NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

6 NYCRR PART 373
HAZARDOUS WASTE MANAGEMENT
DRAFT PERMIT MODIFICATION
FOR
CWM CHEMICAL SERVICES L.L.C
MODEL CITY FACILITY

RESIDUALS MANAGEMENT UNIT-TWO [RMU-2]
LANDFILL AND RELATED UNITS

NIAGARA COUNTY

DEC PERMIT No. 9-2934-00022/00097
EPA ID No. NYD049836679

VOLUME 1 OF 5

NOTE: Draft modifications are identified by highlighted text or by notes on existing or new pages.

PERMITTEE & FACILITY INFORMATION

Introductory Pages

[*NOTE: Portions of these Introductory Pages are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~RED STRIKEOUT~~ .*]

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
CWM CHEMICAL SERVICES LLC

1550 BALMER RD
MODEL CITY, NY 14107

Facility:
CWM CHEMICAL SERVICES - MODEL CITY SITE
1550 BALMER RD
MODEL CITY, NY 14107

Facility Location: in PORTER in NIAGARA COUNTY
Facility Principal Reference Point: NYTM-E: 176.957 NYTM-N: 4793.671
Latitude: 43°13'35.9" Longitude: 78°58'40.0"

Authorized Activity:

1. Storage of Solid & Liquid, Hazardous & Non-Hazardous Waste in Containers;
2. Storage of Liquid Hazardous & Non-Hazardous Waste in Tanks;
3. Treatment of Liquid Hazardous & Non-Hazardous Waste in Tanks;
4. Treatment (Stabilization, Immobilization & Encapsulation) of Solid Hazardous & Non-Hazardous Waste in Tanks;
5. Storage of Liquid Hazardous & Non-Hazardous Waste (Post-Treatment) in Surface Impoundments;
6. Disposal of Solid Hazardous & Non-Hazardous Waste in ~~a Landfill (Residual Management Unit - One (RMU-1));~~Landfills (Residual Management Units One & Two (RMU-1 & RMU-2));
7. Commingling of Liquid Hazardous Waste and Repackaging of Laboratory Chemical Waste for Shipment;
8. Implementation of Final Corrective Action Remedies for Site-Wide Contamination; and
9. Groundwater Monitoring and Perpetual Post-Closure Care at All On-Site Land Disposal Units.

Permit Authorizations

Resource Conservation and Recovery Act - Under Article 27, Title 9
Permit ID 9-2934-00022/00097
Renewal Effective Date: 8/21/2013 Expiration Date: 8/20/2018

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: DAVID S DENK, Regional Permit Administrator
Address: NYSDEC REGION 9 HEADQUARTERS
270 MICHIGAN AVE
BUFFALO, NY 14203 -2915

Authorized Signature: _____ Date 8/20/2013

Permit Components

RESOURCE CONSERVATION AND RECOVERY ACT PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

RESOURCE CONSERVATION AND RECOVERY ACT PERMIT CONDITIONS

1. Special Conditions

a. This Permit is based on the assumption that the information submitted in the permit application received on February 1, 2010 and finalized as indicated below (thereafter referred to as the application) is complete and accurate and that the facility will be operated as specified in the application and this Permit. Any inaccuracies or incompleteness found in the information may be grounds for termination or modification of this Permit and potential enforcement action. The Permittee must inform the New York State Department of Environmental Conservation (Department) of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

b. The Permittee must comply with all the terms and conditions of this Permit. This Permit consists of the conditions contained herein (including all Modules, Attachments and documents incorporated by reference as specified in Schedule 1 of Module I) and the applicable regulations contained in 6 NYCRR Parts 370 through 376, 621 and 624, as specified in this Permit. Applicable regulations are those which are in effect on the date of issuance of this Permit, except as provided in Condition A.5 of Module I of this Permit.

c. In the event of a discrepancy between this Permit and any regulation, order on consent or any other permit, the more stringent requirement applies.

d. The Permittee must provide proper and safe conditions for Department access for inspections. Inspections, tests, photography or observations by the Department, Department's Engineer or third parties may be performed to provide information to the Department on compliance with this Permit; however, this provision is not intended to create any duty or obligation to the Permittee by the Department or its Engineer, nor is the information collected intended to fulfill the Permittee's obligations under this Permit.

e. The Permittee shall require its independent contractors, employees, agents and assigns to comply with this Permit, including Schedule 1 of Module I and all special conditions, and such persons shall be subject to the same sanctions for violation of the Environmental Conservation Law as those prescribed for the Permittee.

Complete Application Documents
- 6 NYCRR Part 373 Permit Application dated July 7, 2011.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. **Facility Inspection by The Department** The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. **Relationship of this Permit to Other Department Orders and Determinations** Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. **Applications For Permit Renewals, Modifications or Transfers** The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC REGION 9 HEADQUARTERS
270 MICHIGAN AVE
BUFFALO, NY14203 -2915

4. **Submission of Renewal Application** The permittee must submit a renewal application at least 180 days before permit expiration for the following permit authorizations: Resource Conservation and Recovery Act.

5. **Permit Modifications, Suspensions and Revocations by the Department** The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

a. materially false or inaccurate statements in the permit application or supporting papers;

b. failure by the permittee to comply with any terms or conditions of the permit;

c. exceeding the scope of the project as described in the permit application;

d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;

e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. **Permit Transfer** Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification
The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit
The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

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[*NOTE: Portions of the Permit Table of Contents are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

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E Corrective Action Requirements

F Application Section F – Preparedness & Prevention

G Application Section G – Contingency Plan

H Application Section H – Personnel Training Plan

I Application Section I – Closure Plan & Post-Closure Plans

J Application Appendix D-6 – RMU-1 Landfill Drawings;

Application Appendix D-6a – RMU-2 Landfill Drawings

Application Appendix D-7 – RMU-1 Landfill Technical Specifications; ~~and~~

Application Appendix D-7a – RMU-2 Landfill Technical Specifications;

Application Appendix D-8 – RMU-1 Landfill Quality Assurance Manual; and

Application Appendix D-8a – RMU-2 Landfill Quality Assurance Manual

K Application Appendix D-9 – RMU-1 Landfill Response Action Plan;

Application Appendix D-9a – RMU-2 Response Action Plan; and

Application Appendix D-11 – RMU-1 Minimum Waste Strength Curves

L Application Appendix D-10 – Fugitive Dust Control Plan

M Surface Water Sampling and Analysis Plan

N Air & Meteorological Monitoring Plan

O Major / Minor Modifications

P Permit Cross-Reference Index

Documents Incorporated by Reference:

1. "CWM Meteorological Monitoring Network - Quality Assurance Project Plan" (November 2000; revised November 2013)[1]
2. Department-Approved "Site-Wide, ~~and~~ RMU-1 and RMU-2 Closure Cost Estimates" (January 24, 2012 with revisions dated June 7, 2012 and January 2014)[1,2]
3. Department-Approved "Site-Wide, ~~and~~ RMU-1 and RMU-2 Post-Closure Cost Estimates and Corrective Measures Cost Estimate" (January 24, 2012 with revisions dated June 7, 2012 and January 2014)[1,2]
4. "Surety Bond #02204659" issued by Liberty Mutual Insurance Company (October 2013)[1,2] [6 NYCRR 373-2.8(d) & (f)]
5. "Surety Bond #K08931884" issued by Westchester Fire Insurance Company (October 2013)[1,2] [6 NYCRR 373-2.8(d) & (f)]
6. "JP Morgan Chase Bank Standby Trust Agreement" (October 2013)[1,2]
7. "Groundwater Extraction Systems Operations and Maintenance Manual" (April 2008, revised November 2013)[1] [6 NYCRR 373-2.6(l)]

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8. Part 373 Permit Application, Drawings Section – "Process & Instrumentation Diagrams (PIDs) for Tank Systems" (December 2001; revised September 2013 and January 2014)[1] [6 NYCRR 373-1.5(c)(4)]
9. Part 373 Permit Application, Appendix D-3, Table entitled – "Aboveground Ancillary Equipment Without Secondary Containment" (April 2001, Revised May 2012)[1] [6 NYCRR 373-2.10(d)(6)]
10. "Aqueous Waste Treatment System Operations and Maintenance (O&M) Manual" (April 2000; revised September 2013 and January 2014)[1] [6 NYCRR 373-2.10(e)]
11. "Operations and Maintenance (O&M) Manual for the Stabilization Facility" (June 1999; revised November 2013)[1] [6 NYCRR 373-2.10(e)]
12. Part 373 Permit Application, Appendix D-5 – "RMU-1 Engineering Report" (June 2003; revised September 2012)[1] [6 NYCRR 373-2.14(c)]
13. "RMU-1 Operations and Maintenance (O&M) Manual" (November 2002 with revisions through November 2013)[1] [6 NYCRR 373-2.14(c) & (e)]
14. "RMU-1 Leachate Level Compliance Plan (LLCP)" (November 2002 with revisions through November 2011)[1] [6 NYCRR 373-2.14(c) & (e)]
15. "Groundwater Sampling and Analysis Plan (GWSAP)" (October 2003; revised November 2013 and January 2014)[1] [6 NYCRR 373-2.6(h)]
16. "Statement of Basis, Selection of Final Corrective Measures, CWM Chemical Services, L.L.C., USEPA ID No. NYD049836679, Model City, NY 14107" (January 31, 2001)[1]
17. "Design Report for Process Area III Groundwater Interceptor Trench" (May 2012)[1] [6 NYCRR 373-2.6(l)]
18. "Design Report for Process Area IV Extraction Wells" (April 2012)[1] [6 NYCRR 373-2.6(l)]
19. "Site Radiological Survey Plan (SRSP)" (November 2006)[1] [6 NYCRR 373-2.6(l)]
20. "Sitewide Radiological Investigation Soil Sampling Plan (SRISSP)" (November 2006; revised November 2013)[1] [6 NYCRR 373-2.6(l)]
21. "Radiation Environmental Monitoring Plan (REMP)" (May 2006)[1] [6 NYCRR 373-2.6(l)]
22. "Generic Small Project Soil Excavation Monitoring and Management Plan (GSPSEM&MP)" (November 2006; revised November 2013)[1] [6 NYCRR 373-2.6(l)]
23. "Facultative Pond 8 Water Transfer Procedure" (May 2008)[1] [6 NYCRR 373-2.11(b)(7)]
24. Dioxin Management Plan (October 18, 1993; updated February 2, 1996, August 29, 1996 and May 25, 1999)[6 NYCRR 373-2.14(m)]
25. "RMU-1 Final Cover Access Road Design Plans" (August 2012; revised September 2012 and October 2012)[1] [6 NYCRR 373-2.14(c)]
26. "RMU-1 Supplemental Primary Leachate Pumping System Design and Operational Plan" (October 2012)[1] [6 NYCRR 373-2.14(c)]
27. "Tank System Design and Assessment Report for AWTS Arsenic Removal Tanks" (May 2013)[1] [6 NYCRR 373-2.10(c)(1)]
28. "RMU-2 Engineering Report" (November 2013)[1] [6 NYCRR 373-2.14(c)]
29. "Transition Plan for RMU-2" (November 2013)[1]

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30. "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan" (November 2013)[1] [6 NYCRR 373-2.6(l)]

31. "Tank System Design and Assessment Report for Fac Pond 5 Tank T-9001" (November 2013)[1] [6 NYCRR 373-2.10(c)(1)]

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.

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[*NOTE: Portions of the Volume 1 Table of Contents are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

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MODULE I

General Conditions

[*NOTE: Module I is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

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 Permittee must comply with the applicable Remediation Guidance and Policy Documents found at http://www.dec.ny.gov/regulations/2393.html.

3. The Permittee must comply with the applicable Commissioner Policies found at http://www.dec.ny.gov/regulations/64558.html.

4. The applicable regulations or requirements are those which are in effect on the date of final issuance of this Permit. However, the Permittee must also comply with the following requirements:

   a. requirements which become effective by statute, including amendments thereto;

b. requirements of 6 NYCRR 376, as modified (land disposal restrictions);

c. requirements of 6 NYCRR 373-3.27, 373-3.28, and 373-3.29, as modified (air emission standards); and,

d. other requirements specified in 6 NYCRR 373-1.6(e) (permit conditions).

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) , or exempt under 6 NYCRR 371.1(j) and managed in compliance with 6 NYCRR 374-3, or authorized for acceptance under 6 NYCRR 373-4, or collected pursuant to ECL § 27-2613 for recycling purposes only. 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 exceedence 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 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, any land including land surface or subsurface, air, fish, wildlife, biota, and all other 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 shall 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 minor updates to plans attached to this Permit or incorporated by reference. **However, the Department must determine whether any and all changes to this Permit are administrative modifications to this Permit.** It should be noted that in-kind replacements of equipment (e.g., replacement of pumps, valves, etc.), with identical equipment are not considered to require modification of this Permit, and therefore can be made as necessary without the need for a Permit modification request.

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 O 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 O 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 O 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 of 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 for 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 provided as Attachment C of this Permit.

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).

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 Plan provided as Attachment H of this Permit.

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 Plan provided as Attachment H of this Permit.

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 Contingency Plan provided as Attachment G 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 must have data validated by a third party in cases where it is submitted to the Department in association with a closure or post-closure certification, discharges to the environment, corrective action investigations, a proposed addition to corrective measures, a proposed termination of corrective measures, a completion of a corrective measure, an identified potential anomaly in any data set and in any situation in which such validation is requested by 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 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 of this Permit. 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-approved 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-approved 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 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 I 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-approved financial assurance instruments for closure, post-closure and corrective action, which shall be those listed as being incorporated by reference into this Permit by **Schedule 1 of Module I**, and any Department-approved revisions thereof, or Department-approved 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

approved by the Department. The Permittee must provide annual evidence to the Department within thirty (30) days prior to the anniversary on which the initial approved financial assurance instrument was established, that all instruments incorporated by reference into this Permit by **Schedule 1 of Module I** including any approved 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 approved 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, 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.

7. Special Conditions Concerning Future State and/or Federal Laws or Regulations

   a. In the event that any State statutory or regulatory requirements are enacted, adopted or promulgated which are applicable to the Permittee's Facility and address the need for and/or the nature and extent of post-closure care and/or corrective action, and such statutory or regulatory requirements are deemed by the Department to be more stringent than the post-closure care and/or corrective action requirements stipulated in this Permit, such statutory and regulatory requirements shall supersede the pertinent requirements of this Permit.

   b. In the event that any federal statutory or regulatory requirements are enacted, adopted or promulgated which are applicable to the Permittee's Facility and address the need for and/or the nature and extent of post-closure care and/or corrective action, such statutory or regulatory requirements shall supersede the pertinent requirements of this Permit to the extent that it is determined by the Department that such statutory or regulatory requirements afford equal or greater protection to continuing post-closure care and/or corrective action as is afforded by this Permit.

SCHEDULE 1 of MODULE I

Facility-Specific Conditions

[*NOTE: Portions of Schedule 1 of Module I are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

PART 373 PERMIT

SCHEDULE 1 OF MODULE I
FACILITY-SPECIFIC CONDITIONS

DEC Facility Name: CWM Chemical Services, L.L.C.
DER Facility No.: 932045
EPA RCRA ID No.: NYD049836679

Facility Address: 1550 Balmer Road
Model City, New York 14107
Niagara County
Hereinafter referred to as “Facility” or “Site”

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:

Unit Type[1]	No. of Areas/Units	Activity Type	Waste Type[2]	Quantity[3]
Containers[7] (S01)	~~33~~46 areas ~~7,777~~11,991 units	Storage	Solid & Liquid Wastes	~~1,390,816~~2,153,552 gallons
Tanks (S02)	~~15~~16 areas ~~27~~28 units	Storage	Liquid Wastes	~~986,951~~988,051 gallons
Tanks (T01)	11 areas 32 units	Treatment	Liquid Wastes	2,336,880 gallons 259,180 gallons/day[4]
Tanks[5] (T04)	1 area 2 units	Stabilization, Immobilization or Encapsulation	Solid & Debris Wastes	40,708 gallons 150 short tons/hour
Surface Impoundments[6] (S04)	~~3~~4 areas 45 units	Storage	Liquid Wastes	~~117,649,500~~142,349,500 gallons
Landfills[8] (RMU-1 & RMU-2) (D80)	~~1~~2 areas ~~1~~2 units	Disposal	Solid & Debris Wastes	~~2,233~~4,731 acre-feet

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, Exhibit E (surface impoundments) of this Schedule, Exhibit F (landfills) of this Schedule and Attachment C of this Permit.
3. The maximum storage limit for incinerable liquids is 130,636 gallons and the maximum storage limit for incinerable solids is 633,500 lbs. (see **Condition G.1 of Exhibit A**).
4. The indicated treatment capacity of 259,180 gallons/day pertains to the flow rate through the entire treatment system. Certain waste types which can be adequately treated without having to pass through the entire system may be processed at a faster rate.
5. Mixing Pit Tanks 1&2.
6. Includes existing Facultative Ponds 1, 2, 3 & 8 and new Facultative Pond 5 whose construction and operation is permissible in accordance with the conditions of this Permit.
7. Includes existing Container Storage Areas (CSAs) and the following new CSAs: 1) New Drum Management Bldg. (NDMB) Areas 1 – 9; 2) New Full Trailer Park (NFTP) Area; 3) Stabilization Facility New Trailer Park (SFNTP) Area; 4) New T-109 Loading Area; and 5) New T-158 Loading Area, whose construction and operation are permissible in accordance with the conditions of this Permit.
8. Includes the existing RMU-1 landfill and the new RMU-2 landfill whose construction and operation is permissible in accordance with the conditions of this Permit.

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	Surface Impoundments
VI	Landfills
VII	RESERVED
VIII	Intermediate Commercial Hazardous Waste Storage and Treatment Facilities and Land Disposal Restrictions (LDRs)
IX	RESERVED

Attachments:

A	Application Section A – Part A Application
B	Application Section F, Subsection 1.0 to 1.3 – Preparedness & Prevention - Security
C	Application Section C – Waste Analysis Plan
D	Application Appendix D-1 – Containers (Process Description, including New DMB Design Drawings);

Application Appendix D-2 – Surface Impoundments (Process Description, including Fac Pond 5 Design Drawings and Response Action Plan);
Application Appendix D-3 – Tanks (Process Description);
Application Appendix D-3, Section VII – Tank Ancillary Equipment – Tightness Testing Procedures for Underground Hazardous Waste Transfer Lines;
Application Appendix D-3, Section VIII – Tank System Assessment Table;
and
Application Appendix D-3, Figures & Capacity Calculations for Tank Systems' Secondary Containment

E Corrective Action Requirements
F Application Section F – Preparedness & Prevention
G Application Section G – Contingency Plan
H Application Section H – Personnel Training Plan
I Application Section I – Closure Plan & Post-Closure Plans
J Application Appendix D-6 – RMU-1 Landfill Drawings;
Application Appendix D-6a – RMU-2 Landfill Drawings;
Application Appendix D-7 – RMU-1 Landfill Technical Specifications;
Application Appendix D-7a – RMU-2 Landfill Technical Specifications;
~~and~~
Application Appendix D-8 – RMU-1 Landfill Quality Assurance Manual;
and
Application Appendix D-8a – RMU-2 Landfill Quality Assurance Manual
K Application Appendix D-9 – RMU-1 Landfill Response Action Plan;
Application Appendix D-9a – RMU-2 Landfill Response Action Plan; and
Application Appendix D-11 – RMU-1 Minimum Waste Strength Curves
L Application Appendix D-10 – Fugitive Dust Control Plan
M Surface Water Sampling and Analysis Plan
N Air & Meteorological Monitoring Plan
O Major / Minor Modifications

Documents Incorporated by Reference:

1. "CWM Meteorological Monitoring Network - Quality Assurance Project Plan" (November 2000; revised November 2013)[1]
2. Department-Approved "Site-Wide, ~~and~~ RMU-1 and RMU-2 Closure Cost Estimates" (January 24, 2012 with revisions dated June 7, 2012 and January 2014)[1,2]
3. Department-Approved "Site-Wide, ~~and~~ RMU-1 and RMU-2 Post-Closure Cost Estimates and Corrective Measures Cost Estimate" (January 24, 2012 with revisions dated June 7, 2012 and January 2014)[1,2]
4. "Surety Bond #022046594" issued by Liberty Mutual Insurance Company (October 2013)[1,2] [6 NYCRR 373-2.8(d) & (f)]

Modified: Dec. 2013

5. "Surety Bond #K08931884" issued by Westchester Fire Insurance Company (October 2013)[1,2] [6 NYCRR 373-2.8(d) & (f)]
6. "JP Morgan Chase Bank Standby Trust Agreement" (October 2013)[1,2]
7. "Groundwater Extraction Systems Operations and Maintenance Manual" (April 2008, revised November 2013)[1] [6 NYCRR 373-2.6(l)]
8. Part 373 Permit Application, Drawings Section – "Process & Instrumentation Diagrams (PIDs) for Tank Systems" (December 2001; revised September 2013 and January 2014)[1] [6 NYCRR 373-1.5(c)(4)]
9. Part 373 Permit Application, Appendix D-3, Table entitled – "Aboveground Ancillary Equipment Without Secondary Containment" (April 2001, Revised May 2012)[1] [6 NYCRR 373-2.10(d)(6)]
10. "Aqueous Waste Treatment System Operations and Maintenance (O&M) Manual" (April 2000; revised September 2013 and January 2014)[1] [6 NYCRR 373-2.10(e)]
11. "Operations and Maintenance (O&M) Manual for the Stabilization Facility" (June 1999; revised November 2013)[1] [6 NYCRR 373-2.10(e)]
12. Part 373 Permit Application, Appendix D-5 – "RMU-1 Engineering Report" (June 2003; revised September 2012)[1] [6 NYCRR 373-2.14(c)]
13. "RMU-1 Operations and Maintenance (O&M) Manual" (November 2002 with revisions through November 2013)[1] [6 NYCRR 373-2.14(c) & (e)]
14. "RMU-1 Leachate Level Compliance Plan (LLCP)" (November 2002 with revisions through November 2011)[1] [6 NYCRR 373-2.14(c) & (e)]
15. "Groundwater Sampling and Analysis Plan (GWSAP)" (October 2003; revised November 2013 and January 2014)[1] [6 NYCRR 373-2.6(h)]
16. "Statement of Basis, Selection of Final Corrective Measures, CWM Chemical Services, L.L.C., USEPA ID No. NYD049836679, Model City, NY 14107" (January 31, 2001)[1]
17. "Design Report for Process Area III Groundwater Interceptor Trench" (May 2012)[1] [6 NYCRR 373-2.6(l)]
18. "Design Report for Process Area IV Extraction Wells" (April 2012)[1] [6 NYCRR 373-2.6(l)]
19. "Site Radiological Survey Plan (SRSP)" (November 2006; revised November 2013)[1] [6 NYCRR 373-2.6(l)]
20. "Sitewide Radiological Investigation Soil Sampling Plan (SRISSP)" (May 2006)[1] [6 NYCRR 373-2.6(l)]
21. "Radiation Environmental Monitoring Plan (REMP)" (March 2006; revised November 2013)[1] [6 NYCRR 373-2.6(l)]

Modified: Dec. 2013

22. "Generic Small Project Soil Excavation Monitoring and Management Plan (GSPSEM&MP)" (November 2006; revised November 2013)[1] [6 NYCRR 373-2.6(l)]
23. "Facultative Pond 8 Water Transfer Procedure" (May 2008)[1] [6 NYCRR 373-2.11(b)(7)]
24. Dioxin Management Plan (October 18, 1993; updated February 2, 1996, August 29, 1996 and May 25, 1999) [6 NYCRR 373-2.14(m)]
25. "RMU-1 Final Cover Access Road Design Plans" (August 2012; revised September 2012 and October 2012)[1] [6 NYCRR 373-2.14(c)]
26. "RMU-1 Supplemental Primary Leachate Pumping System Design and Operational Plan" (October 2012)[1] [6 NYCRR 373-2.14(c)]
27. "Tank System Design and Assessment Report for AWTS Arsenic Removal Tanks" (May 2013)[1] [6 NYCRR 373-2.10(c)(1)]
28. "RMU-2 Engineering Report" (November 2013)[1] [6 NYCRR 373-2.14(c)]
29. "Transition Plan for RMU-2" (November 2013)[1]
30. "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan" (November 2013)[1] [6 NYCRR 373-2.6(l)]
31. "Tank System Design and Assessment Report for Fac Pond 5 Tank T-9001" (November 2013)[1] [6 NYCRR 373-2.10(c)(1)]

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.

C. COMPLIANCE SCHEDULE

The Permittee must complete the following activities within the scheduled timeframes indicated in the following table:

Item	Requirement	Compliance Date[1]
FAC Pond 8 Closure Extension[2]	Complete radiological characterization of FAC Pond 8, identify all areas requiring remediation and commence remedial activities.	Interim Date: Within 365 days of the effective date of this Permit.

	Complete all remedial activities, conduct final radiological survey of FAC Pond 8 and submit final survey report.	Interim Date: Within 730 days of the effective date of this Permit.
	Resume, complete and certify the closure of FAC Pond 8 in accordance with the Closure Plan provided in Attachment I of this Permit.	Final Date: Within 1,095 days of the effective date of this Permit.

Footnotes:

1. The Permittee must comply with the reporting requirements of 6 NYCRR 373-1.6(d)(1)(iii) for each interim date and the final compliance date.
2. Additional requirements related to the FAC Pond 8 closure extension are contained in Exhibit E of this Schedule.

D. SCHEDULE OF DELIVERABLES

The Permittee must complete the activities indicated in the following table within the scheduled timeframes from the effective date of the Permit:

Item	Requirement	Compliance Date
Relocation of Exhibits in Schedule 1 of Module I	Relocate the text from the Exhibits (except Conditions A.1 and B of Exhibit A) of **Schedule 1 of Module I** to the Permit Application sections and plans. Permittee must provide the Department with tracked-changes files and final pages of **Schedule 1 of Module I** and all affected Application and plans indicating where the text was relocated.	Provide with Permit renewal application no less than 180 calendar days prior to Permit expiration.

