approval of Draft Engineering Report</p> <p>Within 90 days of NYSDEC approval of Final Engineering Report, unless an extension is granted by the Department</p> |

| Item No. | Title                             | Description <sup>1</sup>  | Compliance Date   |
|----------|-----------------------------------|---|---|
| 5.       | Tanks 28 A & B Vault Improvements | <p>Evaluate structural and/or operational improvements to the Tank 28 A &amp; B vault containment systems. Address improvement of access/capability to perform daily inspections by installing lighting and mirrors. Submit Work Plan, including implementation schedule, to NYSDEC for review and approval.</p> <ul style="list-style-type: none"> <li>• Work Plan</li> <li>• Draft Engineering Report</li> <li>• Final Engineering Report</li> <li>• Implement Structural/Operational Modifications to Tank/Vault System</li> </ul> | <p>Within 120 days of the effective date of this Permit</p> <p>Within 45 days of NYSDEC approval of Final Work Plan</p> <p>Within 30 days of NYSDEC approval of Draft Engineering Report</p> <p>Within 90 days of NYSDEC approval of Final Engineering Report, unless an extension is granted by the Department</p> |



| Item No. | Title                         | Description <sup>1</sup>   | Compliance Date  |
|----------|-------------------------------|--|--|
| 7.       | Underground piping inspection | <ul style="list-style-type: none"> <li>• Develop procedures in accordance with accepted industry standards to test underground hazardous waste transfer and conveyance piping between hazardous waste secondary containment areas. Submit Proposal, including implementation schedule, to NYSDEC for review and approval.</li> <li>• Implement testing procedures in accordance with the NYSDEC approved schedule and submit Draft Report.</li> <li>• Final Report</li> <li>• Conduct follow-up testing</li> </ul> | <p>Within 150 days of the effective date of this Permit</p> <p>Within 150 days of NYSDEC approval of Proposal, unless an extension is granted by the Department</p> <p>Within 60 days of NYSDEC approval of Draft Report</p> <p>Submit report with next Permit renewal application</p> |

| Item No. | Title   | Description <sup>1</sup>  | Compliance Date  |
|----------|---|---|--|
| 8.       | Building 78 Transfer Station – Upgrade of Secondary Containment | <p>Upgrade the secondary containment capacity at the Building 78 transfer station to provide sufficient containment for the permitted tanker<sup>4</sup>.<br/>The improvement(s) to secondary containment system shall minimize any run-on which might enter the system.</p> <ul style="list-style-type: none"> <li>• Submit a Draft Engineering Report, including an implementation schedule to the NYSDEC for review and approval</li> <li>• Submit a Final Engineering Report</li> <li>• Implement Transfer Station Containment Modifications</li> </ul> | <p>Within 90 days of effective date of this Permit</p> <p>Within 45 days of NYSDEC approval of Draft Engineering Report</p> <p>Within 90 days of NYSDEC approval of Final Engineering Report, unless an extension is granted by the Department</p> |

| Item No. | Title                       | Description <sup>1</sup>   | Compliance Date                                  |
|----------|-----------------------------|--|--|
| 9.       | Site Institutional Controls | <p>Provide documentation that Institutional Controls (ICs) in accordance with DER-33 have been recorded for all parcels with landfills, SWMU or AOC areas where contaminants are above unrestricted use levels or groundwater contaminate levels are above groundwater standards, along with the former residential properties known as 275 and 277 Hudson River Road. The ICs must restrict future land and groundwater use.</p> <p><b>See Footnote 3</b></p> | Within 180 days of effective date of this Permit |

**Footnotes:**

1. *All work plans prepared pursuant to this Compliance Schedule must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer, or by such other qualified environmental professional as the Department may find acceptable using the language provided in DER 10.*
2. **Final Cover of Landfill No. 2** - *The Permittee must design, implement and document a final cover program for Landfill No. 2, generally consisting of grading, replacement in kind of the liner, drainage layer (geosynthetic or 12" granular), 18" barrier protection and 6" of topsoil with vegetative cover. Alternatively a replacement of the existing cover system with an in-kind HDPE liner may be proposed, however, such proposal will require an increase in financial assurance provided for this permit of \$1,000,000 due to the expectation that such HDPE liner will require replacement in less than 30 years. The overall technical approach for final cover must be clearly stated in an initial proposal submitted for review and approval to the NYSDEC prior to initiating the Engineering Design Report. The proposal must address the following, including, but not limited to:*
  - *Conduct a comprehensive visual inspection of the existing exposed membrane by a 3rd party for failure points, cracking, adverse effects associated with expansion and contraction, etc., with NYSDEC oversight.*
  - *Obtain a representative number of samples of existing, exposed geomembrane and perform conformance testing of samples to document the integrity of the geomembrane and its seams versus its installed properties. Testing to be performed by a 3rd party with NYSDEC oversight.*
  - *Perform non-destructive testing of a representative portion of the existing geomembrane seams.*

- *In the event replacement is determined to be necessary, design and implement a final cover and grading plan utilizing barrier protection layer, subsurface drainage systems and vegetative growth layer.*
  - *In the event replacement is determined to be necessary, prepare an approvable Storm Water Management Plan.*
  - *Prepare an Engineering Design Report, stamped by a P.E. licensed in New York State, with experience and qualifications in landfill design/closure, summarizing all destructive and non-destructive testing, inspection activities, repairs, data analysis and reporting.*
  - *Prepare a Certification Report to document all repairs, material properties and completed construction. Utilize certification requirements for owner/operator at 6 NYCRR Part 373-1.4(a)(5).*
3. **Site Institutional Controls** – *The Permittee must provide documentation that that the ICs restrict future land and groundwater use. The ICs must also include a requirement to conduct an evaluation of the vapor intrusion potential in accordance with the State’s “Guidance for Evaluating Soil Vapor Intrusion in the State of New York,” or equivalent and any successor methodology thereto, before any change in use of any existing buildings from manufacturing, industrial, packaging, laboratory or other non-office space use to any use that is less restrictive than industrial use including office space or before any new buildings constructed on the Property become occupied or, in the alternative, the owner will install a subslab vapor intrusion mitigation system in any newly constructed building on the Property.*
4. *In a preliminary verbal proposal, MPM proposed a minimum option to completely coat the secondary containment area with an impermeable, compatible coating and implement a permanent piping solution to move hazardous waste from Building 78 to an alternative appropriate hazardous waste storage area or its final disposal point. MPM may investigate putting an intermediary 90 day tank in service (e.g. Tank 379) as part of this proposal.*

D. **SCHEDULE OF DELIVERABLES**

The Permittee must complete the following deliverables within the time frames indicated on the following table:

| Item # | Title  | Description <sup>1</sup>  | Deliverable Date   |
|--------|--|---|--|
| 1.     | Develop Electronic Waste Management Database         | <p>Prepare a detailed technical proposal presenting the means and methods of developing and implementing an electronic waste management database described in Footnote 2 below. Submit proposal, including implementation schedule, to NYSDEC for review and approval in accordance with the following:</p> <ul style="list-style-type: none"> <li>• Draft Proposal</li> <li>• Final Proposal</li> <li>• Implementation</li> </ul> <p><b>See Footnote 2</b></p> | <p>Within 270 days of the effective date of this Permit</p> <p>Within 60 days of NYSDEC approval of Draft Proposal</p> <p>Within 1 year of NYSDEC approval of Final Proposal, unless an extension is granted by the Department</p> |
| 2.     | Conceptual Site Model (CSM)<br><b>See Footnote 3</b> | <p>Prepare a CSM for the Momentive Performance Materials facility located in Waterford, NY. Submit the following documents to the NYSDEC for review and approval in accordance with the following schedule:</p> <ul style="list-style-type: none"> <li>• Draft CSM</li> <li>• Final CSM</li> </ul>  | <p>Within 360 days of the effective date of this Permit</p> <p>Within 90 days of receipt of NYSDEC comments on the Draft CSM</p>   |

| Item # | Title   | Description <sup>1</sup>  | Deliverable Date  |
|--------|---|---|---|
| 3.     | Remedial System Optimization (RSO)                                    | <p>Conduct an RSO review for the Momentive Performance Materials facility located in Waterford, NY. Submit the Work Plan, including implementation schedule, to the NYSDEC for review and approval in accordance with the following schedule:</p> <ul style="list-style-type: none"> <li>• RSO Work Plan</li> <li>• Draft RSO Report</li> <li>• Final RSO Report</li> <li>• RSO Implementation</li> </ul> <p><b><i>See Footnote 4</i></b></p> | <p>Within 270 days of NYSDEC approval of the final CSM</p> <p>Within 45 days of NYSDEC approval of the RSO Work Plan</p> <p>Within 90 days of receipt of NYSDEC comments on the Draft RSO Report</p> <p>Within 90 days of NYSDEC approval of the Final RSO Report, unless an extension is granted by the Department</p> |
| 4.     | <p>Site Management Plan (SMP)</p> <p><b><i>See Footnote 3</i></b></p> | <p>Prepare a SMP for the Momentive Performance Materials facility located in Waterford, NY and submit to the NYSDEC for review and approval in accordance with the following schedule:</p> <ul style="list-style-type: none"> <li>• Draft SMP</li> <li>• Final SMP</li> </ul>   | <p>Within 180 days of completing the activities described in the RSO Implementation Work Plan</p> <p>Within 60 days of receipt of NYSDEC comments on the Draft SMP</p>  |

| Item # | Title  | Description <sup>1</sup>   | Deliverable Date   |
|--------|--|--|--|
| 5.     | Momentive Performance Materials facility located in Waterford, NY – Final Engineering Report (FER)<br><b><i>See Footnote 3</i></b> | Prepare a FER for the Momentive Performance Materials facility located in Waterford, NY and submit to the NYSDEC for review and approval in accordance with the following schedule:<br><br>Draft FER<br><br><ul style="list-style-type: none"> <li>• Final FER</li> </ul>  | Within 90 days of NYSDEC approval of Final SMP<br><br>Within 60 days of receipt of comments on the Draft FER   |
| 6.     | Waste Stream/Waste Code Audit  | Prepare a technical evaluation to identify and reconcile all containerized hazardous waste streams managed/stored at the RKI Feed Pad, the Drum Storage Structure and any areas being considered for future permitted drum storage. Submit Proposal, including implementation schedule for NYSDEC review and approval.<br><br><ul style="list-style-type: none"> <li>• Proposal</li> <li>• Draft Report</li> <li>• Final Report</li> <li>• Implementation (including any permit modifications)</li> <li>• <b>See Footnote 5</b></li> </ul> | Within 180 days of the effective date of this Permit<br><br>Within 45 days of NYSDEC approval of proposal<br><br>Within 30 days of NYSDEC approval of Draft Report<br><br>Within 30 days of NYSDEC approval of Final Report, unless an extension is granted by the Department. |

| Item # | Title  | Description <sup>1</sup>   | Deliverable Date   |
|--------|--|--|--|
| 7.     | Areas of Concern -<br>Mudderkill Creek and<br>Item # 941-20.1 Tributary<br>H-244 | <ul style="list-style-type: none"> <li>• Submission of Schedule for RFA Work Plan and Possible ICM Work Plan</li> <li>• Submission of a Records Search in accordance with DER-10, Appendix 3A</li> <li>• Preparation of RFA Work Plan and Possible ICM Work Plan, along with a written citizen's participation plan and an updated schedule</li> </ul> <p>Implement Work Plan(s)</p> | <p>Within 30 days of the effective date of this permit.</p> <p>Within 60 days of the effective date of this permit.</p> <p>Within 90 days of the effective date of this permit.</p> <p>Upon approval by the DEC in accordance with the approved schedule</p> |

**Footnotes:**

1. All work plans prepared pursuant to this Schedule of Deliverables must be certified in accordance with 6 NYCRR 373 1.4(a)(5), and by a Professional Engineer, or by such other qualified environmental professional as the Department may find acceptable using the language provided in DER 10.
2. **Development of an Electronic Waste Management Database** – In accordance with the facility's Waste Analysis Plan (WAP), the Permittee is required to periodically sample and analyze each waste stream and prepare a waste profile. Information on chemical and physical characteristics must be obtained via laboratory analyses, alternatively, the Permittee may be able to use current information (e.g., MSDS, SDS, and recent waste profiles) where appropriate. Waste profiles must be reviewed and updated periodically or when a process change occurs.

*The analytical results associated with each waste stream must be managed in an electronic database. Toward that end, a unique identification number must be assigned to each waste stream and associated waste profile that are managed at the Momentive Performance Materials facility located in Waterford, NY. The waste profile provides information regarding hazardous waste codes, waste constituents, BTU value, chemical and physical properties, the process(es) generating the waste stream, and if applicable, special handling requirements.*

*In addition, each drum or container with a capacity of 275 gallons or less of hazardous waste in permitted areas of the facility must be labeled with a bar code with a unique identification number capable of being "read" by a scanning device. Retrieving the unique identification number in the database will provide information regarding the date the drum went into storage, as well as its physical location in storage (e.g., "Row 15, Pallet F"). Each drum must also be labeled with the unique waste stream identification number that identifies the contents of the drum.*

*The detailed technical proposal shall address internal auditing and exception reporting. Auditing involves inspections so as to be aware of the actions of users and the resultant data of the bar code system. Exception reporting will document how well the data meets MPM's pre-defined business rules (e.g., drums stacked with bar code visible, etc.), which is essential to understanding the usability of the data and the validity of any findings or conclusions with that data. Typically an exception report presents both statistics describing non-conforming data and lists the non-conforming data. This information may then be used to guide data correction, manage how the data is used or to explain anomalies in reports or tracking. Auditing and exception reporting which*

*resolves data issues (bar code inconsistent with label, multiple bar codes, missing bar codes or similar issues) within 4 business days of discovery by the Permittee is not subject to violation. However, drums stored in excess of 90 days on the 90 day pad, in excess of one year on the one year pad or similar non-compliance situations may be subject to violation regardless of auditing and exception reporting.*

*For the first 90 days of implementation of the bar code system, if the bar coding system or the associated auditing and exception reporting reveals non-compliance that i) did not cause actual exposure or a high likelihood of exposure to hazardous waste which threatened human health or the environment, ii) is promptly disclosed to the Department within 4 business days of discovery, iii) has been corrected and remediated within that 4 business day period and iv) MPM identifies measures to prevent recurrence of the non-compliance, such non-compliance will not be subject to violation.*

*Implementation of the bar code system does not serve to create any record keeping obligation on the part of Permittee in the absence of a statutory or regulatory requirement.*

3. *The intent of Items 2, 4 and 5 is to provide comprehensive, current site-wide documents. MPM shall provide quarterly progress reports to the DEC.*
4. **Remedial System Optimization - Remedial Site Optimization (RSO)** *is the multi-tiered approach to improving efficiency, effectiveness, and net environmental benefit of a remedy, reducing costs, and achieving site closure. This is achieved by focusing on the site strategy, process optimization and supply management. An RSO report provides a critique of a site's conceptual model, gives a summary of past performance, documents current cleanup practices, summarizes progress made towards the site cleanup goals, and provides recommendations for improvement if needed. The RSO is not a periodic review report (PRR). The RSO is conducted in addition to the PRR. The RSO differs from a periodic review in that periodic review focuses on confirming the protectiveness of the remedy while RSO focuses on optimization of the remedy.*

*The underlying concept for the RSO process is to identify and implement ongoing improvement. The RSO process evaluates the remedial situation, reports on it as it is, and provides recommendations for improvement.*

*An RSO is an engineering audit of the performance of a site with an active remedy. A complete RSO cycle consists of performing the RSO audit, implementing the RSO's suggestions, and operating the remedy under the RSO changes for a period of time. The cycle is repeated through the life of the actively performing remedy.*

*Objectives of the RSO include improving operational efficiency to reduce costs, improve the sustainability of the remedy, hasten remediation and reduce long-term O&M costs.*

*The typical scope for an RSO may include research, evaluation, and recommendation.*

**a) Research**

- *A background file search / information gathering phase.*
- *A site visit is completed during which present and past operator(s) may be interviewed, photos are taken and observations are made and discussed;*
- *Field and analytical data from the operation and maintenance of the remedy is reviewed; and*
- *Operational experience is drawn upon and documented.*

**b) Evaluation**

- *Remedial goals and remedial action objectives are reviewed to determine if they are still appropriate and realistic;*
- *The accuracy of the site conceptual model is evaluated for accuracy;*
- *Operation of the remedy is evaluated to determine if it is consistent with the ROD;*

- Progress toward the cleanup is evaluated and compared against the remedial goals and objectives;
- The appropriateness of the remedy and its ability to meet the stated remedial goals and objectives stated in the ROD is evaluated.
- The ability of the remedy to reach the remedial goal and/or monitoring is assessed; and
- The potential for the terminating the active remedy and move to Monitored Natural Attenuation. (MNA) or monitoring is assessed.

**c) Recommendation**

- Lastly, a comprehensive report is prepared. This full report contains summaries of past history and performance, information from the background search and site visit, engineering evaluations of the remedial components, a statement regarding progress towards closure, recommendations for potential improvements including cost saving measures, and protocols, metrics and procedures for future RSO evaluations. Appendix 1 is an outline for drafting an RSO report). The recommendations developed for the RSO report may include concepts such as the following:
  - Changes necessary to more efficiently and effectively target the contamination;
  - Modification or optimization of system processes;
  - Application, as appropriate, of new technologies and risk assessment approaches;
  - Improvements in reliability/run time of systems to reduce the frequency of site visits for O&M;
  - Modifications to processes (e.g. switch from air stripping to activated carbon if data suggests a cost savings);
  - Modifications or replacement of equipment to reduce energy costs and associated emissions;
  - Reduction in sampling frequency and locations. Use of alternate analytical methods;
  - Substitution of field analysis for laboratory analysis;
  - Evaluation of existing vendors and disposal arrangements to identify cost saving changes; and
  - Consideration of alternative supply management techniques, such as contracting O&M through the competitive bid process.

**Appendix 1 - Outline for RSO Report**

REMEDIAL SYSTEM OPTIMIZATION FOR \_\_\_\_\_ [Site Name]  
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1.0 INTRODUCTION

1.1 SITE OVERVIEW

1.2 PROJECT OBJECTIVES AND SCOPE OF WORK

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2.0 REMEDIAL ACTION DESCRIPTION

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2.2 REGULATORY HISTORY AND REQUIREMENTS

2.3 CLEANUP GOALS AND SITE CLOSURE CRITERIA

2.4 PREVIOUS REMEDIAL ACTIONS

2.5 DESCRIPTION OF EXISTING REMEDY

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### 3.0 FINDINGS AND OBSERVATIONS

#### 3.1 SUBSURFACE PERFORMANCE

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#### 3.3 REGULATORY COMPLIANCE 3-3

#### 3.4 MAJOR COST COMPONENTS OR PROCESSES

#### 3.5 SAFETY RECORD

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#### 4.1 RECOMMENDATIONS TO ACHIEVE OR ACCELERATE SITE CLOSURE

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##### 4.1.2 Sampling

##### 4.1.3 Conceptual Site Model (Risk Assessment)

#### 4.2 RECOMMENDATIONS TO IMPROVE PERFORMANCE

##### 4.2.1 Maintenance Improvements

##### 4.2.2 Monitoring Improvements

##### 4.2.3 Process Modifications

#### 4.3 RECOMMENDATIONS TO REDUCE COSTS

##### 4.3.1 Supply Management

##### 4.3.2 Process Improvements or Changes

##### 4.3.3 Optimize Monitoring Program

##### 4.3.4 Maintenance and Repairs

#### 4.4 RECOMMENDATIONS FOR IMPLEMENTATION

5. **Waste Stream/Waste Code Audit** - The Permittee must prepare and submit to the NYSDEC, for review and approval, a comprehensive and detailed evaluation which identifies all containerized hazardous waste managed at the RKI Feed Pad, Drum Storage Structure and any areas being considered for future permitted drum storage. Prior to embarking on the waste stream identification exercise, the Permittee must submit a proposal to the NYSDEC, for review and approval, identifying the specific elements of the evaluation and the methodology to reconcile any and all waste stream inconsistencies. The proposal must clearly articulate the manner in which the Permittee shall advance the comprehensive evaluation and reconciliation of the following documents including, but not limited to, the Facility's Part A Permit Application, the NYSDEC-approved Waste Analysis Plan, the waste codes managed at the Facility (RKI Feed Pad and Drum Storage Structure), Footnote 1 - Authorized Waste Streams at Drum Storage Structure and RKI Feed Pad (Table) in **Exhibit C - Supplement to Module III - Use and Management of Containers** and the Facility's Hazardous Waste Annual (Generator) Report.

The proposal must include a schedule for advancing and completing the waste stream evaluation, along with any consideration of required permit modifications to correct identified inconsistencies.

The Permittee may be able to use current information (e.g., MSDS, SDS, and recent waste profiles) where appropriate.

## E. REQUIREMENTS FOR AN ON-SITE ENVIRONMENTAL MONITOR

Number of Environmental Monitors assigned to Facility: One (1)

1. The Permittee shall fund environmental monitoring services to be performed by or on behalf of the Department. These monitoring services will include, but not be

limited to, the scope of work in an annual environmental monitoring work plan which is incorporated by reference and enforceable under this Permit.

2. The Permittee shall provide to the Department on an annual basis the funds necessary to support the activities set forth in the annual environmental monitoring work plan. The sum to be provided will be based on the annual budgeted amount and is subject to annual revision. Subsequent annual payments shall be made for the duration of this Permit or until the environmental monitoring services are no longer necessary, whichever comes first.
3. The Permittee shall be billed annually, prior to the start of each State Fiscal Year (SFY) (April 1). If this Permit is to first become effective subsequent to April 1, the initial bill will be for an amount sufficient to meet the anticipated cost of the environmental monitoring services through the end of the current SFY.
4. The Department may revise the required annual bill on an annual basis to include all of the Department's estimated costs associated with the environmental monitoring services. The annual revision may take into account such factors as inflation, salary increases, changes in the fringe benefits rate, changes in operating hours and procedures, changes in non-personal service costs (including travel, training, sampling and analytical, and equipment costs, etc.), an increase or decrease in the level of environmental monitoring services necessary, and an increase or decrease in the number of environmental monitors. Upon written request by the Permittee, the Department shall provide the Permittee with a written explanation of the basis for any revisions.
5. Prior to making its annual payment, the Permittee will receive, and have an opportunity to review, an annual environmental monitoring work plan that the Department will undertake during the year.
6. Payments are to be made in advance of the period in which they will be expended and shall be made in full within 30 days of receiving a bill from the Department. The bill from the Department to the Permittee will provide information regarding to whom payments should be made payable and the address to which payments should be sent.
7. Failure to make the required payments shall be a violation of this Permit. The Department reserves all rights to take appropriate action to enforce the above payment provisions.

8. The environmental monitor shall, when present at any of the Permittee facilities, abide by all of the Permittee health and safety and operational requirements and policies, if such requirements and policies exist and provided they are not inconsistent with Department policies and labor management contracts, and further provided, however, that this shall not be construed as limiting the environmental monitor's powers as otherwise provided for by law and shall not result in the environmental monitor being afforded less protection than otherwise provided to the environmental monitor by State and Federal health and safety requirements.
9. The environmental monitor shall receive from the Permittee all general and site-specific safety training which is normally given to new facility/site employees for all areas of the facility or site. This training will be a supplement to the health and safety training that the environmental monitor receives from the Department.
10. Upon selection of the environmental monitor, the Permittee shall immediately furnish to the environmental monitor any facility/site health and safety and operational requirements and policies. Within five (5) days of any revision to the facility/site health and safety and operational requirements and policies, the Permittee shall furnish to the environmental monitor the health and safety and operational requirements and policies.
11. The environmental monitor shall be permitted to use environmental monitoring and data collection devices (e.g., photo ionization detectors, cameras, video recording devices, computers, cell phones, etc.) deemed necessary by the Department to evaluate and document observed conditions. Copies of the data or images collected from areas where confidentiality is a concern shall be provided to the Permittee upon their request. The Permittee may request the data and images be considered confidential information if appropriate.
12. It will remain the responsibility of the Permittee to contact the Spill Hotline or any Division within the Department regarding any required notification of any spill, release, exceedances etc. Notification to the environmental monitor will not be considered sufficient to replace any required notifications.
13. The environmental monitor's office space in a building is to be kept in good operating condition, including water-tightness, lighting, appropriate heating and cooling, electrical power, telephone service and prompt snow removal. Adequate parking shall be provided for the monitor.

F. ROUTINE REPORTING AND COMPLIANCE ACTIVITIES

The Permittee must submit the following routine reports to the Department by the indicated due date in accordance with the requirements of this Permit (Note: the list presented below does not include non-routine reporting to the Department:

| Item | Report <sup>1</sup>   | Frequency | Due Date   | Requirement  |
|------|---|-----------|--|--|
| 1    | Annual Report   | Annually  | March 1 <sup>st</sup>  | 6 NYCRR 373-2.5(e)   |
| 2    | Hazardous Waste Reduction Report - Annual Status Reports and Biennial Updates | Annually  | July 1 <sup>st</sup>   | ECL 27-0908 and <b>Module I, Condition L</b>   |
| 3    | Solid Waste Management Unit (SWMU) Report                                     | Quarterly | 30 <sup>th</sup> day of the month following the end of the quarter                           | <u>Vol. I, Section IX of the Permit Application</u> incorporated by reference by <b>Schedule 1 of Module I</b> |
| 4    | Quarterly Remedial Plan Activities Report <sup>2</sup>                        | Quarterly | First day of February, May, August and November of each year                                 | Remedial Plan incorporated by reference by <b>Schedule 1 of Module I</b>                                       |
| 5    | Annual Remedial Plan Activities Report  | Annually  | March 1 <sup>st</sup>  | Remedial Plan incorporated by reference by <b>Schedule 1 of Module I</b>                                       |
| 6    | Groundwater Remediation System Downtime Report                                | As needed | Within 30 days   | Remedial Plan incorporated by reference by <b>Schedule 1 of Module I</b>                                       |
| 7    | Containers Secondary Containment Assessment Report <sup>4</sup>               | Annually  | Complete assessments by August 31 <sup>st</sup> ; submit report by November 30 <sup>th</sup> | <b>Module III, Condition K.1</b>   |

| Item | Report <sup>1</sup>  | Frequency     | Due Date   | Requirement  |
|------|--|---------------|--|--|
| 8    | Tank System Assessment Report <sup>4</sup>   | Every 5 years | Within 90 days of inspection   | <b>Module IV, Condition K.3</b>  |
| 9    | Tank Secondary Containment Assessment Report <sup>4</sup>                                      | Annually      | Complete assessments by August 31 <sup>st</sup> ; submit report by November 30 <sup>th</sup> | <b>Module IV, Condition K.4</b>  |
| 10   | Closure Cost Estimate Adjusted For Inflation   | Annually      | 60 days prior to anniversary date of establishment of financial instrument                   | 6 NYCRR 373-2.8(c)(2) and <b>Module I, Condition O</b>   |
| 11   | Post-Closure Cost Estimate Adjusted for Inflation  | Annually      | 60 days prior to anniversary date of establishment of financial instrument                   | 6 NYCRR 373-2.8(e)(2) and <b>Module I, Condition O</b>   |
| 12   | Corrective Action Cost Estimate Adjusted for Inflation   | Annually      | 60 days prior to anniversary date of establishment of financial instrument                   | 6 NYCRR 373-2.6(1)(2) &(3) and <b>Module I, Condition O</b>  |
| 13   | Evidence that Financial Assurance Instruments have been Maintained and not Lapsed <sup>5</sup> | Annually      | 30 days prior to anniversary of initial approval   | <b>Module I, Condition O.11</b>  |
| 14   | Post Closure Activities of Significant Deficiencies  | As Needed     | Within 3 working days  | Vol I, Section IV-A of the Permit Application incorporated by reference by <b>Schedule 1 of Module I</b> |

| Item | Report <sup>1</sup>                               | Frequency     | Due Date                          | Requirement                      |
|------|---|---------------|-----------------------------------|----------------------------------|
| 15   | Summary of Green Remediation Metrics <sup>3</sup> | Annually      | March 31 <sup>st</sup>            | <b>Exhibit B – Condition C</b>   |
| 16   | Semi-annual reports for Air Emissions Standards   | Semi-annually | Jan. 30 and July 30, if required. | <b>Exhibit D Condition C.2.e</b> |

**Footnotes:**

1. The Permittee must certify all reports prepared pursuant to **Condition F** of this Schedule in accordance with 6 NYCRR 373 1.4(a)(5).
2. Quarterly Remedial Plan Activities Report includes the following:
  - Monitoring and maintenance activities associated with Landfill No. 6 including groundwater monitoring results where applicable.
  - Leachate collection system manhole inspection results and biennial hydrostatic testing of carrier pipe between Landfill No. 6 pump house and MH-A-1A.
  - Quarterly leachate monitoring reports.
  - Monthly summary report of volume of leachate removed weekly.
  - Semi-annual groundwater sampling results from Landfill No. 6 detection monitoring wells, potentiometric surface maps based upon groundwater elevation measurements, and results of any required resampling events.
  - Annual summary report of all sampling results, groundwater flow direction and rate and proposed changes to the Groundwater Monitoring Plan.
  - 5-year inspection report for Landfill No. 6 Detection Monitoring Network.
  - Monitoring and maintenance activities associated with each closed unit including groundwater monitoring results where applicable.
  - Mudderkill Creek monitoring program quarterly reports.
  - Semi-annual groundwater sampling results for Landfill No. 3.
  - Periodic integrity assessments and 5-year video inspections of process sewers.
3. Summary must be recorded on most recent form provided by the Department.
4. The environmental monitor shall be notified at least three working days prior to performing the inspections or testing performed to complete these reports to allow for DEC oversight.
5. When certifying that financial assurance mechanisms have been maintained for closure, post-closure and corrective action and have not lapsed, the certification language required by 373-2.8(j) shall be modified as follows to include corrective action:
  - a. For the Standby Trust Agreement, the certification shall state, “IN WITNESS WHEREOF the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 6 NYCRR 373-2.8(j)(1), with the exception of including the words “and/or corrective action,” as such regulations were constituted on the date first above written.”