Item	Requirement	Compliance Date
Permit Reference Tables	Submit, in the form of a Permit modification request, a reference table for each unit type (i.e., containers, tanks, surface impoundments, landfill and waste blending) and for corrective action, which lists all Permit citations of Modules, Attachments and Incorporated Documents that pertain to each unit type and corrective action.	Within ninety (90) days of the effective date of this Permit.
Citation Verification	Submit a review of Permit Attachments and all Documents Incorporated By Reference as listed under Condition B in Schedule 1 of Module I, to verify that any and all references to Permit conditions in these documents correspond properly to the specific conditions in this Permit. If one or more citations do not reference the correct Permit condition, a Permit modification request shall be provided with the review submission to correct each such citation along with the appropriate modified pages for the effected attachment(s) or document(s).	Within ninety (90) days of the effective date of this Permit.
Additional Financial Assurance	Since the total amounts of the Department-approved Facility closure, post-closure and corrective action cost estimates (incorporated by reference into this Permit by Condition B of Schedule 1 of Module I) exceed the amount of the financial assurance instruments currently in place, provide additional financial assurance to cover the amount of these cost estimates in accordance with **Condition O of Module I** of this Permit	Within sixty (60) days of the effective date of this Permit.

Item	Requirement	Compliance Date
Revised Corrective Action Cost Estimate	Submit for Department approval a revised cost estimate, in current dollars, which includes all operational costs for the Corrective Action Process Area III & IV Groundwater Extraction and Treatment systems with appropriate third party justification.	Within thirty (30) days of the effective date of this Permit.
Additional Financial Assurance	Provide additional financial assurance to cover the total amount of the corrective action cost estimate, as revised to include the operational costs for Process Areas III & IV corrective action, in accordance with **Condition O of Module I** of this Permit.	Within sixty (60) days of the Department's approval of the revised cost estimate.
Draft Site Management Plan (SMP)	Submit a draft SMP for the Model City facility prepared in accordance with Module II and DER-10. The SMP must be a comprehensive document, must consider and include all site management activities for the entire Facility and must describe how the Permittee will manage the Facility to achieve remedial goals and objectives for the entire Facility as a whole. If the Permittee has already prepared a Department-approved plan that fulfills a component of the SMP, the Permittee may incorporate such plan(s) by reference.	Within ninety (90) days of the effective date of this Permit.
Final SMP	Submit a final SMP for the Model City facility acceptable to the Department prepared in accordance with DER-10.	Within 180 days of the effective date of this Permit.

Item	Requirement	Compliance Date
Process Area III Groundwater Extraction System Installation	Complete the installation of the Process Area III groundwater extraction trench and all appurtenances necessary for the operation of this extraction system including Tank T-8010 in accordance with the Department approved "Design Report for Process Area III Groundwater Interceptor Trench" (incorporated by reference into this Permit by Condition B of Schedule 1 of Module I).	Within ninety (90) days of the effective date of this Permit.
Process Area III Groundwater Extraction System Construction Report	Submit a Construction Report to the Department which documents the system's construction in accordance with the aforementioned Design Report, and including the certification for Tank T-8010 as required by **Condition B of Module IV** of this Permit	Within thirty (30) days of system installation.
Process Area III Groundwater Extraction System Operation	Place the Process Area III groundwater extraction system and any DNAPL recovery system into operation in accordance with the aforementioned Design Report.	Within fifteen (15) days of Department approval of the Construction Report, or the following operational season if the approval occurs during the period from November 1 to April 14.
Process Area III Groundwater Extraction System SMP Inclusion	Include the Process Area III Groundwater Extraction System in the submission of the Draft SMP for Department approval.	Within ninety (90) days of the effective date of this Permit.

Item	Requirement	Compliance Date
Process Area IV Groundwater Extraction System Installation	Complete the installation of the Process Area IV groundwater extraction wells and all appurtenances necessary for the operation of this extraction system including Tank T-8009 in accordance with the Department approved "Design Report for Process Area IV Extraction Wells" (incorporated by reference into this Permit by Condition B of Schedule 1 of Module I).	Within ninety (90) days of the effective date of this Permit.
Process Area IV Groundwater Extraction System Construction Report	Submit a Construction Report to the Department which documents the system's construction in accordance with the aforementioned Design Report, and including the certification for Tank T-8009 as required by **Condition B of Module IV** of this Permit.	Within thirty (30) days of system installation.
Process Area IV Groundwater Extraction System Operation	Place the Process Area IV groundwater extraction system into operation in accordance with the aforementioned Design Report.	Within fifteen (15) days of Department approval of the Construction Report, or the following operational season if the approval occurs during the period from November 1 to April 14.
Process Area IV Groundwater Extraction System SMP Inclusion	Include the Process Area IV Groundwater Extraction System in the submission of the Draft SMP for Department approval.	Within ninety (90) days of the effective date of this Permit.
FAC Pond 8 Closure	Complete the closure of FAC Pond 8 in accordance with the requirements of this Permit and submit a closure certification report to the Department.	See Condition C (above) and Condition D of Exhibit E.

Item	Requirement	Compliance Date
New DMB Technical Specifications and CQA Plan	Provide technical specifications and a CQA Plan for the construction of the New DMB, in accordance with **Conditions C.1.f.i.'a' & 'b' in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 90 days prior to the anticipated start of the New DMB's construction.
New DMB Construction Certification & Department Inspection	Provide construction certification documents and allow for Department inspection of the New DMB, in accordance with **Condition C.1.f.i.'c' in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 15 days prior to placing containerized waste in the New DMB.
New Full and Stabilization Trailer Park Areas' Technical Specifications and CQA Plan	Provide technical specifications and CQA Plans for the construction of the New Full Trailer Park Area and New Stabilization Trailer Park Area, in accordance with **Condition C.1.g.i.'a' & 'b' in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 90 days prior to the anticipated start of construction of each new CSA.
New Full and Stabilization Trailer Park Areas' Construction Certification & Department Inspection	Provide construction certification documents and allow for Department inspection of the New Full Trailer Park Area and New Stabilization Trailer Park Area, in accordance with **Condition C.1.g.i.'c' in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 15 days prior to placing containerized waste in each New CSA.
New T-109 & T-158 Loading Areas' Technical Specifications and CQA Plans	Provide technical specifications and CQA Plans for the construction of the New T-109 & T-158 Loading Areas, in accordance with **Condition C.1.h.i.'a' & 'b' in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 90 days prior to the anticipated start of construction of each new CSA.

Item	Requirement	Compliance Date
New T-109 & T-158 Loading Areas' Construction Certification & Department Inspection	Provide construction certification documents and allow for Department inspection of the T-109 & T-158 Loading Areas, in accordance with **Condition C.1.h.i.'c' in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 15 days prior to placing containerized waste in each New CSA.
New DMB and New Trailer Park CSAs Financial Assurance	Provide financial assurance to cover the total amount of the closure cost estimate, in current dollars, for the New DMB, New Full Trailer Park Area and Stabilization Facility New Trailer Park Area, in accordance with **Condition B.1.e.iii in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 60 days prior to placing containerized waste in each unit.
New T-109 & T-158 Loading Areas Financial Assurance	Either complete and certify closure of the existing T-109 & T-158 Load/Unload Areas or provide additional financial assurance to cover the total amount of the closure cost estimate, in current dollars, for these new areas in accordance with **Condition C.1.h.iii in Exhibit C of Schedule 1 of Module I** of this Permit.	At least 60 days prior to placing containerized waste in each unit.
Tank T-9001 Installation Certification & Department Inspection	Provide certification and allow for Department inspection of Tank t-9001, in accordance with **Condition C.1.k in Exhibit D of Schedule 1 of Module I** of this Permit.	At least 15 days prior to placing waste in Tank T-9001.
Fac Pond 5 Wastewater Compatibility Demonstration	Submit reports demonstrating the wastewater compatibility of Fac Pond 5 wastewater management components, in accordance with **Conditions E.1.a & E.1.b in Exhibit E of Schedule 1 of Module I** of this Permit.	Prior to construction of Fac Pond 5.

Item	Requirement	Compliance Date
Fac Pond 5 Material Testing	Submit results of Fac Pond 5 material tests, in accordance with **Condition E.1.b in Exhibit E of Schedule 1 of Module I** of this Permit.	At least 2 weeks prior to the installation of each material in Fac Pond 5 liner / leak detection system.
Fac Pond 5 Construction Schedule	Submit a construction schedule for Fac Pond 5, in accordance with **Condition E.1.d in Exhibit E of Schedule 1 of Module I** of this Permit.	At least 30 days prior to the start of Fac Pond 5 construction.
Fac Pond 5 CQA Engineer's Qualifications	Provide information on the CQA Engineer's qualifications, in accordance with **Condition E.1.d in Exhibit E of Schedule 1 of Module I** of this Permit.	At least 2 weeks prior to the start of Fac Pond 5 construction.
Fac Pond 5 Construction Certification	Submit a construction certification and supporting documents for Fac Pond 5, in accordance with **Condition E.1.h.ii in Exhibit E of Schedule 1 of Module I** of this Permit.	Prior to discharging any wastewater into Fac Pond 5.
Fac Pond 5 Financial Assurance	Provide financial assurance to cover the total amount of the closure cost estimate, in current dollars, for Fac Pond 5, in accordance with **Condition G.3.b in Exhibit E of Schedule 1 of Module I** of this Permit	At least 60 days prior to the discharge of any wastewater into Fac Pond 5.
RMU-2 Material Leachate Compatibility Demonstration	Submit reports demonstrating the leachate compatibility of individual RMU-2 liner & leachate management components, in accordance with **Conditions C.1.a, C.2 & C.3 in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to construction of each RMU-2 Cell.
RMU-2 Material Testing	Submit results of RMU-2 material tests, in accordance with **Conditions C.4 – C.7 in Exhibit G of Schedule 1 of Module I** of this Permit.	At least 2 weeks prior to the installation of each material in the RMU-2 liner or final cover.

Item	Requirement	Compliance Date
RMU-2 Construction Schedules	Submit a construction schedule for each RMU-2 cell and final cover phase, in accordance with **Condition D.1.c in Exhibit G of Schedule 1 of Module I** of this Permit.	At least 30 days prior to the start of construction of each cell and each final cover phase.
RMU-2 CQA Engineer's Qualifications	Provide information on the CQA Engineer's qualifications, in accordance with **Condition D.1.f in Exhibit G of Schedule 1 of Module I** of this Permit.	At least 2 weeks prior to the start of construction of each cell and each final cover phase.
RMU-2 Design Re-Evaluation Report	Submit RMU-2 Design Re-Evaluation Reports, in accordance with **Condition D.3 in Exhibit G of Schedule 1 of Module I** of this Permit.	At least 120 days prior to the start of construction of each cell (except the first cell) and each final cover phase.
RMU-2 Subgrade Piezometer Installation Plans	Submit subgrade wire piezometer installation plans, in accordance with **Condition D.5.a.iv in Exhibit G of Schedule 1 of Module I** of this Permit.	At least 90 days prior to the start of construction of each cell.
RMU-2 Cell Construction Certification	Submit a construction certification and supporting documents for each RMU-2 cell, in accordance with **Condition D.10 in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to waste placement in each cell.
RMU-2 Incoming Waste Truck Management Plan	Submit an RMU-2 Incoming Waste Truck Management Plan, in accordance with **Condition E.2 in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to commencing construction of the first RMU-2 cell.
RMU-2 Operations & Maintenance (O&M) Manual	Submit an RMU-2 O&M Manual and cell addendums, in accordance with **Conditions F.1.a, F.7.c & F.8 in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to commencing construction of the first RMU-2 cell, with addendums prior to construction of each subsequent cell.

Item	Requirement	Compliance Date
RMU-2 Cell Fill Progression Plan	Submit an RMU-2 Cell Fill Progression Plan and cell addendums, in accordance with **Condition F.1.b in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to commencing construction of the first RMU-2 cell, with addendums prior to construction of each subsequent cell.
RMU-2 Cell Leachate and Storm Water Management Plan	Submit an RMU-2 Cell Leachate and Storm Water Management Plan and cell addendums, in accordance with **Condition F.1.c in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to commencing construction of the first RMU-2 cell, with addendums prior to construction of each subsequent cell.
RMU-2 Storm Water Detention Basins' Capacity Verification	Submit an "as-built" topographic survey and capacity analysis for each RMU-2 Storm Water Detention Basin, in accordance with **Condition F.5.c.ii in Exhibit G of Schedule 1 of Module I** of this Permit.	Within 30 days of completing each basin's construction.
RMU-2 MSE Wall Inspection, Repair/Reinforcement Plan	Submit an RMU-2 MSE Wall Inspection, Repair/Reinforcement Plan, in accordance with **Condition G.1 in Exhibit G of Schedule 1 of Module I** of this Permit.	Prior to waste placement in the first cell.
RMU-2 Closure Certifications	Submit a closure certification and supporting documents for each RMU-2 closure phase, in accordance with **Condition J.1 in Exhibit G of Schedule 1 of Module I** of this Permit.	Within 60 days of completing each closure phase.
RMU-2 Financial Assurance	Provide financial assurance to cover the total amount of the closure & post-closure cost estimates, in current dollars, for each RMU-2 cell, in accordance with **Conditions J.3 & K.2 in Exhibit G of Schedule 1 of Module I** of this Permit	At least 60 days prior to placing waste in each cell.

E. REQUIREMENTS FOR AN ON-SITE ENVIRONMENTAL MONITOR

Number of Environmental Monitors assigned to Facility: Four (4)

1. The account to fund the Environmental Monitor(s) as established under this Permit must continue as follows:

   a. Funds as required to support the monitoring requirements must be provided to the Department for funding of environmental compliance activities related to the Permittee's Facility. This sum is based on annual Environmental Monitor service costs and is subject to annual revision. Subsequent annual payments must be made for the duration of this Permit to maintain an account balance sufficient to meet the next year's anticipated expenses. The Permittee will be billed annually for each fiscal year this Permit is effective. The Permittee must make payment 30 days in advance of April 1 of each fiscal year.

   b. The Department may revise the required payment on an annual basis to include all costs of monitoring to the Department. The annual revision may take into account factors such as inflation, salary increases, changes in operating hours and procedures and the need for additional Environmental Monitors and supervision of such Environmental Monitors by full-time Environmental Monitor supervisors. Upon written request by the Permittee, the Department shall provide that entity with a written explanation of the basis for any modification. If such a revision is required, the Department will notify the Permittee of such a revision no later than 60 days in advance of any such revision.

   c. Prior to making its annual payment, the Permittee will receive and have an opportunity to review an annual work plan that the Department will undertake during the year.

   d. Payments are to be in advance of the period in which they will be expended.

   e. Within 30 days of written notice by the Department that a payment is due, payment must be forwarded to the Department. Payment must be sent to New York State Department of Environmental Conservation, Bureau of Revenue Accounting, 625 Broadway 10th Floor, Albany, New York 12233-5012.

   f. Failure to make the required payments is a violation of this Permit. The Department reserves all rights to take appropriate action to enforce the above payment provisions.

   g. The Environmental Monitor(s) shall, when present at the Permittee's Facility, abide by all of the Permittee's health and safety and operational requirements and policies; provided, however, that this subparagraph shall not be construed as limiting the Environmental Monitors' powers as otherwise provided for by law and shall not result in the Environmental Monitor(s) being less protected than the Environmental Monitor(s) would be if he or she were to abide by State and Federal health and safety requirements.

h. The Department's Environmental Monitor(s) must receive from the Permittee all general safety training which is normally given to new site employees. This training will be a supplement to the mandatory safety training that Environmental Monitors receive from the Department.

i. The Permittee must furnish to the Environmental Monitor(s) a current site policy and procedures manual for health and safety issues. Within fifteen (15) days of any revision to the health and safety plan, the Permittee must notify the Department, in writing, of such modification.

j. The specific daily responsibilities of the Environmental Monitor are dynamic in scope. In general, the Monitor's function is to monitor the Permittee's environmental quality programs, and work with Facility staff to maximize permit and regulatory compliance.

2. The duties of the Environmental Monitor include, but are not necessarily limited to:

- Inspections;
- Liaison with the Permittee and the Department's Permit Writer;
- Meet with the Permittee on an as-needed basis; and,
- Other duties as assigned by the Department.

F. ROUTINE REPORTING

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 table below is intended to serve as a guide for certain routine reporting required by this Permit. However, the Permittee is still obligated to comply with all applicable regulations cited in this Permit and all conditions and requirements contained in the Modules, Schedule 1 of Module I, Attachments and documents incorporated by reference into this Permit, regardless of whether they are or are not listed in the table below.):

Item	Frequency	Due Date	Requirement
Routine Environmental Monitoring Results	Monthly	90 days after month of event	6 NYCRR 373-1.6(a)(10)(iii), Module VI, Exhibits B, E, ~~and~~ F and G, and Attachments E and N
Notification of Intention to Import Hazardous Waste	On-going	4 weeks in advance	6 NYCRR 373-2.2(d)
Local Fire Company Inspection Report	Semiannually	7 days of inspection	Condition A.3 of Exhibit A

Item	Frequency	Due Date	Requirement
Copies of Hazardous Waste Manifests to NYSDEC	On-going	10 days of receipt	6 NYCRR 373-2.5(b)(1)(i) and Condition E of Exhibits F & G
Copies of Hazardous Waste Manifests from foreign locations to USEPA	On-going	30 days of receipt	6 NYCRR 373-2.5(b)(1)(i)(c) and Condition E of Exhibits F & G
Unmanifested Waste Report	On-going	Within 10 days of waste receipt	6 NYCRR 373-2.5(b)(2&3) and 373-2.5(f)
Annual Report	Annually	March 1	6 NYCRR 373-2.5(e)
Hazardous Waste Reduction Plan Update	Annually	July 1	ECL 27-0908 and Module I, Condition L
Inventory of Waste in Storage Greater Than 6 Months	Monthly	14 days after month's end	Condition C.1 of Exhibit A
Compliance Report for CWM Facilities	Every five years	180 to 365 days prior to Permit expiration	Module I, Condition E.2
Cost Estimate for Closure, Post-Closure and Corrective Action Adjusted For Inflation	Annually	October 2	6 NYCRR 373-2.8(c)(2), 6 NYCRR 373-2.8(e)(2) and Module I, Condition O.3
Quantity of Leachate and GWES for Previous Year	Annually	March 1	Condition H.1 of Exhibit A
Containers Secondary Containment Assessment Report	Annually	Complete all assessments by August 31; submit report by November 30	Module III, Condition K.1
Tank Assessment Report	Annually	November 30	Module IV, Condition K.3
Tank Secondary Containment Assessment Report	Annually	Complete all assessments by August 31; submit report by November 30	Module IV, Condition K.4

Item	Frequency	Due Date	Requirement
Discharge Pre-qualification Report for FAC Pond	Prior to each discharge	Prior to discharge	Module V, Condition M.3 and Condition D.3.d of Exhibit B
Fac Ponds' Sediment Depth Measurement and Removal	Every five years	180 to 365 days prior to Permit expiration	Condition B.6 of Exhibit E
Results of Fac Pond 5 Leak Detection Monitoring and Flow Rate	Monthly	90 days after month of event	Condition E.3.c of Exhibit E
Waste Profiles for RMU-1 & RMU-2 to Monitor	On-going	24 hours in advance	Condition E.1.b of Exhibit F and Condition E.3 of Exhibit G
List of Generators with 3 or More Improperly Designated Wastes for Landfill	Annually	March 1	Condition E.1.h.i of Exhibit F Condition E.9.a of Exhibit G
RMU-1 & RMU-2 Pipe Flushing	Annually	30 days after flush	Condition F.3.e of Exhibit F and Condition F.5.d of Exhibit G
Upcoming Week Work Schedule to Monitor	On-going	3 p.m. Friday or prior week	Condition F.5.c of Exhibit F and Condition F.7.a of Exhibit G
Report of Leachate Level Measurement Verification (RMU-1 & RMU-2) and level probes moved	Quarterly	Within 30 days of end of quarter	Condition G.2.d of Exhibit F and Condition G.2.e of Exhibit G
Results of LCS Chemical Analyses	Monthly	90 days after month of event	Condition G.2 of Exhibit F and Condition G.2 of Exhibit G
Results of LCS Level and Flow Monitoring	Quarterly	Within 30 days of end of quarter	Condition G.2 of Exhibit F and Condition G.2 of Exhibit G
Results of SLCS Monitoring and Flow Rate	Monthly	90 days after month of event	Condition H.1.b.ii of Exhibit F and H.2.b of Exhibit G
Quarterly Survey Report	Quarterly	30 days after quarter	Condition I.1.a of Exhibit F and Condition I.1 of Exhibit G

Item	Frequency	Due Date	Requirement
Summary of Total Volume and Weight of Waste Landfilled During Prior Year	Annually	March 1	Condition I.1.b of Exhibit F and Conditions E.1 and I.2.a of Exhibit G
Report of Wastes Disposed with 3-D Grid Location and Description	Monthly	Within 6 months after the end of waste placement in cell or monthly through the life of the landfills	Condition I.1.b of Exhibit F and Condition I.2.b of Exhibit G
RMU-1 Weekly Construction Reports During Construction (Capping)	Weekly	2 weeks after event	Condition J.2.h of Exhibit F
Fac Pond 5 Weekly Construction Reports During Unit Construction	Weekly	2 weeks after event	Condition E.1.d of Exhibit E
RMU-2 Weekly Construction Reports During Construction (Cell & Capping)	Weekly	2 weeks after event	Conditions D.8 and J of Exhibit G
Groundwater Monitoring, Flow Rate and Direction Summary Report	Annually	March 1	Condition L.9.b of Exhibits F & G
Well Inspection Report	Every 5 years	December 31	Condition L.11 of Exhibits F & G and Attachment E, I.K and I.J
Analysis of Untreated Leachate Report	Every 4 years	Within 30 days of obtaining results	Waste Analysis Plan, page C-100
Analysis of Treated AWT Effluent Report	Monthly	30 days after month of event	Waste Analysis Plan, page C-100
Corrective Action Detection Monitoring Report	Semiannually	90 days after month of event	Attachment E, Appendix E.1, I.I

Modified: Dec. 2013

Item	Frequency	Due Date	Requirement
Valve/Pump Leak Not Repaired in Required Timeframe Report	Semiannually, if leak not repaired in required timeframe	Within 30 days of each occurrence	6 NYCRR 373-2.28(p)(1), Attachment D, Appendix D-1, Section N and Attachment D, Appendix D-3, Section VI
GWES Chemical/ Physical Data, NAPL Sump Check and Removal, and Water Levels	Quarterly	Within 30 days of end of quarter	Attachment E, II.H
Evidence that Financial Assurance Instruments have been Maintained and not Lapsed	Annually	Within 30 days of November 30	Module I, Condition O.11

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 Storage and Intra-Facility Waste Tracking Conditions
- D Special Waste Transportation Conditions
- E Special Document Submission Conditions
- F Special Surface Water Monitoring Conditions
- G Special Cost Estimate & Financial Assurance Conditions
- H Special Post-Closure and Corrective Measures Cost Estimate Conditions

Exhibit B Supplement to Module II - Corrective Action

- A Corrective Action Requirements
- B Additional Corrective Action Activities
- C Deed Restrictions
- D Supplemental Corrective Action Requirements

Exhibit C Supplement to Module III - 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 Container Miscellaneous Units

Exhibit D Supplement to Module IV - Tanks

- A Authorized Storage Tank, Waste Types and Storage Volume
- B Special Conditions for Tank Systems (General)
- C Special Conditions for Tank Systems (Specific)

Exhibit E Supplement to Module V - Surface Impoundments

- A Authorized Surface Impoundments
- B General Conditions
- C Special Operating & Monitoring Conditions
- D Special Conditions for FAC Pond 8
- E FAC Pond 5 Construction, Operation, Monitoring & Closure
- F Fac Pond 5 Construction Time Period
- G Special Closure & Financial Assurance Conditions

Exhibit F Supplement to Module VI – RMU-1 & Closed Landfills

- A Authorized Disposal of Waste in Landfill
- B General Conditions
- C RMU-1 Design & Liner/Leachate Collection System Repair Materials
- D RMU-1 Liner/Leachate Collection System Repair
- E RMU-1 Waste Disposal
- F RMU-1 Operating Requirements
- G RMU-1 Monitoring and Inspection
- H RMU-1 Secondary Leachate Collection System (SLCS)
- I RMU-1 Surveying, Reporting and Recordkeeping
- J RMU-1 Closure Requirements
- K Perpetual Post-Closure Care Requirements
- L Groundwater Protection

Exhibit G Supplement to Module VI – RMU-2 Landfill

- A Authorized Disposal of Waste in Landfill
- B General Conditions
- C RMU-2 Liner, Leachate Collection and Final Cover Materials
- D RMU-2 Cell & Final Cover Construction
- E RMU-2 Waste Disposal
- F RMU-2 Operating Requirements
- G RMU-2 Monitoring and Inspection Requirements
- H RMU-2 Secondary Leachate Collection System (SLCS) Requirements
- I RMU-2 Surveying, Reporting and Recordkeeping
- J RMU-2 Closure Requirements
- K RMU-2 Perpetual Post-Closure Care Requirements
- L RMU-2 Groundwater Monitoring and Protection Requirements

SCHEDULE 1 of MODULE I
EXHIBIT A

Facility-Specific Conditions
Supplement To Module I

[*NOTE: Portions of Schedule 1 of Module I Exhibit A are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

EXHIBIT A

SUPPLEMENT TO MODULE I

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 is authorized to manage only hazardous wastes and non-hazardous wastes waste, from off-site generators and which are generated at the Permittee's Facility as listed in Waste Characteristics Section C-1 (Tables C-1 & C-2) of the Waste Analysis Plan in Attachment C of the Permit, pursuant to the restrictions in Attachment C and the terms of this Permit, unless exempt under 6 NYCRR Part 373-1.1(d), or exempt under 6 NYCRR 371.1(j) and managed in compliance with 6 NYCRR 374-3, or authorized for acceptance under 6 NYCRR 373-4, or collected pursuant to ECL§27-2613 for recycling purposes only. The Permittee is **not** authorized by this Permit to accept garbage (putrescible waste).

2. The Permittee must maintain for the duration of this Permit, signed agreements made/renewed with local emergency response agencies (e.g., fire, EMS, police, etc.), or submit to the Department documentation of the Permittee's attempt to obtain such agreements and the outside agencies lack of response, revocation or refusal to enter into said agreements. If the Permittee is unable to obtain a signed agreement from a particular agency, or agencies, or if an agency, or agencies, decide to terminate a previously signed agreement, the above mentioned submission must indicate what specific additional personnel and/or resources the Permittee will employ to compensate for the deficiency in emergency response.