- b. *For the Letter of Credit which accompanies the Standby trust Agreement, the certification shall state, “We certify that the wording of this letter of credit is identical to the wording specified in 6 NYCRR 373-2.8(j)(3), with the exception of including the words “and/or corrective action,” as such regulations were constituted on the date shown immediately below.”*

G. FACILITY-SPECIFIC REQUIREMENTS THAT SUPPLEMENT THE STANDARD MODULES

- Exhibit A Supplement to Module I – General Provisions
- A General Conditions
  - B Plans, Reports, Specifications, Implementation Schedules and Other Submittals
  - C Special Post-Closure and Corrective Measures Cost Estimate Conditions
  - D Special Financial Assurance Conditions
  - E Special Environmental Monitor Provisions
  - F Supplemental Spill Reporting Requirements
- Exhibit B Supplement to Module II – Corrective Action
- A Applicability
  - B Corrective Action Program
  - C Green Remediation
- Exhibit C Supplement to Module III – Use and Management of Containers
- A Authorized Storage Area, Waste Types and Storage Volume
  - B Special Conditions for Containers (General)
  - C Special Conditions for Containers (Specific)
  - D Special Conditions for Equipment Subject to 373-2.28 for Hazardous Waste Ancillary Equipment Associate with Containers.
- Exhibit D Supplement to Module IV – Tank Systems
- A Authorized Storage Tank, Waste Types and Storage Volume
  - B Special Conditions for Tank Systems (General)
  - C Special Conditions for Tank Systems (Specific)
  - D Special Conditions for Equipment Subject to 373-2.28 for Hazardous Waste Ancillary Equipment Associate with Tanks.
- Exhibit E Supplement to Module VII – Incinerators – Not Used
- Exhibit F Supplement to Module X – Hazardous Waste Miscellaneous Units
- A Authorized Hazardous Waste Miscellaneous Units

- B Special Conditions for Miscellaneous Units (General)
- C Special Conditions for Miscellaneous Units (Specific)

Exhibit G Closure/Post-Closure Care

- A Closure and Post-Closure Care

**EXHIBIT A**

**SUPPLEMENT TO MODULE I – GENERAL PROVISIONS**

**EXHIBIT A  
SUPPLEMENT TO  
MODULE I - GENERAL PROVISIONS**

The following conditions supplement those conditions contained within **Module I** of this Permit:

A. GENERAL CONDITIONS

1. The Permittee must make reasonable attempts to organize training events for local fire companies or departments, and also to arrange semi-annual inspections of the Facility by these entities. During each inspection the Permittee shall solicit recommendations from the fire company or department concerning minimum suggested inventories for firefighting and safety equipment to be maintained at the facility. A report of each inspection, including any and all recommendations made by fire company or department inspectors and the Permittee's plans for addressing these recommendations, must be submitted to the Department by the Permittee within seven (7) days of each inspection.
2. The Permittee must provide a copy of the Integrated Contingency Plan containing an inventory sheet listing the amount and location of all emergency equipment available on-site to all employees involved in emergency response.
3. Upon notification by the Permittee of any partial closure of a unit or portion thereof, or of final closure of the Facility, the Department will determine at the time of said closures whether additional samples, sampling points, sampling techniques/methods and/or sample analysis (i.e., in addition to Closure Plan requirements in Attachment C of this Permit) will be necessary to verify the effectiveness of decontamination or removal of components, equipment, structures and contaminated soils.
  - a. These determinations will be based upon the past history of operating practices and types of wastes handled at the unit/Facility and on the closure regulations and other requirements in effect at the time of closure of the unit/Facility. The operating record, the record of spills, the types of waste released, location of spills and the condition of any secondary containment systems will also provide data to be used in these determinations. Also, at the time of said closures, the Department will determine whether more restrictive and/or additional criteria (i.e., more restrictive than, or in addition to Closure Plan criteria in Attachment C of this Permit) will be necessary to verify the effectiveness of decontamination or removal of components,

equipment, structures and contaminated soils, based on the Department's regulatory cleanup standards in effect at the time of said closures.

- b. If the Department determines that additional sampling and analysis or more restrictive and/or additional criteria are necessary at the time of unit/Facility closure, the Department shall send the Permittee a notice of intent to modify this Permit in accordance with 6 NYCRR 621 to incorporate these requirements into the Permit. In the event the Department issues such a notice of intent, the Permittee will be restricted from issuing a certification of closure for the unit/facility in accordance with 6 NYCRR 373-2.7(f), until the associated 6 NYCRR 621 Permit modification process is completed and any associated closure requirement(s) that might result from this modification process are satisfied.

B. PLANS, REPORTS, SPECIFICATIONS, IMPLEMENTATION SCHEDULES AND OTHER SUBMITTALS

1. Submittals required by the Permit must be provided to the Department and other identified Agencies as indicated below, must be submitted to the addresses and titles (or designees) listed below. The list below identifies the Department/Agencies staff by title that must receive submissions and indicates the types of submissions each must receive. At any time during the life of this Permit, the Department may designate alternate titles to receive submissions (different than those indicated below), and direct the Permittee to make submissions to the alternate title. The list below also indicates whether the submission must be a paper or electronic copy. Where electronic copies are indicated, the submission must be in a form as required by **Condition N of Module I** of this Permit. Submissions of electronic copies may be made by e-mail or other methods acceptable to the Department.

- a. One (1) electronic copy of all submittals to:

Regional Remediation Engineer  
New York State Department of Environmental Conservation  
Region 5 Office  
Route 86  
Ray Brook, NY 12977-0296

Director, Remedial Bureau E  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7017

- b. One (1) paper copy of all financial assurance documents to:

RCRA C Financial Assurance Coordinator  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7012

- c. One (1) paper copy of all waste reduction documents to:

Chief, Bureau of Waste Reduction & Recycling  
Division of Materials Management  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7253

C. SPECIAL POST-CLOSURE AND CORRECTIVE MEASURES COST ESTIMATE CONDITIONS

1. Leachate Generation & Extracted Groundwater Cost Estimate Increases

- a. The actual annual quantities of leachate and contaminated groundwater removed from each hazardous waste landfill and by on-site contaminated groundwater extraction systems during the previous calendar year, as well as all previous calendar years, must be presented in tables and graphs in the Permittee's annual report in accordance with 6 NYCRR 373-2.5(e). If, upon reviewing this information, the Department determines that there has been a significant change in the annual quantities of leachate and/or contaminated groundwater being removed that would increase the cost of annual post-closure care and/or corrective measures indicated in the approved post-closure and corrective measures cost estimates, the Department will notify the Permittee in writing and require the Permittee to revise the cost estimates to cover the increase. The Permittee must submit, for Department approval, the revised cost estimates within thirty (30) days of the Permittee's receipt of the above indicated written notification by the Department that an increase in the cost estimate is necessary due to a significant increase in leachate and/or contaminated groundwater generation. Subsequent to Department approval of the revised cost estimate, the Permittee must establish additional financial assurance to cover the amount of the increase in the cost estimates in accordance with **Condition O of Module I.**

D. SPECIAL FINANCIAL ASSURANCE CONDITION

The financial assurance agreed to by the DEC in the base amount of \$26,476,000 for corrective action, closure and post closure care costs is conditional on the Permittee's completion of the items included in C. Compliance Schedule and D. Schedule of Deliverables within the timeframes included therein unless an appropriate time extension is approved by the DEC. The base amount will not be adjusted downward within the first three years after issuance of this Permit. The annual implicit price deflator adjustment as required in 373-2.8(c) will be made annually. In the event that the Permittee fails to timely complete any item(s) included in C. Compliance Schedule and D. Schedule of Deliverables, the DEC will evaluate the cost of corrective action, closure and/or post closure care. The DEC agrees that re-evaluation of the cost of corrective action, closure and/or post closure care, based on the above deliverables, will not occur any sooner than three years after the issuance of this Permit.

E. SPECIAL ENVIRONMENTAL MONITOR PROVISIONS

1. A regulatory presumption shall exist that a monitor will no longer be necessary at the site upon completion of and DEC approval<sup>1</sup> of the items specified below from the Compliance Schedule and Schedule of Deliverables:
  - a. Financial Assurance Requirements, pursuant to Compliance Schedule Item 1;
  - b. The Engineering Design Report for Landfill #2, pursuant to Compliance Schedule Item 2;
  - c. Implementation of the work plan to address secondary containment capacity of the Loading and Unloading Areas pursuant to Compliance Schedule Item 3;
  - d. Implementation of the work plan to address secondary containment capacity for Tanks 539A and 539B pursuant to Compliance Schedule Item 4;
  - e. Implementation of the work plan to address Tank 28 A&B Vault Improvements pursuant to Compliance Schedule Item 5;
  - f. MPM submits an evaluation of the need to convert the 90-day storage area at Building 15 to a newly permitted storage area, pursuant to Compliance Schedule Item 6;
  - g. MPM submits the final report regarding implementation of NYSDEC approved testing procedures for underground piping inspection, pursuant to Compliance Schedule Item 7 (submission of follow-up testing report with the next permit renewal application shall not be a condition of this Special Environmental Monitor Provision);
  - h. Implementation of the Transfer Station Containment Modifications pursuant to Compliance Schedule Item 8;
  - i. Submission of recorded institutional controls pursuant to Compliance Schedule Item 9;

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<sup>1</sup> DEC will make a good faith effort to review submissions from MPM in a timely manner.

- j. Implementation of the Electronic Waste Management Database pursuant to Schedule of Deliverables Item 1;
- k. Implementation of the Waste Stream/Waste Code Audit pursuant to Schedule of Deliverables Item 6; and,
- l. Submission of the draft Conceptual Site Model, pursuant to Schedule of Deliverables Item 2.<sup>2</sup>

Upon completion of (a) through (l) above, an independent consultant retained at MPM's expense and approved of by DEC, will conduct a RCRA compliance audit of the facility. The scope of the audit must be approved by DEC, further DEC retains the right to observe the independent auditor's inspection if the auditor is to be accompanied by MPM staff. All violations identified by the auditor shall be cured within 30 days unless MPM requests and the DEC approves a longer period of time. Approval of a longer period of time to cure violations shall not be unreasonably withheld by the DEC. The auditor must certify to the DEC that MPM is fully RCRA compliant or has corrected any non-compliance items identified by the audit in the Compliance Certification.

To the extent the Compliance Certification identifies non-compliance that has been corrected, DEC will forego seeking gravity based penalties. MPM must disclose all non-compliance identified by the auditor. DEC will not forego seeking gravity based penalties to the extent such non-compliance: (i) was identified by regulatory agencies including but not limited to DEC and EPA prior to the independent consultant's audit; (ii) is a violation of an administrative or judicial order; (iii) is a violation that involves alleged criminal conduct; or (iv) is a violation resulting in natural resources damages, endangerment to human health or environmental harm.

2. If DEC believes that environmental monitoring services are still necessary, it may seek to rebut the regulatory presumption by submitting a notice of intent to modify the permit pursuant to 6 NYCRR Part 621.13 within 90 days of its receipt of the Compliance Certification. Such modification would be subject to the provisions of 6 NYCRR Part 621.13. If DEC submits its notice of intent to modify the permit within 90 days of its receipt of the Compliance Certificate, the requirement for the environmental monitor will remain under the permit until a decision from the Commission on the modification is made. . If DEC does not submit a notice of intent to modify the permit within 90 days of its receipt of the Compliance Certification, the environmental monitor's position at the facility shall be terminated immediately and the Permittee shall no longer have any obligation to host or fund an environmental monitor. DEC shall promptly thereafter refund any unexpended portion of the annual payment made by the Permittee for the then current fiscal year.

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<sup>2</sup> DEC approval of the submission of the Conceptual Site Model is not necessary for the requirements for the Environmental Monitor to be removed from this permit. At the time the Compliance Certification is submitted MPM must be in compliance with all deadlines for items in the C. Compliance Schedule and D. Schedule of Deliverables.

3. Nothing contained in this Special Environmental Monitor Provision limits DEC's right to conduct any inspections of the facility to ensure compliance with the terms of this Permit. DEC can track findings of its inspections which it may consider when determining if environmental monitoring services are necessary. This information will be made available to Permittee upon request if a modification to retain or require an environmental monitor is pursued.

F. SUPPLEMENTAL SPILL REPORTING REQUIREMENTS

1. Upon written notice, MPM may choose to comply with the "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" document in lieu of complying with the regulatory requirements for spill reporting. MPM may notify DEC that they wish to discontinue use of the "Supplemental Spill Reporting Requirements for Momentive Performance Materials Silicones, LLC (MPM)" document in writing 10 days prior to the start of any quarter.
2. Hazardous substances listed in 6 NYCRR Part 597:
  - a. Spills below the applicable reporting quantity that are not cleaned up within 2 hours of discovery must be reported to the Department's environmental monitor immediately.

**EXHIBIT B**

**SUPPLEMENT TO MODULE II – CORRECTIVE ACTION**

**EXHIBIT B**  
**SUPPLEMENT TO**  
**MODULE II - CORRECTIVE ACTION**

The following conditions supplement those conditions contained within **Module II** of this Permit:

A. APPLICABILITY

1. The conditions of this Exhibit and **Module II** apply to:
  - a. the Solid Waste Management Units (SWMUs) listed on Table IX-1 of Vol. I, Section IX of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**;
  - b. Areas of Concern related to past discharges associated with the Mudderkill Creek and the unnamed tributary (Item # 941-20.1, Tributary H-244) in proximity to the Landfill 6 ravine; and,
  - c. any additional SWMUs discovered during the course of groundwater monitoring, field investigations, environmental audits or other means.

The SWMUs which are known to exist at the facility and which may have released hazardous waste or hazardous constituents to the environment are listed in Vol I., Section IX of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**. The Corrective Measures which are necessary to address groundwater contamination associated with those SWMUs have been implemented. The Corrective Measures which are necessary to address the soil contamination associated with those SWMUs have either been implemented or deferred until the soils are accessible. Many SWMU Areas or portions of SWMU Areas are either inaccessible or not practical to excavate. These soils are required to be properly assessed and managed appropriately as they become accessible in the future.

The Permittee has a program in place for the assessment of newly identified SWMUs and AOCs that is included in Vol. I, Section IX of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**. This program is an approved plan for the notification, assessment, sampling, analysis and reporting of newly identified SWMUs and AOCs that meet the requirements of Module II Conditions C(1) through C(5) of this permit.

For the Area of Concern identified in b above, the Permittee is required to characterize and if necessary remediate conditions. Therefore, the Permittee is required to prepare an RFI Work Plan in accordance with Condition D of Module II. The Department may, at its discretion, also require the Permittee to prepare an Interim Corrective Measures (ICM) Work Plan.

B. CORRECTIVE ACTION PROGRAM

1. As a result of Civil Action No. 83-CV-77 and the resulting Consent Decree between New York State and General Electric (now Momentive Performance Materials), incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**, the Permittee has instituted a site-wide remedial program that effectively prevents the off-site migration of contaminated groundwater from the facility and which should ultimately clean-up the groundwater contamination at the facility. Momentive Performance Materials is currently managing this remedial program in accordance with a July 8, 2005 letter to the New York State Department of Environmental Conservation (NYSDEC) regarding “proposed modification to groundwater remedial systems, General Electric Advanced Materials – Silicones, Waterford, New York.” NYSDEC provided formal approval of this remedial program in a letter dated January 6, 2006. Therefore, the Permittee is required to perform the SWMU-specific Corrective Measures programs as described in Vol. I, Section IX of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.

C. GREEN REMEDIATION

1. The Permittee must make best efforts to implement green remediation practices in the performance of the requirements of the Work, including but not limited to performance of a RCRA Facility Investigation, Corrective Measures Study, Interim Corrective Measure, Corrective Measures Implementation and Post-Closure/Effectiveness Evaluations to maximize to the extent practicable, sustainability, reduce energy and water usage, promote carbon neutrality, promote materials reuse and recycling, and protect and preserve land resources.
2. The Permittee must make best efforts to utilize concepts and techniques presented in the New York State Department of Environmental Conservation - DEC Program Policy DER-31/Green Remediation, most recent edition.
3. The Permittee must report Green Remediation metrics as required by **Condition F of Schedule 1 of Module I**.

**EXHIBIT C**

**SUPPLEMENT TO MODULE III - USE AND MANAGEMENT OF CONTAINERS**

**EXHIBIT C  
SUPPLEMENT TO  
MODULE III - USE AND MANAGEMENT OF CONTAINERS**

The following conditions supplement those conditions contained within **Module III** of this Permit:

**A. AUTHORIZED STORAGE AREAS, WASTE TYPES AND STORAGE VOLUMES**

1. The Permittee is authorized to operate the following container storage areas (CSAs) at the Facility and store wastes in containers in these areas up to the maximum quantities authorized by this Permit.

| <b>Storage Area</b>    | <b>Waste Type and Codes</b>  | <b>Container Specifications</b> | <b>Maximum Capacity (55-gallon drum equivalents)</b> |
|------------------------|--|---------------------------------|--|
| Drum Storage Structure | Waste generated on-site including Hazardous Waste Listed in Table C-1  | 55 gallon drums <sup>1</sup>    | 3,480 <sup>2</sup>                                   |
| RKI Feed Pad           | Waste generated on-site including Hazardous Waste Listed in Table C-1 (except the wastes disposed or reclaimed off-site) | 55 gallon drums <sup>1</sup>    | 480 <sup>2</sup>                                     |

**Footnotes:**

1. Total container storage volumes must not exceed the maximum capacity based on 55-gallon drum equivalents. Containers smaller than 55 gallons may be used, but each smaller container must be considered equivalent to one 55-gallon drum when calculating the maximum capacity. Drums and smaller containers may be stored in overpack drums up to 85 gallons in size. Each overpacked drum will have a 55-gallon equivalent capacity equal to the size of the overpacked drum divided by 55 gallons and rounded up to the next whole number. Portable totes with a capacity equal to or less than 500 gallons may also be used and will have a 55-gallon equivalent capacity equal to the size of the tote divided by 55 gallons and rounded up to the next whole number.
2. Final authorized storage quantity is pending based on the Permittee's evaluation of compliance with applicable current codes, standards and regulations, including but not limited to the New York State Fire Code and Building Code, National Fire Protection Association (NFPA) 505, Occupational Safety and Health Administration (OSHA) standards and NFPA 30. The Permittee must comply with **Condition C, Item 6 of Schedule 1 of Module I**.

**Table C-1 – Waste Streams Authorized at the Drum Storage Structure (DSS) and  
RKI Feed Pad (RKI FP)**

| Waste Stream   | Waste Codes                                    | Authorized CSA |                |
|--|--|----------------|----------------|
|  |  | DSS            | RKI FP         |
| Acetoxy Catalyst   | D001, D003, F003, F005                         | X              | X              |
| Acetyl Chloride  | D001, D002, D007, F005                         | X              | X              |
| Acid-Polar Solvents (APS)  | D001, D002, F003, F005                         | X              | X              |
| Aerosol Cans (off-site incineration)   | D001   | X              |                |
| Caustic Liquids – High pH  | D002   | X              | X <sup>1</sup> |
| Caustic Liquids – Low pH   | D001, D002                                     | X              | X <sup>1</sup> |
| Caustic Solids – High pH   | D002   | X              | X              |
| Caustic Solids – Low pH  | D002   | X              | X              |
| Halogenated Silanes  | D001, D003, F005                               | X              | X              |
| Incinerator Ash  | F002, F003, F005, F039                         | X              | X              |
| Mercury Waste (off-site reclamation or treatment)  | D009   | X              |                |
| Methyl-Hydrogen (MeH) Silicones – Liquids (off-site incineration)  | D001, D002, D003, D006, D007, D009, F003, F005 | X              | X <sup>1</sup> |
| Methyl-Hydrogen (MeH) Silicones – Solids   | D003, F003, F005                               | X              | X              |
| Miscellaneous Wastes – HMDZ  | D001, D002, D003, F003, F005                   | X              | X              |
| Miscellaneous Wastes – UV Light Ends   | D001, D003, F003, F005                         | X              | X              |
| Non-Polar Solvents (NPS)   | D001, D009, F003, F005                         | X              | X              |
| Non Hazardous Wastes   | --   | X              | X              |
| Raw Materials  | --   | X              |                |
| Silicone Solids:<br>– materials in absorbent<br>– filter cake<br>– API flotation cell solids<br>– Methylchlorosilane (MCS) spent powder/reactor cake<br>– gelled resins with solvents and acids<br>– lab wastes in absorbent<br>– impacted soils | D001, D003, D018, F002, F003, F005, F039       | X              | X              |
| Siloxanes  | D001, D002, F003, F005                         | X              | X <sup>1</sup> |

| Waste Stream                               | Waste Codes  | Authorized CSA |                |
|--|--|----------------|----------------|
|  |  | DSS            | RKI FP         |
| Spent PCB Ballasts (off-site incineration) | B004   | X              |                |
| Non-routine waste                          | D004, D005, D008, D010, D035, U002, U037, U122, U220 | X              | X <sup>1</sup> |

**Footnotes:**

1. Containers containing liquid waste can be located in the RKI FP provided that they must be located in a clearly designated area not to exceed a maximum of four drums that contain liquid hazardous waste. MPM must submit an updated drawing. MPM must provide a list of all potential liquid waste drums to be stored at the RKI FP.

**Table C-2 Authorized Hazardous Waste Transfer Areas (TAs)**

| <u>Storage Area</u><br><u>Tanker IDs<sup>3</sup></u><br><u>(gallons)</u>  | <u>Waste Streams</u><br><u>allowed in TA</u>   | <u>Largest Container</u><br><u>Permitted capacity in</u><br><u>TA<sup>1,2</sup>(gallons)</u>        | <u>Maximum</u><br><u>Quantity of</u><br><u>hazardous waste</u><br><u>and/or</u><br><u>containers</u><br><u>allowed in TA</u> |
|---|--|---|--|
| <u>APS Transfer Station</u><br>T 3137 (6,500)<br>T 4004 (6,500)T 4386<br>(6,500)<br>VT 3015 (3,000)<br>VT 3020 (3,000)<br>VT 3022 (3,000)   | Non Polar Solvents<br>(NPS), Acid Polar<br>Solvents (APS)  | APS/NPS - 6,175   | 1 container  |
| <u>FBI Transfer Station</u><br>TW 537 (2000)<br>TW 538 (2000)<br>TW 014-501 (2,000)<br>TW 014-502 (2,000)<br>TW 014-503 (2,000)<br>TW B-1-7171 SC3700<br>(1,000)                    | Acetyl Chloride, Methyl<br>Slurry, Miscellaneous<br>Wastes - HMDZ  | Acetyl Chloride - 1,900<br><br>Methyl Slurry - 1,900<br><br>HMDZ - 950                              | 2 containers   |
| <u>RKI Transfer Station</u><br>TW 537 (2000)<br>TW 538 (2000)<br>TW 014-501 (2,000)<br>TW 014-502 (2,000)<br>TW 014-503 (2,000)<br>TW B-1-7171 SC3700<br>(1,000)<br>T 70286 (6,500) | Acetyl Chloride, Methyl<br>Slurry, Miscellaneous<br>Wastes - HMDZ,<br>Miscellaneous Wastes -<br>UV Light Ends and<br>Clinker | Acetyl Chloride - 1,900<br><br>Methyl Slurry - 1,900<br><br>HMDZ - 950<br><br>UV Light Ends - 3,325 | 4 containers – total<br>volume of liquid<br>waste cannot<br>exceed 7,283<br>gallons  |

|  |                                      |  |              |
|--|--------------------------------------|--|--------------|
| <u>Building 23 Transfer Station</u><br>T 3137 (6,500)<br>T 4004 (6,500)<br>T 4386 (6,500)                                  | APS                                  | APS - 6,175                                | 1 container  |
| <u>Building 30 Transfer Station</u><br>TW B-1-7171 SC3700 (1,000)  | Miscellaneous Wastes - HMDZ          | HMDZ - 950                                 | 1 container  |
| <u>Building 71 Transfer Station</u><br>T 3137 (6,500)<br>T 4004 (6,500)<br>T 4386 (6,500)                                  | APS                                  | APS - 6,175                                | 1 container  |
| <u>Building 76 Transfer Station</u><br>T 3137 (6,500)<br>T 4004 (6,500)<br>T4386 (6,500)<br>TW 537 (2000)<br>TW 538 (2000) | Acetyl Chloride, APS                 | Acetyl Chloride - 1,900<br><br>APS - 6,175 | 2 containers |
| <u>Building 78 Transfer Station</u> <sup>4</sup> T 70286 (6,500)   | Miscellaneous Wastes - UV Light Ends | UV Light Ends 3,325                        | 1 container  |
| <u>Tank 538 Transfer Station</u><br>T 3137 (6,500)<br>T 4004 (6,500)<br>T4386 (6,500)                                      | NPS, APS                             | APS/NPS - 6,175                            | 1 container  |
| <u>MCS/R2 Tank Slurry Transfer Station</u><br>TW 014-501 (2,000)<br>TW 014-502 (2,000)<br>TW 014-503 (2,000)               | Methyl Slurry                        | Methyl Slurry - 1,900                      | 2 containers |

**Footnotes:**

1. *Product tankers (includes compatible materials such as raw materials, inputs etc., but not hazardous waste) can be stored, loaded or offloaded at vacant transfer slots (each slot must have its own loading/unloading arm or transfer equipment) within each storage area listed in this table, except for the Building 30 transfer volumes listed, subject to the terms of this Permit.*
2. *Hazardous wastes stored in these areas must be generated on site. No hazardous waste generated in an off-site facility may be stored in these areas.*
3. *Closed tankers and tank wagons containing hazardous waste may be temporarily located in other permitted transfer areas provided adequate secondary containment is available and the waste is compatible with materials stored in that area and with the secondary containment coating.*
- 4 *When the National Weather Service predicts a precipitation event with 2.4 inches or greater of total precipitation over a 24 hour period, MPM will: No less than 4 hours prior to the start of the*

precipitation event, MPM will shut down all operations that feed hazardous waste to the Tanker (T 70286) and temporarily relocate the Tanker completely within the RKI transfer station. In the event of an actual precipitation event that was not predicted but has a total precipitation of 2.4 inches or greater, MPM will shut down operations that feed hazardous waste to the Tanker (T 70286) and, immediately following the storm event, temporarily relocate the Tanker completely within the RKI transfer station. The Tanker shall remain in the RKI transfer station secondary containment area until the precipitation has been removed from the Building 78 Transfer Station. This allowance can only be used after MPM complies with Compliance Schedule item number 3 for the RKI transfer station.

**Table C-3 Authorized Containers Subject to 373-2.29 Level 2 Controls**

| <b>Storage Area</b>                 | <b>Containers<sup>1</sup></b><br>Tank Wagon (TW), Vacuum Truck (VT) or Tanker (T) ID and Capacity (gallons)   | Method used to minimize air emissions during transfer of waste in to or out of the container |
|-------------------------------------|---|--|
| APS Transfer Station                | APS/NPS<br>VT 3015 (3,000)  | Vents to incinerators  |
| FBI Transfer Station                | Methyl Slurry<br>TW 014-501 (2,000)<br>TW 014-502 (2,000)<br>TW 014-503 (2,000)<br><br>Miscellaneous Waste HMDZ<br>TW B-1-7171 SC3700 (1,000)                     | Vents to incinerators  |
| RKI Transfer Station                | Methyl Slurry<br>TW 014-501 (2,000)<br>TW 014-502 (2,000)<br>TW 014-503 (2,000)<br><br>HMDZ<br>TW B-1-7171 SC3700 (1,000)<br><br>UV Light Ends<br>T 70286 (6,500) | Vents to incinerators  |
| Building 30 Transfer Station        | HMDZ<br>TW B-1-7171 SC3700 (1,000)  | Vents to Scrubber  |
| Building 78 Transfer Station        | UV Light Ends<br>T 70286 (6500)   | Submerged fill with flame arrestor   |
| MCS/R2 Tank Slurry Transfer Station | Methyl Slurry<br>TW 014-501 (2,000)<br>TW 014-502 (2,000)<br>TW 014-503 (2,000)   | Vents to Scrubber  |

**Footnotes:**

1. Hazardous Waste Storage Tankers/Tank Wagons certifying compliance with 40 CFR Parts 60, 61 or 63. Per 373-3.29(a)(2)(vii)/373-2.29(a)(2)(vii)

| Description | Waste Stream | Applicable 40 CFR 60/63 CAA Regulation Per the Title V Air Permit   | CAA Control, Closure and Inspection Requirements   |
|-------------|--------------|---|--|
| 038-537     | NPS          | 40 CFR 63. Subpart G (general closure requirements and breathing) and Subpart FFFF (control device used during filling) | Maintain cover, and all openings without leaks. This includes hatches, sampling ports and pressure relief devices. Closure devices must be maintained in the closed position except during filling, removal, inspection, sampling or pressure relief events. Methods such as submerged fill or vapor balancing must be used to minimize transfer emissions. Semiannual inspections must be completed and defects repaired within 5/15 days. Scrubbers used to minimize emissions during transfer are subject to flow monitoring limits in the facility's Title V Permit. |
| 038-538     | NPS          | 40 CFR 63. Subpart G (general closure requirements and breathing) and Subpart FFFF (control device used during filling) |  |
| 4386        | APS          | 40 CFR 63. Subpart G  |  |
| APS4004     | APS          | 40 CFR 63. Subpart G  |  |
| 53710A      | APS          | 40 CFR 63. Subpart G  |  |
| 3137        | APS/NPS      | 40 CFR 63. Subpart G  |  |
|             |              |   |  |

*The hazardous waste tankers and tank wagons listed in the above Table are meeting the conditions in 373-2.29 based on MPM's April 27, 2014 certification and updated July 13, 2015 certification that they are equipped with and operating air emissions controls in accordance with the applicable Clean Air Act regulations codified under 40 CFR Part 60, Part 61, or Part 63, and DEC's June 6, 2014 approval.*

**B. SPECIAL CONDITIONS FOR CONTAINERS (GENERAL)**

1. The special conditions for containers presented below are applicable to all CSAs listed in **Condition A** of this Exhibit, unless otherwise specified.
2. Only wastes generated on-site may be managed in these CSAs.
3. Secondary Containment Concrete Sealant Maintenance
  - a. For CSAs where a coating has been applied and damage to the coating (e.g., gouges, chips, obvious wear, etc.) is identified through routine inspections of the applicable CSAs, the Permittee must, at a minimum, re-apply the coating to repair the damaged area in accordance with the inspection procedures included in Vol. I, Section IV-B of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**, and **Condition E of Module III** of this Permit.
4. Waste containers in the drum storage structure or RKI feed pad that must be opened for waste sampling, waste addition, volume reduction, and/or repackaging must be staged within those two secondary containment systems.
5. The Permittee must perform a pressure test or alternate test approved by the Department on all newly installed underground conveyance lines between secondary containment systems prior to burial and placing into service. The Permittee must also test existing

underground secondary containment conveyance lines or conveyance line sections upon repair, replacement or alteration, prior to placing back in service. The Permittee must test both the inner carrier pipe and outer containment pipe of double-walled transfer lines. The Permittee must perform this testing in strict accordance with the procedures developed in accordance with **Condition C, Item 7 of Schedule 1 of Module I** of this Permit. The Permittee must record the results of this testing in the operating record required by 6 NYCRR 373-2.5(c). Any underground hazardous waste transfer line, or portion thereof, that fails its specified test, must be repaired or replaced in accordance with **Condition E of Module III** of this Permit and re-tested prior to its use.

6. The Permittee must use containers conforming to USDOT packaging specifications except for waste containers destined for on-site incineration.
7. The Permittee may use containers that are smaller than 55-gallons in size but these containers must not be stacked more than two containers high on a pallet.
8. The Permittee may not stack a pallet on top of another pallet holding containers smaller than 55-gallons in size.

C. SPECIAL CONDITIONS FOR CONTAINERS (SPECIFIC)

1. The special conditions for containers presented below are applicable only to the Drum Storage Structure.
  - a. Hazardous waste containers must not be staged outside of the containment area for longer than two hours.
  - b. Containers may not be returned to a 90-day area after they have been moved to the Drum Storage Structure.
2. The special conditions for hazardous waste containers presented below are applicable only to the RKI Feed Pad.
  - a. Containers must not be staged outside of the containment area for longer than two hours.
  - b. Containers may not be returned to a 90-day area after they have been moved to the RKI Feed Pad.
  - c. The containers must be opened and visually inspected to verify the amount of material in the drum and its visible physical characteristics.

- d. Containers deemed not acceptable for incineration are marked as rejected and are returned to the Drum Storage Structure.
  - e. Containers deemed acceptable for incineration based on the visual inspection must be securely covered to prevent fugitive emissions.
  - f. In addition to containers on the conveyor belt, up to eight 55-gallon containers may be prepared for incineration and staged at the RKI Feed Pad at one time.
  - g. If containers of waste are prepared for incineration and the Permittee becomes aware that the drums cannot be incinerated within 24 hours, the Permittee must replace and secure drum lids.
  - h. Only drums containing waste streams approved for incineration in the RKI incineration unit may be stored or sampled at the RKI Feed Pad, except as allowed by footnote 1 of Table C-1.
3. The special conditions for hazardous waste containers presented below are applicable only to the containers located in the hazardous waste transfer areas.
- a. Containers used in the permitted hazardous waste transfer areas shall control air pollutant emissions from each container identified in the Table C-3 except for those identified in Footnote 1 to Table C-3. The container must be demonstrated within the preceding 3 months to be vapor tight by performing testing in accordance with the following procedure. The container will be pressurized with nitrogen to 5 psig above the maximum operating pressure of the container. The container must be able to sustain a pressure change of less than 1.0 psig over a 30 minute period. The pressure measurement device used shall have a precision of  $\pm 1.0$  psig and be capable of measuring pressure above the pressure at which the container is tested. If the test results demonstrate that the pressure change is less than 1.0 psig and no visible HCl emissions are observed over a 30 minute period, then the container is determined to be vapor tight.
  - b. Transfer of waste in to or out of a container shall be conducted in such a manner as to minimize exposure of hazardous waste to the atmosphere.
  - c. Whenever hazardous waste is accumulated or stored in a container each closure device shall be secured and maintained in the closed position except those control devices which are required to open during transfer of waste. For batch filling operations closure devices necessary to transfer waste can only remain open if the time lapse between transfers of batch waste is less than 15 minutes.

- d. If the person performing the loading operation leaves the immediate vicinity of the container or the process generating the material added to the container is shut down, closure devices shall be closed and secured and covers installed.
  - e. When the container is filled to the final intended level all closure devices must be closed.
  - f. Opening of any pressure relief devices which vent to the atmosphere during normal operation for the purpose of maintaining the internal pressure of the container is allowed in accordance with the design specifications of the container or to avoid an unsafe condition. The pressure relief device shall be operated with no detectable organic emissions when the device is secured in the closed position. Pressure relief devices must be tested annually, using the procedure specified in 373-2.29(d)(4), for detectable organic emissions while in the device is in the closed position and the container is filled with hazardous waste having a representative volatile organic concentration of the waste managed in the container. During the test the container cover and all closure devices shall be closed.
  - g. Visual inspections of containers and closure devices shall be conducted annually for defects. If a defect is found the first attempt at repair shall be made within 24 hours of detection. Repair shall be completed within 5 calendar days of detection. If repair cannot be made within 5 calendar days of detection waste shall be removed and the container shall not be used to manage hazardous waste until repair is completed.
  - h. During direct transfer operations where hazardous waste is transferred from the container directly to either of the hazardous waste incinerators described in Module VII, the container shall be inspected at least every hour of operation for visible leaks. If a leak is detected the transfer operation shall be halted, the leak stopped and repair completed before resuming the direct transfer operation.
  - i. Records of the quarterly vapor tightness test performed, testing of pressure relief valves for detectable organic emissions, the date of any defects noted, the date of first attempt of repair, the date of completion of repair and the date the container was emptied if the repair was not completed within 5 days of detection of the defect must be maintained on-site for a least three years.
4. In the event it is necessary to temporarily locate a closed hazardous waste container not identified in Table C-2 above in a transfer station loading and unloading area, such as when product in a tanker does not meet specifications and MPM determines it is now a hazardous waste, MPM must:

- a. Immediately notify the environmental monitor of the location and identification of the container;
- b. Properly label and date the container;
- c. Ensure that adequate secondary containment is available;
- d. Make sure that the waste is compatible with other materials located in the containment area; and,
- e. Have the container moved off-site within 10 days

D. SPECIAL CONDITIONS FOR EQUIPMENT SUBJECT TO 373-2.28 FOR HAZARDOUS WASTE ANCILLARY EQUIPMENT ASSOCIATED WITH CONTAINERS.

1. Each piece of equipment subject to Air Emissions Standards for Equipment Leaks is listed in Document Incorporated by Reference number 16 and the equipment's location is shown on the applicable P&ID drawing in that document.

**EXHIBIT D**

**SUPPLEMENT TO MODULE IV – TANK SYSTEMS**

**EXHIBIT D**  
**SUPPLEMENT TO**  
**MODULE IV – TANK SYSTEMS**

The following conditions supplement those conditions contained within **Module IV** of this Permit:

**A. AUTHORIZED STORAGE TANK, WASTE TYPES AND STORAGE VOLUME**

1. The Permittee is authorized to use the following tank systems for the storage and/or treatment of the following wastes subject to the terms of this Permit:

| <b>Tank System I.D.</b>      | <b>Maximum Permitted Capacity (gallons)</b> | <b>Tank Usage &amp; Material of Construction</b> | <b>Waste Description</b>                               | <b>EPA Hazardous Waste Code Nos.</b> | <b>Secondary Containment Volume (gallons)</b> |
|------------------------------|---|--|--|--------------------------------------|---|
| <b>Waste Treatment Plant</b> |   |  |  |                                      |   |
| 15 <sup>1</sup>              | 7,245                                       | Storage/Treatment<br>Carbon Steel                | Non-Polar Solvents (NPS) and Acid-Polar Solvents (APS) | D001, D002, D009, F003, F005         | 39,927  |
| 26A                          | 5,275                                       | Storage<br>Carbon Steel                          | Halogenated Silanes                                    | D001, D003, F005                     | 7,953   |
| 26B                          | 5,275                                       | Storage<br>Carbon Steel                          | Halogenated Silanes                                    | D001, D003, F005                     | 7,953   |
| 26C                          | 5,274                                       | Storage<br>Carbon Steel                          | Siloxanes  | D001, D002, F003, F005               | 39,927  |
| 28A                          | 7,447                                       | Storage<br>Carbon Steel with Liner               | NPS and APS  | D001, D002, D009, F003, F005         | 23,430  |

| <b>Tank System I.D.</b> | <b>Maximum Permitted Capacity (gallons)</b> | <b>Tank Usage &amp; Material of Construction</b> | <b>Waste Description</b> | <b>EPA Hazardous Waste Code Nos.</b> | <b>Secondary Containment Volume (gallons)</b> |
|-------------------------|---|--|--------------------------|--------------------------------------|---|
| 28B                     | 7,447                                       | Storage<br>Carbon Steel with<br>Liner            | NPS and APS              | D001, D002,<br>D009, F003,<br>F005   | 23,333  |
| 39                      | 5,000                                       | Storage<br>Carbon Steel                          | Methyl Slurry            | D001, D003,<br>D007, D008,<br>D010   | 17,797  |
| 40                      | 10,000                                      | Storage<br>Carbon Steel                          | Methyl Slurry            | D001, D003,<br>D007, D008,<br>D010   | 17,797  |
| 61                      | 10,000                                      | Storage<br>Carbon Steel with<br>Liner            | Methyl Slurry            | D001, D003,<br>D007, D008,<br>D010   | 23,300  |
| 62                      | 10,000                                      | Storage<br>Carbon Steel with<br>Liner            | Methyl Slurry            | D001, D003,<br>D007, D008,<br>D010   | 23,300  |
| 250                     | 20,148                                      | Storage<br>Steel plate with<br>Liner             | NPS                      | D001, D009,<br>F003, F005            | 32,260  |
| 251                     | 20,153                                      | Storage<br>Steel plate                           | NPS                      | D001, D009,<br>F003, F005            | 32,260  |
| 252                     | 4,950                                       | Storage<br>Steel plate                           | NPS                      | D001, D009,<br>F003, F005            | 32,260  |
| 539A                    | 19,344                                      | Storage<br>Carbon Steel with<br>Liner            | NPS and APS              | D001, D002,<br>D009, F003,<br>F005   | 44,949  |

| <b>Tank System I.D.</b>      | <b>Maximum Permitted Capacity (gallons)</b> | <b>Tank Usage &amp; Material of Construction</b> | <b>Waste Description</b> | <b>EPA Hazardous Waste Code Nos.</b> | <b>Secondary Containment Volume (gallons)</b> |
|------------------------------|---|--|--------------------------|--------------------------------------|---|
| 539B                         | 19,344                                      | Storage<br>Carbon Steel                          | NPS and APS              | D001, D002,<br>D009, F003,<br>F005   | 44,949  |
| <b>Building 23 Tank Farm</b> |   |  |                          |                                      |   |
| 506D                         | 6,500                                       | Storage<br>Carbon Steel                          | Halogenated<br>Silanes   | D001, D003,<br>F005                  | 63,765  |
| <b>Boiler House</b>          |   |  |                          |                                      |   |
| 538                          | 16,500                                      | Storage<br>Carbon Steel                          | NPS and APS              | D001, D002,<br>D009, F003,<br>F005   | 20,157  |
| <b>Building 76</b>           |   |  |                          |                                      |   |
| 509                          | 6,423                                       | Storage<br>Carbon Steel                          | Acetyl<br>Chloride       | D001, D002,<br>D007, F005            | 18,873  |
| <b>Building 62</b>           |   |  |                          |                                      |   |
| 599A                         | 11,000                                      | Storage<br>Carbon Steel                          | Methyl Slurry            | D001, D003,<br>D007, D008,<br>D010   | 15,062  |

**Footnotes:**

1. See **Condition C.1** of this Exhibit regarding treatment allowed in Tank 15 and other operational requirements.

B. SPECIAL CONDITIONS FOR TANK SYSTEMS (GENERAL)

1. The special conditions for tank systems presented below are applicable to all Tank Systems listed in **Condition A** of this Exhibit, unless otherwise specified.
2. The Permittee must operate and maintain the Tank Systems in accordance with Vol. I, Section IV-C of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
3. Only wastes generated on-site may be managed in these Tank Systems.
4. The Permittee must perform a pressure test or alternate test approved by the Department on all newly installed underground conveyance lines between secondary containment systems prior to burial and placing into service. The Permittee must also test existing underground secondary containment conveyance lines or conveyance line sections upon repair, replacement or alteration, prior to placing back in service. The Permittee must test both the inner carrier pipe and outer containment pipe of double-walled transfer lines. The Permittee must perform this testing in strict accordance with the procedures developed in accordance with **Condition C, Item 7 of Schedule 1 of Module I** of this Permit. The Permittee must record the results of this testing in the operating record required by 6 NYCRR 373-2.5(c). Any underground hazardous waste transfer line, or portion thereof, that fails its specified test, must be repaired or replaced in accordance with **Condition E of Module IV** of this Permit and re-tested prior to its use.

C. SPECIAL CONDITIONS FOR TANK SYSTEMS (SPECIFIC)

1. Treatment of hazardous waste in tanks in accordance with 6 NYCRR 373-2.10
  - a. The Permittee is authorized to operate Tank 15, the APS phase separator tank to conduct phase separation of the APS waste stream. The water soluble portion may be treated in the biological reactors at the Facility's wastewater treatment system. The non-water soluble phase must be transferred to storage tanks for treatment in the on-site hazardous waste incinerators. Waste that cannot be adequately separated will be transferred to storage tanks for treatment in the on-site hazardous waste incinerators.
  - b. The Permittee must monitor the volume of material treated in Tank 15 and the volume transferred to the hazardous waste storage tanks for incineration. These records must be maintained in the Facility's operating record in accordance with 6 NYCRR 373-2.5(c).
2. Authorized tank subject to 373-2.29 Level 2 control requirements

| Tank | Location    | Method used to minimize air emissions |
|------|-------------|---------------------------------------|
| 599A | Building 62 | Vents through the MCS vent scrubber   |

- a. Emissions from Tank 599A shall be routed through a Closed Vent System to either the West Spray Tower and Venturi Scrubber or the East Scrubber and Venturi Scrubber except when access to the tank is necessary to perform routine inspection, maintenance or other activities needed for normal operations, to remove accumulated sludge or residues from the bottom of the tank or when opening of a safety device is necessary to avoid an unsafe condition. During plant shut-down and during periods of non-usage, Tank 599A shall remain closed so there is no throughput, hence venting through the control device is not required.
  - i. Closed Vent Systems:
    - 'a.' The closed vent systems shall be designed and operated with no detectable emissions as determined by 373-2.27(e)(2) and by visual inspections.
    - 'b.' The closed-vent systems shall be inspected and monitored in accordance with 373-2.27(d)(12).
    - 'c.' Repair of any defects or detectable emissions associated with the closed-vent systems shall be made as soon as practicable but not later than 15 calendar days except as provided by 373-2.27(d)(12)(iii)(‘c’).
    - 'd.' Records of inspection and monitoring and defect repair of the closed-vent systems shall be maintained in accordance with 373-2.27(f) and kept on-site for at least three years.
  - ii. When emissions from the Tank 599A are vented to the West Spray Tower and Venturi Scrubber:
    - 'a.' The West Spray Tower shall maintain a minimum water flowrate as specified in MPM’s Title V permit.
    - 'b.' The Venturi Scrubber associated with the West Spray Tower shall maintain a minimum water flowrate as specified in MPM’s Title V permit.
  - iii. When emissions from the Tank 599A are vented to the East Spray Tower and Venturi Scrubber

- 'a.' The East Spray Tower shall maintain a minimum flowrate as specified in MPM's Title V permit..
  - 'b.' The Venturi Scrubber associated with the East Spray Tower shall maintain a minimum water flowrate as specified in MPM's Title V permit.
- iv. The water flowrates for the East and West Spray Towers and their associated Venturi Scrubbers shall be monitored continuously and recorded in the operating record.
- 'a.' Continuous monitoring must be as specified in MPM's Title V permit.
  - 'b.' All one minute readings must be recorded in the operating record and maintained on-site as specified in MPM's Title V permit.
  - 'c.' A semi-annual report shall be prepared and submitted to the Department on January 30 and July 30 describing each incidence that any control devices specified in paragraphs ii or iii above were operated continuously for 24 hours or longer in non-compliance with the performance specifications contained in those paragraphs while emissions from Tank 599A are being vented to the control device. If no control device is operated continuously for a period of 24 hours or longer in non-compliance then this semi-annual report is not required.
- b. The hours Tank 599A is in service must be recorded in the operating record and maintained onsite for at least three years. Records of times when access to the tank necessary to perform routine inspection, maintenance or other activities needed for normal operations, to remove accumulated sludge or residues from the bottom of the tank or when opening of a safety device is necessary to avoid an unsafe condition and the tank emissions are not vented through the Closed Vent System to a Spray Tower and Venturi Scrubber must be maintained on-site for three years. Records of daily inspections during plant shut-down and periods of non-usage shall be maintained to verify whether or not the Tank has remained closed during those periods.
- c. Tank 599A and its closure devices shall be visually inspected annually for defects that could result in air pollutant emissions. Records of the annual tank inspection must be maintained on-site for three years
- d. Any defect of the tank, closed vent system or air pollution control device must be repaired as follows. The first attempt at repair shall be made within 5 calendar days of detection and repair should be completed as soon as possible but no later than 45

calendar days after detection, except as allowed by 373-2.29(e)(11)(ii). Records of the date of detection of any defect, the date of the first attempt of repair and the date of completion of repair must be maintained on-site for three years.

- e. A semi-annual report shall be submitted to the Department if either control device specified in paragraphs 2.a.i or 2.a.ii is operated continuously for 24 hours or longer in non-compliance with the applicable operating limits while emissions from Tank 599A are being vented through the closed vent system to the air pollution control device. The report shall contain the EPA identification number, name and address of the facility. The report shall be signed and dated by an authorized representative. If no continuous periods of 24 hours of non-compliance occurred during the 6-month period this report is not required.
3. Authorized Tanks subject to 373-2.29 Level 2 or Level 1 controls which have been certified that the Tank is equipped with and operating air emissions controls in accordance with the applicable requirements in 40 CFR Part 60, Part 61, or Part 63.

| <b>Tank</b> | <b>Applicable Clean Air Act Regulations per the Title V Air Permit</b> | <b>Level control required</b> | <b>Inspection and monitoring requirement</b>  |
|-------------|--|-------------------------------|---|
| 506D        | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |
| 509         | 40 CFR 63, Subpart FFFF  | 2                             | Continuous monitoring of scrubber water flow to ensure 99% control efficiency   |
| 538         | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices  |
| 26B         | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |
| 26A         | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |
| 39          | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |
| 40          | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |
| 28A         | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices  |
| 28B         | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices  |
| 61          | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |
| 62          | 40 CFR 63, Subpart EEE   | 2                             | Numerous inspection and monitoring requirements associated with the hazardous waste incinerators to ensure 99.99% DRE |

| <b>Tank</b> | <b>Applicable Clean Air Act Regulations per the Title V Air Permit</b> | <b>Level control required</b> | <b>Inspection and monitoring requirement</b> |
|-------------|--|-------------------------------|--|
| 250         | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices         |
| 251         | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices         |
| 252         | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices         |
| 539B        | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices         |
| 539A        | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices         |
| 15          | 40 CFR 63, Subpart G   | 1                             | Semiannual inspection/work practices         |

**D. SPECIAL CONDITIONS FOR EQUIPMENT SUBJECT TO 373-2.28 FOR HAZARDOUS WASTE ANCILLARY EQUIPMENT ASSOCIATED WITH TANKS.**

1. Each piece of equipment subject to this regulation associated with the permitted Tanks is listed in Document Incorporated by Reference number 16 and the equipment's location is shown on the applicable P&ID drawing in that document.

**EXHIBIT E**

**NOT USED**

**EXHIBIT F**

**SUPPLEMENT TO**

**MODULE X – HAZARDOUS WASTE MISCELLANEOUS UNITS**

**EXHIBIT F**

**SUPPLEMENT TO  
MODULE X – HAZARDOUS WASTE MISCELLANEOUS UNITS**

The following conditions supplement those conditions contained within **Module X** of this Permit:

**A. AUTHORIZED HAZARDOUS WASTE MISCELLANEOUS UNITS**

1. The Permittee is authorized to manage hazardous wastes in the following miscellaneous units:

**Table A-1 - Permitted Miscellaneous Units**

| <b>Permitted Unit</b> | <b>Location</b>            | <b>Permitted Activities</b>   |
|-----------------------|----------------------------|---|
| API Pad (North Pad)   | Wastewater Treatment Plant | Dewatering, equipment washing, managing incinerator packing materials                   |
| RKI Transfer Station  | Wastewater Treatment Plant | Waste transfer operations, parking hazardous waste/ clinker trailers, equipment washing |
| Truck Wash Pad        | Landfill #6                | Equipment washing, leachate transfer to leachate transport system                       |

**B. SPECIAL CONDITIONS FOR MISCELLANEOUS UNITS (GENERAL)**

1. The Permittee must conduct equipment washing activities in accordance with the following:
  - a. Protective materials must be used under the area where a high pressure water spray is likely to be used to prevent damage to the protective coating on the concrete. These erosion protection materials do not need to underlie truck tires in the event that a vehicle is being washed;
  - b. Provision(s) must be provided to prevent wash water from splashing outside of the containment area; and
  - c. When heavy equipment, such as a bucket loader, is used to move materials on and off a pad or transfer station, the Permittee must conduct a visual inspection of the area within 24 hours for any damages. Any damages must be repaired within thirty

(30) days from when the damage was discovered, or in accordance with a schedule acceptable to the Department. The Permittee must record the occurrence in the inspection log and maintain the log as part of the operating record required by 6 NYCRR 373-2.5(c). The Permittee must indicate in the facility's operating record the date the defect was identified, the date repairs were completed and a brief description of said repairs.

2. The pads and transfer areas permitted in Table A-1 must undergo annual assessments in accordance with the Protocol for Secondary Containment Annual Assessment provided as Attachment A of Vol. I, Section IV-B of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.

### C. SPECIAL CONDITIONS FOR MISCELLANEOUS UNITS (SPECIFIC)

#### 1. API Pad

- a. The Permittee must comply with the following when conducting permitted activities at the API Pad:
  - i. Splash guards that are at least 9 feet high and constructed of a rigid or semi-rigid material must be provided on three sides of the pad to prevent wash water from splashing outside of the containment area;
  - ii. Provision must be provided to separate silt and other solids from liquids being discharged during dewatering activities; and
  - iii. Dewatering must be completed and the dewatered material containerized and removed from the API Pad within three days from the start of dewatering activities.

#### 2. RKI Transfer Station

- a. The Permittee must comply with the following when conducting permitted activities at the RKI Transfer Station:
  - i. Hazardous waste storage is not allowed at the unit during equipment washing activities; and
  - ii. Splash guards that are at least 9 feet high and are constructed of a rigid or semi-rigid material must be provided on three sides of the unit to prevent wash water from splashing outside of the containment area during equipment washing activities.

#### 3. Truck Wash Pad

- a. The Permittee must transfer leachate in a controlled manner directly to the leachate transport system drain by means of a hose or other method acceptable to the Department.

- b. The Permittee must clean and conduct a visual inspection of the sump on an annual basis. The Permittee must notify the Environmental Monitor at least three days prior to the inspection. Records of the date and results of the inspection must be maintained as part of the operating record required by 6 NYCRR 373-2.5(c). If any defects are identified as part of the inspection, the Permittee must indicate in the facility's operating record the date repairs that were completed and a brief description of said repairs.

**EXHIBIT G**

**CLOSURE/POST CLOSURE CARE**

## EXHIBIT G

### CLOSURE/POST-CLOSURE CARE

#### A. CLOSURE AND POST-CLOSURE CARE

1. The Permittee must perform closure and post-closure care for each regulated unit authorized by this Permit and post-closure care for each closed regulated unit in accordance with the requirements of 6 NYCRR 373-2.7, this Permit, the Department-approved Closure Plan and Post-Closure Plan provided as Attachment C of this Permit and the Groundwater Corrective Measures Program and Operations and Maintenance Manual incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
2. The Permittee must conduct long-term post-closure care and corrective action for each closed regulated unit authorized by this Permit in perpetuity unless otherwise approved by the Department.
3. The Permittee must determine the costs associated with long-term post-closure care and corrective action in accordance with the following:
  - a. The total amount of the cost estimate for the entire post-closure care and corrective action period shall be calculated using the total annual cost estimate for post-closure and corrective action according to the following procedure:
    - i. The total amount of the Facility's annual post-closure and corrective action cost estimate, in current dollars, must be multiplied by a 30-year post-closure care and corrective action period to derive the total 30-year post-closure cost estimate in accordance with 6 NYCRR 373-2.8(e)(1)(ii).
    - ii. Using the total amount of the Facility's annual post-closure and corrective action cost estimate, calculate the present value of the cost over the entire post-closure care and corrective action period by dividing the total annual amount by the most recent Department-approved discount rate.
    - iii. The total amount of the cost estimate for the entire post-closure care and corrective action period shall always be the greater of the two amounts calculated according to **Conditions A.3.a.i and A.3.a.ii** of this Exhibit.
  - b. The calculation required by **Condition A.3.a** of this Exhibit must be repeated anytime there is an increase in the Facility's annual post-closure or corrective action cost estimate, with the results submitted to the Department. If this calculation

results in an increase in the previously approved Department cost estimate, the Permittee must establish additional financial assurance to cover the amount of the increase in the cost estimate in accordance with **Condition O of Module I**.

# **MODULE II**

## **Corrective Action Requirements**

## PART 373 PERMIT

### MODULE II – CORRECTIVE ACTION REQUIREMENTS

#### A. APPLICABILITY

1. Statute and Regulations: Article 27, Title 9, Section 27-0913, and 6 NYCRR 373-2.6(1) requires corrective action, including corrective action beyond the Facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit (SWMU) regardless of the time at which waste was placed in such unit. Pursuant to 6 NYCRR 373-1.6(c)(2), the Department may impose Permit conditions as the Department determines necessary to protect human health and the environment (such as areas of concern (AOCs) as defined in **Module I** of this Permit).
2. Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs): The Permittee must initiate and complete the corrective action process for all SWMUs and AOCs at the Facility. The conditions of this Module apply to:
  - a. All known SWMUs and AOCs as identified in **Schedule 1 of Module I** that have not completed the corrective action process; and
  - b. Any newly-identified SWMUs and AOCs identified during the course of groundwater monitoring, field investigations, environmental audits or other means including, but not necessarily limited to, those identified pursuant to **Condition C** of this Module.

#### B. STANDARD CONDITIONS FOR CORRECTIVE ACTION

1. The Permittee must perform any and all corrective action specified by **Condition A.2** of this Module and Vol. I, Section IX of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
2. The Permittee must follow the requirements for Groundwater Protection as incorporated by reference into this Permit, including any groundwater sampling and analysis plan which may be required therein.
3. The Permittee and its consultants/contractors performing corrective action activities must demonstrate completion of appropriate training in accordance with the Department-approved Personnel Training Program provided as Vol. I, Section VII of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I** and follow all applicable health and safety plans.
4. Compliance with Governmental Requirements: During investigative activities, interim corrective measures and final corrective measures (including, but not limited to, equipment decommissioning, excavation and unit demolition) required by this Module, the Permittee must ensure that the transportation, treatment, storage, discharge, and

disposal of all contaminated materials generated as a result of such activities (including, but not limited to, soil, sediments, liquids, tanks, pipes, pumps, rubble, debris and structural materials) are performed in an environmentally sound manner pursuant to all applicable federal, State and local requirements, and in a way that is protective of human health and the environment. Nothing in this Module shall be construed to require the Permittee to proceed in a manner which is in violation of any such requirements.

5. Notifications:

- a. Groundwater Contamination: If at any time the Permittee discovers that hazardous constituents in groundwater released from the Facility have migrated beyond the Facility boundary in concentrations that exceed an action level, the Permittee must, within fifteen (15) calendar days of discovery, provide written notice to the Department.
- b. Air Contamination: If at any time the Permittee discovers that hazardous constituents in air have been released from a SWMU or AOC at the Facility, and have or are migrating to areas beyond the Facility boundary in concentrations that exceed action levels in the Department's DAR-1 ("Guidelines for the Control of Toxic Ambient Air Contaminants"), and that residences or other places at which continuous, long-term human exposure to such constituents might occur are located within such areas, the Permittee must immediately initiate all appropriate actions necessary to mitigate the release to concentrations below the action levels or cease operation immediately. In addition, the Permittee must:
  - i. Provide written notification to the Department within fifteen (15) calendar days of such discovery; and
  - ii. Immediately initiate any actions that might be necessary to provide notice to all individuals who have been, may have been or may become exposed to the released constituents.
- c. Residual Contamination: If hazardous wastes or hazardous constituents are located within or have been released from SWMUs or AOCs and will remain in or on the land, including groundwater, after the term of this Permit has expired, the Permittee must record, in accordance with State law, a notation in the deed to the Facility property or in some other instrument acceptable to the Department which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property, of the types, concentrations and locations of such hazardous wastes or hazardous constituents.
- d. Newly Discovered SWMUs and AOCs: The Permittee must notify the Department, in writing, of any additional SWMUs and AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits or other means within fifteen (15) days of discovery. Thereafter, the Permittee must proceed with

the assessment, investigation, evaluation and remediation of the SWMU and/or AOC as set forth in **Condition C** of this Module.

- e. Newly Discovered Releases: The Permittee must notify the Department, in writing, of any release(s) of hazardous wastes, including hazardous constituents, discovered during the course of groundwater monitoring, field investigations, environmental audits, or other activities no later than fifteen (15) calendar days of discovery. Such newly-discovered release(s) may be from newly-identified unit(s)/area(s), from unit(s)/area(s) for which, based on the findings of the RCRA Facility Assessment (RFA), the Department had previously determined that no further investigation was necessary, or from unit(s)/area(s) investigated as part of a RCRA Facility Investigation (RFI). Based on the information provided in the notification, the Department shall determine the need for further investigation of the release(s). If the Department determines that such investigations are needed, the Department shall, by written notification, require the Permittee to prepare an RFI Work Plan in accordance with **Condition D** of this Module. The Department may, at its discretion, also require the Permittee to prepare an Interim Corrective Measures (ICM) Work Plan.

6. Determination of No Further Action

- a. Based on the results of a RFA or a RFI for a particular SWMU or AOC, or combination of SWMUs and/or AOCs, and any other relevant information, the Permittee may submit an application to the Department for a permit modification under 6 NYCRR 373-1.7(b) and 621.13 to terminate the subsequent corrective action requirements of this Module and **Schedule 1 of Module I** for the subject SWMU(s) or AOC(s). The permit modification application must contain information demonstrating that no release(s) of hazardous wastes, including hazardous constituents, have occurred from the subject SWMU(s) and/or AOC(s), or that such releases do not and will not pose a threat to human health or the environment. The permit modification application must also include the information required in 6 NYCRR 373-1, 373-2 and 621.4(n).
- b. If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and other information, including comments received during the forty-five (45) calendar day public comment period required for major permit modifications, the Department determines that the release(s) or the suspected release(s) investigated are either non-existent or do not pose a threat to human health or the environment, the Department may grant the requested modification.
- c. A determination of no further action shall not preclude the Department from modifying this Permit in accordance with 6 NYCRR 621.13 in order to implement the following actions:
  - i. Require the Permittee to perform such investigations as necessary to comply with the requirements of this Module and **Schedule 1 of Module I** if new information or subsequent analysis indicates that there are, or are likely to be,

releases from SWMUs/AOCs that may pose a threat to human health or the environment; and/or,

- ii. Require continual or periodic monitoring of air, soil, groundwater, surface water, sediment or subsurface gas, if necessary, to protect human health and the environment, when site-specific circumstances indicate the release(s) of hazardous waste(s), including hazardous constituents, are likely to occur from any SWMU(s) and/or AOC(s).

C. SCHEDULE FOR ASSESSMENT OF NEWLY IDENTIFIED SWMUs AND AOCs

1. Notification of Assessment: The Permittee must notify the Department, in writing, of any additional SWMU(s) and/or AOC(s) not listed in **Schedule 1 of Module I**, which are identified during the course of groundwater monitoring, field investigations, environmental audits, or other means within fifteen (15) calendar days of discovery.
2. SWMU/AOC Assessment Report: Within thirty (30) calendar days of notifying the Department, the Permittee must submit a SWMU/AOC Assessment Report. This report must provide, at a minimum, the following information for each newly identified SWMU/AOC:
  - a. Type of unit/area;
  - b. Location of each unit/area on a topographic map of appropriate scale;
  - c. Dimensions, capacities, and structural descriptions of the unit/area (supply available engineering drawings);
  - d. Function of unit/area;
  - e. Dates that the unit/area was operated;
  - f. Description of the wastes that were placed or spilled at the unit/area;
  - g. Description of any known releases from the unit/area (to include groundwater data, soil analyses, air monitoring data, and/or surface water/sediment data);
  - h. The results of any sampling and analysis required for the purpose of determining whether releases of hazardous wastes, including hazardous constituents, have occurred, are occurring, or are likely to occur from the unit/area; and
  - i. Whether this unit/area, individually or in combination with other units/areas described in **Schedule 1 of Module I**, is a significant source of contaminant release.
3. SWMU/AOC Sampling and Analysis Plan: If prior to or after submission of the SWMU/AOC Assessment Report required in **Condition C.2** of this Module the Department determines and notifies the Permittee that sampling and analysis is required, the Permittee must, within thirty (30) calendar days of such notification,

submit to the Department for approval a plan prepared in accordance with **Condition D** of this Module, for sampling and analysis of specific environmental media including, but not limited to, groundwater, land surface and subsurface strata, surface water/sediment or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) and/or area(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU/AOC Sampling and Analysis Plan must demonstrate that the sampling and analyses program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste, including hazardous constituents, from the newly-discovered SWMU(s) and/or AOC(s) to the environment.

4. Subsequent Assessment Actions: Following submission of the SWMU/AOC Assessment Sampling and Analysis Plan set forth in **Condition C.3** of this Module, the Department may either approve the Plan as submitted or issue comments on the Plan. If approved, the Permittee must implement sampling in accordance with the Plan within thirty (30) calendar days of receipt of the Department's approval. If the Department issues comments on the Plan, subsequent activities for the Plan must proceed in accordance with **Condition A.7 of Module I** of this Permit.
5. SWMU/AOC Sampling and Analysis Report: Within thirty (30) calendar days of receipt by the Permittee of validated analytical data generated under the approved SWMU/AOC Sampling and Analysis Plan, the Permittee must follow reporting requirements in the approved Plan and submit a SWMU/AOC Sampling and Analysis Report to the Department. The Report must describe all results obtained from the implementation of the approved Plan.
6. Assessment Conclusions: Based on the results of the SWMU/AOC Sampling and Analysis Report, the Department shall determine the need for further investigations at the specific unit(s) covered in the SWMU/AOC Assessment Report. If the Department determines that such investigations are needed, the Department shall, by written notification, require the Permittee to prepare and submit for approval a RFI Work Plan. In addition, the Department may, at its discretion, require the Permittee to submit an Interim Corrective Measures (ICM) Work Plan if an ICM is deemed necessary by the Department to safeguard human health and the environment. Any additional activities required by the Department must be undertaken in accordance with **Condition D** of this Module.

D. DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION PROGRAM

For the purposes of this Permit, the technical and administrative requirements of "DER-10 – Technical Guidance for Site Investigation and Remediation" are applicable where corrective action has been determined by the Department to be necessary. Since DER-10 uses State Superfund nomenclature, the following table provides a cross-reference between Resource Conservation and Recovery Act (RCRA) and State Superfund nomenclature when using "DER-10 – Technical Guidance for Site Investigation and Remediation":

| <b><u>RCRA Program Element</u></b>  | <b><u>Equivalent Superfund Program Element</u></b> |
|---|--|
| RCRA Facility Assessment (RFA)<br>(including Preliminary Review [PR],<br>Visual Site Inspection [VSI] and<br>Sampling Visit [SV]) | Site Characterization (SC)                         |
| RCRA Facility Investigation (RFI)   | Remedial Investigation (RI)                        |
| Corrective Measures Study (CMS)   | Feasibility Study (FS)                             |
| Interim Corrective Measure (ICM)  | Interim Remedial Measure (IRM)                     |
| Statement of Basis (SOB)  | Record of Decision (ROD)                           |
| Corrective Measures Implementation<br>(CMI) (design)  | Remedial Design (RD)                               |
| CMI (construction)  | Remedial Action (RA)                               |
| Post-Closure / Effectiveness Evaluations  | Site Management (SM)                               |

Accordingly, when the Department, as part of this Permit, requires the Permittee to prepare any component (e.g., work plan, report, study, design, remedy, etc.) of a specific RCRA Program element identified in the above table, the Permittee must utilize DER-10 - Technical Guidance for Site Investigation and Remediation for the preparation of the appropriate analog RCRA Program component. The required component shall be captioned with the appropriate RCRA program element title. This is the required approach unless specific alternative direction is otherwise provided by the Department in writing.

1. Work Plan Development

- a. The Permittee must submit a corrective action work plan to the Department within thirty (30) days of notification by the Department that such work plan is necessary.
- b. All corrective action activities at the Facility must be conducted pursuant to one or more Department-approved work plans. The work plan(s) prepared pursuant to this Permit must address both on-site and off-site contamination consistent with the provisions of Department guidance, entitled “DER-10 - Technical Guidance for Site Investigation and Remediation.”
- c. All work plans must be developed consistent with Department guidance entitled “DER-10 - Technical Guidance for Site Investigation and Remediation.” Work plans prepared to address corrective action at active units or units under post-closure care must also incorporate the applicable requirements of 6 NYCRR 373-2.6 and 373-2.7.
- d. All Department-approved work plans will be incorporated into this Permit when specifically noted in such approvals, pursuant to 6 NYCRR 621.13, and become enforceable under this Permit.

- e. The Department may, at its discretion, direct the Permittee to prepare “supplemental” work plans, studies and/or designs as it determines necessary to ensure protection of human health and the environment.
- f. The Permittee may opt to propose one or more supplemental work plans (including one or more IRM Work Plans) at any time, which the Department shall review for appropriateness and technical sufficiency.
- g. Any proposed work plan must be submitted for the Department’s review and approval, and must include, at a minimum, a chronological description of the anticipated activities, a schedule for performance of those activities, and sufficient detail to allow the Department to evaluate that work plan. The requirements for submittal review are specified in **Condition D.4** of this Module.
- h. Within twenty (20) days of the Department’s request for a work plan, the Permittee must submit for review and approval a written citizen participation plan prepared in accordance with applicable Department guidance. Upon approval, the citizen participation plan shall be incorporated by reference into this Permit.
- i. All work plans prepared pursuant to this Module must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer, or by such other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

2. Work Plan Implementation

- a. Upon approval of a work plan by the Department, the Permittee must implement such work plan in accordance with the schedule contained therein.
- b. The Department must be notified at least 7 days in advance of, and be allowed to attend, any field activities to be conducted under a Department-approved work plan, as well as any pre-bid meetings, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting
- c. During all field activities conducted under a Department-approved work plan, the Permittee must have, on-site, a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained to perform such supervision.
- d. The Permittee must follow the notification requirements of **Condition B.5** of this Module during work plan implementation.
- e. All corrective action activities must be conducted in accordance with **Condition B.4** of this Module.
- f. In accordance with the schedule contained in a Department-approved work plan, the Permittee must submit a final report (e.g., RFI report, etc.) that meets the requirements set forth in “DER-10 - Technical Guidance for Site Investigation and

Remediation,” summarizes all data generated during implementation of the work plan, and includes a complete description of all assessments and evaluations required by the work plan.

- g. Any final report or final engineering report that includes construction activities must include “as built” drawings showing any changes made to the remedial design or the IRM.
- h. All final reports and final engineering reports must be submitted for the Department’s review and approval. The requirements for submittal review are specified in **Condition D.4** of this Module.
- i. All final reports and final engineering reports must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer, or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

### 3. Remedy Selection

- a. The Department shall select a proposed remedy in accordance with DER-10 following receipt of the Corrective Measures Study (CMS) or Feasibility Study (FS). The selected remedy shall be set forth in a draft Statement of Basis (SOB) prepared by the Department for the Facility. The selected remedy in the final SOB shall be incorporated by reference into this Permit by modification pursuant to 6 NYCRR 621.13.
- b. Once the SOB has been incorporated into this Permit, the Permittee must submit a Corrective Measures Implementation (CMI) Work Plan or Remedial Design/Remedial Action (RD/RA) Work Plan that provides for the development and implementation of final plans and specifications for implementing the remedial alternative set forth in this Permit (i.e., in the SOB). This work plan must, unless otherwise provided in writing by the Department, be submitted within one hundred twenty (120) days of the effective date of the Permit modification. The Permittee must commence implementation of the CMI Work Plan or RD/RA Work Plan within thirty (30) days of the Department’s approval of such work plan.
- c. The Permittee must submit a Site Management Plan (SMP) or an update to an existing SMP, as necessary, in accordance with the schedule set forth in the approved CMI Work Plan or RD/RA Work Plan or in accordance with a request from the Department. The Permittee must commence implementation of the Site Management Plan within thirty (30) days of the Department’s approval of such plan.
- d. The Permittee must submit an initial periodic review report (PRR) in accordance with the schedule in the SMP and thereafter annually, unless the Department approves an alternate frequency in writing. The periodic review report must include the information specified in DER-10 and other applicable NYSDEC guidance, and must also include, but not be limited to, documentation of the performance of any

required groundwater compliance inspections, operation and maintenance inspections, groundwater comprehensive monitoring evaluations, and any required corrective measures effectiveness evaluations related to the remedy(ies) in place at the Facility, as well as a description and results summary for any investigation or corrective action activity that occurred at the Facility during the period. The PRR must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

- e. As part of the periodic review report submission, the Permittee must provide an annual certification of institutional and engineering controls until such time that the Department notifies the Permittee in writing that this certification is no longer needed. Therefore, the PRR must: (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and, (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the SMP unless otherwise approved by the Department. The Permittee must submit a written certification in accordance with 6 NYCRR 373-1.4(a)(5) and DER-10 - Technical Guidance for Site Investigation and Remediation.
- f. The Permittee must continue operation of the selected remedy until such time that the remedial objectives have been achieved and the Department determines that continued operation is technically impracticable or not feasible.

#### 4. Review of Submittals

- a. The Department shall review and respond in writing to each submittal (e.g., plans, studies, reports, schedules, written submittals, etc.) the Permittee makes pursuant to this Permit, unless the Department determines that a response is not necessary. The Department's response shall include an approval, modification request, or disapproval of the submittal, in whole or in part. Failure of the Permittee to act in accordance with the requirements of this Condition is a violation of this Permit.
- b. Following its review of a submittal, the Department may either approve the submittal or issue comments. If approved, the Permittee must implement the submittal or initiate the next step in the program in accordance with the schedule contained in the submittal or the Department's approval letter. If the Department issues comments on the submittal, subsequent activities for the submittal must proceed in accordance with **Condition A.7 of Module I** of this Permit.
- c. In the event the Department provides conditional approval of a submittal, within thirty (30) days of the Department's conditional approval the Permittee must modify the submittal in accordance with any Department comments and resubmit the document, including all required supporting data and documents in an electronic format acceptable to the Department in accordance with the requirements of

**Condition N of Module I.** All resubmissions must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer, or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

- d. Upon approval, the submittal will be incorporated into this Permit when specifically noted by the Department in such approval, pursuant to 6 NYCRR 621.13. If directed by the Department, the Permittee must place the submittal within the Facility's document repository within fifteen (15) days of receipt of the Department's approval.
- e. In the event that the Permittee and the Department cannot resolve the Department's comments, the Department shall, pursuant to 6 NYCRR 621.13 and within 45 days of notice of disapproval or required modifications, send to the Permittee a notice of intent to modify this Permit with regard to all unresolved issues in order to safeguard human health and the environment.

E. OTHER REQUIREMENTS

1. Reservation of Rights

- a. Nothing contained in this Permit shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities, including, but not limited to, the right to require performance of further investigations and/or response action(s), and/or to exercise any summary abatement powers with respect to any person, including the Permittee.
- b. Except as otherwise provided in this Permit, the Permittee specifically reserves all rights and defenses under applicable law, and further reserves all rights respecting the enforcement of this Permit, including the rights to notice, to be heard, to appeal, and to any other due process. The existence of this Permit or the Permittee's compliance with it shall not be construed as an admission of liability, fault, wrongdoing, or breach of standard of care by the Permittee, and shall not give rise to any presumption of law or finding of fact, or create any rights, or grant any cause of action, which shall inure to the benefit of any third party.

2. Environmental Easement

- a. If a Statement of Basis (SOB), or other approved work plan, for the Facility relies upon one or more institutional and/or engineering controls, the Permittee (or the owner of the Facility) must submit to the Department for approval an environmental easement and/or restrictive covenant to run with the land in favor of the State which must be:
  - i. created and recorded pursuant to ECL Article 71, Title 36;
  - ii. in a form and manner as prescribed by the Department;

- iii. in compliance with General Obligations Law (GOL) 5-703(1) and ECL 71-3605(2); and,
  - iv. recordable pursuant to Real Property Law (RPL) 291.
- b. Upon acceptance of the environmental easement and/or restrictive covenant by the State, the Permittee must comply with the requirements of **Condition E.2** of this Module.
  - c. Agents, employees or other representatives of the State may enter and inspect the property burdened by an environmental easement with reasonable prior notice to the property owner, to assure compliance with the restrictions identified by the environmental easement.
  - d. If the SOB provides for no action other than implementation of one or more institutional controls, the Permittee must cause an environmental easement to be recorded under the provisions of **Condition E.2.a** of this Module.
  - e. If the Permittee does not cause such environmental easement to be recorded in accordance with **Condition E.2.a** of this Module, the Department may file an Environmental Notice on the Facility.

### 3. Progress Reports

- a. The Permittee must submit a written progress report of its actions under this Module to the parties identified in **Schedule 1 of Module I** by the 10th day of each month commencing with the month subsequent to the approval of the first work plan and ending with the completion of a work item requiring reporting as specified in this Permit or a Department-approved work plan.

### 4. Dispute Resolution

- a. The Permittee must submit any dispute related to the Department's comments to the designated individual in writing no more than 15 days after it knew or should have known of the facts which are the basis of the dispute. The designated individual shall render a written decision and furnish a copy thereof to the Permittee, which shall be the final Department determination, unless the Permittee files a written appeal of that decision with the designated appeal individual within 20 days of receipt of that decision.
  - i. Upon receipt of the written appeal pursuant to **Condition E.4.a** of this Module, the designated appeal individual, will review the record and decision. The designated appeal individual will take one of the following actions, with written notice to the Permittee:

'a.' remand the matter to the program staff for further negotiation or information if it is determined that the matter is not ripe for review;

'b.' determine that there is no need for further action, and that the determination of the designated individual is confirmed; or,

'c.' make a determination on the record as it exists.

ii. The decision of the designated appeal individual shall be the final Department decision unless, within 20 days of receipt of the decision, the Permittee requests that the Department proceed in accordance with **Condition E.4.b** of this Module.

iii. The designated individual to:

'a.' hear disputes is a bureau director in the Department's Division of Environmental Remediation; and,

'b.' to review dispute decisions is the assistant director of the Department's Division of Environmental Remediation.

b. In the event that the Department issues comments that cannot be resolved with the Permittee, the Department shall, pursuant to 6 NYCRR 621.13, send to the Permittee a notice of intent to modify this Permit with regard to all unresolved issues in order to safeguard human health and the environment.

c. Upon receipt of a notice of intent from the Department, the Permittee must act in accordance with 6 NYCRR 621.13(d) or the Department's action will become effective on the date specified in the notice of intent. In the event that the Permittee acts in accordance with 6 NYCRR 621.13(d) within the specified timeframe, the procedure for dispute resolution will continue in accordance with 6 NYCRR 621.13.

## F. MISCELLANEOUS

### 1. Required Authorizations

a. The Permittee must use best efforts to obtain all Facility access, permits, easements, approvals, institutional controls, and/or authorizations necessary to perform the Permittee's obligations under this Permit, including all Department-approved work plans and the schedules contained therein. If, despite the Permittee's best efforts, any access, permits, easements, approvals, institutional controls, or authorizations cannot be obtained, the Permittee must promptly notify the Department and include a summary of the steps taken. The Department may, as it deems appropriate and within its authority, assist the Permittee in obtaining same.

b. If an interest in property is needed to implement an institutional control required by a work plan and such interest cannot be obtained, the Department may require the Permittee to modify the work plan to reflect changes necessitated by the Permittee's inability to obtain such interest. Within 15 days of receipt of such notice, the Permittee must elect in writing to either: a) modify the work plan as requested by

the Department, or accept a Department modified work plan, within 30 days of receipt of the written notice; or, b) invoke dispute resolution in accordance with **Condition E.4** of this Module.

# **MODULE III**

## **Use and Management of Containers**

## PART 373 PERMIT

### MODULE III – USE AND MANAGEMENT OF CONTAINERS

#### A. AUTHORIZED STORAGE AREA, WASTE TYPES AND STORAGE VOLUME

1. The Permittee is authorized to manage and/or store hazardous wastes subject to the terms of this Permit as described in **Schedule 1 of Module I**. **Schedule 1 of Module I** provides information regarding the number, location, configuration and type of hazardous wastes in containers that may be stored in each permitted container storage area. The Permittee must not manage and/or store any hazardous wastes in excess of the maximum capacities for each individual area identified in **Schedule 1 of Module I** of this Permit. This Permit is applicable to containerized hazardous wastes in accordance with 6 NYCRR 373-2.9(a), with exceptions noted in, and in compliance with, 6 NYCRR 371.1(h), 371.4 (d)(3), 373-1.1(d)(1)(iii), 373-1.1(d)(1)(xiv) and 373-2.1(a).

#### B. CONDITION OF CONTAINERS [6 NYCRR 373-2.9(b)]

1. The Permittee must manage and maintain any and all containers holding hazardous wastes authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.9(b) and this Permit.

#### C. COMPATIBILITY OF WASTE WITH CONTAINERS [6 NYCRR 373-2.9(c)]

1. The Permittee must use a container made of, or lined with, materials which will not react with, and is otherwise compatible with, the hazardous wastes authorized by this Permit to be stored, so that the ability of the container to contain the waste is not impaired in accordance with 6 NYCRR 373-2.9(c) and this Permit.

#### D. MANAGEMENT OF CONTAINERS [6 NYCRR 373-2.9(d)]

1. The Permittee must manage containers holding hazardous waste authorized by this Permit in accordance with 6 NYCRR 373-2.9(d) and this Permit including **Schedule 1 of Module I**.
2. Any containers with nonhazardous wastes and other materials stored in an area designated for hazardous waste containers will be subject to all the terms and conditions of this Permit and 6 NYCRR 360-1.1(b). Any other materials stored in these designated areas must be compatible with the waste in accordance with **Condition H** of this Module.
3. The Permittee must maintain aisle space in accordance with 6 NYCRR 373-2.3(f) and this Permit including **Schedule 1 of Module I**. Drums must be stored in rows no greater than 2 drums wide. The aisle space between the rows must be a minimum of 2 feet wide or wider as required by **Schedule 1 of Module I** of this Permit. Drums must not be stacked greater than 2 high or as required by **Schedule 1 of Module I** of

this Permit. For aisle space and stacking requirements for other container types, refer to **Schedule 1 of Module I** of this Permit. All container storage areas must comply with the applicable sections of the New York State Fire Code and the National Fire Protection Association (NFPA) 30 - “Flammable and Combustible Liquids Code.” The Permittee must demonstrate compliance with the applicable portions of the New York State Fire Code and the NFPA 30 to the satisfaction of the Department.

E. INSPECTIONS [6 NYCRR 373-2.9(e)] AND REPAIR/REMEDIAL ACTION [6 NYCRR 373-2.2(g)(3)]

1. The Permittee must inspect areas where containers are stored as authorized by this Permit in accordance with 6 NYCRR 373-2.2(g), 373-2.9(e) and this Permit including the Department-approved Integrated Contingency Plan provided as Vol. I, Section VI-B of the Permit Application and “Volume III: Integrated Contingency Plan” incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
2. Loading and unloading areas must be inspected daily when in use in accordance with 6 NYCRR 373-2.2(g)(2)(iv) and this Permit.
3. For each occurrence where hazardous wastes are stored in a container that is not in good condition or that is leaking, or if defects are identified in the secondary containment for containers, the Permittee must record the occurrence in the inspection log and maintain the log as part of the operating record required by 6 NYCRR 373-2.5(c). The Permittee must indicate in the facility’s operating record the date the defect was identified, the date repairs were completed and a brief description of said repairs.
4. If any leaking container threatens human health or the environment the Permittee must immediately report the situation as specified in **Condition C.2 of Module I** (i.e., Oral Reports) and as necessary implement the Department-approved Integrated Contingency Plan provided as Vol. I, Section VI-B of the Permit Application and “Volume III: Integrated Contingency Plan” incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
5. For any container of hazardous wastes that is found to be not in good condition (e.g., severe rust, apparent structural deformity, etc.) or leaking, the Permittee must take immediate action to stop or prevent the leak and in accordance with 6 NYCRR 373-2.9(b) and clean up any leaked or spilled material as required by 6 NYCRR 373-2.9(f)(1)(v) in accordance with the procedures contained in the Department-approved Integrated Contingency Plan provided as Vol. I, Section VI-B of the Permit Application and “Volume III: Integrated Contingency Plan” incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
6. The Permittee must repair all defects or other deficiencies identified with the secondary containment system for containers during the Permittee’s regular inspections or as a result of independent assessments in accordance with 6 NYCRR 373-2.2(g)(3) and **Condition E.8** of this Module. The Permittee must maintain the secondary

containment system for containers free of cracks or gaps and sufficiently impervious to contain leaks, spills and accumulated precipitation.

7. If the secondary containment system for containers is found to be breached or in such a deteriorated condition that it is obviously incapable of containing a release, the Permittee must:
  - a. Take immediate action to stop or prevent any release from the area;
  - b. Take steps in accordance with 6 NYCRR 373-2.9(f)(1)(v) and the Department-approved Integrated Contingency Plan provided as Vol. I, Section VI-B of the Permit Application and “Volume III: Integrated Contingency Plan” incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I** to clean up any leaked or spilled material; and,
  - c. Immediately cease operation of the area and relocate any containers located therein until the defect is repaired to the satisfaction of the Department.
8. For any identified deterioration or malfunction of equipment or structures associated with a hazardous waste management unit which do not result in a release or create the potential for a release of hazardous wastes from the unit’s primary containment (i.e., defects other than those described in **Condition E.5** of this Module), except for specific defects where other Permit conditions or the regulations require repairs within other specified time periods, the Permittee must either:
  - a. Schedule and complete repairs to the defect within thirty (30) days from the date the defect was first identified;
  - b. Submit a proposed schedule for Department approval within seven (7) days from the date the defect was first identified, if it is anticipated that it will take longer than 30 days to complete repairs. The proposed schedule must include the date for completing the repairs which must be within six (6) months from the date when the defect was identified; or
  - c. The Permittee may request, and the Department may approve, extensions to the schedule provided the Permittee has adequately demonstrated that the extension is needed due to unforeseen circumstances or circumstances beyond the Permittee’s control and that the delay will not lead to an environmental or human health hazard.

F. CONTAINMENT [6 NYCRR 373-2.9(f)]

1. Container storage areas authorized by this Permit for the storage of containerized liquids must have a containment system that is designed and operated in accordance with 6 NYCRR 373-2.9(f)(1) and this Permit including **Schedule 1 of Module I**. Container storage areas authorized by this Permit for only the storage of containerized solids with no free liquids must, at a minimum, meet the requirements of 6 NYCRR 373-2.9(f)(2) and this Permit including **Schedule 1 of Module I**.

G. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE [6 NYCRR 373-2.9(g)]

1. The Permittee must manage all ignitable or reactive waste placed in containers and authorized by this Permit in accordance with 6 NYCRR 373-2.9(g) and this Permit.

H. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE [6 NYCRR 373-2.9(h)]

1. The Permittee must adhere to the special requirements for the management of incompatible wastes in containers authorized by this Permit in accordance with 6 NYCRR 373-2.9(h) and this Permit.
2. The Permittee must demonstrate the compatibility of all hazardous wastes authorized by this Permit with other wastes and materials, and with the containers utilized to store the waste in accordance with this Permit including **Schedule 1 of Module I** and the Department-approved Waste Analysis Plan incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.

I. CLOSURE [6 NYCRR 373-2.9(i)]

1. At closure, the Permittee must comply with the closure requirements in accordance with 6 NYCRR 373-2.9(i), 6 NYCRR 373-2.7 and this Permit, including the Department-approved Closure Plan provided as Attachment C of this Permit.

J. AIR EMISSION STANDARDS [6 NYCRR 373-2.9(j)]

1. The Permittee must manage all hazardous wastes in containers authorized by this Permit in accordance with 6 NYCRR 373-2.27, 373-2.28 and 373-2.29 as applicable and **Schedule 1 of Module I** of this Permit.

K. OTHER REQUIREMENTS

1. Independent Secondary Containment Assessment of Container Storage Areas: For container storage areas that require secondary containment pursuant to this Permit, the Permittee must conduct an independent assessment of each secondary containment area. The independent secondary containment assessment must be conducted annually for all areas, unless otherwise specified in **Schedule 1 of Module I**. The assessment must identify any deficiencies in each containment area including, but not limited to, cracks, gaps, sealant/coating defects or other defects that would inhibit the ability of the containment system to contain leaks or spills of containerized liquids, in accordance with the requirements of 6 NYCRR 373-2.9(f)(1). The assessment must be performed by an independent, qualified Professional Engineer licensed in New York State or a qualified inspector working under the Professional Engineer, if regulations, DER-10 guidance, or state education laws require such work to be prepared by a Professional Engineer. The Permittee will not be subject to a DEC violation if the use of a Professional Engineer is not expressly required by Environmental Conservation Law. All containers, equipment and miscellaneous debris must be removed so that all surfaces of the containment system are completely exposed for inspection, unless

otherwise specified in **Schedule 1 of Module I**. Any defects identified during the assessment must be documented in an assessment report. Once any defects have been repaired, the secondary containment area(s) must be re-inspected by the engineer/inspector to evaluate the adequacy of the repairs and to confirm that the secondary containment area(s) meets the requirements of 6 NYCRR 373-2.9(f)(1)(i) and **Condition F** of this Module. The assessment report must document the results of such re-inspections and confirm that the secondary containment area(s) meets the cited requirements. Copies of each assessment report must be retained by the Permittee in accordance with 6 NYCRR 373-1.6(a)(10) and made available for review upon Department request. The Permittee may also be required to submit the assessment report to the Department if so specified in **Schedule 1 of Module I**.

2. Precautions in Flammable & Oxidizer Waste Storage Areas: Machinery and equipment must not be permitted in flammable and oxidizer waste storage areas or any process area where a flammable atmosphere may exist unless it has been fitted with appropriate safeguard devices approved by Underwriters Laboratories (UL) to render the machinery/equipment intrinsically safe. Only non-sparking tools shall be used in these storage areas.
3. The Permittee must remove all liquid precipitation and other accumulated liquids from any hazardous waste secondary containment structure within 24 hours.

# **MODULE IV**

## **Tank Systems**

## PART 373 PERMIT

### MODULE IV - TANK SYSTEMS

#### A. AUTHORIZED TANK SYSTEMS AND WASTES

1. The Permittee is authorized to use the tank systems for the storage and/or treatment of hazardous wastes subject to the terms of this Permit as described in **Schedule 1 of Module I. Schedule 1 of Module I** provides information regarding the location, capacity and type of waste stored for each permitted tank system. This Permit is applicable to wastes stored or treated in accordance with 6 NYCRR 373-2.10(a), with exceptions noted in, and in compliance with, 6 NYCRR 373-1.1(d)(1)(iii) and 373-2.1(a).
2. The Permittee must operate and maintain the tank systems in accordance with this Permit and with 6 NYCRR 373-2.10.
3. For tank systems used to store or treat materials that are newly defined as hazardous waste in the future, the Permittee must comply with 6 NYCRR 373-2.10 and 373-1.7(g).

#### B. DESIGN AND INSTALLATION OF NEW TANK SYSTEMS OR COMPONENTS [6 NYCRR 373-2.10(c)]

1. For new hazardous waste tank systems or components (such as the secondary containment system) not authorized by this Permit, which the Permittee proposes to construct in the future, the Permittee must, prior to construction for a new or replacement tank system and prior to operation of a repurposed or modified tank system, submit to the Department an application to modify this Permit including design plans, specifications and a written assessment of the tank systems' structural integrity, as required by 6 NYCRR 373-2.10(c) and obtain a permit modification.
2. The term "new hazardous waste tank system(s)" includes new tank system(s), replacement tank system(s), repurposed tank system(s) and modified tank system(s).
3. Upon completion of construction and prior to commencing operation, the Permittee must obtain and keep on file certifications of construction in accordance with 6 NYCRR 373-2.10(c)(7).
4. The Permittee may not use any tank until:
  - a. The Permittee has submitted to the Department by Certified Mail or hand delivery a letter signed by the Permittee and a New York registered Professional Engineer stating that the tank has been constructed or modified in compliance with this Permit;

- b. A Department representative has inspected the newly constructed or modified tank and has found it is in compliance with the conditions of this Permit; or
- c. If, within 15 days of the date of submission of the letter specified in **Condition B.4.a** of this Module the Permittee has not received notice from the Department of its intent to inspect, the inspection requirement specified in **Condition B.4.b** of this Module is waived and the Permittee may use the tank, per 6 NYCRR 373-1.6(a)(12)(ii)(‘b’)(‘2’).

C. CONTAINMENT AND DETECTION OF RELEASES [6 NYCRR 373-2.10(d)]

1. In order to prevent the release of hazardous waste or hazardous constituents to the environment, tank system(s) secondary containment must be provided and operated in a manner that meets the requirements of 6 NYCRR 373-2.10(d) and this Permit, including **Schedule 1 of Module I**, except for ancillary equipment meeting the requirements of 6 NYCRR 373-2.10(d)(6).

D. GENERAL OPERATING REQUIREMENTS [6 NYCRR 373-2.10(e)]

1. The Permittee must operate hazardous waste tank systems and components authorized by this Permit in accordance with 6 NYCRR 373-2.10(e) and this Permit including **Schedule 1 of Module I**.

E. INSPECTIONS [6 NYCRR 373-2.10(f)] AND REPAIR/REMEDIAL ACTION [6 NYCRR 373-2.2(g)(3)]

1. The Permittee must inspect tank systems and components authorized by this Permit in accordance with 6 NYCRR 373-2.2(g), 373-2.10(f) and this Permit, including the Department-approved Security and Facility Inspection Plan incorporated by reference into this Permit and **Schedule 1 of Module I**.
2. Loading and unloading areas must be inspected daily when in use in accordance with 6 NYCRR 373-2.2(g)(2)(iv) and this Permit.
3. For any leak, overflow, defect, deterioration, malfunction or other problem found as a result of the inspection or assessment of any tank system, including secondary containment and ancillary equipment, the Permittee must record the occurrence in the inspection log and maintain the log as part of the operating record required by 6 NYCRR 373-2.5(c). The Permittee must indicate in the facility’s operating record the date the defect was identified, the date repairs were completed and a brief description of said repairs.
4. If leaks (except minor drips) or overflows are discovered associated with any hazardous waste tank system (including ancillary equipment), the Permittee must immediately report the situation as specified in **Condition C.2 of Module I** (i.e., Oral Reports) and implement the Department-approved Integrated Contingency Plan incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**, as necessary.

5. For any identified leak (including minor drips) or defect which creates the potential for leakage from a tank or from a tank's ancillary equipment (e.g., piping, pump, valve, etc.) containing hazardous waste, the Permittee must take immediate action to stop or prevent the leak, take steps in accordance with 6 NYCRR 373-2.10(g) and clean up any leaked or spilled material as required by 6 NYCRR 373-2.10(g)(2) in accordance with the procedures contained in the Department-approved Integrated Contingency Plan incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
6. The Permittee must take action in response to any of the aforementioned tank system deficiencies in accordance with 6 NYCRR 373-2.2(g)(3), **Condition E.8** of this Module and, if applicable, **Condition F** of this Module. The Permittee must maintain the secondary containment system for tanks free of cracks or gaps and sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and removed. The Permittee must remove all liquid precipitation and other accumulated liquids from any hazardous waste secondary containment structure within 24 hours.
7. If a tank system secondary containment is found to be breached or in such a deteriorated condition that it is obviously incapable of containing a release, the Permittee must: a) take immediate action to stop or prevent any release from the system; b) take steps in accordance with the Department-approved Integrated Contingency Plan incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I** to clean up any leaked or spilled material; and, c) immediately cease operation of the system and relocate any material stored within the system until the defect is repaired to the satisfaction of the Department.
8. For any identified deterioration or malfunction of equipment or structures associated with a hazardous waste management unit which do not result in a release or create the potential for a release of hazardous waste from the unit's primary containment (i.e., defects other than those described in **Condition E.5** of this Module) or for situations where the waste has been removed from the primary containment unit in accordance with **Conditions E.7 or F** of this Module, except for specific defects where other Permit conditions or the regulations require repairs within other specified time periods, the Permittee must, unless otherwise addressed in an alternate schedule approved by the Department, either:
  - a. Schedule and complete repairs to the defect within thirty (30) days<sup>3</sup> from the date the defect was first identified;
  - b. Submit a proposed schedule for Department approval within seven (7) days from the date the defect was first identified, if it is anticipated that it will take longer than 30 days to complete repairs. The proposed schedule must include the date for

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<sup>3</sup> The 30 day repair time frame in this section does not apply to repairs pursuant to 373-2.28 or 2.29

completing the repairs which must be within six (6) months from the date when the defect was identified; or

- c. The Permittee may request, and the Department may approve, extensions to the schedule provided the Permittee has adequately demonstrated that the extension is needed due to unforeseen circumstances or circumstances beyond the Permittee's control and that the delay will not lead to an environmental or human health hazard.

F. RESPONSE TO LEAKS OR SPILLS AND DISPOSITION OF LEAKING OR UNFIT-FOR-USE HAZARDOUS WASTE TANK SYSTEMS [6 NYCRR 373-2.10(g)]

1. A tank system or secondary containment system authorized by this Permit from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately and the Permittee must take all action required in accordance with 6 NYCRR 373-2.10(g) and this Permit.
2. With respect to notifications of releases to the environment, reporting must be in accordance with 6 NYCRR 373-2.10(g)(4) and **Module I** of this Permit.