3. The Permittee must make arrangements for semi-annual inspections of the Facility by local fire companies or departments. During each inspection the Permittee must 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 by the Permittee within seven (7) days of each inspection.

4. The Permittee must provide a copy of the 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 and to personnel at each manned gate or guardhouse.

5. In the event of a fire, explosion or a release of hazardous waste to off-site areas, the Permittee must, at a minimum, immediately alert the local fire company or department to respond.

6. Upon notification by the Permittee of any partial closure of a unit or portion thereof, or of final closure of the Facility, in accordance with 6 NYCRR 373-2.7(c)(4), 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 I of this Permit) will be necessary to verify the effectiveness of decontamination or removal of components, equipment, structures and contaminated soils. 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 I 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.

7. 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 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 anytime during the life of this Permit, the Department may designate alternate titles or addresses to receive submissions (different than those indicated below), and direct the Permittee to make submissions to the alternate title or address. 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 Hazardous Materials Engineer
New York State Department of Environmental Conservation
Region 9 Office
270 Michigan Avenue
Buffalo, NY 14203-2999

b. One (1) electronic copy of the following:

- any reports on international transport of hazardous waste;
- the "greater than six months drum inventory report";
- any documentation of incoming wastes incorrectly labeled; and,
- only the cover letters of all other submittals.

to:

Chief, RCRA Programs Branch or designee
Division of Environmental Planning and Protection
U.S. Environmental Protection Agency, Region II
290 Broadway, 22nd Floor
New York, NY 10007-1866

c. One (1) electronic copy of all submittals except for those specific only to waste reduction to:

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

d. The original (paper) version of all financial assurance instruments to:

RCRA C Financial Assurance Coordinator
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7251

e. One (1) electronic 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

f. One (1) paper copy of all modification requests pertaining to this Permit to:

Regional Permit Administrator
Division of Environmental Permits
New York State Department of Environmental Conservation
Region 9 Office
270 Michigan Avenue
Buffalo, NY 14203-2999

g. One (1) electronic copy of all submittals required by **Condition D of Exhibit B** to:

Assistant Director, Bureau of Environmental Radiation Protection
New York State Department of Health
Empire State Plaza, Corning Tower
Albany, NY 12237

An electronic copy of all reports, plans, schedules, correspondence or other documents sent to the Department in accordance with this Permit, must be simultaneously sent to the Niagara County Health Department (NCHD) unless otherwise authorized by this agency. Copies of any enclosures or attachments must be provided to the NCHD at its request.

C. Special Storage and Intra-Facility Waste Tracking Conditions

1. Duration of Waste Storage

a. Within 14 days from the end of each calendar month, the Permittee must submit to the Department a list of all waste which has been stored on-site longer than six months and a plan for the ultimate treatment and/or disposal of this inventory.

2. Intra-Facility Waste Tracking

a. The Permittee must operate and maintain a record management system for waste tracking at the Facility. The system must be capable of recording the date of each off-site generated waste's arrival at the Facility, each waste's fingerprint analyses,

all internal waste transfers (e.g., container to tank, container to landfill, etc.), the nature and quantities of waste generated at the Facility, and the method, location, and dates of any treatment, any placement into storage, disposal in the RMU-1 landfill or shipment off-site for each waste at the Facility. Each waste must be cross-referenced to waste manifests and waste profile numbers. The data from the waste tracking system must become part of the Facility's operating record required by 6 NYCRR 373-2.5.

b. The Permittee must use codes or other means of identifying the ultimate disposition of each waste, whether the waste is intended for treatment in the Facility's aqueous treatment system, whether the waste is intended to undergo on-site fuels blending, whether the waste requires stabilization, encapsulation or other treatment prior to on-site land disposal, any conditions associated with on-site disposal such as segregation of acid-generating and acid-sensitive wastes or dust suppression activities, and each waste's degree of hazard from reactivity, toxicity and flammability. For wastes disposed in RMU-1, the disposal location will be documented in accordance with **Condition F.5.e of Exhibit F**. For wastes disposed in RMU-2, the disposal location will be documented in accordance with **Condition F.7.d of Exhibit G**.

D. Special Waste Transportation Conditions

1. Waste Transport To and From the Facility

a. All trucks transporting, in bulk, blended fuels, PCB contaminated oils, or liquid or solid materials which present a risk of a vapor release or fuming will be scheduled to arrive or depart the Facility between 5:00 a.m. and 7:00 a.m. or between 4:00 p.m. and 9:00 p.m. on the days when the Lewiston-Porter School complex is in session. The Permittee must obtain a copy of the Lew-Port School "event" calendar and attempt to schedule shipments of the aforesaid materials so as to avoid events that are expected to be heavily attended.

b. No trucks carrying waste will be scheduled for arrival or departure between 7:30 a.m. and 9:00 a.m. or between 2:15 p.m. and 3:45 p.m. on days when the Lewiston-Porter School complex is in session. Trucks may be moved from CWM's transportation Facility at 1135 Balmer Road to the TSDF site at 1550 Balmer Road during these hours.

c. Trucks carrying waste to the Facility and arriving via I-190 must use the existing designated route. Trucks carrying wastes to the Facility arriving from the eastern part of Niagara County must use the available state highways to Balmer Road. The Permittee will designate an alternate inbound route for trucks arriving via I-190 if adequate traffic safety devices (signals) are installed at the cloverleaf off ramp left turn onto Rt. 104 East.

d. The Permittee must communicate the above requirements along with all authorizations that are granted to transporters who list the Model City Facility site at 1550 Balmer Road in the Towns of Lewiston and Porter, Niagara County, on their New York State Part 364 waste transporter permits.

e. It is intended that the above requirements be applied to all waste transporters (including those operating under the control of the Permittee, its parent corporation or any other corporate affiliate of the Permittee) and enforced by the Permittee as provided for in the "CWM Model City Transportation Rules and Regulations", in accordance with the Site Operations Plan (Appendix 1 of the CAC Agreement dated July 21, 1993 or most recent approved edition). The Permittee's failure to communicate the conditions referenced above or its failure to enforce those conditions as provided for in the CWM Model City Transporter Rules and Regulations, shall constitute a violation of this Permit, and hence a violation of the Environmental Conservation Law ("ECL"). It is however, recognized that the CWM Model City Transporter Rules and Regulations allow a measure of discretion to the Permittee in determining the sanctions to be imposed on any transporter.

f. A failure of Permittee owned vehicles to comply with any of the above conditions shall constitute a violation of this Permit and hence a violation of the ECL.

g. It is also recognized that these conditions are almost identical to certain provisions in the CAC Agreement and that the parties to that Agreement intended that the terms of that Agreement may be amended from time to time as the situation warrants and the parties agree. Any changes in the corresponding provisions of the CAC Agreement shall require the Permittee to immediately request a modification of this Permit to incorporate these changes into this Permit. Since the same requirements are contained in the CAC Agreement, it is intended that the parties to the CAC Agreement, particularly the Towns of Lewiston and Porter and the County of Niagara, will be the principal parties responsible for the enforcement of these conditions and the resolution of any disputes concerning the implementation thereof.

2. Waste Transport Arrivals and Within the Facility

a. The Permittee must inspect the vehicles and Waste Transporter Permits of all waste haulers upon their arrival at the Facility. If the Waste Transporter Permit has expired, that discrepancy must be recorded in the Facility's operating record and Department staff must be notified the date of the waste's arrival if staff is present on-site or, if not present on-site, within one (1) business day.

b. The Permittee must maintain in the Facility's operating record, documentation of all leaking vehicles, including dump trailers and roll-off containers, and invalid permits identified during the Waste Transporter Permit review and vehicle inspection as required above. The following information is to be included in the operating record:

- The waste hauler's name;
- The trailer (waste containing section of the vehicle) license number;
- The Permit number;
- Any discrepancies noted in the hauler's Waste Transport Permit or any leakage noted during the vehicle inspection;
- In the event of vehicle leakage, documentation of the actions taken to correct the problem and to cleanup any released waste; and
- In the event of any discrepancies or leakage, note when on-site Department staff were notified.

c. Upon arrival of waste transport vehicles whose contents are ultimately destined for land disposal in the RMU-2 landfill, the Permittee must manage these incoming waste loads in accordance with the Department-approved "Incoming Waste Truck Management Plan" required by **Condition E.2 of Exhibit G**.

3. Waste Transport Vehicles and Other Equipment Which Contacts Hazardous Waste

a. Vehicles or equipment entering the RMU-1 landfill coming in contact with wastes, waste residues or contaminated media therein, must have all surfaces which may have contacted such material cleaned/decontaminated prior to leaving the landfill. For the RMU-1 landfill, all vehicles and equipment must be cleaned/decontaminated at the truck wash Facility located within the landfill, in accordance with **Condition F.7 of Exhibit F**.

b. Vehicles or equipment entering the RMU-2 landfill coming in contact with wastes, waste residues or contaminated media therein, must have all surfaces which may have contacted such material cleaned/decontaminated prior to leaving the operational area of the landfill. For the RMU-2 landfill, all vehicles and equipment must be cleaned/decontaminated at the truck wash facility located within the operational area of the landfill, in accordance with **Condition F.8 of Exhibit G**.

E. Special Document Submission Conditions

1. Standard Division Practices (SDPs)

a. The Permittee must provide the Department with copies of all new SDPs dealing with management of waste in advance of any new activity involving hazardous waste management practices specified by the new SDPs. The Permittee must also give written notification to the Department in advance of any modification to an SDP activity involving hazardous waste management, and provide copies of all SDP modifications at least five (5) business days in advance of the modified SDP's implementation. All SDPs must be consistent with, and in no way conflict with the conditions, Attachments and referenced documents of this Permit. The

Permittee must not implement any SDP or modification to an SDP for which it has received notification from the Department of apparent inconsistencies between the SDP and this Permit.

2. Permittee's Organizational Chart

   a. The Permittee must submit a new organizational chart to the Department within 15 working days of any change to the key management personnel such as Managers or Supervisors.

F. Special Surface Water Monitoring & Management Conditions

1. Site Surface Water Requirements

   The Permittee must, at a minimum, perform weekly inspections of control gates at all Surface Water Monitoring Points (SMPs) at the Facility, except for SMP 2. The inspector must verify that each gate is closed and not leaking, unless the surface water at the SMP has been tested and approved for discharge in accordance with the SWSAP in Attachment M of this Permit.

2. RMU-2 Related Surface Water Requirements

   In conjunction with the development of the RMU-2 landfill and related units/structures (e.g., Fac Pond 5, New DMB, etc.), the Permittee must make modifications to the site's surface water management system so as to continue to collect and control the water volume resulting from a 24-hour, 25-year storm, in accordance with 6 NYCRR 373-2.14(c)(8). The system modifications must be made in accordance with the design evaluation presented in Section 3.3.5.1, Section 4.9 and Appendix H of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit and the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit. All excavation and surface re-grading activities associated with these surface water system modifications must be conduted in accordance with the "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, as required by **Condition D.4 of Exhibit B**. The specific system modifications as described below must be initiated in conjuction with the construction of the first RMU-2 cell, and completed prior to waste placement in that first cell.

   a. Modify existing ditches, channels, culverts and watersheds as necessary to accomodate the peak run-off flow from the closed RMU-2 landfill as generated by a 24-hour, 25-year storm.

   b. Construct an SLF 10 Diversion Channel to accomodate the peak run-off flow from SLF 10 as generated by a 24-hour, 25-year storm, and redirect it to the RMU-2 perimeter drainage ditch.

c. Construct an RMU-1/RMU-2 Ditch between the two landfills to accomodate the peak run-off flow from portions of the closed RMU-1 & RMU-2 slopes as generated by a 24-hour, 25-year storm, and transfer it to the new RMU-1/RMU-2 Culvert System.

d. Construct an RMU-1/RMU-2 Culvert to accomodate the peak flow from portions the new RMU-1/RMU-2 Ditch as generated by a 24-hour, 25-year storm, and transfer it to the V01 Stormwater Retention Basin.

e. Increase the height of a portion of the V04 Stormwater Retention Basin perimeter to at least elevation 314.75 feet to provide sufficient capacity to accommodate a portion of the closed RMU-2 run-off volume produced by a 24-hour, 25-year storm, with a minimum of one (1) foot of freeboard.

f. Increase the height of a portion of the V05 Stormwater Retention Basin perimeter to at least elevation 317.26 feet to provide sufficient capacity to accommodate a portion of the closed RMU-2 run-off volume produced by a 24-hour, 25-year storm, with a minimum of one (1) foot of freeboard.

Prior to physically initiating any of the above modifications to the site's surface water management system, the Permittee must obtain any an all modifications to the Facility's State Pollution Discharge Elimination System (SPDES) Permit which may be necessary.

G. Special Cost Estimate & Financial Assurance Conditions

1. The Department approved Closure Cost Estimate which is incorporated by reference into this Permit by **Schedule 1 of Module I**, makes assumptions regarding tank and container waste inventory at closure to estimate disposal costs. Since disposal by incineration far exceeds the cost of other disposal methods (e.g., aqueous treatment, landfill) on a "per unit" basis (i.e., per gallon or per pound/ton), it is necessary to limit the storage of incinerable wastes at the facility to the quantities assumed in the closure cost estimate so that the estimate represents the cost of final closure that is the most expensive in accordance with 6 NYCRR 373-2.8(c)(1)(i). Therefore, based on the waste inventory quantities assumed in the approved closure cost estimate, the total volumes of liquid and solid incinerable wastes that can be stored at the facility in tanks or containers at any point in time is limited to the following maximums:

Maximum Stored Quantity of Incinerable Liquids: 130,636 gallons

Maximum Stored Quantity of Incinerable Solids: 633,500 lbs.

The Permittee must verify compliance with the above limits on a quarterly basis and record the total quantities of incinerable liquids and solids stored on-site at the end of each quarter in the facility's Operating Record. Copies of the quarterly assessment of

incinerable waste in storage must be submitted as part of the Facility's Annual Report required by 6 NYCRR 373-2.5(e).

2. Financial Assurance Instruments and Standby Trust Fund for Facility Closure, Post-Closure and Corrective Action

   a. The Permittee must maintain the Financial Assurance Instruments and the Standby Trust Fund which are incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I** including any subsequent Department approved revisions, or Department approved replacements. The Standby Trust Fund must be maintained to receive deposits of all payments from the approved financial assurance instruments as referred to in **Condition O of Module I**. The Department shall, in accordance with 6 NYCRR 373-2.8 and the wording of the instruments as required by 6 NYCRR 373-2.8, direct that such payments be deposited in the Standby Trust Fund.

   b. Subsequent to payments being deposited in the Standby Trust Fund, the fund must be managed in accordance with 6 NYCRR 383-2.8 and the wording in the approved Standby Trust Agreement.

3. The Permittee may request Department approval for a reduction in the closure cost estimate and corresponding financial assurance in accordance with **Condition O.5 of Module I** subsequent to completion and independent certification of a unit's closure. The amount of the reduction shall be equal to the amount indicated in the cost estimate for the unit's closure. However, the Department may, at its discretion, re-evaluate the entire closure, post-closure and corrective measures cost estimate before making a determination on the Permittee's reduction request. If the Department determines from such a re-evaluation that the requested reduction would leave insufficient financial assurance for remaining closure, post-closure and corrective measures activities at the facility, it will notify the Permittee in writing that it is withholding approval of all or part of the amount of the requested reduction.

H. 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). For the RMU-1 and RMU-2 landfills, and the on-site contaminated groundwater extraction systems, "previous calendar years" includes all calendar years since the removal of leachate and contaminated groundwater was first initiated. For closed landfills, "previous calendar years" includes only those calendar years since the date of each landfill's closure certification. 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**.

2. Determination of Long-Term Post-Closure Care and Corrective Action Costs

   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 H.2.a.i and H.2.a.ii** of this Exhibit.

   b. The calculation required by **Condition H.2.a** of this Exhibit must be repeated anytime there is an increase in the Facility's Annual Post-Closure or Corrective Action Cost Estimate, and within fifteen (15) days of any Department-approved revision to the discount rate, 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.**

3. Re-Evaluation of the Present Value Discount Rate

   a. The Permittee must submit an updated evaluation and calculation of the real risk free discount rate from an independent Certified Public Accountant (CPA) for the Post-Closure Care and Corrective Action cost estimates, no later than 180 days

before the expiration date of this Permit. The real risk free discount rate must be determined by calculating the arithmetic average Annual Total U.S. Long Return, adjusted by the Consumer Price Index (CPI) for the period 1800 through the year preceding the update. The current Department-approved discount rate of 3.85% shall remain in effect unless and until the Department approves a revised rate. If the Department approves a revised rate, the Permittee must re-calculate post-closure care and corrective action costs according to **Condition H.2** of this Exhibit.

I. Special Fire Protection Conditions

1. Water Storage Tank

At least 180 days prior to the planned demolition of the facility's existing 350,000 gallon water storage tank (in conjunction with RMU-2 construction), the Permittee must submit for Department approval one of the following documents:

a. A set of design plans for construction of a replacement water tank of similar height and equal or greater capacity to that of the existing tank. The Permittee must construct the new tank prior to demolition of the existing tank.

or

b. A report that evaluates and justifies that the available water volume and pressure provided by the hydrant system without the exisiting 350,000 gallon water tank is adequate to meet the fire suppression needs of the fire loads attributable to the structures/units at the facility, including the active landfills. The report must be prepared by an independent professional engineer registered in New York State who is qualified in the field of fire insurance underwriting. If the Department does not approve this report, the Permittee must provide the set of design plans for a replacement tank as required by **Condition I.1.a** of this Exhibit, and construct the new tank prior to demolition of the existing tank.

SCHEDULE 1 of MODULE I
EXHIBIT B

Facility-Specific Conditions
Supplement To Module II

[*NOTE: Schedule 1 of Module I Exhibit B is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

EXHIBIT B

SUPPLEMENT TO MODULE II

*{NOTE: Exhibit B is **not** being modified}*

EXHIBIT B
SUPPLEMENT TO
MODULE II - CORRECTIVE ACTION

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

A. Corrective Action Requirements

1. RCRA Facility Investigation (RFI)

The Permittee has undertaken eighty-four (84) RFI investigations at solid waste management units (SWMUs) and site-wide areas at the Model City Facility. Detailed descriptions of the investigations can be obtained by referring to the individual/group RFI Reports which are listed in Attachment E of this Permit. A list of the Site Specific Indicators which have been released to the soil and groundwater, and the "groundwater protection standard" for those hazardous waste constituents is included in the following table.

SITE-SPECIFIC INDICATORS CWM MODEL CITY FACILITY		
Analytes	**Units**	**Groundwater Protection Standard**
Benzene	µg/l	1
Bromoform	µg/l	50 GV
Carbon Tetrachloride	µg/l	5
Chlorobenzene	µg/l	5
Chlorodibromomethane	µg/l	50
Chloroethane	µg/l	5
2-Chloroethylvinylether	µg/l	50
Chloroform	µg/l	7
Dichlorobromomethane	µg/l	5
1,1-Dichloroethane	µg/l	5
1,2-Dichloroethane	µg/l	0.6
1,1-Dichloroethene	µg/l	5
1,2-Dichloropropane	µg/l	1
cis-1,3-Dichloropropylene	µg/l	5
trans-1,3-Dichloropropylene	µg/l	5
Methyl Bromide	µg/l	5
Methyl Chloride	µg/l	5

SITE-SPECIFIC INDICATORS CWM MODEL CITY FACILITY		
Analytes	**Units**	**Groundwater Protection Standard**
Methylene Chloride	µg/l	5
Tetrachloroethylene	µg/l	5
1,1,2,2-Tetrachloroethane	µg/l	5
Toluene	µg/l	5
trans-1,2-Dichloroethylene	µg/l	5
1,1,1-Trichloroethane	µg/l	5
1,1,2-Trichloroethane	µg/l	1
Trichloroethylene	µg/l	5
Vinyl Chloride	µg/l	2
Acenaphthene	µg/l	20 GV
Acenaphthylene	µg/l	50
Anthracene	µg/l	50
Benzo(a)pyrene	µg/l	ND
Benzo(g,h,i)perylene	µg/l	50
Benzo(k)fluoranthene	µg/l	0.002 GV
Bis(2-chloroethoxy)methane	µg/l	5 GV
Bis(2-chloroethyl)ether	µg/l	1.0
Bis(2-chloroisopropyl)ether	µg/l	50
Bis(2-ethylhexyl)phthalate	µg/l	5
4-Bromophenylphenylether	µg/l	*see total phenols std.
Butylbenzylphthalate	µg/l	50 GV
2-Chloronaphthalene	µg/l	10 GV
Chrysene	µg/l	0.002 GV
1.2-Dichlorobenzene	µg/l	3
1.3-Dichlorobenzene	µg/l	3
1.4-Dichlorobenzene	µg/l	3
3,3'-Dichlorobenzidene	µg/l	5
Diethylphthalate	µg/l	50 GV
Di-n-butylphthalate	µg/l	50
2,6-Dinitrotoluene	µg/l	5
2,4-Dinitrotoluene	µg/l	5

SITE-SPECIFIC INDICATORS CWM MODEL CITY FACILITY		
Analytes	**Units**	**Groundwater Protection Standard**
Fluoranthene	µg/l	50 GV
Hexachlorobenzene	µg/l	0.04
Hexachlorocyclopentadiene	µg/l	5
Hexachloroethane	µg/l	5
Indeno(1,2,3-cd)pyrene	µg/l	2.0
Isophorone	µg/l	50 GV
Naphthalene	µg/l	10 GV
N-nitrosodi-n-propylamine	µg/l	50
N-nitrosodiphenylamine	µg/l	50 GV
Phenanthrene	µg/l	50 GV
1,2,4-Trichlorobenzene	µg/l	5
2-Chlorophenol	µg/l	*see total phenols std.
2,.4-Dichlorophenol	µg/l	5 *see total phenols std.
4,6-Dinitro-o-cresol	µg/l	*see total phenols std.
2,4-Dinitrophenol	µg/l	10 GV *see total phenols std.
2-Nitrophenol	µg/l	*see total phenols std.
p-Chloro-m-cresol	µg/l	*see total phenols std.
Phenol	µg/l	*when more than one phenol compound is detected, each phenol compound may not exceed a standard of 1
Aroclor 1242	µg/l	total PCBs 0.1
Aroclor 1254	µg/l	total PCBs 0.1
Aroclor 1260	µg/l	total PCBs 0.1
Aroclor 1248	µg/l	total PCBs 0.1
Aroclor 1232	µg/l	total PCBs 0.1
Aroclor 1221	µg/l	total PCBs 0.1
Aroclor 1016	µg/l	total PCBs 0.1

2. Corrective Measures

   The Corrective Measures which have been implemented by the Permittee are described in Attachment E of this Permit.

3. Corrective Measures Study

   The Corrective Measures Study (CMS) for the Model City Facility was performed by the Permittee has two main components, the Site-Wide CMS and the SWMU-Specific CMS. The Statement of Basis dated January 31, 2001, incorporated by reference into this Permit by **Schedule 1 of Module I**, provides a description of the corrective action program implemented at the Facility. The Permittee must monitor and evaluate the SWMUs as specified in the Groundwater Monitoring Program in **Condition L of Exhibit F** and the Department-approved "Groundwater Sampling and Analysis Plan" (GWSAP) which is incorporated by reference into this Permit by **Schedule 1 of Module I**. The Permittee is herein required to operate and maintain the specified remedial systems in perpetuity in accordance with Attachment E of this Permit and the approved "Groundwater Extraction Systems Operation and Maintenance (O&M) Manual" incorporated by reference into this Permit by **Schedule 1 of Module I**. The Permittee must also maintain a corrective measures cost estimate, in current dollars, and provide financial assurance to cover the costs of operation and maintenance of those systems, in accordance with **Condition G of Exhibit A** and **Condition O of Module I** of this Permit.

   a. SWMU Categories

      Many of the SWMUs listed in Attachment E of this Permit have similar waste and design characteristics and requires the same level of effort to address them. As described in the Site-Wide CMS, six functional categories have been used to group SWMUs and Areas of Contamination based on the SWMU type, history, regulatory status, and nature of the contamination. Each category includes SWMUs that will require a similar level of effort to satisfactorily address potential concerns. The following table presents the SWMUs in their appropriate category.

SWMU Categories	
ENGINEERED and/or MONITORED UNITS (no releases identified) CATEGORY 1	
SLF 1	SLF 6
SLF 7	SLF 10
SLF 11	SLF 12
Facultative Pond 1	Facultative Pond 2
Facultative Pond 3	Facultative Pond 8
PREVIOUSLY ADDRESSED AREAS (clean closed, etc.) CATEGORY 2	
Drum Area I	Facultative Pond 9
Fire Pond	Stabilization Area
AREAS REQUIRING NO FURTHER ACTION CATEGORY 3	
Town of Lewiston Salts Area	North Drum Area
Facultative Pond 4	Spent Carbon Piles
MacArthur Street between Main and "J" Streets	Heavy Equipment Maintenance Building Wash Water Sump/Tank
DEFERRED SWMUs CATEGORY 4	
1. Third Party SWMUs (U.S. Government is Responsible for Releases)	
Olin Burn Area	Air Force Drum Area I
Air Force Drum Area II	Air Force Drum Area III
Acid and TNT Lines	Low Level Radioactive Contamination
M Street Manhole	Property "G"
Nike Underground Tank	Waterline Construction Area 2
Waterline Construction Area 3	Waterline Construction Area 4
2. Permitted Units Handled Under Closure	
Tanks 64 and 65	Drum Storage Warehouse
Leachate Storage Tanks	Truck Wash
A.B.T.U. 58	
LIMITED PROGRAM SWMUs CATEGORY 5	
Swale	Area west of Drum Area II
Site Wide PCB Sampling	Surface Water Swales
SWMUs SUBJECT TO A FULL CMS CATEGORY 6 See table below	

The locations of these SWMUs are depicted on the figures provided in Attachment E, Appendix E-4 of this Permit.