G. CLOSURE AND POST-CLOSURE CARE [6 NYCRR 373-2.10(h)]

1. At closure of a tank system authorized by this Permit, the Permittee must comply with the closure requirements in accordance with 6 NYCRR 373-2.10(h), 6 NYCRR 373-2.7 and this Permit, including the Department-approved Closure Plan provided as Attachment C of this Permit. For tank systems where the Department accepts the Permittee's demonstration in accordance with 6 NYCRR 373-2.10(h)(2), the Permittee must meet the closure and post-closure requirements of 6 NYCRR 373-2.7(g) through (j), and this Permit, including a Department-approved modified Closure Plan and new or modified Post-Closure Plan provided as Attachment C of this Permit.

H. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES [6 NYCRR 373-2.10(i)]

1. The Permittee must manage all ignitable or reactive waste placed in tank systems authorized by this Permit in accordance with 6 NYCRR 373-2.10(i) and this Permit.

I. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES [6 NYCRR 373-2.10(j)]

1. The Permittee must adhere to the special requirements for the management of incompatible waste in tank systems authorized by this Permit in accordance with 6 NYCRR 373-2.10(j) and this Permit.

J. AIR EMISSION STANDARDS [6 NYCRR 373-2.10(k)]

1. The Permittee must manage all hazardous wastes placed in tank systems authorized by this Permit in accordance with 6 NYCRR 373-2.27, 373-2.28 and 373-2.29, as applicable and this Permit.

## K. OTHER REQUIREMENTS

1. Tank System Process and Instrumentation Diagrams: The Permittee must operate and maintain all tank systems in accordance with the Department-approved Process & Instrumentation Diagrams (PIDs) provided in Attachment B of this Permit. The Permittee may replace tank system ancillary equipment (e.g., pipes, pumps, valves, etc.) without modification of this Permit or the above referenced PIDs, provided that the materials/components used are identical to the materials/components depicted on the referenced PIDs (e.g., 4-inch HDPE pipe to be replaced with 4-inch HDPE pipe, etc.). To replace tank system ancillary equipment with materials/components that are not identical to the materials/components depicted on the referenced PIDs (e.g., 4-inch HDPE pipe to be replaced with 4-inch steel pipe, etc.), the Permittee must submit the revised PID(s) along with information to support the equivalency of the replacement materials/components, and obtain Department approval of the revisions prior to implementing the replacement. At its discretion, the Department may review the revised PID(s) and grant verbal approval for such proposed replacements to allow implementation, which will be followed by a written approval. Revisions to PIDs that only involve replacement of existing tank system ancillary equipment, do not require modification of this Permit, unless the Department determines that a Permit modification is needed due to the nature and/or extent of the revisions. For revisions to PIDs that involve new, modified or replacement tanks or new additional ancillary equipment not depicted on the referenced PIDs, the Permittee must comply with all requirements specified by **Condition B** of this Module.
2. Electronically Operated Ancillary Equipment: The Permittee must perform annual testing of any electronically operated tank system interconnection and overflow prevention controls, and leak detection equipment, including but not limited to the following:
  - tank high level sensors and alarms;
  - interconnected tank valves and alarms;
  - pump disabling switches tied to tank high level sensors;
  - pump disabling switches tied to interconnected tank valves; and
  - leak detection sensors and alarms.

The testing must be conducted by manually simulating the condition each device is designed to detect, and observing to see if the designed reaction occurs. The Permittee must record the results of this testing in the operating record required by 6 NYCRR 373-2.5(c). If any device or its associated electronic system fails to function as designed, the Permittee must make all necessary repairs in accordance with 6 NYCRR 373-2.2(g)(3) and **Condition E** of this Module, and re-test the repaired system.

3. Independent Assessment of Tank Systems
  - a. In addition to the inspections required by **Condition E** of this Module, the Permittee must have each tank system assessed by an independent, qualified,

Professional Engineer registered in New York, or alternatively, by an independent, qualified inspector working under a registered New York State Professional Engineer. Each tank system must be independently assessed at a minimum of once every five (5) years as measured from the end of the calendar year of the tank system's last assessment unless a more frequent inspection is recommended in the most recent tank assessment report, or as otherwise specified in **Schedule 1 of Module I** of this Permit. Each time a tank system is assessed, its next assessment shall be required to occur within five (5) calendar years of its most recent assessment.

- b. Each tank system assessment must entail an inspection of all visible tank system components including but not necessarily limited to the tank exterior, tank supports, piping, pumps, valves and any overflow prevention controls (tank system secondary containment must be inspected in accordance with **Conditions E** and **K.4** of this Module). The tank system assessment also requires a visual inspection of the tank's interior for any tank(s) identified in **Schedule 1 of Module I** as requiring such additional assessment. Any tank(s) requiring an internal inspection must be completely emptied and cleaned to expose all internal tank surfaces for examination by the engineer/inspector. The engineer/inspector must identify and record all observed cracks, leaks, corrosion, interior coating defects (where applicable) and any other areas of deterioration that could affect the integrity of the tank system. For steel tanks, the engineer/inspector must also obtain ultrasonic thickness measurements of all accessible tank surfaces to determine the integrity of the tank shell.
- c. After each assessment, the engineer/inspector must report to the Permittee as specified in the schedule provided in **Schedule 1 of Module I** of this Permit any and all tank system defects identified during the assessment along with repair recommendations. The Permittee must repair all identified defects in accordance with the engineer's/inspector's recommendations and have the engineer/inspector verify the adequacy of the repairs. Any tank system that is found to be leaking or unfit for use by the engineer/inspector must be immediately removed from service and must not be returned to service until the Permittee obtains a certification of major repairs in accordance with 6 NYCRR 373-2.10(g) and this Permit.
- d. The engineer/inspector must prepare a detailed report for all tank systems that are assessed. For each tank system, the report must include a description of observations made during the visual inspection, the result of any ultrasonic thickness measurements (or alternative measurements approved by the DEC) taken of the tank shell and the engineer's/inspector's evaluation of these measurements, a description of any defects identified, and an evaluation of all repairs made by the Permittee. Each report must also include a statement from the engineer/inspector which certifies that all repairs were made in accordance with the engineer's/inspector's recommendations and that all in-service tank systems assessed are capable of handling hazardous wastes without release for the intended life of the system. This report must be submitted to the Department within 90 days

of the assessment, unless the Department approves an extension of no greater than 30 days or as otherwise specified in **Schedule 1 of Module I**.

4. Independent Assessment of Tank Systems Secondary Containment

- a. For the tank systems authorized by this Permit with secondary containment designed in accordance with 6 NYCRR 373-2.10(d)(4)(i) or (ii), independent assessments must be conducted triennially for indoor containment areas not exposed to the weather and annually for all other containment areas, unless otherwise specified in **Schedule 1 of Module I**. The assessment must identify any deficiencies in each containment area, including but not limited to cracks, gaps or defects in the impermeable surface coatings or other defects that would inhibit the ability of the containment system to contain leaks or overflows in accordance with the requirements of 6 NYCRR 373-2.10(d). The assessment must be performed by an independent, qualified Professional Engineer licensed in New York State or a qualified inspector working under the Professional Engineer, if regulations, DER-10 guidance, or state education laws require such work to be prepared by a Professional Engineer. The Permittee will not be subject to a violation if the use of a Professional Engineer is not expressly required by Environmental Conservation Law. Any equipment and miscellaneous debris must be removed from the containment system so that all surfaces are completely exposed for inspection. Any defects identified during the assessment must be documented by the engineer/inspector in an assessment report. Once any defects have been repaired, the secondary containment area(s) must be re-inspected by the engineer/inspector to evaluate the adequacy of the repairs and to confirm that the secondary containment area(s) meets the requirements of 6 NYCRR 373-2.10(d) and **Condition C** of this Module. The assessment report must document the results of such re-inspections and confirm that the secondary containment area(s) meets the cited requirements. Copies of each assessment report must be retained by the Permittee in accordance with 6 NYCRR 373-1.6(a)(10) and made available for review upon Department request. The Permittee may also be required to submit the assessment report to the Department if so specified in **Schedule 1 of Module I**.

5. Precautions in Flammable & Oxidizer Waste Storage Areas: Machinery and equipment must not be permitted in flammable and oxidizer waste storage areas or any process area where a flammable atmosphere may exist unless it has been fitted with appropriate safeguard devices approved by Underwriters Laboratories (UL) to render the machinery/equipment intrinsically safe. Only non-sparking tools shall be used in these storage areas.

# **MODULE V**

**Reserved**

# **MODULE VI**

**Reserved**

# **MODULE VII**

## **Incinerators**

## PART 373 PERMIT

### MODULE VII – INCINERATORS, BOILERS OR INDUSTRIAL FURNACES

#### A. GENERAL

1. The Permittee is authorized to operate the unit(s) included in **Schedule 1 of Module I** of this Permit for the treatment and destruction of hazardous wastes in accordance with the Hazardous Waste Combustors Maximum Achievable Control Technology (HWC-MACT) found at 40 CFR Part 63 Subpart EEE and incorporated by reference into the state regulations in accordance with 6 NYCRR Part 200.10.
2. In the event that the Facility has multiple units, the provisions of this Permit apply individually to each unit.
3. The Department may, based on a site-specific Risk Assessment, add terms and conditions to this Permit if it is determined that the standards found at 6 NYCRR 373-2.15 or 374-1.8 are not sufficient to protect human health or the environment. These site-specific conditions, if applicable, will be included in **Schedule 1 of Module I** of this Permit.

#### B. WASTE ANALYSIS [6 NYCRR 373-2.15(b) and 374-1.8(c)(2)]

1. The wastes fed to the unit(s) authorized under this Permit must conform to that approved by the Department as presented in the facility's Waste Analysis Plan (WAP), which is incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**. Upon NYSDEC approval of the Feed Analysis Plan required by 40 CFR 63 Subpart EEE, the Feed Analysis Plan and not the Waste Analysis Plan shall regulate feed stream analysis and feed stream related operating requirements provided that a permit limit based on a risk assessment is not required by this permit. MPM may request to modify the Waste Analysis Plan to be consistent with the Feed Analysis Plan for hazardous waste destined for incineration as long as the provision for risk assessment is addressed. No other materials, other than process vent gasses, may be fed into the incineration unit(s) authorized by this Permit, except as noted at 6 NYCRR 373-2.15(e)(1).
2. The waste streams (including fuel) fed to the incineration unit(s) authorized by this Permit must be sampled and analyzed per the facility's WAP, which is incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**. If a permit limit is not set based on risk assessment the FAP is used for waste feeds to the incinerator.
3. The Permittee must ensure that each waste stream that is fed to the incineration unit(s) authorized by this Permit meets the requirements of 6 NYCRR 376.1(c)(3) at the point of generation.

C. TRIAL BURN/COMPREHENSIVE PERFORMANCE TEST (CPT) AND RISK ASSESSMENT (RA)

1. If determined necessary by the Department, a RA protocol is to be prepared in accordance with relevant State and federal guidance and standards. The Department agrees that generally a risk assessment is not necessary without substantive changes to the incinerator design or operating parameters. The RA will be periodically reviewed and updated with the latest facility specific emissions information. A risk assessment protocol will not be required if the facility demonstrates that the total emissions from the incinerators do not increase off-site impacts to a level of concern above the levels accepted in the 2012 Multipathway Risk Assessment. This may be demonstrated by updating the Tables in the 2012 Multipathway Risk Assessment based on newly available stack gas emissions data from a subsequent CPT. The RA protocol is to be based on the most recent EPA methodology, using the most recent meteorological dispersion modeling program (currently AERMOD), and is due to the Department for review and approval within 30 days of the Trial Burn/CPT Plan submission.
  - a. Once the Department approves the RA protocol, the Permittee shall conduct the Trial Burn/CPT and prepare the RA (using emission rates derived from the Trial Burn/CPT). The Permittee must prepare the RA according to the timeframes presented in the Department-approved CPT Plan.
  - b. The RA report must demonstrate that the proposed operating limits will comply with applicable performance and health risk standards.
  - c. The RA protocol and RA reports must include sufficient supporting information as determined by the Department. Failure to provide any requested information in a timely manner which is reasonably necessary for the Department to make required findings or determinations may be grounds for denial or revocation of this Permit.
  - d. All updates to the Department-approved RA Protocol must be performed in accordance with all applicable State or federal regulations, guidance and standards.
  - e. All analytical work must be performed by a New York State Department of Health Environmental Laboratory Accreditation Program (ELAP) certified laboratory.
  - f. All test protocols (e.g., air modeling) must utilize current State or federal methods, unless alternative protocols are approved by the Department.

D. CLOSURE [6 NYCRR 373-2.15(h), 374-1.8(c)(5)(xi) and 6 NYCRR 373-2.7]

1. The Permittee must close the incineration unit(s) authorized by this Permit and all associated equipment in accordance with 6 NYCRR 373-2.15(h) or 374-1.8(c)(5)(xi), 6 NYCRR 373-2.7, and this Permit, including the Department-approved Closure/Post-closure Plan provided as Attachment C of this Permit.
2. The Permittee must notify the commissioner at least 45 days prior to the date the Permittee expects to begin closure or partial closure of the unit(s) authorized by this

Permit, as required by 6 NYCRR 373-2.7(c)(4)(i) and this Permit.

3. Within 90 days after receiving the final volume of hazardous wastes, the Permittee must treat and dispose of all hazardous wastes and waste residues generated by the unit(s) authorized by this Permit, including but not limited to, ash, scrubber water and scrubber sludge and complete the closure activities in accordance with 6 NYCRR 373-2.7(d) and this Permit, including **Schedule 1 of Module I**.
4. Unless the Permittee can demonstrate, in accordance with 6 NYCRR 371.1(d)(4) that the residue removed from the unit(s) and ancillary equipment is not a hazardous waste, the Permittee becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 6 NYCRR Parts 372-374 and 376.

# **MODULE VIII**

**Reserved**

# **MODULE IX**

**Reserved**

# **MODULE X**

## **Hazardous Waste Miscellaneous Units**

## PART 373 PERMIT

### MODULE X – HAZARDOUS WASTE MISCELLANEOUS UNITS

#### A. AUTHORIZED UNITS, WASTE TYPES AND WASTE MANAGEMENT ACTIVITIES

1. The Permittee is authorized to use the miscellaneous unit(s) for the storage, treatment and/or disposal of hazardous wastes in accordance with 6 NYCRR 373-2.24 and the terms of this Permit as described in **Schedule 1 of Module I**. **Schedule 1 of Module I** provides information regarding the number, location, configuration and type of wastes that may be treated, stored and/or disposed in each permitted hazardous waste miscellaneous unit. Each permitted hazardous waste miscellaneous unit must be located, designed, constructed, operated, maintained and closed in a manner that will ensure the protection of human health and the environment in accordance with 6 NYCRR 373-2.24, including as appropriate 373-2.9 through 373-2.15; 373-2.27 through 373-2.29 and 373-1.

#### B. ENVIRONMENTAL PERFORMANCE STANDARDS [6 NYCRR 373-2.24(b)]

1. The Permittee must design and operate each miscellaneous unit authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.24(b) and this Permit, including **Schedule 1 of Module I**.

#### C. MONITORING, ANALYSIS, INSPECTION, RESPONSE, REPORTING AND CORRECTIVE ACTION [6 NYCRR 373-2.24(c)]

1. The Permittee must monitor; test; obtain and manage analytical data; and conduct inspections, response and reporting at the frequencies that comply with 6 NYCRR 373-2.24(b), 373-2.2(g), 373-2.3(d), 373-2.5(e), (f) and (g), and 373-2.6(l) and this Permit, including **Schedule 1 of Module I**.
2. The Permittee must inspect each permitted hazardous waste miscellaneous unit authorized by this Permit as specified in **Schedule 1 of Module I** in accordance with 6 NYCRR 373-2.2(g) and this Permit including the Integrated Contingency Plan provided as Vol. I, Section VI and Vol. III, Integrated Contingency Plan of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
3. Loading and unloading areas must be inspected daily when in use in accordance with 6 NYCRR 373-2.2(g)(2)(iv) and this Permit including **Schedule 1 of Module I**.
4. For any leak, overflow, defect, deterioration, malfunction or other problem discovered as a result of the inspection or assessment of any permitted hazardous waste miscellaneous unit(s), the Permittee must record the occurrence in the inspection log and maintain the log as part of the operating record required by 6 NYCRR 373-2.5(c). The Permittee must indicate in the facility's operating record the date the defect was identified, the date repairs were completed and a brief description of said repairs.

5. If leaks, spills and/or releases are discovered associated with a permitted hazardous waste miscellaneous unit(s), the Permittee must immediately report the situation as specified in **Condition C.2 of Module I** (i.e., Oral Reports) and implement the Department-approved Integrated Contingency Plan incorporated by reference into this Permit as necessary.
6. For any identified leak or defect which creates the potential for leakage within a permitted hazardous waste miscellaneous unit but is not released from a miscellaneous unit, the Permittee must take immediate action to stop or prevent the leak, and clean up any leaked or spilled material in accordance with the procedures contained in the Department-approved Integrated Contingency Plan provided as Vol. I, Section VI and Vol. III, Integrated Contingency Plan of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I**.
7. The Permittee must repair all defects or other deficiencies identified with the permitted hazardous waste miscellaneous unit(s) during the Permittee's regular inspections or as a result of independent assessments, if required by **Schedule 1 of Module I**, in accordance with 6 NYCRR 373-2.2(g)(3) and **Condition C.9** of this Module. The Permittee must maintain the miscellaneous unit(s) free of cracks or gaps and sufficiently impervious to contain leaks, spills and accumulated liquid.
8. For any identified defect which creates the potential for leakage or a release from a permitted hazardous waste miscellaneous unit, the Permittee must: a) take immediate action to stop or prevent any release from the unit; b) take steps in accordance with the Department-approved Integrated Contingency Plan provided as Vol. I, Section VI and Vol. III, Integrated Contingency Plan of the Permit Application incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I** to clean up any leaked or spilled material; and, c) if appropriate, immediately cease operation of the unit and relocate any material stored within the unit until the defect is repaired to the satisfaction of the Department.
9. For any identified deterioration or malfunction of equipment or structures associated with a hazardous waste management unit which do not result in a release or create the potential for a release of hazardous wastes from the unit's primary containment (i.e., defects other than those described in **Condition C.6** of this Module), except for specific defects where other Permit conditions or the regulations require repairs within other specified time periods, the Permittee must either:
  - a. Schedule and complete repairs to the defect within thirty (30) days from the date the defect was first identified;
  - b. Submit a proposed schedule for Department approval within seven (7) days from the date the defect was first identified, if it is anticipated that it will take longer than 30 days to complete repairs. The proposed schedule must include the date for completing the repairs which must be within six (6) months from the date when the defect was identified; or

- c. The Permittee may request, and the Department may approve, extensions to the schedule provided the Permittee has adequately demonstrated that the extension is needed due to unforeseen circumstances or circumstances beyond the Permittee's control and that the delay will not lead to an environmental or human health hazard.

D. CLOSURE AND POST-CLOSURE CARE [6 NYCRR 373-2.24(d)]

1. The Permittee must perform closure/post-closure care, as appropriate, for each hazardous waste miscellaneous unit authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.24(d), 373-2.7 and this Permit, including **Schedule 1 of Module I** and the Department-approved Closure Plan and Post-Closure Plan provided as Attachment C of this Permit.

E. OTHER REQUIREMENTS

1. Independent Assessment of Miscellaneous Units: For the hazardous waste miscellaneous unit(s) authorized by this Permit, independent assessments must be conducted, as required, at the frequency specified in **Schedule 1 of Module I**. The assessment must identify any deficiencies in each unit, including but not limited to cracks, gaps or defects in the impermeable surface coatings or other defects that would inhibit the ability of the unit to contain leaks or overflows. The assessment must be performed by an independent, qualified Professional Engineer licensed in New York State or a qualified inspector working under the Professional Engineer. Any equipment and miscellaneous debris must be removed from the unit so that all surfaces are completely exposed for inspection. Any defects identified during the assessment must be documented by the engineer/inspector in an assessment report. Once any defects have been repaired, the unit must be re-inspected by the engineer/inspector to evaluate the adequacy of the repairs and to confirm that the unit meets the requirements of **Condition B** of this Module. The assessment report must document the results of such re-inspections and confirm that the unit meets the cited requirements. Copies of each assessment report must be retained by the Permittee in accordance with 6 NYCRR 373-1.6(a)(10) and made available for review upon Department request. The Permittee may also be required to submit the assessment report to the Department if so specified in **Schedule 1 of Module I**.
2. The Permittee must adhere to the special requirements contained in **Schedule 1 of Module I**, if applicable, for the management of ignitable, reactive and/or incompatible wastes in permitted hazardous waste miscellaneous units.
3. Precautions in Flammable & Oxidizer Waste Storage Areas: Machinery and equipment must not be permitted in flammable and oxidizer waste storage areas or any process area where a flammable atmosphere may exist unless it has been fitted with appropriate safeguard devices approved by Underwriters Laboratories (UL) to render the machinery/equipment intrinsically safe. Only non-sparking tools shall be used in these storage areas.

# **ATTACHMENT A**

**RESERVED**

# **ATTACHMENT B**

## **Engineering Drawings**

**“MPM Silicones, LLC, Waterford, New York;  
NYSDEC Part 373 Hazardous Waste Permit  
Application, Volume II, Sections III and IV” (June  
2007, Revised November 12, 2012)\***

# **ATTACHMENT C**

## **Closure Plan, Post-Closure Plan and Financial Assurance**

**“MPM Silicones, LLC, Waterford, New York;  
NYSDEC Part 373 Hazardous Waste Permit  
Application, Volume I, Sections IV-A, and  
VIII” (June 2007, Revised November 12, 2012)**

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A. POST-CLOSURE ACTIVITIES - CLOSED REGULATED UNITS

- A. POST-CLOSURE ACTIVITIES - LANDFILLS NO. 1, NO. 3 AND NO. 6
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**SECTION IV-A: PROCESS DESCRIPTION – CLOSED REGULATED UNITS****A. DESCRIPTION OF THE CLOSED REGULATED UNITS****(1) Landfill No. 1 – Southeast Ravine**

The Landfill No. 1 - Southeast Ravine contains approximately 35 feet of sludge fill overlying as much as 24 feet of non-hazardous solid waste. This non-hazardous fill consists of trash, rubble, car bodies and other debris. The portion of the landfill containing hazardous waste has overall plan dimensions of approximately 710 by 380 feet, with an approximate surface area of 6 acres. The volume of sludge fill contained in the Landfill No. 1 - Southeast Ravine is approximately 150,000 cubic yards, based on the known capacity of the landfill and the quantity of waste generated.

**(2) Landfill No. 3**

Landfill No. 3 is approximately 600 feet by 1200 feet in plan dimension and covers an area of approximately 16.5 acres. Waste disposal began in 1960 and materials present in the landfill include: plant trash, scrap silicone and hydrolyzed methyl silanes, dewatered solids from the wastewater treatment plant, spent silicone-copper slurry, and incinerator residue. The landfill contains approximately 550,000 cubic yards of waste material.

Within the southeast quadrant of Landfill No. 3, a special cell was constructed in 1979. This area (termed Chemical Waste Disposal Area) has a total capacity of 2,000 barrels. These barrels contain primarily reactive waste. The Chemical Waste Disposal Area contains a leachate collection system; a 4-inch bentonite-clay liner and an under drain collection system.

**(3) Landfill No. 1 – Southeast Ravine and Landfill No. 3 Caps**

Landfills No. 1 – Southeast Ravine and No. 3 were capped during 1990 and 1991. The final covers were constructed in the following sequence:

- a. Prepare and reshape the landfill surface to accept the cover.
- b. Construct soil barrier; two feet of compacted clay with permeability of  $1 \times 10^{-7}$  cm/sec or less.
- c. Install low permeability 40 mil, High Density Polyethylene (HDPE) membrane.
- d. Install drainage layer; 12 inches of sand with permeability of  $1 \times 10^{-3}$  cm/sec or more.

- e. Install geotextile.
- f. Construct vegetative layer; soil able to sustain vegetative growth.
- g. Seeding and mulching to establish vegetative growth.

(4) Landfill No. 6

Landfill No. 6 is approximately 750 feet by 350 feet in plan dimension and covers an area of approximately 6 acres. Waste disposal began in 1989 and materials disposed in this cell include: dewatered solids from the wastewater treatment plant, incinerator residue, asbestos-containing material, silicone filler and boiler clean-out residue. The landfill contains approximately 310,000 cubic yards of waste material.

Closure activities for Landfill No. 6 were performed in 2003. The New York State Department of Environmental Conservation (NYSDEC) approved the Closure Certification on December 26, 2007. The final cover was constructed in the following sequence:

- a. Prepare and reshape the landfill surface to accept the cover.
- b. Install gas vents.
- c. Install geosynthetic clay liner.
- d. Install 40 mil textured FML.
- e. Construct drainage layer.
- f. Construct protective soil layer.
- g. Construct topsoil layer.
- h. Seeding.

(5) Description of Surface Impoundments

There are five closed hazardous waste surface impoundments at the facility.

a. Shot Pond

This 1 million gallon capacity emergency wastewater holding pond formerly received solids from incinerated hazardous waste and leachate from land disposal of hazardous waste. The shot pond is

directly over a portion of the existing slurry wall that surrounds an inactive landfill. As a result, the pond is partially inside, and partially outside, the landfill. The area inside the slurry wall was closed as a landfill with a final cover consisting of (bottom to top) 24 inch compacted clay, a 30 mil. synthetic plastic membrane, 12 inch sand layer for drainage, and 36 inch soil cover to support vegetation. The area outside the slurry wall was cleaned of waste inventory and was backfilled with clean soil.

b. East and West Tailings Ponds

These 1.5 million gallon capacity ponds were used for emergency sludge storage. These ponds also received solids from incinerated hazardous waste and leachate from land disposal of hazardous waste. Since the East and West Tailings Ponds are adjacent, one final cover grading was used to cover both units. The waste within these ponds was partially removed since they were on an inactive landfill with slurry wall containment. Approximately 740 cubic yards of filter press sludge was left in the West Tailings Pond. Approximately 40 cubic yards of filter press sludge was left in the East Tailings Pond. These ponds also have a cap of compacted clay, 30 mil. synthetic plastic membrane (plastic membrane on East pond only), sand layer, and vegetative soil cover.

c. Lagoon No. 3

This was a 0.5 million gallon capacity wastewater treatment plant effluent polishing lagoon. This lagoon also received solids from incinerated hazardous wastes. During closure, all waste inventory from Lagoon No. 3 was removed for on-site disposal and backfilled with stone base below the groundwater table. After the stone base was extended above the groundwater table, a geotextile was laid over the surface and topped with natural clean fill.

d. Lagoon No. 2

This was a 1.2 million gallon capacity spill protection storage lagoon. This lagoon also received solids from incinerated hazardous wastes and leachate from land disposal of hazardous waste. The lagoon was cleaned of all waste inventory as part of closure activities. Momentive did not intend to backfill this lagoon. This lagoon was reconstructed to allow for continued use as a non-contact (non-hazardous) cooling water and storm water detention pond which is regulated under the facility's State Pollutant Discharge Elimination System permit.

**B. POST CLOSURE PLANS (373-2.7 (g)(1) & (h))**

Momentive maintains and follows Post-Closure Plans for the following closed on-site disposal facilities:

- Landfill No. 1 – Southeast Ravine
- Landfill No. 3
- Landfill No. 6
- East Tailings Pond
- West Tailings Pond
- Shot Pond

The general facility Post-Closure Plan is presented in Section VIII. Post-closure activities for Landfill No. 1 – Southeast Ravine, Landfill No. 3, Landfill No. 6, and the surface impoundments are summarized in Attachment A. Specific monitoring and maintenance activities for each facility can be found in the Momentive Operation and Maintenance (O&M) Part V operating manual for closed regulated units. Post-closure cost estimates and applicable notices are discussed in the general Post-Closure Plan in Section VIII.

**ATTACHMENT A  
POST-CLOSURE ACTIVITIES – CLOSED REGULATED UNITS**

A. POST-CLOSURE ACTIVITIES - LANDFILLS NO. 1, NO. 3 AND NO. 6

(1) General Procedures

The Post-Closure Plan describes the ongoing monitoring and maintenance program that will be followed throughout the Post-Closure Care Period for Landfills No. 1 – Southeast Ravine, No. 3 and No. 6 in accordance with the requirements of 6 NYCRR 373-1.5(a) (2), 373-1.5(d) (7), 373-1.5(e) (9), 373-1.5(h) (5), 373-3.7(h), 373-3.11(f) (2), 373-3.11(f) (3), 373-3.13(h) (3), 373-3.14(g) (2) and 40 CFR 270.14(b) (13), 270.17(g), 270.18(i), 270.21(e), 265.118, 265.228(b), 265.228(c) (1), 265.280(c) and 265.310(b).

During the post-closure care period, approximately six acres are maintained for Landfill No. 1 – Southeast Ravine, 17 acres are maintained for Landfill No. 3, and approximately six acres are maintained for Landfill No. 6. Maintenance activities are performed as required by inspection. The schedule of inspections and the scope of potential maintenance procedures are identified in the following sections. Routine activities associated with post-closure care include sampling groundwater in monitoring wells and inspecting both leachate collection and runoff control systems.

The goal of Momentive's Post-Closure Plan is to maintain the function and integrity of the final cover, as well as the monitoring system. To this end, a three-point Post-Closure Plan has been developed to secure, monitor, and maintain the site.

(2) Inspection Plan

Momentive inspects the closed landfill facilities a minimum of four times per year, and always after major storm events (25 year, 24-hour storm exceeding rainfall of 4.8 inches), as determined by readings from the meteorological station located within the facility boundaries. Areas requiring maintenance are recorded so appropriate activities can be performed. Inspection criteria can be found in the Momentive O&M manual for closed regulated units (O&M Manual).

(3) Reporting

a. Post Closure Activities (373-2.7(g)(2), 373-2.7(h)(2)(ii))

Section IX, Corrective Action, of this application describes the post closure groundwater monitoring plan. Momentive has instituted a remedial program in accordance with Civil Action No. 83-CV-77 and the resulting Consent Decree between New York State and GE Silicones (now Momentive). Momentive is currently managing this remedial program in accordance with a July 8, 2005 letter to the New York State Department of Environmental Conservation (NYSDEC) regarding “proposed modification to groundwater remedial systems, General Electric Advanced Materials – Silicones, Waterford, New York.” NYSDEC provided formal approval of this remedial program in a letter dated January 6, 2006. The approved remedial program provides the necessary protection of human health and the environment required under 6 NYCRR Part 373-2.6(a)(6).

b. Quarterly Status Reports

Momentive will provide quarterly reports detailing monitoring and maintenance activities associated with each closed landfill unit to the NYSDEC. Reports will also include results of groundwater monitoring when applicable. Reporting will be combined with quarterly status reports on Remedial Plan Activities.

c. Immediate Reporting

Momentive will notify the Commissioner within 3 working days of any of the following occurrences:

- Inspection findings that cannot readily be resolved with routine maintenance procedures,
- Findings or conditions that could potentially threaten human health or the environment.

(4) Groundwater Monitoring

Momentive monitors groundwater in the vicinity of the closed landfills. It is Momentive’s intention to continue monitoring for the duration of the Post-Closure Care period of the landfills. A Groundwater Corrective Measures Program was submitted to NYSDEC in March 1988. The Corrective Measures Program has three objectives; to define the extent of concentrations in the Primary Aquifer (PA) and Secondary Transient Zone (STZ) in specific areas; to relate concentrations in the PA and STZ to

potential sources in the landfill; and to evaluate the rate and direction of constituent migration from specific areas.

(5) Leachate Collection and Removal

- a. Landfill No. 1 – Southeast Ravine and Landfill No. 3 contain passive under-drains that convey accumulated leachate to the plant process sewer.
- b. Landfill No. 6 has an existing leachate collection system that discharges into the Leachate Collection System (LTS). The LTS is a double walled high density polyethylene (HDPE) pipeline which conveys leachate to Momentive's on-site Waste Treatment Plant head works. Inspection manholes extend up above grade at regular intervals. These manholes are visually inspected on a quarterly basis to verify the system's integrity. Liquid found in these manholes is removed and transported for proper treatment. Momentive hydrostatically pressure tests the carrier pipe between the Landfill No. 6 pump house and MH-A-1A on a biennial basis (once every two years) using a NYSDEC approved procedure.