The following table contains a list of the Category 6 SWMUs, a description of the contamination associated with the SWMU, and a brief description of the proposed remedy for the SWMU. A more detailed description of the remedy is included in the Statement of Basis dated January 31, 2001, which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

Unit	Approximate Contamination Levels	Action
SLF 2	Groundwater, Total VOCs - 100 ppb	Continued monitoring w/trigger
SLF 3 (north side)	Groundwater, Total VOCs - 200 ppb	Continued monitoring w/trigger
SLF 4	Groundwater, Total VOCs - 150 ppb	Continued monitoring w/trigger
SLF 5	Groundwater, Total VOCs - <50 ppb	Continued monitoring w/trigger
South of SLF 3	Groundwater, Total VOCs - >100 ppm, DNAPL	Seasonal operation of existing Corrective Measures
Drum Storage west of SLF 1	Soils	Health & Safety awareness program
Wells W0703s and W0705s	Groundwater, Total VOCs W703s - 500 ppb W705s - <20 ppb	Continued monitoring w/trigger
Drum Storage Along H Street and Mac Arthur Street (wells P0701s, P0703s, W1103s, W1104s, W1105s, W1106s)	Groundwater, Total VOCs: W1103s - 50 ppb W1104s - 150 ppb W1105s - 50 ppb W1106s - 50 ppb P701s - 100 ppb P703s - 60 ppb	Continued monitoring w/trigger
Lagoons 1, 2, 5, 6 and 7	Groundwater, Total VOCs - >100 ppm, DNAPL, Full suite of contaminants within impoundments	Seasonal operation of existing Corrective Measures, In-Situ stabilization of sludge + cap
North Salts Area	No GW contamination detected, Full suite of contaminants within impoundment	In-Situ stabilization of sludge + cap
East and West Salts Areas	See TMW-1S for groundwater, Full suite of contaminants within impoundments	In-Situ stabilization of sludge + cap
West Drum Area	Groundwater, Total VOCs - >100 ppm, DNAPL	Seasonal operation of existing Corrective Measures
Group D	Soils - Isolated detection of 50 ppm Groundwater - 3 ppm	Monitoring w/trigger
Tank Farm E, Tank 42	Groundwater, Total VOCs - 100 ppm, DNAPL	Seasonal operation of Process Area III Corrective Measures
F5801s groundwater	Groundwater, Total VOCs - <50 ppb	Continued monitoring w/trigger

Unit	Approximate Contamination Levels	Action
Houghson Lagoon	Groundwater, Total VOCs - 220 ppb	Health & Safety awareness program
Acid Pit	Soils - <1 ppm	DOD responsibility
Oil Pit	Soils - <1 ppm	DOD responsibility
Syms Tank Area	Soils - <1 ppm	DOD responsibility
Chemical Waste Lift Stations	Percent levels within lift stations	DOD responsibility
Process Area	Groundwater, Total VOCs - >100 ppm, DNAPL	Seasonal operation of existing Corrective Measures PAI, PAII and PAIII, and continuous operation of Corrective Measures PAIV
Well 1002s	Groundwater, Total VOCs: W1002s - 1-2 ppm TW24s - 20-30 ppm	Continued monitoring w/trigger
Piezometer P1202s	Groundwater, Total VOCs - >100 ppm	Seasonal operation of existing Corrective Measures
Tanks 50 & 51 Area	Groundwater, Total VOCs - <50 ppb	Health & Safety awareness program
PCB Warehouse	Groundwater, Total VOCs - >100 ppm	Seasonal operation of existing Corrective Measures
Monitoring Well BW02s	Groundwater, Total VOCs - 50 to 100 ppm	Seasonal operation of existing Corrective Measures
RMU-1 Well Investigations	Groundwater, Total VOCs - 100 ppb	Continued monitoring
TW01s, TMW-1s-3n investigations	Groundwater, Total VOCs - 150 ppb	Continued monitoring

The Permittee must continually implement the detection monitoring program for SLF 1-6 in accordance with the Groundwater Monitoring Program in **Condition L of Exhibit F**. The Permittee must continually implement the detection monitoring program for the North Salts and the East/West Salts in accordance with Attachment E, Appendix E-1, Section I of this Permit, and the corrective action monitoring program for the Lagoons in accordance with Attachment E, Appendix E-1, Section II of this Permit.

Also, in the event that future monitoring of surface storm water identifies contaminant concentrations above the limits set forth in the Facility's SPDES Permit, the Department, at its discretion, may require and the Permittee must implement additional corrective measures to control contaminant migration via surface water.

The Department of Defense (DOD) is in the process of investigating and, in some instances, remediating these SWMUs. The Department anticipates that the DOD

will assume responsibility for remediation of these areas. If the Department determines that the DOD has failed to accomplish the necessary remediation of these SWMUs, the Department may require the Permittee, as the owner of the property on which the SWMUs are located, to remediate the SWMUs.

(Note: Nothing in this Exhibit is intended, and nothing herein is to be construed, to waive, prejudice or otherwise limit the authority of the Department, in the exercise of their lawful discretion, to order the Permittee to remediate the aforesaid SWMUs under any applicable laws.)

B. Additional Corrective Action Activities

1. Process Area Phase III

Within ninety (90) days of the effective date of this Permit, the Permittee must complete installation of the Process Area III groundwater extraction trench and all appurtenances necessary for the operation of this extraction system in accordance with the Department approved "Design Report for Process Area III Groundwater Interceptor Trench", which is incorporated by reference into this Permit by **Schedule 1 of Module I.** Within thirty (30) days of completing construction of this system, the Permittee must submit a Construction Report to the Department which documents the system's construction in accordance with the aforementioned Design Report, and including the certification for Tank T-8010 as required by **Condition B of Module IV** of this Permit. The Permittee must place the Process Area III groundwater extraction system and any DNAPL recovery system into operation within fifteen (15) days of Department approval of the Construction Report, or the following operational season if the approval occurs during the period from November 1 to April 14. These systems must be operated in accordance with the approved "Design Report for Process Area III Groundwater Interceptor Trench" and the "Groundwater Extraction Systems Operation and Maintenance (O&M) Manual", which are incorporated by reference into this Permit by **Schedule 1 of Module I**.

2. Process Area IV

Within ninety (90) days of the effective date of this Permit, the Permittee must complete installation of the Process Area IV groundwater extraction wells and all appurtenances necessary for the operation of this extraction system in accordance with the Department approved "Design Report for Process Area IV Extraction Wells", which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Within thirty (30) days of completing construction of this system, the Permittee must submit a Construction Report to the Department which documents the system's construction in accordance with the aforementioned Design Report, and including the certification for Tank T-8009 as required by **Condition B of Module IV** of this Permit. The Permittee must place the Process Area IV groundwater extraction system into operation within fifteen (15) days of Department approval of the Construction Report. These systems must be operated in accordance with the approved "Design Report for Process Area IV Extraction Wells" and the

"Groundwater Extraction Systems Operation and Maintenance (O&M) Manual", which are incorporated by reference into this Permit by **Schedule 1 of Module I**.

C. Deed Restrictions

There are known areas of soil and groundwater contamination at the Facility. Therefore, the Permittee has included and must maintain a formal notation on an instrument included with the deed to the Facility property, which is normally examined during title search, that in perpetuity notifies any potential purchaser of the property that:

1. The land has been used to manage hazardous waste. The deed restrictions will include a map and description of the potential areal and vertical presence of hazardous waste constituents which have been detected in the soil and groundwater at the Facility, typical properties of the chemicals and a list of the potential human exposure routes.

2. Use of certain areas of the Facility may be restricted under 6 NYCRR Part 373-2.7, as if they were a "hazardous waste disposal facility."

3. CWM Chemical Services, L.L.C., for itself, and the State of New York, acting through the Department of Environmental Conservation or its designee, retain the right of access to and use of the property, but without the right to interfere with, obstruct, or otherwise physically impact any structures now or hereafter erected thereon for the commercially useful life of any such structure, to the extent necessary to complete the work required to implement corrective measures, and any further work determined to be necessary as a result thereof, including but not limited to any groundwater monitoring or treatment, soil management, cap and cover installation or maintenance. Subsurface alterations, construction or changes in existing building foundations, sewers, utilities, and other subsurface structures, or excavation on the property should be made with appropriate caution.

4. Future use of the Facility property is restricted to industrial or commercial use only; said use must take into account the nature and distribution of hazardous waste constituents in the soil and groundwater at the Facility.

D. Supplemental Corrective Action Requirements

The Supplemental Corrective Action Requirements that are specified by this Permit condition pertain to the investigation and control of historical chemical and radiological contamination that is known or potentially present in the environmental media on the property of the Permitted Facility. All plans, reports and schedules required by this Permit condition and all subsequent amendments to those documents are incorporated by reference into this Permit, upon approval by the Department in accordance with **Condition B of Schedule 1 of Module I**. In addition, the Permittee must submit all such plans, reports and schedules required by this Permit condition, to the New York State Department of Health (NYSDOH) in accordance with **Condition B of Exhibit A**.

All samples of environmental media obtained by the Permittee pursuant to this Permit condition must be analyzed by a laboratory approved for such analysis in accordance with 6 NYCRR 370.1(f). The Permittee must notify the Department at least seventy-two (72) hours in advance of any scheduled sampling or other investigative activities to be implemented by the Permittee, and must allow Department staff and/or its authorized representatives to collect samples or splits of any samples collected by the Permittee pursuant to this Permit condition.

1. Site Radiological Survey Plan

   The Permittee must complete a Gamma Walkover Survey in accordance with the Department-approved "Site Radiological Survey Plan (SRSP)" which is incorporated by reference into this Permit by **Schedule 1 of Module I**, on all areas of the Facility property which have not been previously surveyed by the Permittee. For areas of the Facility where the Permittee indicates, and the Department concurs, are presently inaccessible for conducting the required survey (e.g., operating FAC Ponds, etc.), the Permittee must perform the required survey whenever such areas become accessible (e.g., whenever a FAC Pond is emptied and out of service). Also, any radiological soil sampling conducted in conjunction with this survey or for other purposes, must be performed in accordance with the Department-approved "Sitewide Radiological Investigation Soil Sampling Plan (SRISSP)" which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

   Regarding any and all Department approvals, determinations or requirements pertaining to the SRSP, the Department will act with the concurrence of NYSDOH. Radiological analyses of any samples collected must include isotopic uranium, isotopic thorium, radium-226 and radium-228, gamma spectroscopy, and other radionuclides determined by the Department to be relevant to the media and location. Any locations found to exceed pre-determined screening levels must be further characterized to define the nature and extent of the elevated levels. At any time during or subsequent to SRSP implementation, if locations with elevated levels are identified and defined, the Permittee may take action, or the Department shall, at its discretion and upon concurrence of NYSDOH, require the Permittee to take action, to mark the identified areas, restrict access to these areas and, if necessary, institute measures to control migration of contaminants from these areas, as deemed necessary to protect human health and the environment. Such action, at Permittee's request, shall be subject to the provisions of **Condition A.7 of Module I** of this Permit.

2. Within 60 days of completing all survey activities in each specified area of the Facility, the Permittee must submit a report to the Department and NYSDOH containing all data collected during the survey of that area and corrective action recommendations for any locations identified above screening levels.

3. Site Radiological Monitoring Plan

   The Permittee must perform sampling and radiological analysis of environmental media and wastewater as indicated by this Condition in accordance with the

Department-approved "Radiation Environmental Monitoring Plan (REMP)", which is incorporated by reference into this Permit by Schedule 1 of Module I, at the frequencies specified in the REMP and this Condition. Regarding any and all Department approvals, determinations or requirements pertaining to the REMP, the Department will act with the concurrence of NYSDOH. In accordance with the REMP, the Permittee must provide for routine environmental monitoring of groundwater, air, surface water and wastewater to track the potential for off-site migration of contamination. Radiological analyses of all samples must include isotopic uranium, isotopic thorium, radium-226 and radium-228, gamma spectroscopy, and other radionuclides determined by the Department to be relevant to the media and location. At any time during the monitoring of environmental media, if sampling data suggest the potential for off-site migration of radiological contamination, the Permittee may take action, or the Department may require the Permittee to take action, to control migration of contaminants, as deemed necessary to protect human health and the environment. Such action, at Permittee's request, shall be subject to the provisions of **Condition A.7 of Module I** of this Permit. The analytical data generated in accordance with the approved REMP must be included in the Permittee's Monthly Monitoring Reports and submitted to the Department in accordance with **Condition F of Schedule 1 of Module I**. In addition, the monthly reports must include a narrative summarizing the radiological data. The Permittee may petition the Department to revise the REMP at any time subsequent to completion of one (1) year of monitoring. The REMP revisions shall become effective subsequent to Department approval.

The monitoring must be conducted in accordance with the approved REMP sampling and analytical requirements, at the following minimum frequencies:

a. Groundwater Monitoring

   At least one (1) round of sample collection and radiological analysis per year in accordance with the REMP.

b. Air Monitoring

   Upon request if determined necessary by the Department.

c. Surface Water Monitoring

   At least two (2) rounds of storm water sample collection and radiological analysis per year, during high flow conditions in accordance with the REMP.

d. Wastewater Monitoring

   The Wastewater Monitoring will include the following items:

   - Radiological analysis, in accordance with the REMP, of samples routinely collected to qualify each batch discharge of FAC Pond wastewater to off-site water bodies;

- Submission of radiological data with each FAC Pond Discharge Pre-Qualification Report to facilitate Department review prior to discharge approval in accordance with **Condition M.3 of Module V** of this Permit.

4. Site Soil Monitoring and Management Plans

The Permittee must follow the Department-approved Site Soil Monitoring and Management Plans (SSMMPs), as described below, to ensure control and prevent migration of historical chemical and radiological contamination during soil excavation or soil disturbance activities. Regardless of the size of the area or amount of soil involved, each SSMMP must describe the screening procedures that will be employed during soil excavation/disturbance to detect chemical and/or radiological contamination. Each SSMMP must include procedures to be followed to characterize, and if deemed necessary, remediate the detected chemical and/or radiological contamination in the project area. Prior to soil disturbance or excavation, if screening indicates possible radiological contamination, the Permittee may rely upon the U.S. Department of Defense (DOD) for performance of remedial activity as set forth in the Statement of Basis dated January 31, 2001, which is incorporated by reference into this Permit by **Schedule 1 of Module I**, of this Exhibit if contamination is determined to be from DOD jurisdictional wastes. If contamination is detected during excavation or soil disturbance, any wastes generated by such activities must be managed and disposed of in strict accordance with the Federal and State regulations which are applicable to the waste. Also, if an area of radiological contamination is remediated a final status survey must be performed in that area using procedures consistent with the Multi Agency Radiation Survey and Site Investigation Manual (MARSSIM).

a. Generic Small Project Soil Excavation Monitoring and Management Plan

- The Permittee must follow the requirements of the Department-approved "Generic Small Project Soil Excavation Monitoring and Management Plan (GSPSEM&MP)", which is incorporated by reference into this Permit by **Schedule 1 of Module I**, for all projects where the area of soil excavation/disturbance does not exceed 1,000 m^2 (1,196 yd^2) and the volume of excavated/disturbed soil does not exceed 150 m^3 (196 yd^3). The Permittee may undertake soil excavation/disturbance projects which meet the above criteria for "small projects" without the need for project specific Department approval with respect to potential historical chemical or radiological contamination. However, the Permittee must obtain any other approvals that might be needed for such projects and the implementation of such projects must be in strict accordance with the approved GSPSEM&MP.

b. Project-Specific Site Soil Monitoring and Management Plans

Thirty (30) days prior to the anticipated implementation of any project where the area of soil excavation/disturbance is greater than 1,000 m^2 (1,196 yd^2) or the volume of excavated/disturbed soil is greater than 150 m^3 (196 yd^3), the Permittee

must submit a Project-Specific SSMMP for Department approval. In addition to the previously mentioned requirements for all SSMMPs, the Project-Specific SSMMP shall include many of the same components of the Generic SSMMP as well as project specific requirements. The Permittee may not undertake any project involving soil excavation/disturbance which is in excess of the above criteria until the Department has granted approval to the Project-Specific SSMMP applicable to that project. Any and all Department approvals, determinations or requirements pertaining to the generic or project specific SSMP are to be done with the concurrence of NYSDOH. Subsequent to Department approval of the Project-Specific SSMMP, the Permittee may implement project activities in strict accordance with the applicable Project-Specific SSMMP.

SCHEDULE 1 of MODULE I
EXHIBIT C

Facility-Specific Conditions
Supplement To Module III

[*NOTE: Portions of Schedule 1 of Module I Exhibit C are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

EXHIBIT C

SUPPLEMENT TO MODULE III

EXHIBIT C
SUPPLEMENT TO
MODULE III - CONTAINERS

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

A. Authorized Storage Area, Waste Types and Storage Volume

1. The Permittee is authorized to operate the following container storage areas at the Facility and store the following wastes in containers in these areas up to the volumes listed, subject to the terms of this Permit:

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
1. Drum Management Bldg. (DMB)[3,4] – Area I (45' x 60')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, BK3	Total Limit = 688 drums (solid & liquid) Liquid Limit = 688 drums
2. Drum Management Bldg. (DMB)[3,4] – Area II (45' x 26')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, BK3	Total Limit = 320 drums (solid & liquid) Liquid Limit = 320 drums
3. Drum Management Bldg. (DMB)[3,4] – Area III (22.5' x 8')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 31H	Total Limit = 36 drums (solid & liquid) Liquid Limit = 36 drums
4. Drum Management Bldg. (DMB)[3,4] – Area IV (22.5' x 8')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, BK3	Total Limit = 36 drums (solid & liquid) Liquid Limit = 36 drums
5. Drum Management Bldg. (DMB)[4,5] – Area V (87.2' x 49.7')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 5L, 5M, 6G, 11G, 11H, 11HZ, 13H, 13L, 31H, BK3	Total Limit = 1,376 drums (solid & liquid) Liquid Limit = 117 drums
6. Drum Management Bldg. (DMB)[4] – Area VI Sects. 1,2&3 (Sizes in Att. D, App. D1)	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 5L, 5M, 6G, 11G, 11H, 11HZ, 13H, 13L, 31H, BK3	Total Limit = 956 drums (solids only)
7. Drum Management Bldg. (DMB) – West Tanker Ramp (66' x 28')	Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tanks (≤ 5,500 gallons)	Total Limit = 2 cargo tanks (liquids only)

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
8. Drum Management Bldg. (DMB) – Truck Load/Unload Ramp[4,6,7] (134.4' x 50')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 5L, 5M, 6G, 11G, 11H, 11HZ, 13H, 13L, 31H, BK3	Total Limit = 1,040 drums (solids only)
9. PCB Warehouse – Area 1[4] (118' x 45')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 5L, 5M, 6G, 11G, 11H, 11HZ, 13H, 13L, 31H, BK3	Total Limit = 1,368 drums (solids only)
10. PCB Warehouse – Area 3/6[4,16] (90' x 84' & 26' x 26')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 5L, 5M, 6G, 11G, 11H, 11HZ, 13H, 13L, 31H, BK3	Total Limit = 1,358 drums (solid & liquid) Liquid Limit = 160 drums
11. South Trailer Parking Area[8,9] (297' x 49.5')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy) or Cargo Tanks (≤ 5,500 gallons)	Total Limit = 58 bulk containers (solid) Liquid Limit = 5 cargo tanks
12. Stabilization Facility, Trailer Parking Area I[8,9] (70' x 35')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 6 roll-offs (solids only)
13. Stabilization Facility, Trailer Parking Area II[8,9] (150' x 35')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 14 roll-offs (solids only)
14. Stabilization Facility, Trailer Parking Area III[8,9,10] (200' x 35')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy) or Cargo Tanks (≤ 5,500 gallons)	Total Limit = 19 bulk containers (solid) Liquid Limit = 4 cargo tanks
15. Stabilization Facility, Trailer Parking Area IV[8,9,10] (100' x 35')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy) or Cargo Tanks (≤ 5,500 gallons)	Total Limit = 9 roll-offs (solids) Liquid Limit = 1 cargo tank
16. Stabilization Facility, Waste Ash Tanker Unload Area[8] (34' x 13')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (dry bulk) or Roll-off (≤ 30 cy)	Total Limit = 1 cargo tank/roll-off (solids only)
17. Stabilization Facility, Special Client Treatment Room[8] (49' x 26')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 4 roll-offs (solids only)

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
18. Stabilization Facility, Macro Room Area I[8,11] (55' x 22.5')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 4 roll-offs (solids only)
19. Stabilization Facility, Macro Room Area II[8,11] (69' x 50')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 8 roll-offs (solids only)
20. Stabilization Facility, Macro Room Area III[8,11] (49' x 30')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 6 roll-offs (solids only)
21. Stabilization Facility, Lower Drum Shredder Area[8,12] (31' x 31')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 2 roll-offs (solids w/liquids)
22. Stabilization Facility, Upper Drum Shredder Area[4] (62' x 27' & 52' x 13')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 5L, 5M, 6G, 11G, 11H, 11HZ, 13H, 13L, 31H, BK3	Total Limit = 300 drums (solids only)
23. Stabilization Facility, North Expansion Bldg [8,13] (80' x 59')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 15 roll-offs (solids only)
24. Aqueous Treatment Bldg., Drum Dock Area[3,4] (52' x 13')	Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 31H	Total Limit = 128 drums (solid & liquid)
25. Aqueous Treatment Bldg., Tanker Unload Area (50' x 45')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tanks (≤ 6,000 gallons)	Total Limit = 2 cargo tanks (solid or aqueous liquid)[18]
26. Aqueous Treatment Bldg., Filter Press Room[8] (33.5' x 20.5')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-off (≤ 30 cy)	Total Limit = 1 roll-off (solids only)
27. T.O. Bldg., Containment Pan Area[14] (50' x 42')	PCB Transformers & Electrical Devices with Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	PCB Transformers (≤ 386 gallons) or Containers (≤ 55 gallons) 1A, 1H	Total Limit = 11 pans

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
28. T.O. Bldg., Loading Ramp (82' x 27')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tanks (≤ 6,000 gallons)	Total Limit = 2 cargo tanks (solid & liquid)
29. Truck Wash Bldg.[8] (70' x 16' & 19' x 18')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy)	Total Limit = 3 roll-offs (solids only)
30. T-130 Load / Unload Area[8,9] (55' x 13')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (≤ 5,500 gallons) or Roll-off (≤ 30 cy)	Total Limit = 1 roll-off/ cargo tank (solid or aqueous liquid)[18]
31. T-108 Load / Unload Area[8,9,15] (55' x 13')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (≤ 5,500 gallons) or Roll-off (≤ 30 cy)	Total Limit = 1 roll-off/ cargo tank (solid or aqueous liquid)[18]
32. T-109 Load / Unload Area[8,9,15] (55' x 13')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (≤ 5,500 gallons) or Roll-off (≤ 30 cy)	Total Limit = 1 roll-off/ cargo tank (solid or aqueous liquid)[18]
33. T-158 Load / Unload Area[8,9,15] (55' x 13')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (≤ 5,500 gallons) or Roll-off (≤ 30 cy)	Total Limit = 1 roll-off/ cargo tank (solid &liquid)
34. New Drum Management Bldg. (NDMB)[19] – Area 1[4,20] (57' x 144')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H[20]	Total Limit = 504 drums (solid & liquid) Liquid Limit = 504 drums
35. New Drum Management Bldg. (NDMB)[19] – Area 2[4,21] (44' x 144')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H[21]	Total Limit = 1008 drums (solid & liquid) Liquid Limit = 1008 drums
36. New Drum Management Bldg. (NDMB)[19] – Area 3[4,22] (44' x 149')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H[22]	Total Limit = 1008 drums (solid & liquid) Liquid Limit = 1008 drums
37. New Drum Management Bldg. (NDMB)[19] – Area 4[4,23] (26' x 44')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H[23]	Total Limit = 96 drums (solid & liquid) Liquid Limit = 96 drums

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
38. New Drum Management Bldg. (NDMB)[19] – Area 5[4,24] (20' x 38')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 31H	Total Limit = 96 drums (solid & liquid) Liquid Limit = 96 drums
39. New Drum Management Bldg. (NDMB)[19] – Area 6[4,25] (37' x 139')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H[26]	Total Limit = 336 drums (solid & liquid) Liquid Limit = 336 drums
40. New Drum Management Bldg. (NDMB)[19] – Area 7 – Fuels Transfer Ramp (32' x 65')	Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tanks (≤ 5,500 gallons)	Total Limit = 2 cargo tanks (liquids only)
41. New Drum Management Bldg. (NDMB)[19] – Area 8 – Transformer Area[4,27] (29' x 57')	PCB Transformers & Electrical Devices with Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	PCB Transformers (≤ 386 gallons) or Containers (≤ 55 gallons) 1A, 1H	Total Limit= 6 transformers or 37 drums (solid & liquid) Liquid Limit = 37 drums
42. New Drum Management Bldg. (NDMB)[19] – Area 9 – Loading Ramp[4,7,25] (58' x 178')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H[26]	Total Limit = 1040 drums (solid & liquid) Liquid Limit = 1040 drums
43. New Full Trailer Park (NFTP) Area[8,9,28] (55' x 250')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy) or Cargo Tanks (≤ 5,500 gallons)	Total Limit = 48 bulk containers (solid) Liquid Limit = 5 cargo tanks
44. Stabilization Facility New Trailer Park (SFNTP) Area[8,9,28] (35' x 375')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Roll-offs (≤ 30 cy) or Cargo Tanks (≤ 5,500 gallons)	Total Limit = 37 bulk containers (solid) Liquid Limit = 11 cargo tanks
45 New T-109 Loading Area[8,9,15,29] (13' x 55')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (≤ 5,500 gallons) or Roll-off (≤ 30 cy)	Total Limit = 1 roll-off/ cargo tank (solid or aqueous liquid)[18]
46. New T-158 Loading Area[8,9,15,29] (13' x 55')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Cargo Tank (≤ 5,500 gallons) or Roll-off (≤ 30 cy)	Total Limit = 1 roll-off/ cargo tank (solid or liquid)

Footnotes:

1. The letter/number codes listed under "Container Specifications" are USDOT Packaging Codes for hazardous material container specifications. See **Condition B.1.a** of this Exhibit and Attachment D, Appendix D-1 of this Permit regarding container type and specification requirements.
2. For the purposes of calculating the volume of waste in a storage area under this Permit, all containers in the area shall be considered full. Containers with a capacity of less than 55 gallons may be stored in areas where 55-gallon containers are stored as long as the storage requirements pertaining to 55-gallon drums are met, as specified in **Condition B.1.b** of this Exhibit and **Condition D of Module III** of this Permit. The maximum total volume of liquid waste that may be stored in an area must not exceed the number of containers indicated in the table for each area multiplied by 55 gallons.
3. The Permittee may only store containers of incompatible wastes in DMB Areas I-IV and in the AT Drum Dock Area. Such storage must be in accordance with the segregation requirements in Attachment D, Appendix D-1 of this Permit.
4. Containers with capacities of greater than 55, but less than or equal to 330 gallons may be stored in DMB Areas I-VI, DMB Truck Load/Unload Ramp, New Drum Management Building (NDMB) Areas 1-6, NDMB Area 8 – Transformer Area, NDMB Area 9 – Loading Ramp, PCB Warehouse Areas 1 & 3/6, Stabilization Facility, Upper Drum Shredder Area and AWT Building Drum Dock Area as long as the storage requirements pertaining to 55-gallon containers are met, as specified by **Condition B.1.b** of this Exhibit and **Condition D of Module III** of this Permit.
5. All containers storing free liquids in DMB Area V must be stored at least 2 feet within the perimeter of the DMB Floor Trench containment system. (**Condition B.1.b.i.'c'** of this Exhibit)
6. See **Condition C.1.a** of this Exhibit regarding the limited placement of containers storing free liquids and/or incompatible wastes on the DMB Load/Unload Ramp.
7. All containers on the DMB Load/Unload Ramp and Area 9 Loading Ramp of the NDMB must be on flatbed trailers or in box trailers. See **Condition B.1.b.i.'d'** of this Exhibit regarding requirements for containers stored on/in trailers.
8. Roll-offs of 40 cubic yards or less may be stored in the areas identified above by this footnote as long as the storage requirements pertaining to 30-cubic-yard roll-offs are met, as specified by **Condition B.1.c** of this Exhibit.
9. The Permittee may also use the specific CSAs identified above by this footnote for the storage of containers (330-gallons or less) on/in flatbed or box trailers. The number of trailers in each CSA must not exceed the total limit of roll-offs/tankers in each CSA indicated in the table above, and there must be no more than 80 containers per trailer. Storage of containers on/in trailers in these CSAs must be in accordance with **Condition B.1.b.i.'d'** of this Exhibit and Attachment D, Appendix D-1 of this Permit.
10. The entire container (i.e., tank) portion of cargo tanks stored in Stabilization Trailer Parking Areas III & IV must be at least 2 feet within the areas' secondary containment in accordance with **Condition B.1.c** of this Exhibit.
11. See **Condition C.1.b** of this Exhibit regarding management of Macroencapsulation Boxes in the Stabilization Facility, Macro Room Areas I-III.
12. The Permittee may store roll-offs in the Stabilization Facility, Lower Drum Shredder Area that contain solid waste with minor amounts of free liquids within the waste. The Permittee must maintain the secondary containment in this area in accordance with 6 NYCRR 373-2.9(f)(1), **Condition B.1.d** of this Exhibit, **Condition K.1 of Module III** of this Permit and Attachment D, Appendix D-1 of this Permit.
13. See **Condition C.1.c** of this Exhibit regarding management of Roll-offs and Macroencapsulation Boxes in the Stabilization Facility, North Expansion Bldg.
14. See **Condition C.1.d** of this Exhibit regarding management of PCB Transformers, discarded electrical devices and drums in the T.O. Bldg. Containment Pan Area.
15. See **Condition B.1.c.i.'c'** of this Exhibit regarding the storage of cargo tanks containing liquid waste in the CSAs identified by this footnote.
16. See **Condition C.1.e** of this Exhibit regarding the coated steel pans for secondary containment within PCB Warehouse Area 3/6 and the specific storage requirements for this area.