(6) Leak Detection Between Liners

- a. Landfill No. 1 – Southeast Ravine and Landfill No. 3 do not have double-liner systems. Therefore, this item is not applicable.
- b. For Landfill No. 6, samples from the Primary and Secondary Leachate Collection Systems (PLCS, SLCS) are collected on a schedule established in the O&M Manual. Operating conditions of each system are also monitored on an ongoing basis to assure proper operation.

(7) Landfill No. 6 Groundwater Monitoring

- a. Landfill No. 6: Applicability

Momentive complies with groundwater monitoring requirements set forth in 6 NYCRR 373-2.6.

Momentive will modify the groundwater monitoring program so as to maintain compliance with any future changes in 6 NYCRR 373-2.6 within ninety (90) days of the effective date of such changes.

Momentive maintains and follows the Detection Monitoring Program as established in the "Operations and Maintenance Manual, Closed Regulated and Non-Regulated Units."

B. POST-CLOSURE ACTIVITIES FOR SURFACE IMPOUNDMENTS (373-2.7 (g)(1), 373-2.7 (h), 373-2.11(f))

(1) General Procedures

This Post-Closure Plan describes the activities that will be performed to monitor the impoundments throughout the post-closure care period. These activities will develop documentation and promote actions to protect human health and the environment.

Since all waste inventory was removed during closure of Lagoon No. 2 and Lagoon No. 3, no post-closure plans are presented for these lagoons. The other closed ponds will be monitored and maintained throughout the post-closure care period. Activities consist of periodic inspections, groundwater monitoring and maintenance of all observable features. Inspection items for the ponds are the cover surfaces, the gas vent risers and adjacent run-off diversion ditches. Detailed monitoring and maintenance procedures for surface impoundments can be found in the O&M Manual. Groundwater monitoring wells within this area are monitored and maintained as part of the overall site-monitoring program described in Section IX of this permit application.

(2) Reporting

Significant deficiencies observed during quarterly inspections or as a result of spot inspections will be reported to the NYSDEC within three working days. Significant deficiencies will be considered those which cannot readily be corrected utilizing standard maintenance methods and materials, or those that pose a potential threat to human health or the environment.

**Attachment B**  
**Landfill No. 6, Response Action Plan Flow Chart**



Confidential Business Information may be requested under Freedom of Information Law

**SECTION VIII: CLOSURE AND FINANCIAL ASSURANCE****A. CLOSURE****(1) Performance Standard (373-2.7(b))**

Momentive will conduct partial or final closure of the facility as required by 40 CFR 264.111, 6NYCRR 373-2.7 (b) and 373-2.9 (i). The closure plan incorporates performance criteria in a manner that:

- a) Minimizes the need for further maintenance, and
- b) Controls, minimizes or eliminates, to the extent necessary to protect human health and environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or decomposition products to the ground or surface water or to the atmosphere.

**(2) Amendment to Closure Plan (373-2.7(c)(3))**

Momentive will amend the Closure Plan in the event of the following:

- a) changes in operating plans or facility design affect the closure plan,
- b) there is a change in the expected year of closure,
- c) unexpected events in conducting partial or final closure activities require a modification of the approved closure plan, or
- d) Momentive requests alternative requirements to a regulated unit under 373-2.6(a)(6), 373-2.7(a)(3) and/or 373-2.8(a)(4).

**(3) Notification of Closure and Partial Closure (373-2.7(c)(4))**

Momentive shall notify the Commissioner at least 60 days prior to the expected date of the initiation of closure or partial closure of any hazardous waste management unit or the facility.

**(4) Time Allowed for Closure (373-2.7(d))**

Momentive's schedule for closing the hazardous waste storage and treatment facilities on site will depend upon sampling results and the number of concurrent activities that can be accomplished. Some activities, such as site restoration and decontamination, will be on-going during the course of closure.



However, Momentive does anticipate that final closure activities will take longer than 180 days. Momentive will request the necessary extensions in accordance with 6 NYCRR 373-2.7(d) at the time of closure.

A schedule for the closure of each of the hazardous waste storage and treatment facilities is as follows:

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**TABLE VIII-1  
Hazardous Waste Storage and Treatment Facilities Closure Schedule**

| Concrete Areas to be Closed           | Dimension (ft) |              | Area (sf)    | Thickness (ft) | Volume Concrete (cf) | Volume Concrete (cy) | Volume Underlying 2-ft Soil (cy) | Concrete Demo <sup>1</sup> (hrs) | Concrete Removal & Loading <sup>2</sup> (hrs) | Man Hours Required (hours)            |                                 | Assumed Equipment Rental (Days)               |                                  |                                |                     |
|---------------------------------------|----------------|--------------|--------------|----------------|----------------------|----------------------|----------------------------------|----------------------------------|---|---------------------------------------|---------------------------------|---|----------------------------------|--------------------------------|---------------------|
|                                       |                |              |              |                |                      |                      |                                  |                                  |   | Total Concrete Demo and Removal (hrs) | Soil Removal <sup>3</sup> (hrs) | Crew Size - Concrete Demo and Removal (# men) | Crew Size - Soil Removal (# men) | Concrete Demo & Removal (days) | Soil Removal (days) |
| Container Transfer Areas              |                |              |              |                |                      |                      |                                  |                                  |   |                                       |                                 |   |                                  |                                |                     |
| Area B30                              | 23             | 48           | 1104         | 0.5            | 552                  | 20                   | 82                               | 33                               | 5   | 39                                    | 2                               |   |                                  |                                |                     |
| Area B71                              | 63             | 59.5         | 3749         | 0.67           | 2511                 | 93                   | 278                              | 112                              | 25  | 137                                   | 8                               |   |                                  |                                |                     |
| Area B76                              | 39             | 45           | 1755         | 0.67           | 1176                 | 44                   | 130                              | 53                               | 12  | 64                                    | 4                               |   |                                  |                                |                     |
| Area B78                              | 60.5           | 60           | 3630         | 0.67           | 2432                 | 90                   | 269                              | 109                              | 24  | 133                                   | 8                               |   |                                  |                                |                     |
| Area R2/MCS                           | 66             | 57.5         | 3795         | 0.67           | 2543                 | 94                   | 281                              | 114                              | 25  | 139                                   | 8                               |   |                                  |                                |                     |
| Area FB                               | 50             | 37.5         | 1875         | 0.67           | 1256                 | 47                   | 139                              | 56                               | 12  | 69                                    | 4                               |   |                                  |                                |                     |
| Area APS                              | 58             | 12           | 696          | 0.67           | 466                  | 17                   | 52                               | 21                               | 5   | 25                                    | 2                               |   |                                  |                                |                     |
| Area B24                              | 26             | 52           | 1352         | 0.67           | 906                  | 34                   | 100                              | 41                               | 9   | 50                                    | 3                               |   |                                  |                                |                     |
| Area T538                             | 51.5           | 14.5         | 747          | 0.67           | 500                  | 19                   | 55                               | 22                               | 5   | 27                                    | 2                               |   |                                  |                                |                     |
| <b>Total Container Transfer Areas</b> | <b>437</b>     | <b>386</b>   | <b>18702</b> | <b>6</b>       | <b>12070</b>         | <b>457</b>           | <b>1386</b>                      | <b>561</b>                       | <b>122</b>                                    | <b>683</b>                            | <b>42</b>                       | <b>3</b>                                      | <b>1</b>                         | <b>29</b>                      | <b>5</b>            |
| <b>RKI Feed Pad</b>                   |                |              | <b>2497</b>  | <b>0.7</b>     | <b>1748</b>          | <b>65</b>            | <b>185</b>                       | <b>75</b>                        | <b>17</b>                                     | <b>92</b>                             | <b>6</b>                        | <b>1</b>                                      | <b>1</b>                         | <b>10</b>                      | <b>1</b>            |
| Drum Storage Structure                |                |              |              |                |                      |                      |                                  |                                  |   |                                       |                                 |   |                                  |                                |                     |
| Storage Bays                          | 201.25         | 41.67        | 8386         | 0.67           | 5619                 | 208                  | 621                              | 252                              | 56  | 307                                   | 19                              |   |                                  |                                |                     |
| Berm (or Apron)                       | 201.25         | 32           | 6440         | 0.67           | 4315                 | 160                  | 477                              | 193                              | 43  | 236                                   | 14                              |   |                                  |                                |                     |
| <b>Total Drum Storage Structure</b>   |                |              |              |                |                      |                      |                                  | <b>445</b>                       | <b>98</b>                                     | <b>543</b>                            | <b>33</b>                       | <b>4</b>                                      | <b>1</b>                         | <b>16</b>                      | <b>4</b>            |
| Miscellaneous Units                   |                |              |              |                |                      |                      |                                  |                                  |   |                                       |                                 |   |                                  |                                |                     |
| Landfill #6 Truck Wash                | 28             | 75           | 2100         | 0.67           | 1407                 | 52                   | 156                              | 63                               | 14  | 77                                    | 5                               |   |                                  |                                |                     |
| API Pad                               | 58             | 12           | 696          | 0.67           | 466.32               | 17                   | 52                               | 21                               | 5   | 25                                    | 2                               |   |                                  |                                |                     |
| <b>Total Miscellaneous Units</b>      |                |              |              |                |                      |                      |                                  |                                  |   |                                       |                                 | <b>1</b>                                      | <b>1</b>                         | <b>1</b>                       | <b>1</b>            |
| <b>FBI#2 Foundation</b>               | <b>62.1</b>    | <b>62.1</b>  | <b>3856</b>  | <b>0.7</b>     |                      | <b>100</b>           | <b>286</b>                       | <b>116</b>                       | <b>27</b>                                     | <b>142</b>                            | <b>9</b>                        | <b>1</b>                                      | <b>1</b>                         | <b>15</b>                      | <b>1</b>            |
| <b>RKI Foundation</b>                 | <b>100.1</b>   | <b>100.1</b> | <b>10020</b> | <b>0.7</b>     |                      | <b>260</b>           | <b>742</b>                       | <b>301</b>                       | <b>69</b>                                     | <b>370</b>                            | <b>22</b>                       | <b>2</b>                                      | <b>1</b>                         | <b>20</b>                      | <b>3</b>            |
| Tank Containment Areas                |                |              |              |                |                      |                      |                                  |                                  |   |                                       |                                 |   |                                  |                                |                     |
| Tanks 26A, 26B                        | 45             | 60           | 2700         | 0.5            | 1350                 | 50                   | 200                              | 81                               | 13  | 94                                    | 6                               |   |                                  |                                |                     |
| Tanks 15, 26C                         | 22             | 11           | 242          | 0.5            | 121                  | 4                    | 18                               | 7                                | 1   | 8                                     | 1                               |   |                                  |                                |                     |
| Tanks 28A, 28B                        | 45             | 60           | 2700         | 0.5            | 1350                 | 50                   | 200                              | 81                               | 13  | 94                                    | 6                               |   |                                  |                                |                     |
| Tanks 39, 40                          | 52             | 50           | 2600         | 0.5            | 1300                 | 48                   | 193                              | 78                               | 13  | 91                                    | 6                               |   |                                  |                                |                     |
| Tanks 61, 62                          | 41             | 58           | 2378         | 0.5            | 1189                 | 44                   | 176                              | 71                               | 12  | 83                                    | 5                               |   |                                  |                                |                     |
| Tanks 250, 251, 252                   | 24             | 45           | 1080         | 0.5            | 540                  | 20                   | 80                               | 32                               | 5   | 38                                    | 2                               |   |                                  |                                |                     |
| Tanks 506D                            | 40             | 20           | 800          | 0.5            | 400                  | 15                   | 59                               | 24                               | 4   | 28                                    | 2                               |   |                                  |                                |                     |
| Tank 538                              | 15             | 40           | 600          | 0.5            | 300                  | 11                   | 44                               | 18                               | 3   | 21                                    | 1                               |   |                                  |                                |                     |
| Tank 509                              | 20             | 35           | 700          | 0.5            | 350                  | 13                   | 52                               | 21                               | 3   | 24                                    | 2                               |   |                                  |                                |                     |
| Tanks 539A, 539B                      | 60             | 95           | 5700         | 0.5            | 2850                 | 106                  | 422                              | 171                              | 28  | 199                                   | 13                              |   |                                  |                                |                     |
| Cadigan's Tomb                        | 20             | 20           | 400          | 0.5            | 200                  | 7                    | 30                               | 12                               | 2   | 14                                    | 1                               |   |                                  |                                |                     |
| Tank 599A                             | 16             | 36           | 576          | 0.5            | 288                  | 11                   | 43                               | 17                               | 3   | 20                                    | 1                               |   |                                  |                                |                     |
| <b>Total Tank Containment Areas</b>   |                |              |              |                |                      |                      |                                  | <b>614</b>                       | <b>101</b>                                    | <b>716</b>                            | <b>46</b>                       | <b>3</b>                                      | <b>1</b>                         | <b>32</b>                      | <b>6</b>            |

Notes:

- 0.03 work hours required to demolish 1 square foot of concrete pad/containment system
- 0.267 work hours to remove and load 1 cubic yard of demolished concrete pad/containment system
- 0.03 work hours to remove 1 cubic yard of soil

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(5) Closure Activities

Momentive has developed the following closure procedures for container storage areas, tanks, trailers, and bulk storage containers and the on-site incinerators. However, plant operations are dynamic and hazardous waste management units will be used for different wastes over the lifetime of the plant. If necessary, the closure plan will be revised and resubmitted to the Commissioner at least 60 days before closure is initiated.

a. Container Storage Areas Closure Plan Procedures (373-2.7(c)(2), 373-2.9(i))

Container storage areas, including transfer areas, the RKI Feed Pad, and the Drum Storage Structure (1 Year Pad), are identified in Section IV-B of the RCRA Permit Application. The maximum inventory level for each structure is also identified in Section IV-B.

To close the container storage areas, the stored wastes will be disposed of by following the management protocols used during operation of the facility. These wastes will either be incinerated onsite or disposed of properly off site. For the purpose of the closure plan estimate, Momentive has assumed that wastes will be disposed of by incineration.

Once the wastes are disposed, each of the container storage areas, including curbing and sumps, will be inspected. If residues are observed, the residue will be removed and disposed of properly. During closure, run-on and run-off from the container storage areas will be controlled as described in Section IV-B of the RCRA Permit Application.

The curbing and sumps for each containment storage area will be swept and the base and walls will be washed with a material that is compatible with the former contents of the containment area. In most cases, the containment area will be pressure washed with water. The wash water will be disposed of at the on-site Wastewater Treatment Plant (WWTP) or disposed of properly off site.

If the structure is to remain intact, samples of the rinse water will be collected after the final rinse is completed. These samples will be analyzed for the contaminants characteristic of the waste stream previously stored in the area per the EPA methods specified in Table IX-3. If a constituent in the wash water exceeds the level specified in 6NYCRR Part 703, the area will be re-washed and re-analyzed as appropriate.

Costs for removing affected concrete and/or soil are not included in the financial assurance estimate because there are no known areas of contaminated concrete and underlying soils. Stringent procedures

regulated and overseen by NYSDEC are in place to prevent contamination of concrete pads, foundations, and underlying soils. For example, both the DSS and RKI Feed Pad have chemical resistant coatings on the foundation, berms, and concrete diking and have compatible water stops at joints in the pads.

b. Tank Closure Plan Procedures (373-2.7(c)(2), 373-2.10(h))

Hazardous waste tanks are identified in Section IV-C of the RCRA Permit Application. The working capacities for these tanks are also identified in Section IV-B.

To close the tanks, auxiliary equipment, trailers, and bulk storage containers, their contents will be disposed of by following the management protocols used during operation of the facility. These wastes will either be incinerated on-site or disposed of properly off site. For the purpose of the closure plan estimate, Momentive has assumed that wastes will be disposed of by incineration.

Once these structures are emptied, they will be triple rinsed using a quantity of suitable solvent. Auxiliary discharge control equipment or piping will also be rinsed by circulating the solvent through the system. The used solvent will either be incinerated on-site or disposed of properly off site. For the purpose of the closure plan estimate, Momentive has assumed that wastes will be disposed of by incineration. The tanks, trailers, and bulk storage containers will then be rinsed with a sufficient amount of water to remove residual solvents. The rinse water will be treated in the Wastewater Treatment Plant, incinerated on-site, or disposed of properly off site, depending on its solvent content. Following these decontamination procedures, the tanks and auxiliary equipment may either be dismantled or salvaged for reuse.

Liquids in the hazardous waste tank secondary containment areas will also be removed. Each containment area will be swept and the base and walls will be washed with a material that is compatible with the former contents of the hazardous waste tank. In most cases, the containment area will be pressure washed with water. A sample of the final rinse water will be collected and analyzed for the contaminants characteristic of the waste stream previously stored in the tank. Test methods are listed in Table IX-3 in the Corrective Action Plan in Section IX. If a constituent in the wash water exceeds the level specified in 6NYCRR Part 703, the washed area will be re-washed and re-analyzed as appropriate. The wash water removed from the secondary containment will be treated on site.

The secondary containment may be removed or left in place for reuse. If the containment is to be removed, the structure will be dismantled and disposed of properly in an on-site or off-site landfill.

Costs for removing affected concrete and/or soil are not included in the financial assurance estimate because there are no known areas of contamination of concrete and underlying soils. Stringent procedures regulated and overseen by NYSDEC are in place to prevent contamination of concrete pads, foundations, and underlying soils.

c. Incinerators Closure Procedure (373-2.7(c))

The on-site incinerators will be used to dispose of the hazardous and non-hazardous waste generated during closure activities. Following incineration of these wastes, piping and pumps that have been contaminated by hazardous waste will either be triple rinsed with a suitable solvent or disposed of properly off site. The solvent used during rinsing operations will be disposed of in accordance with applicable regulations. Following the solvent rinsing, the piping will be purged and allowed to dry to remove remaining solvent.

Once the hazardous wastes that are to be incinerated on-site have been disposed of properly, the slag and ash will be removed from the combustion chamber. Then the incinerators will be run for a minimum of two hours using fuel oil or natural gas to burn away traces of organic residue.

After the incinerators have been shutdown, the scrubber systems will be flushed with water, and the water will be treated in the on-site Wastewater Treatment Plant.

The incinerators will then be dismantled. The refractory, piping and pumps that have been contaminated by hazardous waste, including (but not limited to) scrubber sludges, will be disposed of properly.

Decontaminated equipment, clean metal, piping and equipment used for service water, primary air, etc. will be sent off-site as scrap or salvaged for reuse.

d. Decontamination Area

Momentive will choose a decontamination area for cleaning dismantled equipment and equipment used for closure activities. The decontamination area will minimize potential escape of hazardous constituents to surrounding areas. Contaminated equipment to be decontaminated will be cleaned with a high pressure, low volume wash

water. Detergent may be used, if necessary, to get equipment clean. Decontaminated materials may be disposed as non-hazardous waste or salvaged for reuse.

When the use of the decontamination area is completed, wash water in the decontamination area will either be pumped to, or transported to, the facility's Wastewater Treatment Plant. The components of the pump assembly including pumps and hoses will be rinsed by pumping wash water through the pump system components. The rinse water will be transported to the plant's WWTP for disposal. A sample of the final rinse water will be collected and analyzed in accordance with the appropriate analyte list available in the Corrective Action Plan in Section IX. If a constituent in the wash water exceeds the level specified in 6NYCRR Part 703, the washed area will be re-washed and re-analyzed as appropriate.

e. Rinsate (Rinse Water) Management

Rinse water will be treated in the Wastewater Treatment Plant, incinerated on site, or disposed properly off-site. The financial assurance estimate assumes rinse water will be treated in the Wastewater Treatment Plant. The Wastewater Treatment Plant will be continually operating over the 30-year Post-Closure period and is the most practical disposal option for rinse water. The financial assurance estimate includes disposal of 81,000 gallons of rinse water in the Wastewater Treatment Plant and use of a vector truck to deliver collected rinse water at the inflow to the Wastewater Treatment Plant. These costs are included in the Equipment Decontamination costs.

f. Health and Safety Costs

Health and Safety (H&S) costs associated with closure of tank areas, container storage areas, incinerators and decontamination of equipment during closure activities are included in the financial assurance estimate. This includes costs to provide appropriate monitoring equipment and personal protection equipment (PPE) to provide a safe working environment during closure. H&S costs are based on man-days required to conduct the closure activities and current unit costs described below, assuming eight-hour days. Fieldwork associated with closure is likely to be performed wearing different levels of PPE according to risks and potential exposure pathways associated with specific tasks. Based on knowledge of the site and anticipated closure tasks, the financial assurance estimate assumes that 75 percent of fieldwork associated with closure of container storage areas will be performed in Level D PPE, and 25 percent performed in Level C PPE. The estimate assumes 50 percent of fieldwork associated with closure of the tanks systems and incinerators and 50 percent of fieldwork for decontamination of equipment during

closure activities will be performed wearing Level D PPE and 50 percent performed wearing Level C PPE. Level C and Level D PPE cost estimates include expendable PPE based on typical usage per man-day with unit prices obtained from Ben Meadows'® Third Edition 2011 catalog. Estimated costs for H&S equipment do not include costs for some standard Level D PPE including long pants, hard hats, and steel-toed boots. Third party contract workers should be equipped with these items.

Air monitoring will be conducted during closure activities. The financial assurance estimate assumes air quality in the work zone will be monitored for organic and inorganic vapors using a Thermo Environmental TVA1000B Toxic Vapor Analyzer (TVA) that incorporates both a photoionization detector and flame-ionization detector to detect fugitive gases.

(6) Partial Closure Activities

Partial closure may also be undertaken if a container storage area identified in Section IV-B, a hazardous waste tank, or an incinerator is taken out of service before the facility, itself, is closed. Partial closure, should this occur, will follow final closure procedures. Partial closure of an incinerator system component, before the closure of the entire incinerator, will generally follow the final closure procedures for the portion of the incinerator being closed.

(7) Disposal or Decontamination of Equipment (373-2.7(e))

Hazardous waste management equipment and structures will be decontaminated by removing hazardous waste and residues from them, as described above. Wipe samples will be collected for laboratory analysis to facilitate proper management of the equipment and structures. Cleaned equipment may be either salvaged for reuse, or disposed of properly, depending upon the condition and value of the equipment.

(8) Certification of Closure and Partial Closure (373-2.7(f)(1))

Within 60 days of completion of final closure of the facility, or within 60 days of partial closure of hazardous waste management units, Momentive will submit to the Commissioner certifications by Momentive and by an independent New York State registered professional engineer that the facility or hazardous waste management unit has been closed in accordance with the specifications in the approved Closure Plan as required by 6 NYCRR 373-2.7(f).

(9) Survey Plat (373-2.7 (f)(2))

Within 60 days after certification of closure of each landfill cell, Momentive will submit to the local zoning authority or the authority with jurisdiction over land



use, and to the County Clerk in the County in which the facility is located and to the Commissioner, a survey plat indicating the locations and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks, as required by 6 NYCRR 373-2.7(f).

**B. GENERAL POST CLOSURE REQUIREMENTS**

**(1) Post-Closure Care Period (373-2.7(g))**

All landfills are closed and in various stages of Post-Closure. It is anticipated that the remaining Momentive facility HWMUs will remain in operation in their current form throughout the life of the production facilities.

Post-closure care will be in accordance with 6NYCRR 373-2.7(g) for the Hazardous Waste Management Units (HWMU) or Solid Waste Management Units (SWMU). Post-closure care will begin after closure of the unit and continue for 30 years after that date. The table below describes the post-closure care periods for each of the applicable areas on site.

**TABLE VIII-2  
POST CLOSURE PERIODS**

| <b>FACILITY</b>                           | <b>BEGIN POST CLOSURE PERIOD</b> | <b>END POST CLOSURE PERIOD</b> |
|---|----------------------------------|--------------------------------|
| Container Storage Area(s)                 | NA                               | NA                             |
| Storage Tanks                             | NA                               | NA                             |
| Incinerators                              | NA                               | NA                             |
| Miscellaneous Unit(s)                     | NA                               | NA                             |
| Shot Pond                                 | 1988                             | 2018                           |
| East Tailing Pond                         | 1988                             | 2018                           |
| West Tailing Pond                         | 1987                             | 2017                           |
| Landfill No. 3                            | 1991                             | 2021                           |
| Landfill No. 1 - Southeast Ravine Section | 1991                             | 2021                           |
| Landfill No. 6 - North Plateau            | 2003                             | 2033                           |

NA - Not Applicable

**(2) Post-Closure Activities (373-2.7(g)(2), 373-2.7(h)(2)(ii))**

a. Section IX, Corrective Action, of this application describes the post closure groundwater monitoring plan. Momentive has instituted a remedial program in accordance with Civil Action No. 83-CV-77 and the resulting Consent Decree between New York State and GE Silicones (now Momentive). Momentive is currently managing this remedial program in accordance with a July 8, 2005 letter to the New York State Department of Environmental Conservation (NYSDEC) regarding “proposed modification to groundwater remedial systems, General Electric Advanced Materials – Silicones, Waterford, New York.” NYSDEC provided formal approval of this remedial program in a letter dated

January 6, 2006. The approved remedial program provides the necessary protection of human health and the environment required under 6 NYCRR 373-2.6(a)(6).

b. Maintenance Activities

- 1) The applicable security measures described in Section V of this application will be continued for the closed regulated units as part of the post closure activities.
- 2) The applicable inspection procedures described in Section V of this application will be continued as part of post closure activities.
- 3) The closed regulated units will continue to be managed as described in Section IV-A of this permit application. The closed regulated units discussed in Section IV-A are as follows:
  - Landfill No. 1,
  - Landfill No. 3,
  - Landfill No. 6,
  - East Tailings Pond,
  - West Tailings Pond,
  - Lagoons No. 2,
  - Lagoon No. 3, and
  - Shot Pond.

c. Optimized Groundwater and Leachate Treatment Process during Post-Closure Period

During the post-closure period, the existing WWTP would be modified since only a fraction of the plant would be needed. In Post Closure, the SPDES permit and the effluent standards would be modified because process wastewater will no longer be generated. The exact effluent standards would be established by the NYSDEC at the time of closure. The initial capital costs for converting the WWTP is included in the financial assurance estimates.

(3) Post-Closure Plan Amendment (373-2.7(h))

The EHS Manager or designee is responsible for updating the Post-Closure Plan during plant operation. Momentive will modify the plan in the event that there are changes in operating plans or facility design that affect the Post-Closure Plan, or events occur during the active life of the facility that affect the post-closure plan. The EHS Manager will ensure that the Post-Closure Plan is revised in a timely manner.



The EHS Manager or designee will be responsible for updating the Post-Closure Plan after final plant closure. If major amendments to the Post-Closure Plan are required, the provisions of 6 NYCRR 373 and 40 CFR 264 will be addressed.

- (4) Post-Closure Notices (373-2.7(i))
  - a. No later than 60 days after certification of closure of each hazardous waste disposal unit, Momentive will submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the County Clerk in the County in which the facility is located, and to the Commissioner a record of type, location, and quantity of hazardous waste disposed within each cell or disposal unit, in accordance with 6 NYCRR 373-2.7(i)(1).
  - b. Within 60 days of certification of closure of the first hazardous waste disposal unit and the last hazardous waste disposal unit, Momentive will do the following:
    - 1) Record a notification on the deed to the facility property in accordance with 6 NYCRR 373-2.7(i)(2)(i).
    - 2) Submit a certification to the Commissioner that a notification, in accordance with 6 NYCRR 373-2.7(i)(2)(ii), has been recorded.
  - c. If necessary, Momentive will request and obtain a permit modification of the Post-Closure Plan prior to removal of hazardous waste, hazardous waste residues, liners, or contaminated soils, in accordance with 6 NYCRR 373-2.7(i)(3).
- (4) Post-Closure Document Management 373-2.7(h)(2)(iii), 373-2.7(h)(1) & (3)
  - a. During plant operation, post closure contacts should be made with the EHS Manager. After final plant closure, the following position can be contacted concerning the post closure activities of all other facilities at the Momentive Waterford Plant:

Manager - Environmental Programs  
Global Environmental, Health and Safety  
Momentive Performance Materials  
260 Hudson River Road  
Waterford, NY 12188
  - b. A copy of the Post Closure Plan is maintained in the Waterford Plant EHS offices. Momentive will continue to furnish the Commissioner with a copy of the approved Post-Closure Plan, as specified in (373-2.7(h)(3)).



(5) Certification of Completion of Post-Closure Care (373-2.7(j))

Momentive will certify that the post closure care period was performed in accordance with the specifications in the Post Closure Plan.

C. COST ESTIMATE FOR FACILITY CLOSURE AND POST CLOSURE

The most recent closure and post-closure cost estimates for the Momentive facility were prepared in accordance with 6 NYCRR 373-2.8(c)(1) and (e)(1) and are provided in Attachment A.

- (1) Momentive will adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the trust fund for financial assurance, as specified in 6 NYCRR 373-2.8(c)(2).
- (2) Momentive will revise the closure and post-closure cost estimate whenever there is a change in the facility's closure and Post Closure Plan as required in 6 NYCRR 373-2.8(c)(3) and 373-2.8(e)(3).
- (3) Momentive maintains the latest closure and post-closure cost estimate at the facility, as required by 6 NYCRR 373-2.8(c)(4) and 373-2.8(e)(4).

D. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

Momentive demonstrates continuous compliance with 6 NYCRR 373-2.8(d) or, when applicable, with 6 NYCRR 373-2.8(f), (g) and (h), by providing documentation of financial assurance, as required by 6 NYCRR 373-2.8(j), in at least the amount of the cost estimates described in Section VIII-B. Changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(d) and 373-2.8(e). Attachment B presents information concerning financial assurance.

E. LIABILITY REQUIREMENTS

Momentive demonstrates continuous compliance with the requirements of 6 NYCRR 373-2.8(h) and the documentation requirements of 6 NYCRR 373-2.8(j), including requirements to have and maintain liability coverage for sudden and accidental occurrences in the amount of at least \$1 million, exclusive of legal defense costs.

F. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS OF FINANCIAL INSTITUTIONS

Momentive will comply with 6 NYCRR 373-2.8(i), if it becomes necessary.

**G. FINANCIAL ASSURANCE MECHANISMS****(1) Financial Assurance for Closure and Post-Closure (373-2.8(d)(f) & (g))**

Momentive has satisfied the requirements of 6 NYCRR 373-2.8(d)(5) and 40 CFR 264.143 by securing an irrevocable standby letter of credit and standby trust fund. Attachment B to this section includes the letter of credit and associated trust agreement.

**(2) Liability Requirements (373-2.8(h))**

Momentive Waterford has satisfied the requirements of 6 NYCRR 373-2.8(h)(6) and 40 CFR 264.147 by the liability insurance option. Attachment B to this section includes liability insurance coverage information.

**TABLE VIII-3  
ESTIMATED MAXIMUM INVENTORY OF HAZARDOUS WASTES<sup>1</sup>**

| <b>ITEM</b>                                       | <b>UNITS</b> | <b>VOLUME TOTAL</b> |
|---|--------------|---------------------|
| Containers (55-gal drums)                         | 3,960        | 217,800 gal         |
| Tankers (1,000 to 6,500-gal each)                 | 11           | 84,000 gal          |
| Tanks (4,950 to 20,153 gal working capacity each) | 19           | 197,325 gal         |
|   | <b>TOTAL</b> | <b>499,125 gal</b>  |

**Notes:**

- (1) The basis for these volume estimates are available in Sections IV-B and IV-C. These volume totals are the basis of the closure costs.

**ATTACHMENT A****COST ESTIMATES FOR CLOSURE AND  
POST CLOSURE CARE OF REGULATED UNITS**

The tables on subsequent pages of this attachment show the basis for each estimate and summarize costs for closing regulated hazardous waste management units at Momentive according to the unit closure plans.

The estimates are presented in 2012 dollars. They have been developed assuming no salvage value for materials. Final closure of the Momentive facility is expected to take 14 months.

Burning the wastes in the Rotary Kiln Incinerator (RKI) is expected to take up to three months. Therefore, the cost for operating the on-site RKI is included for three months. During this time, the WWTP will also be operational; after the hazardous waste is incinerated, the WWTP will be modified for long term operation. The costs for operating the incinerator and the waste treatment facility include staff labor and equipment costs such as maintenance, routine parts replacement, personal protective equipment, fuel, expendables, and wastewater treatment aids. Operating costs also include health and safety-related expenses.

The following contingency items are included in the following tables:

- Although soils underlying container storage areas (including transfer areas, the RKI Feed Pad, and the Drum Storage Structure (1 Year Pad), tanks, miscellaneous units, and the incinerators are not currently suspected of being impacted, Momentive has included costs for remediating these areas as contingency.
- The table for additional site restoration provides contingency for excavations and backfill that may be necessary during closure activities.
- A line-item for 20% contingency has been included for each cost summary.

Additionally, 15% is included for engineering services such as design, project management, supervision, insurance, and other costs that may accrue during the closure period.

**KEY TO ABBREVIATIONS IN CLOSURE AND POST-CLOSURE COST ESTIMATE TABLES**

| <b>Abbreviation</b> | <b>Meaning</b>       |
|---------------------|----------------------|
| AC                  | Acre                 |
| AN                  | Analysis of a Sample |
| EA                  | Each                 |
| CY                  | Cubic Yards          |
| GAL                 | Gallons              |
| HR                  | Hours                |
| LF                  | Linear Feet          |
| LS                  | Lump Sum             |
| MO                  | Month                |
| SF                  | Square Feet          |
| SY                  | Square Yards         |
| Ton                 | US Short Ton         |



A summary of estimated closure costs is provided below.

**TABLE VIII-A-1  
SUMMARY OF ESTIMATED CLOSURE ACTIVITY COSTS<sup>1,2</sup>**

| <b>Summary of Closure Costs<br/>Closure Activity Financial Assurance Estimate</b>   |                    |
|---|--------------------|
| Waste Disposal  | \$3,410,000        |
| Container Storage Areas   | \$104,000          |
| Tank Systems  | \$838,000          |
| FBI #2  | \$293,000          |
| RKI   | \$418,000          |
| Miscellaneous Units   | \$14,495           |
| Site Restoration  | \$205,000          |
| Equipment Decontamination   | \$41,000           |
| Site Preparation and Characterization   | \$15,000           |
| Capital Costs for WWTP Optimization   | \$746,000          |
| Engineering and Administration: Administrative and Miscellaneous Costs <sup>3</sup> | \$911,000          |
| Final Survey Plat Map   | \$6,500            |
| <b>CLOSURE TOTAL</b>  | <b>\$7,004,495</b> |

The total estimated cost for closure activities is \$7.0 million.

**Notes:**

- (1) Hazardous wastes will be incinerated on-site at closure. Estimated costs include operation of incinerators, associated air emission control equipment, and wastewater treatment facilities until all wastes are treated. Cost estimates include labor, utilities, maintenance, and supplies, and are derived from current operating data.
- (2) Closure costs are presented in the following tables for both clean closure and in the event that impacted soils are identified under the tank containment areas. Momentive has used the contingency cost estimates for the purpose of this summary table.
- (3) Based upon 15% of total.

**TABLE VIII-A-2  
COST ESTIMATE: WASTE DISPOSAL**

| <b>Item Description</b>                            | <b>Quantity<sup>1</sup></b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b>    |
|--|-----------------------------|--------------|------------------|--------------------|
| Wastewater Treatment Plant Operations <sup>2</sup> | 3                           | MO           | \$135,782        | \$407,347          |
| Incineration Operations <sup>2</sup>               | 3                           | MO           | \$658,333        | \$1,974,999        |
| Operators and Engineers to run WTP <sup>3</sup>    | 3                           | MO           | \$89,790         | \$269,370          |
| Operators and Engineers to run WWTP                | 3                           | MO           | \$29,631         | \$88,892           |
| Utilities Engineer to Generate Steam               | 3                           | MO           | \$5,601          | \$16,803           |
| Natural Gas (makes steam)                          | 3                           | MO           | \$17,583         | \$52,750           |
| Electrical   | 3                           | MO           | \$7,930          | \$23,790           |
| Misc Utilities (water, sewer, nitrogen, etc.)      | 3                           | MO           | \$2,975          | \$8,925            |
| <b>Subtotal</b>                                    |                             |              |                  | \$2,842,876        |
| <b>Contingency (20%)</b>                           |                             |              |                  | \$568,575          |
| <b>TOTAL</b>                                       |                             |              |                  | <b>\$3,411,452</b> |

**Notes:**

- (1) Basis: (1) burning 2 drums an hour of solid waste for 3 months (conservative estimate since permitted to burn 3 drums an hour), (2) burning 3 gallons a minute of slurry, silanes, APS, and NPS of liquid waste (conservative estimate since able to burn well in excess of 9 gallons a minute), and (3) since no process vents are being burned during closure, the RKI has an increased capacity.
- (2) Includes operators for wastewater treatment plant and incinerators and technicians for wastewater laboratory.
- (3) Includes Health and Safety related items.

**TABLE VIII-A-3  
CLOSURE COSTS: CONTAINER STORAGE AREAS<sup>1,2</sup>**

| Item Description   | Quantity | Units | Unit Cost | Subtotal        | Notes   |
|--|----------|-------|-----------|-----------------|---|
| <b>Container Storage Areas: Closure without Corrective Actions</b>                                       |          |       |           |                 |   |
| <b>includes Transfer Areas, RKI Feed Pad, Drum Storage Structure (1 Year Pad)</b>                        |          |       |           |                 |   |
| Cost to burn inventory and waste materials generated during closure is included in WTP operations table. |          |       |           |                 |   |
| Inspect container storage areas and remove residues  |          |       |           |                 |   |
| Labor, Technician  | 84       | HR    | \$58      | \$4,872         |   |
| Tools  | 1        | LS    | \$500     | \$500           | To be reused between areas                                |
| Pressure Wash 3X   |          |       |           |                 |   |
| Pressure wash contractors  | 84       | HR    | \$82      | \$6,880         | 1 hour each event x 3 events x 3 staff                    |
| Pump Truck   | 42       | HR    | \$55      | \$2,310         | 1 hour each event x 3 events                              |
| High pressure blaster & scarifyer  | 42       | HR    | \$115     | \$4,830         | 1 hour each event x 3 events                              |
| Test Rinsate   |          |       |           |                 |   |
| Labor, Technician  | 28       | HR    | \$85      | \$2,380         | 8260, 8270 & metals per Site-Specific List <sup>3,4</sup> |
| Sampling and analysis  | 30       | LS    | \$410     | \$12,300        |   |
| 10% QA Sample Analysis   | 3        | LS    | \$410     | \$1,230         | 2 samples per area + 2 extra for drum storage structure   |
| Health and Safety  | 1        | LS    | \$1,577   | \$1,577         |   |
| P.E. Certification   |          |       |           |                 |   |
| Labor, P.E.  | 80       | HR    | \$113     | \$12,240        |   |
| Travel and Expenses  | 1        | LS    | \$1,000   | \$1,000         |   |
| <b>Subtotal</b>  |          |       |           | <b>\$50,118</b> |   |
| <b>Contingency (20%)</b>   |          |       |           | <b>\$10,024</b> |   |
| <b>Task Total</b>  |          |       |           | <b>\$60,142</b> |   |
| <b>Transfer Areas: Closure with Evaluation of Concrete and Soils</b>                                     |          |       |           |                 |   |
| Documentation samples  |          |       |           |                 |   |
| Labor, Technician  | 24       | HR    | \$85      | \$2,040         | 8260, 8270 & metals per Site-Specific List                |
| Sampling and analysis  | 24       | EA    | \$410     | \$9,840         |   |
| 10% QA Sample Analysis   | 5        | EA    | \$410     | \$2,050         | 49 total samples  |
| Health and Safety  | 1        | EA    | \$422     | \$422           |   |
| P.E. Certification   |          |       |           |                 |   |
| Labor, P.E.  | 48       | HR    | \$153     | \$7,344         |   |
| Travel and Expenses  | 1        | LS    | \$500     | \$500           |   |
| <b>Subtotal</b>  |          |       |           | <b>\$22,196</b> |   |
| <b>Contingency (20%)</b>   |          |       |           | <b>\$4,439</b>  |   |
| <b>Task Total</b>  |          |       |           | <b>\$26,636</b> |   |



**TABLE VIII-A-3 Continued**

| Item Description  | Quantity | Units | Unit Cost | Subtotal         | Notes                                      |
|---|----------|-------|-----------|------------------|--|
| <b>RKI Feed Pad: Closure with Evaluation of Concrete and Soils</b>                        |          |       |           |                  |  |
| Documentation samples   |          |       |           |                  | 8260, 8270 & metals per Site-Specific List |
| Labor, Technician   | 8        | HR    | \$85      | \$6806           |  |
| Sampling and analysis   | 4        | LS    | \$410     | \$1,640          | 4 samples @ RKI Feed Pad                   |
| 10% QA Sample Analysis  | 2        | LS    | \$410     | \$820            |  |
| Health and Safety   | 1        | EA    | \$144     | \$144            |  |
| P.E. Certification  |          |       |           |                  |  |
| Labor, P.E.   | 16       | HR    | \$153     | \$2,448          |  |
| Travel and Expenses   | 1        | LS    | \$500     | \$500            |  |
| <b>Subtotal</b>   |          |       |           | <b>\$6,232</b>   |  |
| <b>Contingency (20%)</b>  |          |       |           | <b>\$1,246</b>   |  |
| <b>Task Total</b>   |          |       |           | <b>\$7,479</b>   |  |
| <b>Drum Storage Structure (1 Year Pad): Closure with Evaluation of Concrete and Soils</b> |          |       |           |                  |  |
| Documentation samples   |          |       |           |                  | 8260, 8270 & metals per Site-Specific List |
| Labor, Technician   | 8        | HR    | \$85      | \$680            |  |
| Sampling and analysis   | 6        | LS    | \$410     | \$2,460          |  |
| 10% QA Sample Analysis  | 4        | LS    | \$410     | \$1,640          |  |
| Health and Safety   | 1        | LS    | \$168     | \$168            |  |
| P.E. Certification  |          |       |           |                  |  |
| Labor, P.E.   | 16       | HR    | \$153     | \$2,448          |  |
| Travel and Expenses   | 1        | LS    | \$500     | \$500            |  |
| <b>Subtotal</b>   |          |       |           | <b>\$7,896</b>   |  |
| <b>Contingency (20%)</b>  |          |       |           | <b>\$1,579</b>   |  |
| <b>Task Total</b>   |          |       |           | <b>\$9,475</b>   |  |
| <b>Container Area Closure Total</b>   |          |       |           | <b>\$103,732</b> |  |

**Notes:**

- (1) 11 transfer areas, RKI, and Drum Storage Structure = 13 Container Storage Areas
- (2) All costs are estimated
- (3) Site Specific list may be found in Section IX of the RCRA Permit Application.
- (4) Unit cost for sampling and analysis includes shipping fees.

**TABLE VIII-A-4  
CLOSURE COSTS: TANK SYSTEMS  
19 Tanks, 10 Trailers, 12 Containment Areas**

**Tank Systems: Closure with Evaluation of Concrete & Soils**

| <b>Item Description</b>  | <b>Quantity</b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b>  | <b>Notes</b>  |
|--|-----------------|--------------|------------------|------------------|---|
| Cost to burn inventory and waste materials generated during closure is included in WTP operations table. |                 |              |                  |                  |   |
| Remove waste from tanks/trailers   |                 |              |                  |                  |   |
| Labor, Technician  | 928             | HR           | \$85             | \$78,880         |   |
| Triple Rinse w/ solvent  |                 |              |                  |                  |   |
| Labor, Technician  | 464             | HR           | \$58             | \$26,912         | eg toluene  |
| Solvent  | 21,200          | GAL          | \$3.00           | \$63,600         | 10% tank/Trailer volume                                     |
| Triple Rinse w/ water  |                 |              |                  |                  |   |
| Labor, Technician  | 464             | HR           | \$58             | \$26,912         |   |
| Dismantle Tank and ancillaries <sup>4</sup>  |                 |              |                  |                  |   |
| Labor, Technician  | 1216            | HR           | \$58             | \$70,528         | 8260 or 8270 as per Site-Specific List <sup>5</sup>         |
| Heavy Equipment  | 1               | LS           | \$37,000         | \$37,000         |   |
| Roll Off w Tarp & Bows   | 3               | MO           | \$600            | \$1,800          | 1.5 months for 2 roll offs                                  |
| Wipe samples   | 155             | EA           | \$155            | \$24,025         | 3 samples per tank/trailer, 2 samples of ancillary per tank |
| Recycle metals (no salvage credit taken)   |                 |              |                  |                  |   |
| Pressure wash containment  |                 |              |                  |                  |   |
| Pressure wash contractors  | 96              | HR           | \$82             | \$7,862          | 8 hr/tank containment                                       |
| Pump Truck   | 96              | HR           | \$55             | \$5,280          |   |
| High pressure blaster and scarifyer  | 96              | HR           | \$115            | \$11,040         |   |
| Test containment rinsate   |                 |              |                  |                  |   |
| Labor, Technician  | 48              | HR           | \$85             | \$4,080          | 8260, 8270 & metals per Site-Specific List                  |
| Sampling and analysis  | 12              | EA           | \$410            | \$4,920          | 1 per tank containment                                      |
| Documentation samples  |                 |              |                  |                  |   |
| Labor, Technician  | 48              | HR           | \$85             | \$4,080          | 8260, 8270 & metals per Site-Specific List                  |
| Sampling and analysis  | 24              | EA           | \$410            | \$9,840          | 2 samples/area  |
| Analytical QA/QC (10%)   | 4               | EA           | \$410            | \$1,640          | 36 samples  |
| Health and Safety  | 1               | EA           | \$15,268         | \$15,268         |   |
| P.E. Certification   |                 |              |                  |                  |   |
| Labor, P.E.  | 348             | HR           | \$153            | \$53,244         |   |
| Travel and Expenses  | 15%             | EA           | \$53,244         | \$7,987          |   |
| <b>Subtotal</b>  |                 |              |                  | <b>\$454,898</b> |   |
| <b>Contingency (20%)</b>   |                 |              |                  | <b>\$90,980</b>  |   |
| <b>TOTAL</b>   |                 |              |                  | <b>\$545,877</b> |   |

All costs are estimated

**TABLE VIII-A-4 Continued**

**Tank Systems: Closure with Evaluation of Concrete & Soils**

| <b>Item Description</b>                         | <b>Quantity</b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b>   | <b>Notes</b>                               |
|---|-----------------|--------------|------------------|-------------------|--|
| Triple Rinse w/solvent                          |                 |              |                  |                   |  |
| Labor, Technician                               | 464             | HR           | \$58             | \$26,912          |  |
| Solvent   | 21,200          | GAL          | \$3.00           | \$63,600          | 10% tank/Trailer volume                    |
| Triple Rinse w/ water                           |                 |              |                  |                   |  |
| Labor, Technician                               | 464             | HR           | \$58             | \$26,912          |  |
| Treat Rinsate in WWTP                           | 81,000          | GAL          | \$0.00268        | \$217             |  |
| Vactor Trucks to Transport Rinse Waters to WWTP | 1               | EA           | \$4,783          | \$4,783           |  |
| Pressure wash containment                       |                 |              |                  |                   |  |
| Pressure wash contractors                       | 152             | HR           | \$82             | \$12,449          |  |
| Pump Truck                                      | 152             | HR           | \$55             | \$8,360           |  |
| High pressure blaster and scarifyer             | 152             | HR           | \$115            | \$17,480          |  |
| Test containment rinsate                        |                 |              |                  |                   | 8260, 8270 & metals per Site Specific List |
| Labor, Technician                               | 76              | HR           | \$85             | \$6,460           |  |
| Sampling and analysis                           | 19              | EA           | \$410            | \$7,790           | 1 per tank                                 |
| Documentation Samples                           |                 |              |                  |                   | 8260, 8270 & metals per Site-Specific List |
| Labor, Technician                               | 48              | HR           | \$85             | \$4,080           |  |
| Sampling and analysis                           | 36              | EA           | \$410            | \$14,760          | 3 samples/area                             |
| Analytical QA/QC (10%)                          | 9               | EA           | \$410            | \$3,690           | 72 samples                                 |
| Health and Safety                               | 1               | LS           | \$1,000          | \$1,000           |  |
| P.E. Certification                              |                 |              |                  |                   |  |
| Labor, P.E.                                     | 228             | HR           | \$153            | \$34,884          |  |
| Travel and Expenses                             | 1               | LS           | \$1,000          | \$1,000           |  |
| <b>Subtotal</b>                                 |                 |              |                  | <b>\$2,43,204</b> |  |
| <b>Contingency (20%)</b>                        |                 |              |                  | <b>\$48,641</b>   |  |
| <b>TOTAL Contingency Activities</b>             |                 |              |                  | <b>\$291,844</b>  |  |
| <b>TOTAL</b>                                    |                 |              |                  | <b>\$837,722</b>  |  |

**Notes:**

- (1) 19 Tanks, 10 Trailers, 12 Containment Areas
- (2) Working tank volume used in volume calculations
- (3) All costs are estimated
- (4) Trailers to be salvaged, not scrapped; no credit taken for salvage
- (5) Site Specific list may be found in Section IX of the RCRA Permit Application

**TABLE VIII-A-5  
CLOSURE COSTS: FIXED BOX INCINERATOR #2**

| <b>Item Description</b>  | <b>Quantity</b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b> | <b>Notes</b>  |
|--|-----------------|--------------|------------------|-----------------|---|
| Triple Rinse Equipment   |                 |              |                  |                 | e.g., IWS recirculator pumps and some piping  |
| Solvent for rinsing  | 500             | GAL          | \$3.00           | \$1,500         | e.g., toluene   |
| Labor, Technician  | 96              | HR           | \$58             | \$5,568         |   |
| Used solvent disposal  | 0               | GAL          |                  | \$0             | to be burned in RKI   |
| Purge and Dry  |                 |              |                  |                 |   |
| Labor, Technician  | 64              | HR           | \$58             | \$3,712         |   |
| Tools  | 1               | LS           | \$500            | \$500           |   |
| Dispose of residual materials  |                 |              |                  |                 |   |
| Soot and ash   | 26              | Ton          | \$150            | \$3,900         | est. 1 load @ 26 tons each at least 2 hours   |
| Burnout with clean fuel  |                 |              |                  |                 |   |
| Fuel oil   | 720             | GAL          | \$2.50           | \$1,800         | 4 hours to heat up FBI @ 2 gal/min + 2 hours to burn operator time included in WWTP operational costs |
| Labor, Technician  | 0               | HR           | \$69             | \$0             |   |
| Flush scrubbers & duct work with water                                 |                 |              |                  |                 |   |
| Labor, Technician  | 160             | HR           | \$58             | \$9,280         |   |
| Dismantle  |                 |              |                  |                 |   |
| Packing: Pressure wash contractors                                     | 32              | HR           | \$56             | \$1,781         |   |
| Packing: Pump Truck  | 16              | HR           | \$55             | \$880           |   |
| Packing: Sampling and analysis   | 5               | EA           | \$410            | \$2,050         |   |
| Disposal of packing as solid waste                                     | 90              | EA           | \$65             | \$5,850         | est. 9 loads @ 10 tons each   |
| Labor, Technician  | 960             | HR           | \$58             | \$55,680        |   |
| Crane & operator   | 30              | DAY          | \$1,320          | \$39,600        | crane available on site   |
| Tools  | 1               | EA           | \$1,000          | \$1,000         |   |
| Direct disposal of 50% at HWLF   | 60              | CY           | \$470            | \$28,200        | e.g., fiberglass, firebox, pumps, small piping  |
| Brick  | 78              | LS           | \$150            | \$11,700        | 3 loads of brick @ 26 tons each   |
| Decontaminate remaining 50% equipment                                  |                 |              |                  |                 |   |
| Labor, Technician  | 400             | HR           | \$58             | \$23,200        |   |
| Equipment costs are included in Table VIII-A-8 Decontaminate Equipment |                 |              |                  |                 |   |
| Sample wash water  | 4               | LS           | \$410            | \$1,640         | 8260, 8270, & metals as per Site-Specific List <sup>2</sup>   |
| Wipe samples for equipment   | 100             | EA           | \$155            | \$15,500        | 8260, 8270 & metals per Site-Specific List  |
| Documentation samples  |                 |              |                  |                 |   |
| Labor, Technician  | 4               | HR           | \$85             | \$340           |   |
| Sampling and analysis  | 6               | EA           | \$410            | \$2,460         | 8260, 8270 & metals per Site - Specific List  |
| Analytical QA/QC (10%)   | 12              | EA           | \$410            | \$4,920         | 115 samples   |



**TABLE VIII-A-5, Continued**

|                          |    |    |         |                  |
|--------------------------|----|----|---------|------------------|
| Health and Safety        | 1  | LS | \$9,501 | \$9,501          |
| P.E. Certification       |    |    |         |                  |
| Labor, P.E.              | 80 | HR | \$153   | \$12,240         |
| Travel and Expenses      | 1  | LS | \$1,000 | \$1,000          |
| <b>Subtotal</b>          |    |    |         | <b>\$243,802</b> |
| <b>Contingency (20%)</b> |    |    |         | <b>\$48,760</b>  |
| <b>TOTAL</b>             |    |    |         | <b>\$292,562</b> |

**Notes:**

- (1) All costs are estimated
- (2) Site Specific list may be found in Section IX of the RCRA Permit Application

**TABLE VIII-A-6  
CLOSURE COSTS: RKI**

| <b>Item Description</b>  | <b>Quantity</b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b> | <b>Notes</b>   |
|--|-----------------|--------------|------------------|-----------------|--|
| Triple rinse piping and pumps  |                 |              |                  |                 |  |
| Solvent for rinsing  | 1000            | GAL          | \$3.00           | \$3,000         | e.g., toluene  |
| Labor, Technician  | 160             | HR           | \$58             | \$9,280         |  |
| Used solvent disposal  | 1000            | GAL          | \$1.50           | \$1,500         |  |
| Purge and dry  |                 |              |                  |                 |  |
| Labor, Technician  | 96              | HR           | \$58             | \$5,568         |  |
| Tools  | 1               | EA           | \$500            | \$500           |  |
| Dispose of residual materials  |                 |              |                  |                 |  |
| Clinker, soot and ash  | 78              | Ton          | \$150            | \$11,700        | est. 3 loads @ 26 tons each<br>at least 2 hours                |
| Burnout with clean fuel  |                 |              |                  |                 |  |
| Fuel oil   | 1,080           | GAL          | \$2.50           | \$2,700         | 4 hours to heat up FBI<br>@ 3 gal/min + 2 hours to burn        |
| Labor, Technician  | 0               | HR           | \$69             | \$0             | operator time included in<br>WWTP operational costs            |
| Flush scrubbers & duct work with water                                 |                 |              |                  |                 |  |
| Labor, Technician  | 160             | HR           | \$58             | \$9,280         |  |
| Dismantle  |                 |              |                  |                 |  |
| Packing: Pressure wash contractors                                     | 16              | HR           | \$56             | \$890           |  |
| Packing: Pump Truck  | 16              | HR           | \$55             | \$880           |  |
| Packing: Sampling and analysis   | 5               | LS           | \$410            | \$2,050         |  |
| Disposal of packing as solid waste                                     | 234             | LS           | \$65             | \$15,210        | est. 9 loads @ 10 tons each                                    |
| Labor, Technician  | 1,280           | HR           | \$58             | \$74,240        |  |
| Crane & operator   | 40              | DAY          | \$1,320          | \$52,800        | crane available on site  |
| Tools  | 1               | LS           | \$1,000          | \$1,000         |  |
| Roll Off w Tarp & Bows   | 2               | MO           | \$600            | \$1,200         |  |
| Brick  | 312             | LS           | \$150            | \$46,800        | est. 12 loads @ 26 tons each                                   |
| Direct disposal of 50% at HWLF   | 78              | CY           | \$470            | \$36,660        | e.g., fiberglass, firebox, pumps, small piping                 |
| Decontaminate remaining 50% of equipment                               |                 |              |                  |                 |  |
| Labor, Technician  | 400             | HR           | \$58             | \$23,200        |  |
| Equipment costs are included in Table VIII-A-8 Decontaminate Equipment |                 |              |                  |                 |  |
| Sample wash water  | 4               | EA           | \$410            | \$1,640         | 8260, 8270, & metals as per<br>Site-Specific List <sup>2</sup> |
| Wipe samples for equipment   | 100             | LS           | \$155            | \$15,500        | 8260 or 8270 as per<br>Site-Specific List                      |



**TABLE VIII-A-6, Continued<sup>1</sup>**

|                          |    |    |          |                  |  |  |
|--------------------------|----|----|----------|------------------|--|--|
| Documentation samples    |    |    |          |                  |  |  |
| Labor, Technician        | 8  | HR | \$85     | \$680            |  |  |
| Sampling and analysis    | 8  | EA | \$410    | \$3,280          | 8260, 8270, & metals as<br>per Site-Specific List <sup>2</sup> |  |
| Analytical QA/QC (10%)   | 12 | EA | \$410    | \$4,920          | 115 samples  |  |
| Health and Safety        | 1  | LS | \$10,726 | \$10,726         |  |  |
| P.E. Certification       |    |    |          |                  |  |  |
| Labor, P.E.              | 80 | HR | \$153    | \$12,240         |  |  |
| Travel and Expenses      | 1  | LS | \$1,000  | \$1,000          |  |  |
| <b>Subtotal</b>          |    |    |          | \$348,445        |  |  |
| <b>Contingency (20%)</b> |    |    |          | \$69,689         |  |  |
| <b>TOTAL</b>             |    |    |          | <b>\$418,134</b> |  |  |

**Notes:**

(1) All costs are estimated

(2) Site Specific list may be found in Section IX of the RCRA Permit Application

**TABLE VIII-A-7  
CLOSURE COSTS: MISCELLANEOUS UNITS<sup>1</sup>**

| <b>Item Description</b>           | <b>Quantity</b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b> | <b>Notes</b>  |
|-----------------------------------|-----------------|--------------|------------------|-----------------|---|
| <b>Landfill #6 Truck Wash</b>     |                 |              |                  |                 |   |
| Inspect area and remove residues  |                 |              |                  |                 |   |
| Labor, Technician                 | 77              | HR           | \$58             | \$4,466         |   |
| Tools                             | 0               | LS           | \$500            | \$0             | Tools from container storage areas                        |
| Pressure Wash 3X                  |                 |              |                  | \$0             |   |
| Pressure wash contractors         | 9               | HR           | \$82             | \$738           | 1 hour each event x 3 events x 3 staff                    |
| Pump Truck                        | 3               | HR           | \$55             | \$165           | 1 hour each event x 3 events                              |
| High pressure blaster & scarifier | 3               | HR           | \$115            | \$345           | 1 hour each event x 3 events                              |
| Test Rinsate                      |                 |              |                  |                 | 8260, 8270 & metals per Site Specific List <sup>2</sup>   |
| Labor, Technician                 | 2               | HR           | \$85             | \$170           |   |
| Sampling and analysis             | 2               | LS           | \$410            | \$820           | 2 samples per area  |
| 10% QA Sample Analysis            | 1               | LS           | \$410            | \$410           |   |
| Health and Safety                 | 1               | LS           | \$250            | \$250           |   |
| P.E. Certification                |                 |              |                  | \$0             |   |
| Labor, P.E.                       | 2               | HR           | \$113            | \$226           |   |
| Travel and Expenses               | 0               | LS           | \$1,000          | 0               | Travel during container storage closure activities        |
| <b>Subtotal</b>                   |                 |              |                  | <b>\$7,590</b>  |   |
| <b>Contingency (20%)</b>          |                 |              |                  | <b>\$1,518</b>  |   |
| <b>Task Total</b>                 |                 |              |                  | <b>\$9,108</b>  |   |
| <b>API Pad</b>                    |                 |              |                  |                 |   |
| Inspect area and remove residues  |                 |              |                  |                 |   |
| Labor, Technician                 | 25              | HR           | \$58             | \$1,450         |   |
| Tools                             | 0               | LS           | \$500            | \$0             | Tools from container storage areas                        |
| Pressure Wash 3X                  |                 |              |                  | \$0             |   |
| Pressure wash contractors         | 9               | HR           | \$82             | \$738           | 1 hour each event x 3 events x 3 staff                    |
| Pump Truck                        | 3               | HR           | \$55             | \$165           | 1 hour each event x 3 events                              |
| High pressure blaster & scarifier | 3               | HR           | \$115            | \$345           | 1 hour each event x 3 events                              |
| Test Rinsate                      |                 |              |                  |                 | 8260, 8270 & metals per Site-Specific List <sup>3,4</sup> |
| Labor, Technician                 | 1               | HR           | \$85             | \$85            |   |
| Sampling and analysis             | 2               | LS           | \$410            | \$820           | 2 samples per area  |
| 10% QA Sample Analysis            | 1               | LS           | \$410            | \$410           |   |
| Health and Safety                 | 1               | LS           | \$250            | \$250           |   |
| P.E. Certification                |                 |              |                  | \$0             |   |
| Labor, P.E.                       | 2               | HR           | \$113            | \$226           |   |
| Travel and Expenses               | 0               | LS           | \$1,000          | 0               | Travel during container storage closure activities        |
| <b>Subtotal</b>                   |                 |              |                  | <b>\$4,489</b>  |   |
| <b>Contingency (20%)</b>          |                 |              |                  | <b>\$898</b>    |   |
| <b>Task Total</b>                 |                 |              |                  | <b>\$5,387</b>  |   |
| <b>Total Miscellaneous Units</b>  |                 |              |                  | <b>\$14,495</b> |   |

**Notes:**

- (1) All costs are estimated
- (2) Site-Specific List may be found in Section IX of the RCRA Permit Application

**TABLE VIII-A-8  
ADDITIONAL SITE RESTORATION<sup>1</sup>**

| <b>Item Description</b>                                      | <b>Quantity<sup>2</sup></b> | <b>Units</b> | <b>Unit Cost<sup>3</sup></b> | <b>Subtotal</b>  |
|--|-----------------------------|--------------|------------------------------|------------------|
| Cap with 2' Clay (incl. labor)                               | 5,213                       | CY           | \$17.00                      | \$89,000         |
| Topsoil, 6" deep, furnish and place                          | 7,820                       | SY           | \$9.65                       | \$75,000         |
| Seeding, utility mix with mulch and fertilizer, hydro or air | 70                          | thousand SF  | \$100                        | \$7,000          |
| <b>TOTAL</b>   |                             |              |                              | <b>\$205,200</b> |

**Notes:**

<sup>1</sup>All costs are estimated

<sup>2</sup>Volumes are for 7 acres; sufficient for container storage areas (estimated at 1,400 CY of fill) and other storage areas

<sup>3</sup>Costs are as installed

**TABLE VIII-A-9  
COST ESTIMATE: DECONTAMINATE EQUIPMENT**

| <b>Item Description</b>     | <b>Quantity</b> | <b>Units</b> | <b>Unit Cost</b> | <b>Subtotal</b> |
|-----------------------------|-----------------|--------------|------------------|-----------------|
| Clean residue off equipment |                 |              |                  |                 |
| Labor, Technician           | 200             | HR           | \$58             | \$11,600        |
| High Pressure Washer        | 1               | LS           | \$5,000          | \$5,000         |
| Test Final Rinsate          |                 |              |                  |                 |
| Labor, Technician           | 16              | HR           | \$85             | \$1,360         |
| Sampling and analysis       | 12              | EA           | \$410            | \$4,920         |
| Treat Rinsate in WWTP       | 81,000          | GAL          | \$0.00268        | \$216.79        |
| Vactor Trucks to Transport  | 1               | EA           | \$9,500          | \$9,500         |
| Rinse Water to WWTP         |                 |              |                  |                 |
| Health and Safety           | 1               | EA           | \$1,222          | \$1,222         |
| <b>Subtotal</b>             |                 |              |                  | <b>\$33,819</b> |
| <b>Contingency (20%)</b>    |                 |              |                  | <b>\$40,583</b> |
| <b>TOTAL</b>                |                 |              |                  | <b>\$40,583</b> |