17. Where "Cargo Tank" is listed in the preceding table, the Permittee may also store other bulk liquid containers meeting USDOT specifications for such storage, provided that the capacity of each such container does not exceed the indicated capacity limit for Cargo Tanks and the number of such containers does not exceed the indicated quantity limit for each storage area.
18. The containerized aqueous wastes in the noted storage areas may contain small quantities of incinerable liquids within the waste.
19. See **Conditions C.1.f & D.1.b** of this Exhibit regarding specific requirements for the New Drum Management Building (NDMB) related to construction and operation.
20. Flammable waste (USDOT Class/Divisions 2.1, 3, 4.1, 4.2 & 4.3) may only be stored in Area 1 of the NDBM. Flammable waste may only be stored in USDOT Container designations 1A, 1G, 1H, 4G & 11G or other compatible designations as determined in accordance with Section B.(4).(a) in Attachment D, Appendix D-1 of this Permit.
21. Acid waste (USDOT Class 8) may only be stored in Area 2 of the NDBM. Acid waste may only be stored in USDOT Containers with designations 1A, 1H & 31H or other compatible designations as determined in accordance with Section B.(4).(a) in Attachment D, Appendix D-1 of this Permit.
22. Caustic waste (USDOT Class 8) may only be stored in Area 3 of the NDBM. Caustic waste may only be stored in USDOT Containers with designations 1A, 1G, 1H, 4G & 11G or other compatible designations as determined in accordance with Section B.(4).(a) in Attachment D, Appendix D-1 of this Permit.
23. Poison (Toxic) waste (USDOT Class/Division 6.1) may only be stored in Area 4 of the NDBM. Poison (Toxic) waste may only be stored in USDOT Containers with designations 1A, 1H, 1G, 4G, 11G & 31H or other compatible designations as determined in accordance with Section B.(4).(a) in Attachment D, Appendix D-1 of this Permit.
24. Only Oxidizer and Organic Peroxide waste (USDOT Class/Divisions 5.1 & 5.2) may be stored in Area 5 of the NDBM, and such wastes may not be stored in other NDMB areas. Oxidizer and Organic Peroxide waste may only be stored in USDOT Containers with designations 1A, 1H, 1G, 4G & 31H or other compatible designations as determined in accordance with Section B.(4).(a) in Attachment D, Appendix D-1 of this Permit.
25. See **Condition C.1.f.ii.'a'** of this Exhibit regarding storage limitations of incompatible wastes in Areas 6 & 9 of the NDMB.
26. Containers placed in Areas 6 & 9 of the NDMB must conform to the appropriate USDOT Container designations for the wastes they contain as indicated by Footnotes 20 – 24, above, in accordance with Section B.(4).(a) in Attachment D, Appendix D-1 of this Permit.
27. See **Condition C.1.f.ii.'c'** of this Exhibit regarding management of PCB Transformers, discarded electrical devices and drums in Area 7 of the NDMB.
28. See **Condition C.1.g** of this Exhibit regarding specific requirements for the New Full Trailer Park (NFTP) Area and the Stabilization Facility New Trailer Park (SFNTP) Area related to construction and operation.
29. See **Condition C.1.h** of this Exhibit regarding specific requirements for the New T-109 & T-158 Loading Areas related to construction, operation and financial assurance for closure.

B. Special Conditions for Containers (General)

1. The special conditions for containers presented below are applicable to all Container Storage Areas (CSAs) listed in **Condition A** of this Exhibit, unless otherwise specified.

a. Container Specifications

i. For all CSAs listed in the table provided in **Condition A** of this Exhibit, the Permittee may only utilize containers conforming to USDOT specifications. The Permittee may utilize other container types as long as they meet the specifications indicated by the USDOT Packaging Codes listed in the table for each CSA or conform to non-listed codes corresponding to containers selected in accordance with the procedure presented in Section B.4.a of Attachment D, Appendix D-1 of this Permit.

ii. The Permittee must use containers meeting USDOT Packaging Specifications which are compatible with the waste's USDOT Hazard Class in accordance with Section B.4.a of Attachment D, Appendix D-1 of this Permit.

iii. The Permittee may store containers made of cardboard, fiberboard, textile fabric or other non-metal or non-plastic materials meeting USDOT specifications, in outdoor CSAs within box trailers. They may also be stored outside in these CSAs for up to seven (7) days in accordance with the following:

'a') Each container, or if containers are stored on flatbeds, each flatbed must be clearly marked with the date of its placement in outdoor storage.

'b') The containers must be elevated on pallets or flatbed trailers.

'c') The containers must be inspected daily.

'd') If any container defects exposing waste or other signs of deterioration are identified during outdoor storage, the Permittee must take immediate action in accordance with **Condition E of Module III**.

b. Storage of ≤ 55-gallon to 330-gallon Containers

i. The Permittee must maintain storage of containers with capacities of ≤55-gallons to 330-gallons, in accordance with **Condition D of Module III** and the following:

'a') The minimum aisle space between container rows and between containers and any building walls must be 4 feet for containers storing flammable liquids. Containers with capacities greater than 85 gallons (e.g., overpack drums), up to and including 330-gallon containers must be stored in rows no greater than 1 container wide.

'b') Containers greater than 30 gallons storing flammable liquids or solids must not be stacked. Also, containers with capacities greater than 85 gallons (e.g., overpack drums), up to and including 330-gallon containers may only be stacked two high if they have adequate support

structures and are specifically designed for stacking (e.g., totes with steel supports). Containers of flammable liquids or solids which are 30 gallons or less may be stacked 2 high to a maximum height of 5 feet.

'c') Containers storing free liquid must be stored no closer than 2 feet from the perimeter of their secondary containment (i.e., curb or wall).

'd') Flatbed or box trailers storing containers must have a minimum aisle space between trailers of 2 feet. If the containers on these trailers are not unloaded within 7 days of their arrival at the Permittee's Facility or within 7 days of their initial placement on these trailers by the Permittee, they must be arranged on the trailers in accordance with **Condition B.1.b.i.'a'** of this Exhibit, to provide aisle space for daily inspections of the containers as required by the Inspection Plan in Attachment F, Section F of this Permit. Also, storage of cardboard, fiberboard, textile fabric or other non-metal or non-plastic containers on flatbeds is limited to 7 days in accordance with **Condition B.1.a.iii** of this Exhibit.

c. Storage of Containers Larger than 330-gallons (e.g., roll-offs, cargo tanks, etc.)

i. The Permittee must maintain storage of containers with capacities of greater than 330 gallons (e.g., roll-offs, cargo tanks, etc.) in accordance with the following:

'a') Roll-offs, cargo tanks (or other large containers) must be stored in single rows with a minimum aisle space of 2 feet between container rows and between containers and any building walls.

'b') Cargo tanks (or other large containers) containing free liquids must be stored no closer than 2 feet from the perimeter of their secondary containment (i.e., curb or wall).

'c') Whenever a cargo tank containing liquid waste is in the T-108 Load/Unload Area or the T-109 Load/Unload Area or the New T-109 Loading Area or the T-158 Load/Unload Area or the New T-158 Loading Area, the valve on the pipe connecting these containment areas and their associated tank containment areas must be open to provide sufficient secondary containment capacity.

d. CSA Secondary Containment Concrete Sealant

i. For CSAs where a sealant has been applied to the concrete secondary containment, the Permittee must re-apply this sealant at least once each calendar year in order to maintain a sufficiently impervious surface as required by 6 NYCRR 373-2.9(f)(1)(i). The sealant to be re-applied must be "CHEMTEC One" manufactured by CHEMTEC INTL as specified in

Attachment D, Appendix D-1 of this Permit, or a Department approved equivalent product. The sealant must be re-applied to interior surfaces of the concrete containment (i.e., base, walls, curbs), and these surfaces must be adequately cleaned prior to sealant application to ensure the sealant is able to penetrate the concrete. The Permittee must re-apply the sealant in strict accordance with the product manufacturer's instructions and/or guidelines.

ii. For CSAs where a sealant/coating has been applied and damage to the sealant/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 sealant/coating to repair the damaged area in accordance with the Inspection Plan in Attachment F of this Permit and **Condition E of Module III** of this Permit.

e. CSA Closure Cost Estimation and Financial Assurance

i. The Permittee must maintain a Department approved detailed closure cost estimate for closure of all CSAs, which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, in current dollars, in accordance with 6 NYCRR 373-2.8(c), and **Condition O in Module I** of this Permit. The approved estimate must reflect the cost of closure of each CSA in accordance with the Overall Site-Wide Closure Plan in Attachment I, Section I.1 of this Permit, including off-site disposal of the entire waste inventory and any debris or decontamination residues generated during closure. The Department may, at its discretion, require the Permittee to increase the closure cost estimate for any or all CSAs in accordance with Part 621 of the regulations, if at any time it determines that the amount is insufficient to cover the costs of closure.

ii. The Permittee shall demonstrate continuous compliance with 6 NYCRR 373-2.8(d) or, when applicable, with 6 NYCRR 373-2.8(g) by providing documentation of financial assurance to the Commissioner for closure of CSAs 1 – 33 as listed in the table under **Condition A** of this Exhibit, as required by 6 NYCRR 373-2.8(j), **Condition O in Module I** of this Permit, **Condition G.2 in Exhibit A**. Changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(d). The Permittee shall provide annual evidence to the Commissioner that the financial assurance mechanisms for these CSA closures have been maintained and not allowed to lapse.

iii. At least 60 days before the date containerized hazardous waste is first placed in each CSA listed as 34 – 46 in the table under **Condition A** of this Exhibit, the Permittee shall provide documentation of financial assurance to the Commissioner for closure of each CSA where waste is to be placed, as required by 6 NYCRR 373-2.8(j), **Condition O in Module I** of this Permit and **Condition G.2 in Exhibit A**, in at least the amount required for each such CSAs closure based on the approved closure cost estimate as adjusted for

inflation. Subsequent to providing such financial assurance, changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(d) and the Permittee shall provide annual evidence to the Commissioner that the financial assurance mechanisms for these CSA closures have been maintained and not allowed to lapse.

C. Special Conditions for Containers (Specific)

1. The special conditions for containers presented below are applicable only to specific Container Storage Areas (CSAs) listed in **Condition A** of this Exhibit.

   a. Drum Management Bldg. (DMB) - Truck Load/Unload Ramp

      i. The Permittee may place trailers with containers storing free liquids or incompatible wastes on the DMB Truck Load/Unload Ramp upon the date of their arrival at the DMB. Such containers must be managed in accordance with Attachment D, Appendix D-1 of this Permit, they may not be left unattended (i.e., personnel must be present at the DMB) and they must be inspected as they are off-loaded from the trailers. Prior to the end of the last DMB personnel work shift on the date of the placement of containers storing free liquids or incompatible wastes on trailers in the DMB Truck Load/Unload Ramp, all such containers must be removed from the DMB Truck Load/Unload Ramp and re-located to a CSA which is designated by **Condition A** of this Exhibit for storage of liquid/incompatible waste containers.

   b. Stabilization Facility, Macro Room Areas I-III

      i. The Permittee may cover, seal and store Macroencapsulation (Macro) Boxes in the Stabilization Facility, Macro Room Areas I-III, in accordance with Attachment D, Appendix D-1 of this Permit. All Macro Boxes must be in roll-offs. Any spills must be cleaned up immediately using dry methods only (e.g., sweeping, shoveling, vacuum, etc.). Subsequent to completing spill cleanups, the Permittee may perform floor wash downs at its discretion.

   c. Stabilization Facility, North Expansion Bldg.

      i. The Permittee may fill dump trailers, roll-off containers, or Macro Boxes in roll-offs, with solid wastes, debris and filler material, in the Stabilization Facility, North Expansion Bldg., in accordance with Attachment D, Appendix D-1 of this Permit. All Macro Boxes must be placed in roll-offs prior to receiving waste. The storage of containerized solids with no free liquids in this area must be in accordance with **Condition F of Module III** of this Permit. Any spills must be cleaned up immediately using dry methods only (e.g., sweeping, shoveling, vacuum, etc.). Subsequent to completing spill cleanups, the Permittee may perform floor wash downs at its discretion. The

Permittee must maintain the concrete floor in this area so that it is free of cracks or joint gaps to provide for effective clean-up of spilled solid wastes that may result from the filling process. Any concrete cracks or gaps identified during inspections conducted in accordance with the Inspection Plan in Attachment F, Section F of this Permit, must be repaired in accordance with **Condition E of Module III** of this Permit. In addition, the concrete floor in this area must be independently inspected for cracks or gaps on an annual basis in accordance with **Condition K.1 of Module III** of this Permit.

d. T.O. Bldg., Containment Pan Area

i. The Permittee may store and decommission PCB transformers and discarded electrical devices, and store drums containing such devices or solid wastes, within the T.O. Bldg. Containment Pan Area in accordance with Attachment D, Appendix D-1 of this Permit and the following requirements:

'a') PCB transformers must be in steel containment pan units at all times to provide secondary containment in accordance with 6 NYCRR 373-2.9(f)(1). Discarded electrical devices must be within containment pan units and any such devices with free liquids must be in drums. Containers may only be stored in containment pans with no more than 3 containers in each pan. These containment pans must be no greater than 11 feet in length and 7 feet in width, but must have a minimum capacity of 386 gallons.

'b') More than one PCB transformer or container may be placed into a single containment pan provided that no transformer or container is closer than 2 feet from the edges of the pan.

'c') Permittee must maintain a minimum aisle space of 2 feet between containment pans and between containment pans and building walls.

'd') Liquids in the PCB transformers and discarded electrical devices, and/or liquids used in decommissioning activities, must not be discharged or flushed into the containment pans.

e. PCB Warehouse Area 3/6

i. The Permittee must operate this container storage area in accordance with the following requirements:

'a') No containers storing containing liquid waste shall be stored in Area 3/6 outside of the secondary containment pans. Containers stored within these pans must be placed single stacked in rows of no more than two (2) drums per row in each pan. No more than 2,200 gallons may be stored in containers within each pan and a minimum of two (2) feet of space must be provided between the containers and the edges of the pan at all times. Containers less than or equal to 30 gallons may be

double stacked as long as they do not contain flammable waste; containers of flammable waste cannot be stacked.

'b') At closure, the Permittee must properly dispose or decontaminate and recycle the steel pans.

f. New Drum Management Bldg. (NDMB)

i. Construction Requirements

The Permittee shall not commence construction of the NDMB until the Permittee has received from the Department all approvals required by the conditions of this Permit necessary for beginning construction, unless otherwise authorized by the Department in writing. NDMB construction shall be overseen and, upon completion, certified by an independent, qualified professional engineer registered in New York (hereafter referred to as the "Engineer"). The NDMB shall be constructed in strict conformance with: 6 NYCRR 373-2.9(f); Section O in Attachment D, Appendix D-1 of this Permit; Figure D-1B, Storage/Containment Calculations and Design Drawings in Attachment D, Appendix D-1 of this Permit; the "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and the conditions contained in this Exhibit.

'a') NDMB Technical Specifications

At least ninety (90) days prior to the anticipated start of NDMB construction, the Permittee must submit for Department approval, a detailed set of specifications for NDMB construction based on the Design Drawings in Attachment D, Appendix D-1 of this Permit and consistent with the format used for landfill construction in Attachment J, Appendix D-7 of this Permit. The Permittee must receive Department approval of the NDMB Technical Specifications before beginning construction of the NDMB. At a minimum, this submission must include detailed specifications for the following elements of NDMB construction:

- excavation, grading and subgrade preparation;
- concrete footings, floors/slabs, walls and separation curbs, including all steel reinforcement and concrete mix requirements;
- internal ramps and floor collection trenches;
- filler material and waterstops for all floor to floor, floor to wall and floor to separation curb joints;
- concrete floor, wall and curb sealant; and

- fire suppression sprinkler system.

'b') NDMB Construction Quality Assurance (CQA) Plan

At least ninety (90) days prior to the anticipated start of NDMB construction, the Permittee must submit for Department approval, a CQA Plan for NDMB construction which is consistent with the format used for landfill construction in Attachment J, Appendix D-8 of this Permit. The CQA Plan must provide qualifications of the CQA Engineer and all subordinate engineers and other personnel involved in overseeing the construction. The plan must also include the detailed observation, inspection and testing activities to be conducted by the CQA firm so as to confirm that the NDMB has been constructed in accordance with the NDMB Design Drawings and Department-approved Technical Specifications with respect to the construction elements listed under **Condition C.1.f.i.'a'** of this Exhibit. The Permittee must receive Department approval of the NDMB CQA Plan before beginning construction of the NDMB.

'c') NDMB Construction Completion

Following completion of NDMB construction, the Permittee must submit to the Department by certified mail or hand delivery a letter signed by the Permittee and the CQA Engineer stating that the NDMB has been constructed in compliance with the Design Drawings, approved Technical Specifications and the conditions in this Permit, along with all necessary supporting documentation. Subsequent to submission of this letter, the Permittee must allow at least 15 days for inspection of the completed construction by Department staff before placing containerized waste in any NDMB Area. If construction related deficiencies are identified during such an inspection, the Permittee must correct any and all such deficiencies to the Department's satisfaction prior to placing containerized waste in any NDMB Area.

NDMB construction must be completed in accordance with the above requirements and all NDMB Areas placed into operation (i.e., receiving containerized waste) prior to commencing closure of the existing DMB, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, unless the Permittee elects to close the existing DMB before NDMB construction as part closure of the entire facility.

ii. Operating Requirements

The Permittee shall store containers and operate the NDMB in strict conformance with: 6 NYCRR 373-2.9; **Module III** of this Permit; Section O and Figure D-1B in Attachment D, Appendix D-1 of this Permit; and the conditions contained in this Exhibit.

'a') NDMB Areas 6 & 9 Special Operational Requirements

All waste containers in Area 9 must be in box trailers or on flatbed trailers. At the end of each operating day, the Permittee must inspect the waste containers in Areas 6 & 9 and records describing the wastes in these containers, and identify any incompatible wastes in each of these areas. If incompatible wastes are identified in either Area 6 or 9, such wastes must be re-located to the appropriate area in the NDMB before the end of each operating day to provide proper separation of incompatible wastes in accordance with 6 NYCRR 373-2.9(h). Under no circumstances shall incompatible wastes be stored unattended in either Area 6 or 9 of the NDMB.

'b') NDMB Area 7 Special Operational Requirements

A Cargo Tank parked in NDMB Area 7 may receive compatible liquid waste from the new NDMB Fuels Pumping Area in accordadance with **Condition D.1.b** of this Exhibit, or from another Cargo Tank parked within NDMB Area 7.

'c') NDMB Area 8 Special Operational Requirements

Any transformer which is being flushed or is found to be leaking must be in pans or other primary containment vessel of sufficient capacity to hold the transformer/flushing liquids. All such liquids shall be removed from containment pans/vessels at the end of each operating day and managed as hazardous waste.

g. New Full Trailer Park (NFTP) & Stabilization Facility New Trailer Park (SFNTP)

i. Construction Requirements

The Permittee shall not commence construction of either the NFTP or the SFNTP until the Permittee has received from the Department all approvals required by the conditions of this Permit necessary for beginning construction of these CSAs, unless otherwise authorized by the Department in writing. Construction of these CSAs shall be overseen and, upon completion, certified by an independent, qualified professional engineer registered in New York (hereafter referred to as the "Engineer"). The NFTP and the SFNTP shall be constructed in strict conformance with: 6 NYCRR 373-2.9(f); Sections P & Q in Attachment D, Appendix D-1 of this Permit; Figures D-3A and D-4A respectively and Storage/Containment Calculations in Attachment D, Appendix D-1 of this Permit; the "RMU-2 Soil Excavation Monitoring and

Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and the conditions contained in this Exhibit.

'a') NFTP & SFNTP Technical Specifications

At least ninety (90) days prior to the anticipated start of NFTP construction and at least ninety (90) days prior to the anticipated start of SFNTP construction, the Permittee must submit for Department approval, a detailed set of specifications for construction of each of these new CSAs based on Figure D-3A in Attachment D, Appendix D-1 of this Permit for the NFTP and Figure D-4A in Attachment D, Appendix D-1 of this Permit for the SFNTP. Both sets of specifications should be consistent with the format used for landfill construction in Attachment J, Appendix D-7 of this Permit. The Permittee must receive Department approval of each set of technical specifications before beginning construction of each new CSA. At a minimum, each set must include detailed specifications for the following elements of CSA construction:

- excavation, grading and subgrade preparation;
- concrete footings, slabs and walls, including all steel reinforcement and concrete mix requirements;
- filler material and waterstops for all floor to floor and floor to wall joints; and
- concrete floor and wall sealant.

'b') NFTP & SFNTP Construction Quality Assurance (CQA) Plans

At least ninety (90) days prior to the anticipated start of NFTP construction and at least ninety (90) days prior to the anticipated start of SFNTP construction, the Permittee must submit for Department approval, a CQA Plan for construction of each of these new CSAs which is consistent with the format used for landfill construction in Attachment J, Appendix D-8 of this Permit. Each CQA Plan must provide qualifications of the CQA Engineer and all subordinate engineers and other personnel involved in overseeing the construction. Each plan must also include the detailed observation, inspection and testing activities to be conducted by the CQA firm so as to confirm that each of these CSAs have been constructed in accordance with the applicable Design Figures and Department-approved Technical Specifications with respect to the construction elements listed under **Condition C.1.g.i.'a'** of this Exhibit. The Permittee must receive Department approval of each CQA Plan before beginning construction of each new CSA.

'c') NFTP & SFNTP Construction Completion

Following completion of NFTP construction and again after completion of SFNTP construction, the Permittee must submit to the Department by certified mail or hand delivery a letter signed by the Permittee and the CQA Engineer stating that each of these CSAs have been constructed in compliance with their respective Design Figures, approved Technical Specifications and the conditions in this Permit, along with all necessary supporting documentation. Subsequent to submission of each letter, the Permittee must allow at least 15 days for inspection of the completed construction by Department staff before placing containerized waste in each new CSA. If construction related deficiencies are identified during such an inspection, the Permittee must correct any and all such deficiencies to the Department's satisfaction prior to placing containerized waste in each new CSA.

NFTP construction must be completed in accordance with the above requirements and the NFTP placed into operation (i.e., receiving containerized waste) prior to commencing closure of the existing South Trailer Parking Area, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, unless the Permittee elects to close the existing Area before NFTP construction as part closure of the entire facility.