**Notes:**

Decontamination of heavy equipment, tools, and other equipment to be reused during closure activities

All costs and quantities are estimated

**TABLE VIII-A-10  
COST ESTIMATE: POST CLOSURE PERPETUAL CARE**

| <b>Post-Closure Care</b>  | <b>Years Remaining</b> |
|---------------------------|------------------------|
| Landfill #1               | 30                     |
| Landfill #3               | 30                     |
| Shot Pond                 | 30                     |
| Landfill No. 6 N. Plateau | 30                     |
| East Tailings Pond        | 30                     |
| West Tailings Pond        | 30                     |

**TABLE VIII-A-11  
COST ESTIMATE: POST CLOSURE LANDFILL 1 SOUTHEAST RAVINE**

| <b>Item</b>                                       | <b>Units</b> | <b>Quantity</b>    |                 | <b>Unit Cost</b> | <b>Subtotal</b> |
|---|--------------|--------------------|-----------------|------------------|-----------------|
|   |              | <b>Per Quarter</b> | <b>Per Year</b> |                  |                 |
| Quarterly Inspections                             |              |                    |                 |                  |                 |
| Labor, Technician                                 | HR           | 8                  | 32              | \$69.00          | \$2,208         |
| Labor, Engineer                                   | HR           | 4                  | 16              | \$85.00          | \$1,360         |
| Misc. Expenses                                    | LS           | \$150              | \$600           | \$1.00           | \$600           |
| Contingency Inspection<br>(based upon 1x/5 years) | HR           | \$0                | 1               | \$69             | \$69            |
| Maintenance                                       |              |                    |                 |                  |                 |
| Mowing, 4x/year                                   | AC           |                    | 8               | \$500            | \$4,000         |
| Seed and Fertilize                                | SF           |                    | 7,000           | \$0.05           | \$350           |
| Erosion Repair                                    | CY           |                    | 300             | \$15.00          | \$4,500         |
| Labor, Technician                                 | HR           |                    | 80              | \$69.00          |                 |
| Fence Replacement                                 | LF           |                    | 52.8            | \$38.00          | \$2,006         |
| Leachate Treatment                                | GAL          |                    | 52,560          | \$0.0044         | \$233           |
| Groundwater Monitoring                            |              |                    |                 |                  |                 |
| Well Replacement (1 every 4<br>years)             | LS*          |                    | 1               | \$1,000.00       | \$1,000         |
| <b>CURRENT ANNUAL COST (2012 DOLLARS)</b>         |              |                    |                 |                  | <b>\$21,846</b> |
| <b>CONTINGENCY (20%)</b>                          |              |                    |                 |                  | <b>\$4,369</b>  |
| <b>TOTAL ANNUAL COST</b>                          |              |                    |                 |                  | <b>\$26,216</b> |

\* Total well replacement cost: \$4,000

The perpetual care post-closure cost for this unit is provided in Table VIII-A-17

**TABLE VIII-A-12  
COST ESTIMATE: POST CLOSURE LANDFILL 6 NORTH PLATEAU**

| Item   | Units   | Quantity    |          | Unit Cost  | Subtotal |
|--|---------|-------------|----------|------------|----------|
|  |         | Per Quarter | Per Year |            |          |
| Quarterly Inspections                        |         |             |          |            |          |
| Labor, Technician                            | HR      | 8           | 32       | \$69.00    | \$2,208  |
| Labor, Engineer                              | HR      | 2           | 8        | \$85.00    | \$680    |
| Misc. Expenses                               | LS      | \$150       | 1        | \$600.00   | \$600    |
| Contingency Inspection (based on 1x/5 years) | HR**    | \$0         | 1        | \$69.00    | \$69     |
| Quarterly LTS Manhole Inspections            |         |             |          |            |          |
| Labor, Technician                            | HR      | 16          | 64       | \$69.00    | \$4,416  |
| Vacuum truck services                        | LS      | 1           | 4        | \$2,000.00 | \$8,000  |
| Misc LTS repairs                             | LS      |             | 1        | \$2,500.00 | \$2,500  |
| Treatment of collected water                 | Gallons | 7,000       | 28000    | \$0.0489   | \$1,368  |
| Annual Benchmark Survey                      | LS      |             | 1        | \$1,500.00 | \$1,500  |
| Maintenance                                  |         |             |          |            |          |
| Mowing, 4x/year                              | AC      |             | 6        | \$500.00   | \$3,000  |
| Seed and Fertilize                           | SF      |             | 5,000    | \$0.05     | \$250    |
| Erosion Repair                               | CY      |             | 200      | \$15.00    | \$3,000  |
| Labor, Technician                            | HR      |             | 80       | \$69.00    | \$5,520  |
| Annual Maintenance                           |         |             |          |            |          |
| Labor, Technician                            | HR      |             | 24       | \$69.00    | \$1,656  |
| Labor, Fitter                                | HR      |             | 24       | \$69.00    | \$1,656  |
| Labor, Engineer                              | HR      |             | 6        | \$85.00    | \$510    |
| Heavy Equipment to pull pumps (inc operator) | LS      |             | 1        | \$1,500.00 | \$1,500  |
| Jet Rod Truck                                | LS      |             | 1        | \$2,500.00 | \$2,500  |
| Pump replacement                             | LS      |             | 1        | \$2,500.00 | \$2,500  |
| Probe replacement                            | LS      |             | 1        | \$1,800.00 | \$1,800  |
| PLC & misc repairs                           | LS      |             | 1        | \$1,000.00 | \$1,000  |
| LTS - Bi-annual Pressure Testing             |         |             |          |            |          |
| Labor, Technician                            | HR      |             | 16       | \$69.00    | \$1,104  |
| Labor, Engineer                              | HR      |             | 16       | \$79.00    | \$1,264  |
| Labor, Fitter                                | HR      |             | 16       | \$69.00    | \$1,104  |
| Certifying Engineer, including report        | LS      |             | 0.5      | \$3,500.00 | \$1,750  |
| Vacuum truck services                        | LS      |             | 0.5      | \$2,000.00 | \$1,000  |
| Misc. Parts & Equipment (CSE, etc.)          | LS      |             | 0.5      | \$700.00   | \$350    |
| Electrical usage                             | LS      |             | 1        | \$717.00   | \$717    |
| Supplemental Pump System (cleanouts)         |         |             |          |            |          |
| Labor, Technician                            | HR      |             | 60       | \$69.00    | \$4,140  |
| Generator rental, misc. parts                | LS      |             | 1        | \$500.00   | \$500    |
| Leachate                                     |         |             |          |            |          |
| Leachate treatment                           | Gallons |             | 419,460  | \$0.0044   | \$1,860  |



TABLE VIII-A-12, Continued

|   |                 |
|---|-----------------|
| <b>CURRENT ANNUAL COST (2012 DOLLARS)</b> | \$62,029        |
| <b>CONTINGENCY (20%)</b>                  | \$12,406        |
| <b>TOTAL ANNUAL COST</b>                  | <b>\$74,435</b> |

**TABLE VIII-A-13  
COST ESTIMATE: POST CLOSURE SHOT POND**

| Item  | Units | Quantity    |          | Unit Cost  | Subtotal        |
|---|-------|-------------|----------|------------|-----------------|
|   |       | Per Quarter | Per Year |            |                 |
| Quarterly Inspections                           |       |             |          |            |                 |
| Labor, Technician                               | HR    | 4           | 16       | \$69.00    | \$1,104         |
| Labor, Engineer                                 | HR    | 2           | 8        | \$85.00    | \$680           |
| Misc. Expenses                                  | LS    | \$50        | \$200    | \$1.00     | \$200           |
| Contingency Inspection<br>(based on 1x/5 years) | HR    | \$0         | 1        | \$69       | \$69            |
| Maintenance                                     |       |             |          |            |                 |
| Mowing, 4x/year                                 | AC    |             | 1.2      | \$500      | \$600           |
| Seed and Fertilize                              | SF    |             | 1,000    | \$0.05     | \$50            |
| Erosion Repair                                  | CY    |             | 40       | \$15.00    | \$600           |
| Labor, Technician                               | HR    |             | 80       | \$69       | \$5,520         |
| Fence Replacement                               | LF    |             | 22.8     | \$38.00    | \$866           |
| Groundwater Monitoring                          |       |             |          |            |                 |
| Well Replacement<br>(1 every 4 years)           | LS*   |             | 1        | \$1,000.00 | \$1,000         |
| Sampling and analysis                           | LS    | 4           | 16       | \$1,000.00 | \$16,000        |
| <b>CURRENT ANNUAL COST (2012 DOLLARS)</b>       |       |             |          |            | <b>\$26,689</b> |
| <b>CONTINGENCY (20%)</b>                        |       |             |          |            | <b>\$5,338</b>  |
| <b>TOTAL ANNUAL COST</b>                        |       |             |          |            | <b>\$32,027</b> |

\* Total well replacement cost: \$4,000

The post-closure care cost for this unit is provided in Table VIII-A-17

Leachate treatment is part of the Landfill #4 system

**TABLE VIII-A-14  
COST ESTIMATE: POST CLOSURE EAST TAILINGS POND**

| Item  | Units | Quantity    |          | Unit Cost | Subtotal        |
|---|-------|-------------|----------|-----------|-----------------|
|   |       | Per Quarter | Per Year |           |                 |
| Quarterly Inspections                           |       |             |          |           |                 |
| Labor, Technician                               | HR    | 4           | 16       | \$69.00   | \$1,104         |
| Labor, Engineer                                 | HR    | 2           | 8        | \$85.00   | \$680           |
| Misc. Expenses                                  | LS    | \$50        | \$200    | \$1.00    | \$200           |
| Contingency Inspection<br>(based on 1x/5 years) | HR    |             | 1        | \$69      | \$69            |
| Maintenance                                     |       |             |          |           |                 |
| Mowing, 4x/year                                 | AC    |             | 1        | \$263.10  | \$263           |
| Seed and Fertilize                              | SF    |             | 900      | \$0.05    | \$45            |
| Erosion Repair                                  | CY    |             | 30       | \$15.00   | \$450           |
| Labor, Technician                               | HR    |             | 80       | \$69      | \$5,520         |
| Fence Replacement                               | LF    |             | 22.8     | \$38.00   | \$866           |
| <b>CURRENT ANNUAL COST (2012 DOLLARS)</b>       |       |             |          |           | <b>\$9,434</b>  |
| <b>CONTINGENCY (20%)</b>                        |       |             |          |           | <b>\$1,887</b>  |
| <b>TOTAL ANNUAL COST</b>                        |       |             |          |           | <b>\$11,321</b> |

Costs of groundwater monitoring are included in the site-wide groundwater program  
The post-closure care cost for this unit is provided in Table VIII-A-16  
Leachate treatment is part of the Landfill #4 system

**TABLE VIII-A-15  
COST ESTIMATE: POST CLOSURE WEST TAILINGS POND**

| Item  | Units | Quantity    |          | Unit Cost | Subtotal        |
|---|-------|-------------|----------|-----------|-----------------|
|   |       | Per Quarter | Per Year |           |                 |
| Quarterly Inspections                           |       |             |          |           |                 |
| Labor, Technician                               | HR    | 4           | 16       | \$69.00   | \$1,104         |
| Labor, Engineer                                 | HR    | 2           | 8        | \$85.00   | \$680           |
| Misc. Expenses                                  | LS    | \$50        | \$200    | \$1.00    | \$200           |
| Contingency Inspection<br>(based on 1x/5 years) | HR    |             | 1        | \$69      | \$69            |
| Maintenance                                     |       |             |          |           |                 |
| Mowing, 4x/year                                 | AC    |             | 1        | \$263.10  | \$263           |
| Seed and Fertilize                              | SF    |             | 900      | \$0.05    | \$45            |
| Erosion Repair                                  | CY    |             | 30       | \$15.00   | \$450           |
| Labor, Technician                               | HR    |             | 80       | \$69      | \$5,520         |
| Fence Replacement                               | LF    |             | 22.8     | \$38.00   | \$866           |
| <b>CURRENT ANNUAL COST (2012 DOLLARS)</b>       |       |             |          |           | <b>\$9,434</b>  |
| <b>CONTINGENCY (20%)</b>                        |       |             |          |           | <b>\$1,877</b>  |
| <b>TOTAL ANNUAL COST</b>                        |       |             |          |           | <b>\$11,321</b> |

Costs of groundwater monitoring are included in the site-wide groundwater program  
The post-closure care cost for this unit is provided in Table VIII-A-17  
Leachate treatment is part of the Landfill #4 system

**TABLE VIII-A-16  
COST ESTIMATE: POST CLOSURE LANDFILL 3**

| Item  | Units | Quantity    |           | Unit Cost | Subtotal        |
|---|-------|-------------|-----------|-----------|-----------------|
|   |       | Per Quarter | Per Year  |           |                 |
| Quarterly Inspections                           |       |             |           |           |                 |
| Labor, Technician                               | HR    | 16          | 64        | \$69.00   | \$4,416         |
| Labor, Engineer                                 | HR    | 4           | 16        | \$85.00   | \$1,360         |
| Misc. Expenses                                  | LS    | \$150       | \$600     | \$1.00    | \$600           |
| Contingency Inspection<br>(based on 1x/5 years) | HR    |             | \$69      | \$69      | \$69            |
| Maintenance                                     |       |             |           |           |                 |
| Mowing, 4x/year                                 | AC    |             | 17        | \$263.10  | \$4,473         |
| Seed and Fertilize                              | SF    |             | 15,000    | \$0.05    | \$750           |
| Erosion Repair                                  | CY    |             | 600       | \$15.00   | \$9,000         |
| Labor, Technician                               | HR    |             | 80        | \$69.00   | \$5,520         |
| Fence Replacement                               | LF    |             | 105       | \$38      | \$3,990         |
| Leachate Treatment                              | GAL   |             | 1,153,515 | \$0.00443 | \$5,114         |
| <b>CURRENT ANNUAL COST (2012 DOLLARS)</b>       |       |             |           |           | <b>\$39,319</b> |
| <b>CONTINGENCY (20%)</b>                        |       |             |           |           | <b>\$7,864</b>  |
| <b>TOTAL ANNUAL COST</b>                        |       |             |           |           | <b>\$47,183</b> |

\* Total well replacement cost: \$4,000

The post-closure care cost for this unit is provided in Table VIII-A-17

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TABLE VIII-A-17  
COST ESTIMATE: POST CLOSURE CARE

Inflation Rate 2.00%  
Discount Rate 6.17%

| Fiscal year  | 2012                | 2013             | 2014             | 2015             | 2016             | 2017             | 2018             | 2019             | 2020             | 2021             | 2022             | 2023             | 2024             | 2025             | 2026             | 2027             | 2028             | 2029             | 2030             | 2031             | 2032             | 2033             | 2034             | 2035             | 2036             | 2037             | 2038             | 2039             | 2040             | 2041             | Total Costs |
|--|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------|
| <b>FACILITY CLOSURE</b>                            |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Waste Disposal                                     | \$ 3,411,452        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Container Storage Areas                            | \$ 103,732          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Tank Systems                                       | \$ 837,722          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| FBI #2   | \$ 292,562          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Miscellaneous Units                                | \$ 14,495           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| RKI  | \$ 418,134          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Site Restoration                                   | \$ 205,200          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Equipment Decontamination                          | \$ 40,583           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Site Preparation and Characterization              | \$ 15,000           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| WWTP Optimization                                  | \$746,012           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Engineering and Administration:                    |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Administrative and Miscellaneous Costs             | \$ 912,734          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Final Survey Plat Map                              | \$ 6,500            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| <b>CLOSURE TOTAL</b>                               | <b>\$ 7,004,124</b> | <b>\$ -</b>      |             |
| <i>Facility Post Closure</i>                       |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Landfill 6 North Plateau                           | \$74,435            | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        | \$ 74,435        |             |
| Landfill 1 Southeast Ravine                        | \$26,216            | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        | \$ 26,216        |             |
| Shot Pond  | \$32,027            | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        | \$ 32,027        |             |
| East Tailing Pond                                  | \$11,321            | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        |             |
| West Tailing Pond                                  | \$11,321            | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        | \$ 11,321        |             |
| Landfill 3   | \$47,183            | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        | \$ 47,183        |             |
| <b>POST CLOSURE TOTAL</b>                          | <b>\$202,504</b>    | <b>\$202,504</b> | <b>\$202,504</b> | <b>\$202,504</b> | <b>\$202,504</b> | <b>\$202,504</b> | <b>\$191,183</b> | <b>\$147,834</b> | <b>\$147,834</b> | <b>\$100,651</b> | <b>\$74,435</b>  | <b>\$0</b>       |             |
| Inflated value                                     | \$204,519           | \$208,610        | \$212,782        | \$217,037        | \$221,378        | \$225,806        | \$217,445        | \$171,505        | \$174,935        | \$121,484        | \$91,639         | \$93,472         | \$95,341         | \$97,248         | \$99,193         | \$101,177        | \$103,200        | \$105,264        | \$107,370        | \$109,517        | \$111,707        | \$113,942        | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              |             |
| Discounted value                                   | \$198,487           | \$190,692        | \$183,202        | \$176,006        | \$169,093        | \$162,452        | \$147,346        | \$109,462        | \$105,163        | \$68,786         | \$48,872         | \$46,953         | \$45,108         | \$43,337         | \$41,635         | \$39,999         | \$38,428         | \$36,919         | \$35,469         | \$34,076         | \$32,737         | \$31,452         | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              |             |
| <i>Corrective Action</i>                           |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| Landfill 2   | \$128,674           | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       | \$ 128,674       |             |
| Landfill 4   | \$147,424           | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       | \$ 147,424       |             |
| Landfill 1 North Ravine and South Ravine           | \$30,106            | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        | \$ 30,106        |             |
| Groundwater pump, treat & monitor                  | \$623,168           | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       | \$ 623,168       |             |
| Field Work and Corrective Measures Study           | \$ 510,118          |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
| <b>CORRECTIVE ACTION TOTAL</b>                     | <b>\$1,439,490</b>  | <b>\$929,372</b> |             |
| Inflated Value                                     | \$1,453,813         | \$957,392        | \$976,540        | \$996,070        | \$1,015,992      | \$1,036,312      | \$1,057,038      | \$1,078,179      | \$1,099,742      | \$1,121,737      | \$1,144,172      | \$1,167,055      | \$1,190,396      | \$1,214,204      | \$1,238,488      | \$1,263,258      | \$1,288,523      | \$1,314,294      | \$1,340,580      | \$1,367,391      | \$1,394,739      | \$1,422,634      | \$1,451,087      | \$1,480,108      | \$1,509,710      | \$1,539,905      | \$1,570,703      | \$1,602,117      | \$1,634,159      | \$1,666,842      |             |
| Discounted Value                                   | \$1,410,937         | \$875,159        | \$840,786        | \$807,763        | \$776,036        | \$745,556        | \$716,273        | \$688,140        | \$661,113        | \$635,146        | \$610,200        | \$586,233        | \$563,208        | \$541,087        | \$519,835        | \$499,418        | \$479,802        | \$460,957        | \$442,852        | \$425,459        | \$408,748        | \$392,694        | \$377,270        | \$362,452        | \$348,216        | \$334,540        | \$321,400        | \$308,776        | \$296,649        | \$284,997        |             |
| <b>Net Present Value Financial Assurance Total</b> |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |             |
|  |                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | \$25,697,009     |             |

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**ATTACHMENT B**  
**FINANCIAL ASSURANCE MECHANISMS**



**Raymond D. Hiley**  
Counsel – Environmental, Health and Safety  
One Plastics Avenue  
Pittsfield, MA 01201

Tel: (413) 448-4826  
Fax: (866) 292-4158  
Email: Raymond.hiley@momentive.com

February 1, 2008

**VIA FEDERAL EXPRESS**

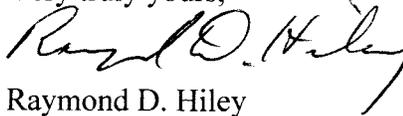
Bureau of Program Management  
Division of Solid & Hazardous Materials  
625 Broadway  
Albany, NY 12233-7250  
Attention: Aida M. Potter, P.E.

**Re: MPM Silicones, LLC  
RCRA Facility ID No. NYD 002080034  
Financial Assurance Pursuant to 6 NYCRR 373-2**

Dear Ms. Potter;

Attached please find a copy of the executed trust agreement and letter of credit for MPM Silicones, LLC's facility in Waterford, NY. These documents are being submitted pursuant to 6 NYCRR 373-2.8(h). Please do not hesitate to contact me if you have any questions. Thank you for your assistance in this matter.

Very truly yours,



Raymond D. Hiley

cc: Kirsten Pink

## STANDBY TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of December 20, 2007 by and between MPM Silicones, LLC, a New York limited liability company, the "Grantor," and JPMorgan Chase Bank, N.A., a national banking association, the "Trustee."

Whereas the New York State Department of Environmental Conservation, "NYSDEC," an agency of the New York State Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

---

Section 1. *Definitions.* As used in this Agreement:

- (a) The term *Grantor* means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.
- (b) The term *Trustee* means the Trustee who enters into this Agreement and any successor Trustee.
- (c) The term *Commissioner* means the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's duly appointed designee.

Section 2. *Identification of Facilities.* This agreement pertains to the facilities identified on attached schedule A.

Section 3. *Establishment of Fund.* The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by sudden accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of \$1 million per occurrence and \$2 million annual aggregate for sudden accidental occurrences, exclusive of legal defense costs, except that the Fund is not established for the benefit of third parties for the following:

- (a) Bodily injury or property damage for which MPM Silicones, LLC is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This

exclusion does not apply to liability for damages that MPM Silicones, LLC would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of MPM Silicones, LLC under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of MPM Silicones, LLC arising from, and in the course of, employment by MPM Silicones, LLC; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by MPM Silicones, LLC.

This exclusion applies:

(i) Whether MPM Silicones, LLC may be liable as an employer or in any other capacity; and

(ii) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by MPM Silicones, LLC;

(2) Premises that are sold, given away or abandoned by MPM Silicones, LLC if the property damage arises out of any part of those premises;

(3) Property loaned MPM Silicones, LLC;

(4) Personal property in the care, custody or control of MPM Silicones, LLC;

(5) That particular part of real property on which MPM Silicones, LLC or any contractors or subcontractors working directly or indirectly on behalf of MPM Silicones, LLC are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered primary coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon,

less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by NYSDEC.

Section 4. *Payment for Bodily Injury or Property Damage.* The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

**CERTIFICATION OF VALID CLAIM**

The undersigned, as parties MPM Silicones, LLC and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a sudden accidental occurrence arising from operating MPM Silicones, LLC's hazardous waste treatment, storage, or disposal facility should be paid in the amount of \$[ ]

Signature \_\_\_\_\_ Grantor

Signature(s) \_\_\_\_\_ Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. *Payments Comprising the Fund.* Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of 6 NYCRR 373-2.8(j)(10) and Section 4 of this Agreement.

Section 6. *Trustee Management.* The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his or her duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

*Section 7. Commingling and Investment.* The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

*Section 8. Express Powers of Trustee.* Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or

instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. *Taxes and Expenses.* All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. *Advice of Counsel.* The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. *Trustee Compensation.* The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. *Successor Trustee.* The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Commissioner and the present Trustee by certified mail, return receipt requested, 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. *Instructions to the Trustee.* All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting

without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Commissioner hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or Commissioner, except as provided for herein.

Section 14. *Amendment of Agreement.* This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Commissioner, or by the Trustee and the Commissioner if the Grantor ceases to exist.

Section 15. *Irrevocability and Termination.* Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Commissioner, or by the Trustee and the Commissioner, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Commissioner will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in section 373-2.8 or 373-3.8.

~~Section 16. *Immunity and indemnification.* The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the NYSDEC Commissioner issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonable incurred in its defense in the event the Grantor fails to provide such defense.~~

Section 17. *Choice of Law.* This Agreement shall be administered, construed, and enforced according to the laws of the State of New York.

Section 18. *Interpretation.* As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 6 NYCRR 373-2.8(j)(13) as such regulations were constituted on the date first above written.

MPM SILICONES, LLC (Grantor)

Signature: [Handwritten Signature]

Name: Steven Delarge

Title: Chief Financial Officer

Attest: [Handwritten Signature]

JPMORGAN CHASE BANK, N.A. (Trustee)

Signature: [Handwritten Signature]

Attest: \_\_\_\_\_

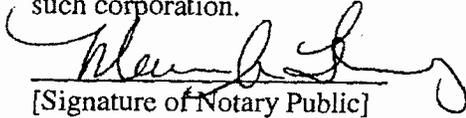
Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Larissa R. Urcia**  
Vice President

State of New York  
County of Saratoga

On this 14<sup>th</sup> day of December, 2007 before me personally came Steven Delange, to me known who, by me duly sworn, did depose and say that (s)he resides in Clifton Park NY, that (s)he is the CEO of Momentive Performance MHS, the corporation described in and which executed the within Trust Agreement; and that he signed his name thereto by authority of such corporation.

  
[Signature of Notary Public]

**MAUREEN A. FLEMING**  
Notary Public, State of New York  
No. 01FL6135993  
Qualified in Saratoga County  
Commission Expires Oct. 31, 2009

State of \_\_\_\_\_  
County of \_\_\_\_\_

On this \_\_\_ day of \_\_\_\_\_, 2007 before me personally came \_\_\_\_\_, to me known who, by me duly sworn, did depose and say that (s)he resides in \_\_\_\_\_, that (s)he is the \_\_\_\_\_ of \_\_\_\_\_, the corporation described in and which executed the within Trust Agreement; and that he signed his name thereto by authority of such corporation.

\_\_\_\_\_  
[Signature of Notary Public]

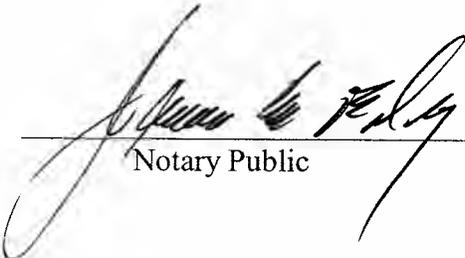
State of New York)

ss:

County of New York)

On the 10th of January, 2008, before me, James M. Foley, a Notary Public, personally appeared Larissa R. Urcia, an Vice President of JPMorgan Chase Bank, N.A., personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Witness my hand and official seal,



Notary Public

James M. Foley  
Notary Public, State of New York  
No. 01FO6348400  
Qualified in New York County  
Commission Expires August 31, 2010

**SCHEDULE A  
TO TRUST AGREEMENT**

EPA ID Number:

#NYD002080034

Name and Address of Facility:

MPM Silicones, LLC  
260 Hudson River Road  
Waterford, NY

Amount of Liability Coverage

For sudden accidental occurrences - \$1 million per occurrence, \$2 million annual aggregate.

---

**SCHEDULE B  
TO TRUST AGREEMENT**

**LETTER OF CREDIT**

---

JPMorgan Chase Bank, N.A.  
c/o JPMorgan Treasury Services  
Global Trade Services  
10420 Highland Manor Drive  
Tampa, FL 33610

**COPY**

DEC 18, 2007  
OUR L/C NO.: TPTS-273658

**IRREVOCABLE STANDBY LETTER OF CREDIT**

JPMORGAN CHASE BANK, N.A., AS TRUSTEE  
ATTENTION: LARISSA URZIA, VICE PRESIDENT  
ESCROW SERVICES

JPMORGAN CHASE BANK, N.A.  
4 NEW YORK PLAZA, 21ST FLOOR  
NEW YORK, NY 10004

COMMISSIONER OF NYSDEC  
ATTN: DIVISION OF SOLID & HAZARDOUS MATERIALS  
625 BROADWAY  
ALBANY, NY 12233-7250

RE APPLICANT: MPM SILICONES, LLC  
187 DANBURY ROAD  
WILTON, CT 06897

DEAR SIR OR MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. TPTS-273658 IN THE FAVOR OF JPMORGAN CHASE BANK, N.A. AS TRUSTEE, AT THE REQUEST AND FOR THE ACCOUNT OF MPM SILICONES, LLC, 187 DANBURY ROAD WILTON, CT 06897, FOR THIRD-PARTY LIABILITY AWARDS OR SETTLEMENTS UP TO ONE MILLION U.S. DOLLARS (\$1,000,000) PER OCCURRENCE AND THE ANNUAL AGGREGATE AMOUNT OF TWO MILLION U.S. DOLLARS (\$2,000,000), FOR SUDDEN ACCIDENTAL OCCURRENCES, EXCLUSIVE OF LEGAL DEFENSE COSTS, AVAILABLE UPON PRESENTATION OF A SIGHT DRAFT BEARING REFERENCE TO THIS LETTER OF CREDIT NO. TPTS-273658.

THIS LETTER OF CREDIT IS EFFECTIVE AS OF DECEMBER 18, 2007 AND SHALL EXPIRE ON DECEMBER 18, 2008, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF AT LEAST ONE YEAR ON DECEMBER 18, 2008 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS, AT LEAST 120 DAYS BEFORE THE CURRENT EXPIRATION DATE, WE NOTIFY YOU, THE COMMISSIONER OF THE NYSDEC, ATTENTION DIVISION OF SOLID & HAZARDOUS WASTE MATERIALS, 625 BROADWAY, ALBANY, NY 12233-7250, AND MPM SILICONES, LLC BY CERTIFIED MAIL,

**COPY**

JPMorgan Chase Bank, N.A.  
c/o JPMorgan Treasury Services  
Global Trade Services  
10420 Highland Manor Drive  
Tampa, FL 33610

DEC 18, 2007  
OUR L/C NO.: TPTS-273658

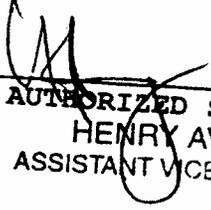
RETURN RECEIPT REQUESTED, THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE.

WHENEVER THIS LETTER OF CREDIT IS DRAWN ON UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, WE SHALL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US.

WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN 6 NYCRR 373-2.8(J)(10) AS SUCH REGULATIONS WERE CONSTITUTED ON THE DATE SHOWN IMMEDIATELY BELOW.

THIS CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS 2007 REVISION, INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION NO. 600.

ALL CORRESPONDENCE AND ANY DRAWINGS PRESENTED IN CONNECTION WITH THIS LETTER OF CREDIT MUST ONLY BE PRESENTED TO US AT JPMORGAN CHASE BANK, N.A., C/O JPMORGAN TREASURY SERVICES, 10420 HIGHLAND MANOR DRIVE, 4TH FLOOR, TAMPA, FLORIDA 33610, ATTENTION: STANDBY LETTER OF CREDIT DEPARTMENT. CUSTOMER INQUIRY NUMBER IS 800-634-1969 CHOOSE OPTION 1. CUSTOMER INQUIRY E-MAIL ADDRESS IS: GTS.CLIENT.SERVICES@JPMCHASE.COM

  
\_\_\_\_\_  
AUTHORIZED SIGNATURE  
HENRY AVELINO  
ASSISTANT VICE PRESIDENT

**EXHIBIT A TO TRUST AGREEMENT**

Persons Authorized to Provide Orders, Requests, and Instructions to Trustee

Jonathan Rich

Steven DeLarge

Gregory P. Rustowicz

Such other persons as MPM Silicones, LLC may designate in writing

# **ATTACHMENT D**

## **Permit Modification Log**