SFNTP construction must be completed in accordance with the above requirements and the SFNTP placed into operation (i.e., receiving containerized waste) prior to commencing closure of the existing Stabilization Facility Trailer Parking Areas, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, unless the Permittee elects to close the existing Areas before SFNTP construction as part closure of the entire facility.

ii. Operating Requirements

The Permittee shall operate the NFTP and SFNTP in strict conformance with: 6 NYCRR 373-2.9; **Module III** of this Permit; Sections P & Q in Attachment D, Appendix D-1 of this Permit; and the conditions contained in this Exhibit.

'a') NFTP & SFNTP Special Operational Requirements

All waste in these CSAs must be stored in containers in box trailers or on flatbed trailers in accordance with **Condition B.1.b.i.'d'** of this Exhibit, or in roll-offs (for solids) or cargo tanks (for liquids) in accordance with **Condition B.1.c** of this Exhibit. Containerized waste

stored in each of these CSAs must be compatible in order to comply with 6 NYCRR 373-2.9(h).

h. New T-109 Loading Area (NT-109LA) & New T-158 Loading Area (NT-158LA)

i. Construction Requirements

The Permittee shall not commence construction of either the NT-109LA or the NT-158LA until the Permittee has received from the Department all approvals required by the conditions of this Permit necessary for beginning construction of these CSAs, unless otherwise authorized by the Department in writing. Construction of these CSAs shall be overseen and, upon completion, certified by an independent, qualified professional engineer registered in New York (hereafter referred to as the "Engineer"). The NT-109LA and the NT-158LA shall be constructed in strict conformance with: 6 NYCRR 373-2.9(f); Sections R & S in Attachment D, Appendix D-1 of this Permit; Figures D-12A and D-14A respectively and Storage/Containment Calculations in Attachment D, Appendix D-1 of this Permit; the "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and the conditions contained in this Exhibit.

'a') NT-109LA & NT-158LA Technical Specifications

At least ninety (90) days prior to the anticipated start of NT-109LA construction and at least ninety (90) days prior to the anticipated start of NT-158LA construction, the Permittee must submit for Department approval, a detailed set of specifications for construction of each of these new CSAs based on Figure D-12A in Attachment D, Appendix D-1 of this Permit for the NT-109LA and Figure D-14A in Attachment D, Appendix D-1 of this Permit for the NT-158LA. Both sets of specifications should be consistent with the format used for landfill construction in Attachment J, Appendix D-7 of this Permit. The Permittee must receive Department approval of each set of technical specifications before beginning construction of each new CSA. At a minimum, each set must include detailed specifications for the following elements of CSA construction:

- excavation, grading and subgrade preparation;
- concrete footings, slabs and walls, including all steel reinforcement and concrete mix requirements;
- filler material and waterstops for all floor to floor and floor to wall joints; and
- concrete floor and wall sealant.

'b') NT-109LA & NT-158LA Construction Quality Assurance (CQA) Plans

At least ninety (90) days prior to the anticipated start of NT-109LA construction and at least ninety (90) days prior to the anticipated start of NT-158LA construction, the Permittee must submit for Department approval, a CQA Plan for construction of each of these new CSAs which is consistent with the format used for landfill construction in Attachment J, Appendix D-8 of this Permit. Each CQA Plan must provide qualifications of the CQA Engineer and all subordinate engineers and other personnel involved in overseeing the construction. Each plan must also include the detailed observation, inspection and testing activities to be conducted by the CQA firm so as to confirm that each of these CSAs have been constructed in accordance with the applicable Design Figures and Department-approved Technical Specifications with respect to the construction elements listed under **Condition C.1.h.i.'a'** of this Exhibit. The Permittee must receive Department approval of each CQA Plan before beginning construction of each new CSA.

'c') NT-109LA & NT-158LA Construction Completion

Following completion of NT-109LA construction and again after completion of NT-158LA construction, the Permittee must submit to the Department by certified mail or hand delivery a letter signed by the Permittee and the CQA Engineer stating that each of these CSAs have been constructed in compliance with their respective Design Figures, approved Technical Specifications and the conditions in this Permit, along with all necessary supporting documentation. Subsequent to submission of each letter, the Permittee must allow at least 15 days for inspection of the completed construction by Department staff before placing containerized waste in each new CSA. If construction related deficiencies are identified during such an inspection, the Permittee must correct any and all such deficiencies to the Department's satisfaction prior to placing containerized waste in each new CSA.

NT-109LA construction must be completed in accordance with the above requirements prior to commencing closure of the existing T-109 Load/Unload Area, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, unless the Permittee elects to close the existing Area before NT-109LA construction as part closure of the entire facility.

NT-158LA construction must be completed in accordance with the above requirements prior to commencing closure of the existing T-158 Load/Unload Area, in accordance with the "Transition Plan for RMU-

2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, unless the Permittee elects to close the existing Areas before NT-158LA construction as part closure of the entire facility.

ii. Operating Requirements

The Permittee shall operate the NT-109LA and NT-158LA in strict conformance with: 6 NYCRR 373-2.9; **Module III** of this Permit; Sections R & S in Attachment D, Appendix D-1 of this Permit; and the conditions contained in this Exhibit.

'a') NT-109LA & NT-158LA Special Operational Requirements

All waste in these CSAs must be stored in containers in box trailers or on flatbed trailers in accordance with **Condition B.1.b.i.'d'** of this Exhibit, or in roll-offs (for solids) or cargo tanks (for liquids) in accordance with **Condition B.1.c** of this Exhibit. Containerized waste stored in each of these CSAs must be compatible in order to comply with 6 NYCRR 373-2.9(h). Also, the Permittee must comply with **Condition B.1.c.i.'c'** of this Exhibit whenever cargo tanks containing liquids are parked in these CSAs.

iii. Special Closure Financial Assurance Requirements

Since the approved closure cost estimate and corresponding financial assurance does not cover the costs for closure of both existing and new T-109 Loading Areas, the Permittee may not store containerized waste in the new T-109 Loading Area until the closure of the existing T-109 Loading Area is completed and the Permittee has submitted its closure certification in accordance with 6 NYCRR 373-2.7(f)(1). Alternatively, the Permittee may store containerized waste in the new T-109 Loading Area prior to closure of the existing T-109 Loading Area if the Permittee provides additional financial assurance for closure in an amount at least equal to the closure cost estimate for the existing T-109 Loading Area, in current dollars, and the Department accepts the financial assurance instrument.

The above condition is also applicable to the existing and new T-158 Loading Areas.

D. Special Conditions for Container Miscellaneous Units

1. The Permittee may operate the following miscellaneous units used for the management of hazardous waste in containers, in accordance with 6 NYCRR 373-2.24 and the requirements of this special condition.

a. DMB Fuels Drum Pumping Area

i. The Permittee may utilize the pumping equipment in the DMB Fuels Drum Pumping Area depicted on Figure D-1A in Attachment D, Appendix D-1 of the Permit to transfer compatible liquid wastes in drums and oil wastes from electrical equipment in drums, to tankers located on the DMB West Tanker Ramp. Prior to such transfers, the Permittee must determine that all wastes to be transferred into a single tanker are compatible with one another in accordance with the Waste Analysis Plan in Attachment C, Section C of the Permit. This unit must be operated in accordance with Attachment D, Appendix D-1 of the Permit and the following requirements:

'a') No more than 8 containers at a time must be in the DMB Fuels Drum Pumping Area.

'b') All containers must be removed from the DMB Fuels Drum Pumping Area and relocated to a CSA which is designated by **Condition A** of this Exhibit for the storage of containers storing free liquids, prior to the end of each day's work shift.

'c') No container shall be open in this area unless it is undergoing pumping, sampling or interior inspection. Personnel must be present in the DMB Fuels Drum Pumping Area at all times during pumping.

b. New DMB Fuels Pumping Area

i. The Permittee may utilize the pumping equipment in the New DMB Fuels Drum Pumping Area depicted on Figure D-1B in Attachment D, Appendix D-1 of the Permit to transfer compatible liquid wastes in drums and oil wastes from electrical equipment in drums, to tankers located on the New DMB Fuels Transfer Ramp (Area 7). Prior to such transfers, the Permittee must determine that all wastes to be transferred into a single tanker are compatible with one another in accordance with the Waste Analysis Plan in Attachment C, Section C of the Permit. This unit must be operated in accordance with Attachment D, Appendix D-1 of the Permit and the following requirements:

'a') No more than 8 containers at a time must be in the New DMB Fuels Drum Pumping Area.

'b') All containers must be removed from the new DMB Fuels Drum Pumping Area and relocated to a CSA which is designated by **Condition A** of this Exhibit for the storage of containers storing free liquids, prior to the end of each day's work shift.

'c') No container shall be open in this area unless it is undergoing pumping, sampling or interior inspection. Personnel must be present

in the new DMB Fuels Drum Pumping Area at all times during pumping.

SCHEDULE 1 of MODULE I
EXHIBIT D

Facility-Specific Conditions
Supplement To Module IV

[*NOTE: Portions of Schedule 1 of Module I Exhibit D are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

EXHIBIT D

SUPPLEMENT TO MODULE IV

EXHIBIT D
SUPPLEMENT TO
MODULE IV - TANKS

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:

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
Tanks Located Inside the AWT Building					
T-710[6]	8,000	Storage / Treatment[1,2] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,440
T-810[6]	8,000	Storage / Treatment[1,2] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,440
T-820[6]	8,000	Storage / Treatment[1,2] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,440
T-850	846	Treatment[1,5] FRP[4]	Specific Off-site Commercial Solid & Lab Chemical Wastes[5]	D001, D002, D005, D007 & Lab Chem. Waste Codes Listed in Attachment C[3]	24,440
T-1010[6]	10,000	Treatment[1,7] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,440
T-1020[6]	8,000	Treatment[1,7] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,440
T-1111[6]	300	Storage Polyethylene	Aqueous Waste Filtrate from Filter Press	Waste Codes Listed in Attachment C[3]	24,440
T-1112[6]	450	Storage FRP[4]	Aqueous Waste Filtrate from Filter Press	Waste Codes Listed in Attachment C[3]	24,440
T-1310[6]	580	Treatment[1,8] FRP[4]	Caustic Aqueous Wastes from Process Tank Air Emissions	Waste Codes Listed in Attachment C[3]	24,440

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
Tanks Located Inside the Solids Separation Building					
T-3011[6]	375	Storage/ Treatment[1,16] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	14,851
T-3012[6]	375	Storage/ Treatment[1,16] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	14,851
Tanks Located Outside, North of AWT Building					
T-100[6,9]	160,545	Storage/ Treatment[1,13] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	571,328
T-125[9]	394,271	Storage/ Treatment[1,23] Steel (lined)	Treated Aqueous Waste[10]	Waste Codes Listed in Attachment C[3]	571,328
T-8008	500	Storage FRP[4]	On-site Generated Groundwater DNAPL	F039	571,328
Tank Located Outside, West of AWT Building					
T-58[9]	488,529	Storage/ Treatment[1,23] Steel (lined)	Treated Aqueous Waste[10]	Waste Codes Listed in Attachment C[3]	Not Required[11]
Tanks Located Outside, East of AWT Building					
T-210[6]	30,000	Treatment[1,12] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	44,350
T-220[6]	30,000	Treatment[1,12] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	44,350
T-230[6]	30,000	Treatment[1,12] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	44,350
T-310[6]	30,457	Treatment[1,13] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	44,350
T-320[6]	30,457	Treatment[1,13] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	44,350

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
Tanks Located Inside the Wastewater Treatment Building					
T-3007[6]	7,600	Treatment[1,15] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	15,317
T-3008[6]	7,600	Treatment[1,15] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	15,317
T-3010A[6,29]	470	Treatment[1,14] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	15,317
T-3010B[6,29]	470	Treatment[1,14] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	15,317
T-3010C[6,29]	470	Treatment[1,14] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	15,317
T-3010D[6,29]	470	Treatment[1,14] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	15,317
Tank Located Outside, South of Wastewater Treatment Building					
T-52	7,600	Storage Steel (coated)	Aqueous Waste Carbon Slurry	Waste Codes Listed in Attachment C[3]	9,546
Tanks Located Outside, East of Wastewater Treatment Building					
T-3001[6]	1,255	Treatment[1,16] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	1,872
T-3002[6]	900	Treatment[1,16] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	1,872
T-3003[6]	1,210	Storage/ Treatment[1,15] FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	1,667
T-3009	6,000	Storage Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	Double-Walled Tank[9]
Tanks Located North of SLF 1-6 Landfills (Tank T-105 Inside, Tank T-130 Outside)					
T-105[6]	3,000	Storage Steel (lined)	SLF 1-6 Leachate	F039	4,143

Modified: Nov. 2013

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
T-130[6]	5,732	Storage Stainless Steel	SLF 1-6 Leachate	F039	8,228
Tanks Located Inside Buildings, Between Landfills SLF 7 & SLF 11					
T-107[6]	350	Storage FRP[4]	SLF 7 Leachate	F039	2,765
T-108[6]	10,000	Storage FRP[4]	SLF 7 & SLF 11 Leachate	F039	15,709
T-111[6]	350	Storage FRP[4]	SLF 11 Leachate	F039	15,709
Tanks Located Inside A Building, Northwest of SLF 10 Landfill					
T-109[6]	3,000	Storage FRP[4]	SLF 10 Leachate	F039	15,709
T-110[6]	350	Storage FRP[4]	SLF 10 Leachate	F039	15,709
Tanks Located Inside A Building, East of the Leachate Tank Farm					
T-158[6]	17,000	Treatment[1,17] Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,876
T-159[6]	1,000	Storage FRP[4]	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	24,876
Tank Located Inside A Building, Southeast of SLF 12 Landfill					
T-150[30]	8,000	Storage/ Treatment[1,24] Steel (lined)	~~Onsite Generated Aqueous Wastes~~SLF 12, RMU-1 & RMU-2 Leachate	F039	18,388
Tank Located Inside A Building, On the West Side of the RMU-1 Landfill					
T-160	3,000	Storage/ Treatment[1,24] Steel (lined)	RMU-1 Leachate	F039	7,563
Tank Located Outside, On the South Side of the RMU-1 Landfill					
T-165[26]	876,769	Storage Steel (lined)	RMU-1 Leachate	F039	913,155

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
Tanks Located Outside, Within Leachate Tank Farm					
T-101[6]	350,000	Storage/ Treatment[1,13,18] Steel (lined)	SLF 1-11 Leachate, Off-site Commercial & On-site Aqueous Wastes **or** SLF 12,~~ &~~ RMU-1 & RMU-2 Leachate[19]	F039 & Waste Codes Listed in Attachment C[3]	500,959
T-102[6]	350,000	Storage/ Treatment[1,13,18] Steel (lined)	SLF 1-11 Leachate, Off-site Commercial & On-site Aqueous Wastes **or** SLF 12,~~ &~~ RMU-1 & RMU-2 Leachate[19]	F039 & Waste Codes Listed in Attachment C[3]	500,959
T-103[6]	350,000	Storage/ Treatment[1,13,18] Steel (lined)	SLF 1-11 Leachate, Off-site Commercial & On-site Aqueous Wastes **or** SLF 12,~~ &~~ RMU-1 & RMU-2 Leachate[19]	F039 & Waste Codes Listed in Attachment C[3]	500,959
Frac. Tank 3[6]	21,000	Storage Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	500,959
Tanks Located Inside Stabilization Building Northern Expansion					
Mix Pit Tank 1[9]	20,354	Treatment[20] Steel	Off-site Commercial & On-site Solid Wastes[21]	Waste Codes Listed in Attachment C[3]	Steel Vault
Mix Pit Tank 2[9]	20,354	Treatment[20] Steel	Off-site Commercial & On-site Solid Wastes[21]	Waste Codes Listed in Attachment C[3]	Steel Vault
Tanks Located Outside, South of Main Stabilization Building					
TA-1	20,000	Storage Steel (lined)	Off-site Commercial & On-site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	28,174
TA-2	20,000	Storage Steel (lined)	Off-site Commercial & On- site Generated Aqueous Wastes	Waste Codes Listed in Attachment C[3]	28,174
Tank Located Inside Truck Wash Building					
T-120	1,650	Storage FRP[4]	On-site Generated Contaminated Surface Water	Waste Codes Listed in Attachment C[3]	1,659

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
Tanks Located Inside A Building, West of the AWT Building					
T-8001	5,000	Storage Steel (lined)	On-site Contaminated Groundwater	F039	6,445
T-8002	550	Storage FRP[4]	On-site Contaminated Groundwater	F039	6,445
Tank Located Inside A Building, South of SLF 3 Landfill					
T-8004	550	Storage FRP[4]	On-site Contaminated Groundwater	F039	892
Tank Located Inside A Building, South of SLF 10 Landfill					
T-8005	300	Storage Steel	On-site Contaminated Groundwater	F039	356
Tank Located Inside A Building, East of SLF 12 Landfill					
T-8006	300	Storage Steel	On-site Contaminated Groundwater	F039	356
Tank Located Inside A Building, South of PCB Warehouse					
T-8007	500	Storage FRP[4]	On-site Contaminated Groundwater	F039	539
Tank Located Inside T.O. Building CSA					
T-8009[27]	525	Storage HDLPE[25]	On-site Contaminated Groundwater	F039	853
Tank Located South of South Trailer Parking CSA					
T-8010[27]	1,000	Storage HDPE[28]	On-Site Contaminated Groundwater	F039	1,300
Tank Located West of SLF 7 (for Facultative Pond 5)					
T-9001[31]	1,100	Storage HDPE[28]	Liquid from Facultative Pond 5 Leak Detection Sys.	F039	Double-Walled Tank[9]
Sump Tank Located Inside AWT Building					
Filter Press Sump Tank	175	Storage FRP[4]	On-site Generated AWT Wash Water[22]	Waste Codes Listed in Attachment C[3]	Concrete Vault[9]

Footnotes:

1. See **Condition C.1.a** of this Exhibit regarding the overall operation of the aqueous waste treatment process that pertains to the specific Tank Systems identified above by this footnote.

2. See **Condition C.1.a.ii** of this Exhibit regarding the treatment allowed in Tanks T-710, T-810 and T-820.
3. Authorized EPA waste codes are listed in Attachment C, Section C, Tables C-1 & C-2 of this Permit.
4. "FRP" = "Fiberglass Reinforced Plastic."
5. See **Condition C.1.a.iii** of this Exhibit regarding the treatment allowed in Tank T-850.
6. See **Condition J of Module IV** and Attachment D, Appendix D-3, Section VI of this Permit regarding air emission controls required by 6 NYCRR 373-2.29 for the specific Tank Systems identified above by this footnote.
7. See **Condition C.1.a.iv** of this Exhibit regarding the treatment allowed in Tanks T-1010 and T-1020.
8. See **Condition C.1.a.v** of this Exhibit regarding the treatment allowed in Tank T-1310.
9. See **Condition C.1.b** of this Exhibit regarding leak detection monitoring requirements for the specific Tank Systems identified above by this footnote.
10. "Treated Aqueous Waste" refers to the effluent from the on-site AWTS that has completed the treatment processes deemed necessary to meet the Land Disposal Restriction wastewater treatment standards as required by 6 NYCRR 376.
11. See **Condition C.1.c** of this Exhibit regarding the variance from secondary containment requirements issued in accordance with 6 NYCRR 373-2.10(d)(7) for Tank T-58.
12. See **Condition C.1.a.vi** of this Exhibit regarding the treatment allowed in Tanks T-210, T-220 and T-230.
13. See **Condition C.1.a.vii** of this Exhibit regarding the treatment allowed in Tanks T-100, T-101, T-102, T-103, T-310 and T-320.
14. See **Condition C.1.a.viii** of this Exhibit regarding the treatment allowed in Tanks T-3010A, T-3010B, T-3010C, T-3010D and Cartridge Filter Units HIF-24-A,B,C&D.
15. See **Condition C.1.a.ix** of this Exhibit regarding the treatment allowed in Tanks T-3003, T-3007 and T-3008.
16. See **Condition C.1.a.x** of this Exhibit regarding the treatment allowed in Tanks T-3001, T-3002, T-3011 and T-3012.
17. See **Condition C.1.a.xi** of this Exhibit regarding the treatment allowed in Tank T-158.
18. See **Condition C.1.d** of this Exhibit regarding requirements to maintain sufficient capacity in Tanks T-101, T-102 and T-103 for the storage of on-site generated leachates and contaminated groundwater.
19. See **Condition C.1.e** of this Exhibit regarding the required separation strategy for the aqueous wastes stored in Tanks T-101, T-102 and T-103.
20. See **Condition C.1.f** of this Exhibit regarding the treatment allowed in Mix Pit Tanks 1 and 2.
21. See **Condition C.1.f** of this Exhibit regarding the use of aqueous wastes in Mix Pit Tanks 1 and 2.
22. See **Condition C.1.a.xii** of this Exhibit regarding the AWT Filter Press wash water.
23. See **Condition C.1.a.xiii** of this Exhibit regarding the treatment allowed in Tanks T-58 and T-125.
24. See **Condition C.1.a.xiv** of this Exhibit regarding the treatment allowed in Tanks T-150 and T-160.
25. "HDLPE" = "High Density Linear Polyethylene."
26. See **Condition C.1.g** of this Exhibit regarding the operational requirements for Tank T-165.
27. See **Condition C.1.h** of this Exhibit regarding the installation and operational requirements for Tanks T-8009 and T-8010.
28. HDPE = High Density Polyethylene.
29. See **Condition C.1.i** of this Exhibit regarding the installation and operational requirements for Tanks T-3010A through D and Cartridge Filter Units HIF-24-A through D.
30. See **Condition C.1.j** of this Exhibit regarding modifications of Tank T-150 ancillary equipment (e.g., pumps, leachate transfer piping, etc.) necessary for the management of RMU-1 and RMU-2 leachate.
31. See **Condition C.1.k** of this Exhibit regarding the installation and operational requirements for Tank T-9001.

B. Special Conditions for Tank Systems (General)

1. The special conditions for tank systems presented below are applicable to all Tank Systems (TSs) listed in **Condition A** of this Exhibit, unless otherwise specified.

   a. Tank Systems' Ancillary Equipment Operation and Maintenance

      i. Ancillary Equipment Without Secondary Containment: The Permittee must perform visual daily inspections of the ancillary equipment listed in the table entitled "Aboveground Ancillary Equipment Without Secondary Containment", of the Permit Application which is incorporated by reference into this Permit by **Schedule 1 of Module I**, and maintain records of these inspections in accordance with 6 NYCRR 373-2.2(g)(4) and Attachment F of this Permit. Any replacement of the ancillary equipment listed in this table and any new additional ancillary equipment which is installed without secondary containment, must meet the secondary containment exception requirements specified by **Condition C of Module IV** of this Permit.

      ii. Underground Hazardous Waste Transfer Lines: The Permittee must pressure test all newly installed underground hazardous waste transfer lines prior to burial and placing into service. The Permittee must also pressure test any existing underground hazardous waste transfer line or transfer line section 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 contained in Attachment D, Appendix D-3, Section VII 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 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.

   b. Tank Systems' Secondary Containment Operation

      i. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as possible to prevent harm to human health and the environment, if the Permittee can demonstrate to the Department that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours. All removed liquids must be managed in accordance with Attachment D, Appendix D-3, Section II and of this Permit and 6 NYCRR 373-2.10(d)(3)(iv).

c. Tank Systems Independent Assessment: The year of the most recent assessment for each Tank System is indicated in Attachment D, Appendix D-3, Section VIII of this Permit. In addition to the requirements of **Condition K.3 of Module IV** of this Permit, the Permittee must perform the following:

i. Mix Pit Tanks 1 & 2 and the Filter Press Sump Tank must be independently assessed each calendar year.

ii. The interiors of Mix Pit Tanks 1 & 2 and the Filter Press Sump Tank must be assessed annually during the independent assessment.

iii. Each calendar year, the engineer/inspector must report to the Permittee on or before August 31, unless the Department approves an extension, any and all Tank System defects identified during that year's assessment along with repair recommendations.

iv. The engineer's/inspector's annual report must be submitted to the Department on/before November 30 of each calendar year, unless the Department approves an extension of no greater than 30 days.

v. Tanks T-3010A, T-3010B, T-3010C & T-3010D must be independently assessed upon each tank change out in accordance with **Condition C.1.i.ii.'b'** of this Exhibit.

C. Special Conditions for Tank Systems (Specific)

1. The special conditions for tank systems presented below are applicable only to specific Tank Systems listed in **Condition A** of this Exhibit.

a. Aqueous Waste Treatment (AWT) Tank Systems

i. The Permittee must operate all treatment tank systems which are identified by Footnote 1 of **Condition A** of this Exhibit and all other components associated with the AWT system, in strict accordance with the July 2012 Revision and any subsequently Department approved revisions of the "Aqueous Waste Treatment System (AWTS) Operations and Maintenance (O&M) Manual", which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

ii. Treatment allowed in Tanks T-710, T-810 and T-820 involves blending of compatible, off-site commercial and/or on-site generated aqueous wastes.

iii. Treatment allowed in Tank T-850 involves dissolving sodium chlorate or chromic acid solids or other Department-approved solids in an aqueous solution, or the dissolving and/or blending of compatible lab chemicals in an aqueous solution. Aqueous solutions from Tank T-850 must undergo additional treatment through the on-site aqueous waste treatment system.

iv. Treatment allowed in Tanks T-1010 and T-1020 involves pH neutralization and metals precipitation.

v. Treatment allowed in Tank T-1310 involves use of caustic solution to adjust the pH of air emissions from various specific treatment process tanks.

vi. Treatment allowed in Tanks T-210, T-220 and T-230 involves blending of compatible, off-site commercial aqueous wastes and/or on-site generated aqueous wastes and the addition of the specific reagents indicated on Figure D-8 "Aqueous Waste Treatment System Flow Diagram" in the Aqueous Waste Treatment System Operations and Maintenance (O&M) Manual listed in **Condition B of Schedule 1 of Module I** of this Permit.

vii. Treatment allowed in Tanks T-100, T-101, T-102, T-103, T-310 and T-320 involves biodegradation and/or reagent addition to remove organic compounds.

viii. Treatment allowed in Tanks T-3010A through D involves the removal of arsenic by media adsorption. Treatment allowed in Cartridge Filter Units HIF-24A through D involves the filtration of aqueous wastes.

ix. Treatment allowed in Tanks T-3003, T-3007 and T-3008 involves reagent addition and carbon adsorption of aqueous wastes.

x. Treatment allowed in Tanks T-3001, T-3002, T-3011 and T-3012 involves pH neutralization and/or biotreatment inoculation.

xi. Treatment allowed in Tank T-158 involves the oil/water phase separation of landfill leachate, off-site commercial and on-site generated aqueous wastes.

xii. AWT Filter Press wash water must be transferred from the Filter Press Room steel container to the Filter Press Sump Tank through aboveground piping within secondary containment. The Filter Press Sump Tank is also part of the AWT secondary containment, and as such, may receive accidental releases and cleanup wash water.

xiii. Treatment allowed in Tanks T-58 and T-125 involves air sparging and/or reagent addition to remove organic compounds.

xiv. Treatment allowed in Tanks T-150 and T-160 involves reagent addition to reduce sulfide odors.

b. Tank Systems' Leak Detection Monitoring

i. For the tank systems identified by Footnote 9 of **Condition A** of this Exhibit (i.e., Tanks T-58, T-100, T-125, T-3009, T-9001, Mix Pit Tank 1, Mix Pit Tank 2 & Filter Press Sump Tank), the Permittee must inspect the leak detection monitoring systems of these tanks for the presence of liquid, on a

daily basis, in accordance with Attachment F, Section F of this Permit. If liquid is found to be present in sufficient volume for analysis (i.e., 30 ml or greater), the Permittee must perform the tank-specific procedures presented in the following table to determine if such liquid is or is not indicative of tank leakage or, in the case of below grade tanks, indicative of containment vault leakage. This determination must be made based on the tank-specific criteria identified in the following table:

Tank ID	Liquid Evaluation Procedures	Liquid Evaluation Criteria
T-58	Conductivity Testing	Conductivity Threshold Criteria = 5,000 umhos
T-100	Conductivity Testing	Conductivity Threshold Criteria = 5,000 umhos
T-125	Conductivity Testing	Conductivity Threshold Criteria = 5,000 umhos
T-3009	Conductivity Testing	Conductivity Threshold Criteria = 5,000 umhos
T-9001	Conductivity Testing	Conductivity Threshold Criteria = 5,000 umhos or similar to tank liquid
Mix Pit Tank 1	Conductivity Testing, Volume Measurement	Conductivity Threshold Criteria = 14,000 umhos Volume Threshold Criteria = 5.0 gals.
Mix Pit Tank 2	Conductivity Testing, Volume Measurement	Conductivity Threshold Criteria = 14,000 umhos Volume Threshold Criteria = 5.0 gals.
Filter Press Sump Tank	Conductivity Testing, Depth Measurement	Conductivity Threshold Criteria = 5,000 umhos Depth Threshold Criteria = 1.0 inches

ii. For each tank listed in the table presented in **Condition C.1.b.i** of this Exhibit, if any of the above criteria which are applicable to that tank, are exceeded for two (2) consecutive days, the Permittee must immediately remove that tank from service, unless in the case of Mix Pit Tanks 1 & 2, where only the conductivity threshold criteria has been exceeded and there are no obvious defects in the steel tank. Where Mix Pit Tanks 1 & 2 conductivity leak detection criteria exceedence has occurred and there are no identified tank defects, the Permittee may leave the tank in service and immediately conduct a thorough inspection of the upper perimeter seal between the tank and its secondary containment vault. Any identified defects in this seal must be repaired in accordance with **Condition E of Module IV** of this Permit. For any tanks which must be taken out of service due to exceedence of leak detection criteria, the Permittee must immediately commence transfer of its contents and begin an investigation to determine if the detected liquid is indicative of tank leakage or, in the case of below grade tanks, indicative of containment vault leakage. The tank in question must not be returned to service until the Permittee either: 1) justifies, to the Department's satisfaction,

that the detected liquid is not the result of tank or where applicable, containment vault leakage; or 2) locates and repairs the tank/vault leak, and, where required by 6 NYCRR 373-2.10(g)(6), obtains an independent certification.

c. Tank T-58 Secondary Containment Variance

i. With this Permit, the Department is granting a variance to the Permittee from secondary containment requirements for Tank T-58 in accordance with 6 NYCRR 373-2.10(d)(7). This variance is only applicable under the operational restrictions and requirements for Tank T-58 as listed below:

'a') The Permittee may only use Tank T-58 for the storage of treated aqueous hazardous waste discharged from its on-site treatment process in accordance with the "Aqueous Waste Treatment System (AWTS) Operation and Maintenance (O&M) Manual" which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

'b') The hazardous wastes contained in Tank T-58 must meet all the Land Disposal Restriction (LDR) treatment standards for wastewater as presented in 6 NYCRR 376.4. The Permittee must analyze the Tank T-58 influent and the contents of Tank T-58 prior to each discharge in accordance with the Waste Analysis Plan in Attachment C, Section C of this Permit, to verify that the hazardous wastes contained in Tank T-58 meet all LDR treatment standards.

'c') The Permittee must monitor the groundwater in the area of Tank T-58 in accordance with **Exhibit B** and **Condition L of Exhibit F**.

'd') The Permittee must have independent assessments performed on Tank T-58 as required by **Condition K.3 of Module IV** of this Permit.

'e') The Permittee must monitor the Tank T-58 leak detection system and take all appropriate actions as required by **Condition C.1.b** of this Exhibit.

'f') The Permittee must comply with the requirements of 6 NYCRR 373-2.10(d)(7)(iii) & (iv) in the event of a release of hazardous waste from Tank T-58.

ii. Failure on the part of the Permittee to adhere to the operational restrictions and meet the operational requirements listed in **Condition C.1.c.i** of this Exhibit, shall constitute a violation of this Permit.

d. Leachate Tanks T-101, T-102 & T-103 Storage Capacity

i. In order to ensure adequate storage and treatment capacity for on-site landfill leachates and contaminated groundwater, the Permittee must maintain a

minimum of 625,000 gallons of available (empty) tank capacity in Tanks T-101, T-102 & T-103 (cumulative) for the storage of on-site wastewaters that would be generated by a 25-year, 24-hour storm or larger precipitation event. To maintain this storage capacity, the Permittee must take the following actions whenever the available capacity in these tanks is less than 625,000 gallons:

'a') Immediately notify the Department that the capacity is less than 625,000 gallons. The notification must include a discussion regarding the cause of the capacity shortfall and a proposed plan to restore the required 625,000 gallons of empty volume in Tanks T-101, T-102 & T-103.

'b') Treat on-site or ship off-site for treatment no less than 200,000 gallons/day until the empty volume in Tanks T-101, T-102 & T-103 is restored to equal to, or greater than 625,000 gallons. On a case by case basis, the Department may (either verbally or in writing) waive this requirement if the Permittee demonstrates to the Department's satisfaction that their proposed plan, specified in **Condition C.1.d.i.'a'** of this Exhibit, will restore the required 625,000 gallons of empty volume in Tanks T-101, T-102 & T-103 within a three (3) day period, as measured from the day when the shortfall first occurs. If this waiver is granted and the Permittee fails to completely eliminate the capacity shortfall within the three (3) day time period, the Permittee must comply with the requirement to treat on-site or ship off-site for treatment no less than 200,000 gallons/day until the empty volume in Tanks T-101, T-102 and T-103 is restored to equal to or greater than 625,000 gallons.

'c') Cease on-site treatment of all off-site generated commercial aqueous waste receipts until the empty volume in Tanks T-101, T-102 & T-103 is restored to equal to or greater than 625,000 gallons.

e. Leachate Tanks T-101, T-102 & T-103 Separation of Wastewaters

i. The Permittee must designate specific tanks within the Tank T-101, T-102 & T-103 system for storage of leachate from the RMU-1 and RMU-2 landfills so as to facilitate separate treatment strategies. The Permittee must not ~~at no time~~ store leachate from landfills SLF 1 through 11, groundwater extraction systems or off-site commercial aqueous waste in any tank within this system which is designated for the storage of RMU-1 and RMU-2 leachate, unless such storage is absolutely necessary to maintain compliance with landfill leachate and contaminated storm water management conditions in Exhibits F & G of this Permit (based on the RMU-2 Tank Farm Storage Analysis presented in Attachment E-5 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this

Permit). The Permittee may store SLF 12 leachate ~~or contaminated groundwater~~ in any tank within this system.

f. Operation of Mix Pit Tanks 1 & 2

i. Treatment allowed in Mix Pit Tanks 1 and 2 involves stabilization of bulk solid wastes to meet waste strength and/or Land Disposal Restriction (LDR) requirements (6 NYCRR 376), and microencapsulation of hazardous debris to meet LDR requirements.

ii. The Permittee must operate Mix Pit Tanks 1 & 2 in strict accordance with Attachment D, Appendix D-3 of this Permit and the July 2012 Revision and any subsequently Department approved revisions of the "Operations and Maintenance Manual for the Stabilization Facility", which is incorporated by reference into this Permit by **Schedule 1 of Module I**. In addition to these operational requirements, the Permittee must either close all doors leading into the Stabilization Facility North Expansion Building during the addition of dry reagents and during the mixing process or take other actions as necessary to ensure that airborne particles from the waste/reagents are not visible outside of the building. Visible releases of particles from the building as a result of waste stabilization operations are prohibited. There must be no free liquids in or added to the wastes in the Mix Pit Tanks and no reagents added at the end of each work shift.

iii. Aqueous Wastes may also be placed in Mix Pit Tanks 1 and 2 to the extent necessary to facilitate the treatment of the solid wastes in these tanks, provided that such aqueous wastes are compatible with the solid wastes in these tanks, with reagents used in the treatment process, and with the steel tanks.

g. Operation of Tank T-165

i. The Permittee must operate Tank T-165 in strict accordance with Attachment D, Appendix D-3 of this Permit and the following tank specific conditions:

'a') A minimum of two (2) feet of freeboard in Tank T-165 must be maintained at all times to prevent overtopping in order to comply with 6 NYCRR 373-2.10(e)(2)(iii).

'b') In addition to the tank inspection requirements in Attachment F, Section F of this Permit, the Permittee must inspect the Tank T-165 cathodic protection system in accordance with 6 NYCRR 373-2.10(f)(3).

'c') Spilled or leaked waste and accumulated liquids within the secondary containment vault outside of Tank T-165, must be removed in accordance with **Condition B.1.b** of this Exhibit. In addition, any

accumulation of snow/ice in the vault which obscures visual inspection of the tank's leak detection system, must be cleared away from the downgradient ends of the leak detection channels within 24 hours or as timely as possible to a level below the leak detection channels to perform inspections.

'd') Tank T-165 must be inspected on a semiannual basis for the presence of accumulated sediment on the bottom of the tank. Any such sediment which is deeper than 3 inches must be removed before resuming the pumping of liquid waste into the tank.

'e') Anytime the level of liquid in Tank T-165 exceeds 12 inches, it must be lowered to 12 inches or less within seven (7) calendar days, to maintain sufficient capacity for the storage of RMU-1 landfill run-off in accordance with 6 NYCRR 373-2.14(c)(9). The Department, on a case-by-case basis, may grant an extension of this seven (7) day period, provided that the Permittee can demonstrate to the Department's satisfaction, that the volume of liquid resulting from precipitation and/or snow melt which requires removal, exceeds the run-off volume that would be generated by the 24-hour, 25-year storm event.

h. Installation and Operation of Tanks T-8009 and T-8010

i. Tank T-8009 and its ancillary equipment must be installed and tested for tightness in strict accordance with the tank assessment design and installation requirements contained in the Department-approved "Design Report for Process Area IV Extraction Wells", which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Prior to placing Tank T-8009 into operation, the Permittee must provide an opportunity for the Department to inspect the installation in accordance with **Condition B.4 of Module IV** of this Permit, and submit the construction certification along with supporting documentation and testing results as required by 6 NYCRR 373-2.10(c) and **Condition B of Module IV** of this Permit. Tank T-8009 must be operated in accordance with the aforementioned Design Report, **Module IV** of this Permit, this Exhibit and Attachment D, Appendix D-3 of this Permit.

ii. Tank T-8010 and its ancillary equipment must be installed and tested for tightness in strict accordance with the tank assessment design and installation requirements contained in the Department-approved "Design Report for Process Area III Groundwater Interceptor Trench", which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Prior to placing Tank T-8010 into operation, the Permittee must provide an opportunity for the Department to inspect the installation in accordance with **Condition B.4 of Module IV** of this Permit, and submit the construction certification along with supporting documentation and testing results as required by 6 NYCRR 373-2.10(c) and **Condition B of Module IV** of this Permit. Tank T-8010

must be operated in accordance with the aforementioned Design Report, **Module IV** of this Permit, this Exhibit and Attachment D, Appendix D-3 of this Permit.

i. Installation and Operation of Tanks T-3010A – D and Units HIF-24A – D

i. Installation Requirements: Tanks T-3010A, T-3010B, T-3010C, T-3010D, Cartridge Filter Units (CFUs) HIF-24A, HIF-24B, HIF-24C, HIF-24D and their ancillary equipment must be installed and tested for tightness in strict accordance with 6 NYCRR 373-2.10(c), the tank assessment design and installation requirements contained in the Department-approved "Tank System Design and Assessment Report for AWTS Arsenic Removal Tanks T-3010A/B/C/D" which is incorporated by reference into this Permit by **Schedule 1 of Module I**, and the conditions in this Permit. In addition, the Permittee must install an electronic pressure monitoring device within the arsenic or carbon treatment systems that will automatically shut down feed pumps to theses systems and trigger an alarm in the event of system over-pressurization. The device must be set at a pressure above the system's normal operating pressure, but below that which would cause rupture discs in the system to fail.

Prior to placing Tanks T-3010A/B/C/D and CFUs HIF-24A/B/C/D into operation, the Permittee must provide an opportunity for Department staff to inspect the completed installation in accordance with **Condition B.4 in Module IV** of this Permit. Also, prior to operation, the Permittee must submit the construction certifications for the aforementioned Tanks and CFUs, along with supporting documentation and testing results as required by 6 NYCRR 373-2.10(c) and **Condition B in Module IV** of this Permit.

ii. Operation, Inspection and Other Requirements: Tanks T-3010A/B/C/D and CFUs HIF-24A/B/C/D and their ancillary equipment must be operated in strict accordance with 6 NYCRR 373-2.10(e), the operational requirements contained in the the Department-approved "Tank System Design and Assessment Report for AWTS Arsenic Removal Tanks T-3010A/B/C/D" and the "Aqueous Waste Treatment System Operations and Maintenance (O&M) Manual" which are incorporated by reference into this Permit by **Schedule 1 of Module I**, and Attachment D, Appendix D-3 of this Permit. Also, the Permittee must inspect, assess and repair (as necessary) the above tanks, CFUs and ancillary equipment in accordance with 6 NYCRR 373-2.10(f) & (g), **Condition E in Module IV** of this Permit, Attachment D, Appendix D-3 of this Permit including the tank assessment requirements in Section VIII, and Attachment F of this Permit. In addition, the Permittee must comply with the following specific requirements:

"a") Tanks T-3010A, T-3010B, T-3010C and T-3010D must be periodically replaced as a part of normal operations. These regular tank changes shall constitute "in-kind replacements" in accordance with **Condition**

D.2 in Module I of this Permit, as long as identical tanks are utilized. Any replacement with non-identical tanks will require modification of this Permit prior to such replacement in accordance with 6 NYCRR 373-1.7 and 621.

"b") During each regular change out installation, the Permittee must inspect all system components prior to operation to insure they have been installed properly, are free of leaks and any identified deficiencies or defects are corrected. In addition, the newly installed tank, or tanks, along with the associated ancillary equipment involved in the installation, shall be re-tested for tightness in accordance with the procedure specified in Section 3.2 of the "Tank System Design and Assessment Report for AWTS Arsenic Removal Tanks T-3010A/B/C/D" which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Prior to placing the newly installed tank(s) into operation, the Permittee must provide an opportunity for Department staff to inspect the completed installation in accordance with **Condition B.4 in Module IV** of this Permit. Also, prior to operation, the Permittee must have the newly installed tank and associated ancillary equipment inspected by an independent, qualified installation inspector or an independent, qualified, professional engineer registered in New York in accordance 6 NYCRR 373-2.10(c)(2), and obtain and keep on file a written certification statement as required by 6 NYCRR 373-2.10(c)(7).

j. Installation & Operation of Tank T-150 Ancillary Equipment for RMU-2

The Permittee shall install new Tank T-150 ancillary equipment (e.g., pumps, double-walled piping, etc.) necessary for the management of RMU-2 leachate. The ancillary equipment must be installed in accordance with 6 NYCRR 373-2.10(c)(5) and the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit. In addition, all new Tank T-150 leachate transfer piping must be installed in accordance with Section 15064 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and excavation n for this installation must be conducted in accordance with the "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Subsequent to installation, new leachate transfer pipe must be tested in accordance with the "Procedures for Pressure Testing Underground Hazardous Waste Transfer Lines" in Section VII of Appendix D-3 in Attachment D of this Permit.

The Permittee must commence installation of this ancillary equipment during the same calendar year in which the first cell of RMU-2 is constructed, and must complete this installation and place the equipment into operation prior to waste placement in the first RMU-2 cell in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of**

Module I of this Permit. The equipment must be operated as indicted in Appendix F of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

k. Installation and Operation of Tank T-9001 for Fac Pond 5

Tank T-9001 and its ancillary equipment must be installed and tested for tightness in strict accordance with 6 NYCRR 373-2.10(c), the Fac Pond 5 Drawings contained in Attachment D, Appendix D-2 of this Permit and the tank assessment design and installation requirements contained in the Department-approved "Tank System Design and Assessment Report for Fac Pond 5 Tank T-9001", which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Prior to placing Tank T-9001 into operation, the Permittee must provide an opportunity for the Department to inspect the installation in accordance with **Condition B.4 of Module IV** of this Permit, and submit the construction certification along with supporting documentation and testing results as required by 6 NYCRR 373-2.10(c) and **Condition B of Module IV** of this Permit.

The Permittee must commence installation of Tank T-9001 and its ancillary equipment during the same calendar year in which Fac Pond 5 is constructed, and must complete this installation and place the tank into operation prior to Fac Pond 5's receipt of treated wastewater in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Tank T-9001 must be operated in accordance with the aforementioned Design Report, **Module IV** of this Permit, this Exhibit and Attachment D, Appendix D-3 of this Permit.

SCHEDULE 1 of MODULE I
EXHIBIT E

Facility-Specific Conditions
Supplement To Module V

[*NOTE: Portions of Schedule 1 of Module I Exhibit E are being modified. Text proposed for addition is indicated in RED, and text proposed for deletion is indicated in ~~BLACK STRIKEOUT~~.*]

EXHIBIT E

SUPPLEMENT TO MODULE V

EXHIBIT E
SUPPLEMENT TO
MODULE V – SURFACE IMPOUNDMENTS

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

A. Authorized Surface Impoundments

1. The Permittee is authorized to use the following surface impoundments for the storage and/or treatment of only the following aqueous hazardous wastes subject to the terms of this Permit:

Unit/Activity	Waste Type	Quantity/Capacity (gallons)[4]
FAC[1] Pond 1 / 2	Treated Aqueous Waste[2]	22,880,700
FAC[1] Pond 3	Treated Aqueous Waste[2]	51,355,300
FAC[1] Pond 5[5]	Treated Aqueous Waste[2]	24,700,000 (constructed)
FAC[1] Pond 8[3]	Treated Aqueous Waste[2]	43,413,500

Footnotes:

1. "FAC" = Facultative.
2. "Treated Aqueous Waste" refers to the effluent from the on-site AWTS that has completed the treatment processes deemed necessary to meet the Land Disposal Restriction wastewater treatment standards as required by 6 NYCRR 376.
3. See **Condition D** of this Exhibit regarding the status of FAC Pond 8.
4. See **Condition B.5** of this Exhibit regarding limits on the indicated Fac Pond capacities.
5. See **Condition E** of this Exhibit regarding the construction, operational, monitoring and closure requirements for Fac Pond 5.

B. General Conditions

1. The Permittee must operate aerators in the FAC Ponds as necessary to control odors and meet discharge requirements. The Permittee must maintain aerators in operating condition. Non-functioning aerators must be replaced or repaired with functioning units within 5 working days or sooner if odorous emissions are occurring (except in inclement weather, such as ice or snow conditions which could result in unsafe conditions for the repair personnel). A sufficient number of back-up aerators must be stored at the Facility to allow the timely replacement of non-functioning units.

2. Transfers of wastewater and/or accumulated precipitation from FAC Pond 1 / 2 to FAC Pond 3, from FAC Pond 3 to FAC Pond 1 / 2, and from FAC Pond 8 to FAC Pond 1 / 2 may be performed as necessary to maintain minimum freeboard and to

facilitate accumulation prior to discharge. Transfers may also be performed from Fac Pond 1 / 2 to Fac Pond 5 or from Fac Pond 5 to Fac Pond 1 / 2 to maintain adequate freeboard and facilitate accumulation prior to discharge, subsequent to the Department's acceptance of the Fac Pond 5 construction certification and all other Department approvals required for operation of the constructed impoundment. All transfers of treated wastewater to, from, and between the FAC Ponds must be via rigid piping unless a specific, prior approval is granted by the Department. Transfers from FAC Pond 8 to FAC Pond 1 / 2 must be conducted in accordance with the requirements in **Condition D** of this Exhibit.

3. Between April 1 and November 30 of each calendar year, the Permittee must test the FAC Pond aerators on a monthly basis any time they are not used for a period longer than thirty (30) days, if there is sufficient liquid to support the aerators, and a discharge to the river under the SPDES Permit is not is progress.

4. The Permittee may not manage hazardous waste in surface impoundments that would subject the units to the air control requirements of 6 NYCRR 373-2.29.

5. The Permittee must maintain a minimum of two (2) feet of freeboard in all Fac Ponds, as required by **Condition M.1 in Module V** of this Permit. As a result, the operational storage capacity of each Fac Pond is limited to the following volumes:

   - Fac Pond 1 / 2: 19,345,100 gallons
   - Fac Pond 3: 43,845,300 gallons
   - Fac Pond 5: 21,900,000 gallons (constructed)
   - Fac Pond 8: 38,834,500 gallons

6. At least once every five (5) years, the Permittee must determine the depth of sediment (if any) collected on the bottom of the operating Fac Ponds. If the depth is greater than six (6) inches, the Permittee must remove the sediment to restore the Fac Pond's capacity. For Fac Ponds which are out-of-service, the Permittee must remove any accumulated sediment before putting the pond into service. Any removed sediment must be characterized for proper disposition.

C. Special Operating & Monitoring Conditions

The requirements set forth by this condition are only applicable to Fac Pond 1 / 2, 3 & 8. Requirements related to the operation and monitoring of Fac Pond 5 are presented by **Condition E** of this Exhibit.

1. For the surface impoundments listed in **Condition A** of this Exhibit, the Department made a determination in 1993 to exempt them from the liner system requirements of 6 NYCRR 373-2.11(b)(1), in accordance with the exemption procedures of 6 NYCRR 373-2.11(b)(2). This exemption is continued through the duration of this Permit unless there is a significant change in an impoundment's design or capacity

through a Permit modification and as long as the Permittee complies with the following operating and monitoring requirements:

a. The Permittee may use FAC Ponds 1 / 2, 3 & 8 for the storage/treatment of treated aqueous hazardous waste discharged from its on-site treatment process in accordance with the "Aqueous Waste Treatment System (AWTS) Operations and Maintenance (O&M) Manual" which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Also, the Permittee must first fully comply with **Condition D** of this Exhibit with regard to FAC Pond 8.

b. The hazardous wastes contained in FAC Ponds 1 / 2, 3 & 8 must meet all of the Land Disposal Restriction (LDR) treatment standards for wastewater as presented in 6 NYCRR 376.4 and the air emission exemption requirements in 6 NYCRR 373-2.29(c)(3). The Permittee must analyze the contents of Tanks T-58 and T-125 prior to their discharge to the FAC Ponds in accordance with the Waste Analysis Plan in Attachment C, Section C of this Permit, to verify that the hazardous wastes meet LDR treatment standards.

c. The Permittee must monitor the groundwater in the area of FAC Ponds 1 / 2, 3 & 8 in accordance with **Condition L of Exhibit F**.

2. Failure on the part of the Permittee to adhere to the requirements, as listed in this Exhibit ~~above~~, shall constitute a violation of this Permit.

D. Special Conditions for FAC Pond 8

1. The Permittee must adhere to the Compliance Schedule set forth in **Condition C of Schedule 1 of Module I** with regard to completing the closure of FAC Pond 8, which was previously initiated by the Permittee. This compliance schedule extends the regulatory period for completing closure (i.e., 6 NYCRR 373-2.7(d)(2)) to facilitate radiological investigation and, where necessary, remediation of FAC Pond 8 soil/sediment based on information contained in the Permittee's written request dated March 22, 2012. This extension will remain in effect for the previously indicated period as long as the Permittee complies with the following requirements:

a. The Permittee must comply with 6 NYCRR 373-2.7(d)(2)(ii).

b. The Permittee must continue to monitor the groundwater in the area of FAC Pond 8 in accordance with **Condition L of Exhibit F**.

c. The Permittee must comply with **Condition D of Exhibit B** with regard to any soil or sediment disturbance activities.

d. The Permittee must remove accumulated precipitation from FAC Pond 8 to maintain a minimum of two (2) feet of freeboard at all times. The accumulated precipitation shall be removed by pumping it to FAC Pond 1 / 2 in accordance

with the May 2008 approved "Facultative Pond 8 Water Transfer Procedure" which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

2. The Permittee must initiate and complete radiological investigation and, where necessary, remediation of FAC Pond 8 soil/sediment, including its berm, and complete a final radiological survey within the timeframes specified by the Compliance Schedule in **Condition C of Schedule 1 of Module I**. All such radiological investigations, remediation and the final survey, must be conducted in accordance with work plans approved by the Department and with the concurrence of NYSDOH. Any soil/sediment excavation or disturbance related to FAC Pond 8 remediation or closure activities (e.g., regrading), must be conducted in accordance with Department-approved Site Soil Monitoring and Management Plan(s) as required by **Condition D.3 of Exhibit B**. Any wastes generated by remedial or closure activities must be managed and disposed of in strict accordance with the federal and state regulations which are applicable to the waste. The final status survey for FAC Pond 8 must be performed using procedures consistent with the Multi Agency Radiation Survey and Site Investigation Manual (MARSSIM), and the Permittee must submit a final status survey report for Department approval prior to re-commencing closure activities. Any FAC Pond 8 investigations or remediation initiated or completed to the Department's satisfaction prior to the effective date of this Permit, may be referenced by the Permittee and count towards compliance with this condition.

E. FAC Pond 5 Construction, Operation, Monitoring & Closure

1. Construction Requirements

The Permittee must design and construct Fac Pond 5 in accordance with 6 NYCRR 373-2.11(b)(1); 6 NYCRR 373-2.11(b)(3); 6 NYCRR 373-2.11(b)(1); 6 NYCRR 373-2.11(b)(7) through (9); and the following requirements stipulated by this Permit condition. The time period for Fac Pond 5 construction shall be as specified by **Condition F** of this Exhibit.

a. Wastewater Compatibility Tests For Liner/Leak Detection Systems

The Permittee must demonstrate that both the natural and synthetic materials used to construct Fac Pond 5's Liner & Leak Detection Systems, are compatible with the type of wastewater to be stored in the Fac Pond. For synthetic materials (i.e., geotextile, geomembrane, geosynthetic Clay Liner (GCL) & geocomposite) compatibility testing must be performed on the actual materials to be used in Fac Pond 5 construction prior to their installation. For natural materials (i.e., clay), compatibility testing must be performed on each material source (i.e., each borrow area) to be used in Fac Pond 5 construction. This compatibility demonstration must be performed using wastewater obtained from the existing Fac Ponds in accordance with the sampling, testing and reporting requirements

stipulated by the following conditions from **Exhibit G in Schedule 1 of Module I** of this Permit:

- **Condition C.1.a** – Synthetic Liner and Leachate Collection Components
- **Condition C.1.a.ii** - Synthetics Sampling Frequencies and Testing Methods
- **Condition C.1.b.i** - Clay Liner Sampling Frequencies and Testing Methods

b. Other Material Evaluation Requirements

i. The Permittee must demonstrate that the new Fac Pond 5 transfer piping is compatible with the treated wastewater in accordance with **Exhibit G, Condition C.2 in Schedule 1 of Module I** of this Permit.

ii. The Permittee must perform transmissivity testing on the actual geocomposite material to be used in the Fac Pond's leak detection system in accordance with **Exhibit G, Condition C.4.b in Schedule 1 of Module I** of this Permit, to confirm that it meets the design specification.

iii. The Permittee must perform interface shear strength testing on the actual materials to be used in the Fac Pond's liner/leak detection system in accordance with **Exhibit G, Condition C.6 in Schedule 1 of Module I** of this Permit, to confirm that it meets the design specifications.

c. Specific Construction Requirements

The Permittee shall not commence construction of Fac Pond 5 until the Permittee has received from the Department all approvals required by the conditions of this Permit necessary for beginning construction, unless otherwise authorized by the Department in writing. Fac Pond 5 shall be constructed in strict conformance with the following requirements:

- The "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit;

- The text and Drawings contained in Attachment D, Appendix D-2 of this Permit;

- The "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit;

- The "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit;

- The "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and

- The conditions contained in this Exhibit.

d. Construction Administrative Requirements

During Fac Pond construction, the Permittee must adhere to the Administrative (e.g., schedules, reporting, etc.) and Construction Quality Assurance (CQA) requirements stipulated by **Conditions D.1.b through D.1.l and D.2 of Exhibit G**.

e. Construction Material Requirements

i. Berm Material

The material to be used for Fac Pond berm construction must meet the "General Fill" specifications and testing requirements in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 8 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

ii. Clay Barrier Layer Material

The material to be used for the construction of the Fac Pond compacted clay barrier layer must meet the "Clay Liner Material" specifications and testing requirements in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 4 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

The Permittee must construct a Clay Barrier Layer Test Fill and conduct field hydraulic conductivity testing in accordance with **Condition D.4.a of Exhibit G**. If the Permittee has previously constructed and tested a Clay Barrier Layer Test Fill in association with RMU-2 landfill construction and intends to use the same clay (i.e., clay from the same borrow source), equipment and procedures as were used to construct the RMU-2 landfill's clay barrier layer, the Permittee may use the report from the previous RMU-2 Clay Barrier Layer Test Fill to satisfy this Permit condition for Fac Pond construction.

In addition, the Permittee must meet all the Clay Barrier Layer Material Qualification requirements as specified by **Condition D.4.c of Exhibit G**.

iii. Geomembrane Material

The material to be installed for the Fac Pond primary and secondary geomembrane shall be 30-mil thick Ethylene Interpolymer Alloy (EIA) liner which must meet the specifications and testing requirements in Section 02405 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 14 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

iv. Other Liner & Leak Detection Materials

The material to be installed for the Fac Pond leak detection layer shall be a geocomposite which must meet the specifications and testing requirements in Section 02430 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 12 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

The material to be installed for the Fac Pond primary composite liner directly under the primary geomembrane layer shall be a Geosynthetic Clay Liner (GCL) which must meet the specifications and testing requirements in Section 02413 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 13 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

The material to be installed for the Fac Pond geomembrane cushion layer shall be a non-woven cushion geotextile which must meet the specifications and testing requirements in Section 02410 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 11 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

The material to be installed for the Fac Pond ballast layer shall be a sand bedding material which must meet the specifications and testing requirements in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit.

f. Material Installation Requirements

i. Berm

The Permittee shall construct the Fac Pond Berm to the lines and grades on Drawing No. 3 of the Fac Pond 5 Construction Drawings contained in Attachment D, Appendix D-2 of this Permit. General Fill used to construct the berm shall be placed, compacted and tested in accordance with the specifications and testing requirements in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit and Section 8 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

ii. Clay Barrier Layer

The Permittee shall install the Fac Pond Clay Barrier Layer to a minimum compacted thickness of 3.0 feet using the clay barrier material qualified for such use in accordance with **Condition E.1.f.ii** of this Exhibit. The Clay Barrier Material shall be placed, compacted and tested using the equipment and procedures established by the Clay Barrier Layer Test Fill required by **Condition E.1.f.ii** of this Exhibit and in accordance with **Condition D.5.c of Exhibit G**.

iii. Primary & Secondary Geomembrane

The Permittee shall install the Fac Pond primary and secondary geomembrane using the 30-mil thick Ethylene Interpolymer Alloy (EIA) liner material qualified for such use in accordance with **Condition E.1.f.iii** of this Exhibit. The EIA Liner Material shall be placed, seamed and tested in accordance with **Condition D.5.e of Exhibit G** (including D.5.e.i through D.5.e.v), as modified below:

- For Fac Pond geomembrane, all references made in **Condition D.5.e of Exhibit G** to Section 02401 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit, are to be regarded as referencing Section 02405 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit; and

- For Fac Pond geomembrane, all references made in **Condition D.5.e of Exhibit G** to Section 10 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit, are to be regarded as referencing Section 14 of the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

iv. Installation of Other Liner & Leak Detection Components

The Geosynthetic Clay Liner (GCL) shall be installed and tested in accordance with **Condition D.5.d of Exhibit G**. The geocomposite, cushion geotextile and ballast sand material shall be installed and tested in accordance with **Condition D.5.f of Exhibit G**.

g. Other Construction and Reporting Requirements

The Permittee shall install and test new Fac Pond Transfer Piping in accordance with **Condition D.5.g of Exhibit G**. The Permittee shall manage storm water run-off during Fac Pond construction in accordance with **Condition D.6 of Exhibit G**. The Permittee shall control fugitive dust during Fac Pond construction in accordance with **Condition D.7 of Exhibit G**. The Permittee shall provide applicable reports during construction, including Weekly Reports on Construction, in accordance with **Condition D.8 of Exhibit G**. The Permittee shall abide by the seasonal and adverse weather construction requirements in accordance with **Condition D.9 of Exhibit G**.

h. Construction Completion and Certification Requirements

i. Fac Pond Primary Liner Leakage Rate Measurement

After completing construction of the Fac Pond's secondary geomembrane, the Permittee must remove the accumulated liquid in the leak detection system at

a minimum of once every seven (7) days. Upon completing installation of the Fac Pond's primary geomembrane liner (including completion of the leak location survey), the Permittee must remove liquid from the leak detection system on a daily basis and take measurements of the volume removed to determine the daily flow in gallons per acre per day (gpad) based on the Pond's lined area in acres. These measurements must be taken for at least two consecutive weeks subsequent to when the depth of accumulated precipitation on the primary geomembrane reaches at least one (1) foot over the entire floor of the Fac Pond (the Permittee may use water in lieu of, or to supplement precipitation to achieve the one (1) foot depth). The Permittee must use the measured daily flow at the one (1) foot depth to calculate the Fac Pond Daily Leakage Rate at the pond's maximum permitted depth by using established hydraulic equations to account for the difference between the one foot depth and the pond's maximum opertational depth. This calculated Daily Leakage Rate must be compared to the 539 gpad Response Rate set in the Fac Pond 5 Response Action Plan (RAP) in Attachment D, Appendix D-2 of this Permit. If the Daily Leakage Rate is greater than the 539 gpad Response Rate, the Permittee must conduct additional leak location surveys and implement measures in the Fac Pond 5 RAP to identify and repair defects in the primary geomembrane. No wastewater may be placed in the Fac Pond until measurements indicate a Daily Leakage Rate is below 539 gpad.

ii. Certification

In accordance with 6 NYCRR Part 373-2.2(k)(4), no wastewater will be received in an impoundment until the Permittee has submitted to the Department by certified mail or hand delivery a certification signed by the Engineer that the approved CQA plan has been successfully carried out and that the impoundment meets the requirements of 6 NYCRR 373-2.11(c)(3) or (4) (surface impoundments) and the conditions of this Permit; and the procedure in 6 NYCRR 373-1.6(a)(12)(ii)('b') (i.e., Department inspection) has been completed.

2. Operational Requirements

The constructed Fac Pond 5 must be operated in accordance with Attachment D, Appendix D-2 of this Permit, the Permit conditions in this Exhibit and the following waste storage requriements:

a. Fac Pond 5 Waste Storage

The Permittee may use the constructed Fac Pond 5 for the storage/treatment of treated aqueous hazardous waste discharged from its on-site treatment process in accordance with the "Aqueous Waste Treatment System (AWTS) Operations and Maintenance (O&M) Manual" which is incorporated by reference into this Permit by **Schedule 1 of Module I**. The hazardous wastes contained in constructed FAC Pond 5 must meet all of the Land Disposal Restriction (LDR) treatment standards

for wastewater as presented in 6 NYCRR 376.4 and the air emission exemption requirements in 6 NYCRR 373-2.29(c)(3). The Permittee must analyze the contents of Tanks T-58 and T-125 prior to their discharge to the Fac Pond in accordance with the Waste Analysis Plan in Attachment C, Section C of this Permit, to verify that the hazardous wastes meet LDR treatment standards. Also, the Permittee must maintain the Fac Pond 5 capacity in accordance with **Condition B.6** of this Exhibit.

3. Inspection & Monitoring Requirements

The constructed Fac Pond 5 must be inspected for compliance with Permit conditions in accordance with Attachment D, Appendix D-2 and Attachment F of this Permit.

a. Leak Detection Monitoring

The Permittee must monitor the Leak Detection System (LDS) in Fac Pond 5 and conduct sampling and analysis of accumulated liquids to obtain accurate and reliable data on the quantity and chemical composition of the liquid in the pond's LDS. At a minimum, the Permittee must perform the following tasks at the specified frequencies.

i. On at least a weekly basis, the Permittee must remove all pumpable liquid from the pond's LDS sump and record the volume.

ii. On a yearly basis, the Permittee must sample the liquid removed from the pond's LDS sump and analyze each sample for pH, specific conductance, PCBs, Priority Pollutant organics and Priority Pollutant metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc).

b. LDS Flow Rate Evaluation

Each time liquid is manually removed from the pond's LDS in accordance with **Condition E.3.a** of this Exhibit, the Permittee must record the volume manually pumped and any volume automatically pumped in-between manual weekly pumping events using permanently installed metering equipment, and add the amounts to determine the pond's total weekly LDS volume. The Permittee must take the total weekly volume pumped from the pond's LDS and divide it by the area of the pond in acres and by the number of days since the pond's last LDS pumping event, to derive the pond's average daily LDS flow rate in gallons per acre per day (gpad). For each LDS manual pumping event, the Permittee must compare the pond's average daily LDS flow rate to the Response Rate for Fac Pond 5 as defined by **Condition E.3.d** of this Exhibit. If the pond's average daily LDS flow rate exceeds the pond's defined Response Rate, the Permittee must implement the Fac Pond 5 Response Action Plan (RAP) in Attachment D, Appendix D-2 of this Permit, as required by **Condition E.3.e** of this Exhibit and take any and all response actions as deemed necessary by the Department to protect human health and the environment.

c. LDS Reporting

The Permittee must report the results of the LDS monitoring and flow rate evaluation required by **Conditions E.3.a and E.3.b** of this Exhibit to the Department. The results of all such Fac Pond 5 LDS monitoring and evaluations that occur during a month must be submitted to the Department within 90 days from the end of that month. The sampling data must be submitted as required by **Condition B of Exhibit A** and **Condition N of Module I** of this Permit.

d. Fac Pond 5 LDS Response Rate

The Response Rate for Fac Pond 5 from the time of initial receipt of wastewater through its closure period shall be 539 gpad.

e. Fac Pond 5 LDS Response Actions

On any occasion, should the Fac Pond 5 LDS average daily flow rate exceed its Response Rate, the Permittee must implement the Fac Pond 5 Response Action Plan (RAP) in Attachment D, Appendix D-2 of this Permit. In addition, the Permittee must take any and all response actions as deemed necessary by the Department to protect human health and the environment.

f. Fac Pond 5 Groundwater Monitoring Requirements

The Permittee must comply with all applicable groundwater monitoring requirements set forth in 6 NYCRR 373-2.6.

The Permittee is required to maintain and adhere to the following Detection Monitoring Program for Fac Pond 5.

i. Point of Compliance

The Points of Compliance for Fac Pond 5 are as follows:

Fac Pond 5: The Point of Compliance for this surface impoundment is defined as the vertical surface passing through the downgradient monitoring wells F501S and F502S.

ii. Length of Monitoring Requirements

At a minimum, the groundwater monitoring requirements set forth herein shall extend through the surface impoundment's closure or for a period no less than thirty (30) years beyond the closure of Fac Pond 5 if the impoundment must be closed as a landfill per 6 NYCRR 373-2.11(f)(2). In the event that a compliance monitoring program is needed at Fac Pond 5, a compliance period equal to the active life of Fac Pond 5 plus thirty (30) years shall be established.

iii. Description of Wells

1) Upgradient. Background monitoring wells BW01S, BW01D, BW03S, BW03D, BW04S, BW04D, BW05S and BW05D.

2) Downgradient. Monitoring wells F501S, F501D, and F502S will be used to monitor Fac Pond 5.

iv. Sampling Frequency

All monitoring wells in the Detection Monitoring Program must be sampled at least semiannually.

v. Indicator Parameters

As set forth in 6 NYCRR 373-2.6(i)(1), the parameters listed under **Condition L.6 in Exhibit F** of **Schedule 1 of Module I**, must be used as indicator parameters in the Detection Monitoring Program. The Permittee must analyze all Detection Monitoring wells for the indicator parameters and must statistically compare the values obtained during each sampling event with the background values of the parameters.

vi. Background Values for Indicator Parameters

To date, no hazardous waste constituents have been detected in groundwater samples obtained from background monitoring wells BW01S, BW01D, BW03S, BW03D, BW04S, BW04D, BW05S and BW05D.

vii. Statistical Evaluation

Whenever the Permittee determines groundwater quality at the Point of Compliance, the Permittee must determine whether there has been a statistically significant increase in any of the indicator parameters when compared against the established trigger values. That determination must be made for each indicator parameter and for every well.

For the Model City Facility, Poisson Prediction Limits must be used for statistical comparison of monitoring well data. This method is appropriate for data that exhibit truncated distributions with skewed tails, produced by detection limit problems. The Poisson prediction interval includes three data evaluation mechanisms:

- Statistical Criterion 1 - Poisson Prediction Interval (Concentration)
- Statistical Criterion 2 - Multiple Detections
- Statistical Criterion 3 - Persistent Detections

1) Statistical Criterion 1

Poisson Prediction Interval (Concentration): A concentration based t-prediction interval has been developed for the Model City site. Based on data obtained from analysis of background groundwater quality, field and trip blanks, the t-prediction interval has been calculated to be a sum total of indicator parameters in a single scan. The prediction interval for the specific units covered by this Exhibit is as follows:

- Facultative Ponds 1, 2, 3, 5 & 8: For wells which comprise the Point of Compliance for the Facultative Ponds, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

2) Statistical Criterion 2

Multiple Detections: A Prediction Interval, based on the number of compounds detected in a single scan, has been calculated for the Model City site. The number shall be more than 3 indicator parameters detected in any well in a single scan, independent of summed total concentration and excluding methylene chloride. Persistent compounds detected in wells evaluated using an "alternative statistical approach" must not be counted when determining the number of detections in a single scan.

3) Statistical Criterion 3

Persistent Detections: An alternative "trigger" will be if any one indicator parameter is detected in any well in a series of three (3) consecutive scans (independent of concentration) and excluding methylene chloride. Persistent compounds detected in wells evaluated using an "alternative statistical approach" must not be counted when determining persistent detections.

viii. Other Requirements

For Fac Pond 5, the Permittee must comply with the requirements stipulated by **Conditions L.9 through L.13 and L.15 & L.16 in Exhibit F** of **Schedule 1 of Module I**.

F. Fac Pond 5 Construction Time Period

Construction of Fac Pond 5 shall commence during the same calendar year in which the first cell of the RMU-2 landfill is constructed, and must be completed and placed into operation prior to commencing closure of Fac Pond 3, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

G. Special Closure & Financial Assurance Conditions

1. Closure Requirements

The Permittee must close Fac Ponds 1 / 2, 3, 5 & 8 in accordance with 6 NYCRR 373-2.7(a) through (f), 6 NYCRR 373-2.11(f), the "Overall Site-Wide Closure Plan" in Attachment I, Section I.1 of this Permit, and the conditions of this Permit. Closure of Fac Pond 3 may not commence until Fac Pond 5 is constructed and receiving treated wastewater, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

2. Closure Cost Estimate Requirements

The Permittee must maintain a Department approved detailed closure cost estimate for Fac Ponds 1 / 2, 3, 5 & 8, which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, in current dollars, in accordance with 6 NYCRR 373-2.8(c), and **Condition O in Module I** of this Permit. The approved estimate must reflect the cost of closure of each Fac Pond in accordance with the Overall Site-Wide Closure Plan in Attachment I, Section I.1 of this Permit, including off-site disposal of liner system components (applicable only to Fac Pond 5) and any underlying contaminated clay liner. The Department may, at its discretion, require the Permittee to increase the closure cost estimate for any or all Fac Ponds in accordance with Part 621 of the regulations, if at any time it determines that the amount is insufficient to cover the costs of closure.

3. Financial Assurance Requirements

a. Fac Pond's 1 / 2, 3 & 8

The Permittee shall demonstrate continuous compliance with 6 NYCRR 373-2.8(d) or, when applicable, with 6 NYCRR 373-2.8(g) by providing documentation of financial assurance for Fac Pond closure to the Commissioner, as required by 6 NYCRR 373-2.8(j), **Condition O in Module I** of this Permit and **Condition G.2 in Exhibit A**. Changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(d). The Permittee shall provide annual evidence to the Commissioner that the financial assurance mechanisms for Fac Pond closure have been maintained and not allowed to lapse.

b. Fac Pond 5

At least 60 days before the date hazardous waste (i.e., treated wastewater) is first placed in Fac Pond 5, the Permittee shall provide documentation of financial assurance for Fac Pond 5 closure to the Commissioner as required by 6 NYCRR 373-2.8(j), **Condition O in Module I** of this Permit and **Condition G.2 in**

Exhibit A, in at least the amount required for Fac Pond 5 closure, based on the approved closure cost estimate as adjusted for inflation. Subsequent to providing such financial assurance, changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(d) and the Permittee shall provide annual evidence to the Commissioner that the financial assurance mechanisms for Fac Pond closure have been maintained and not allowed to lapse.

SCHEDULE 1 of MODULE I
EXHIBIT F

Facility-Specific Conditions
Supplement To Module VI
[RMU-1 & Closed Landfills]

[*NOTE: Only the title of Schedule 1 of Module I Exhibit F is being modified, as indicated in RED.*]

EXHIBIT F

SUPPLEMENT TO MODULE VI

[RMU-1 & CLOSED LANDFILLS]

{NOTE: Exhibit F modification is limited to title change only}

EXHIBIT F
SUPPLEMENT TO
MODULE VI – LANDFILLS
[RMU-1 & CLOSED LANDFILLS]

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

A. Authorized Disposal of Waste in Landfill

1. The Permittee may dispose of solid and debris wastes as identified in this Permit in the following landfill at the Facility up to its indicated capacity, subject to the terms of this Permit:

Unit/Activity	Waste Type	Waste Codes	Quantity/Capacity
Residual Management Units No. One (RMU-1)	Hazardous and Nonhazardous, Non-putrescible Solid Waste, including Debris	Listed in Attachment C, Section C-1, including Tables C-1 & C-2[1]	47.1 acres[2] 2,233 acre-feet[3]

Footnotes:

1. Only those Waste Codes listed in the Attachment C Tables with a "L" TSD Option for "Landfill" are authorized for disposal, subject to the restrictions in 6 NYCRR 373-2.14, 6 NYCRR 376 and the conditions of this Permit.
2. The unit size presented in this table represents the approximate size of the total landfill including waste area and perimeter berm. The actual limits of the landfill are presented on the Drawings in Attachment J, Appendix D-6 of this Permit.
3. The unit capacity presented in this table represents the approximate air volume capacity of the landfill. The actual horizontal and vertical limits which govern the amount of waste that may be disposed of in this landfill are presented on "Top of Waste Grade" Drawing No. 11a in Attachment J, Appendix D-6 of this Permit.

B. General Conditions

1. This Permit does **not** authorize the placement or disposal of putrescible-type nonhazardous waste in RMU-1 (e.g., municipal solid waste), nor does it authorize the placement or disposal of electronic waste (e-waste) pursuant to the disposal ban under ECL § 27-2611.

C. RMU-1 Design & Liner/Leachate Collection System Repair Materials

1. If repairs to the RMU-1 liner and/or leachate collection systems are necessary as a result of defects identified during inspections or due to response actions required by **Condition H.1.d** of this Exhibit, the Permittee must use materials in making these repairs which are compatible and consistent with those materials used in the original construction of these systems. All such materials must meet requirements as

specified by 6 NYCRR 373-2.14(c), the documents in Attachment J of this Permit and the RMU-1 Engineering Report which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

a. Geosynthetic Repair Materials

To meet the above requirements, the Permittee may use "newly purchased" geosynthetic materials for RMU-1 liner/leachate collection system component repairs. Alternatively, the Permittee may use geosynthetic materials for such repairs which are "left over" from the original construction of the RMU-1 liner/leachate collection systems, provided that samples of the "left over" geosynthetic materials taken at the time of the repair have passed Conformance Testing in accordance with **Condition C.1.a.iii** of this Exhibit and these geosynthetic materials have been stored since delivery in accordance with the storage requirements in Attachment J, Appendix D-7 of this Permit. For "left over" geosynthetic materials, the Permittee must also produce documentation, upon Department request, which confirms that the specific geosynthetic materials to be used in a repair are remnants from the original construction.

The Permittee must perform leachate compatibility testing and provide material specification test results on "newly purchased" geosynthetic materials used to repair geosynthetic components of the RMU-1 liner/leachate collection systems. The Permittee must perform new material specification testing and provide test results on "left over" geosynthetic materials used to repair geosynthetic components of the RMU-1 liner/leachate collection system under the following circumstances:

For Geomembrane Liner Material:

- when the "left over" geosynthetic liner materials are greater than 5 years old; and
- when the Permittee cannot satisfy the above stated storage provisions for using "left over" geosynthetic liner materials.

For Leachate Collection Geosynthetic Material:

- when the "left over" geosynthetic liner materials are greater than 5 years old and more than 8,000 ft^2 (approximately 1 roll) of "left over" geosynthetic leachate collection material is needed to affect the repair; and
- when the Permittee cannot satisfy the above stated storage provisions for using "left over" geosynthetic liner materials and more than 8,000 ft^2 (approximately 1 roll) of new geosynthetic leachate collection material is needed to affect the repair.

The Permittee must conduct the testing outlined in **Condition C.1.a.i** of this Exhibit on samples of "newly purchased" geosynthetic materials used to repair geosynthetic components of the RMU-1 liner and/or leachate collection systems, and submit all test results for Department approval. The Permittee must obtain manufacturer's quality control documentation if using "newly purchased" geosynthetic materials to affect the repair or when proposing to use "left over" geosynthetic materials under the above listed circumstances, conduct material specification testing on actual material samples of "left over" geosynthetic materials, as outlined in **Condition C.1.a.ii** of this Exhibit.

i. Geosynthetic Material Leachate Compatibility Testing

Utilizing the leachate obtained from the RMU-1 Lift Station, the Permittee must retain an independent laboratory to immerse samples of the geosynthetic materials (geomembrane, geonet, geotextile and geocomposite) in said leachate, in strict accordance with ASTM Method D5322 and perform testing on these materials in strict accordance with ASTM Method D5747. For geocomposite materials, the testing to be performed on control samples and test samples after each immersion period, must be identical to the testing performed on the separate geonet and geotextile materials. The Permittee must submit to the Department a Report from the independent laboratory which includes all immersion test results. The Permittee may complete repairs using these geosynthetic materials and restore the repaired area to its previous operational or closed status at its own risk, prior to the submission to the Department of the above indicated Immersion Testing Report, provided that all other Permit conditions pertaining to the repair involving these materials have been satisfied. Subsequently, if the Report indicates that the geosynthetic materials used in the repair appear incompatible with the RMU-1 leachate, the Department may require that the Permittee repeat the repair of the effected area. In response to this requirement, the Permittee must comply by repeating the repair using geosynthetic materials determined compatible with the RMU-1 leachate.

'a') Geomembrane Sampling/Testing Frequency

The geomembrane material must be sampled at a rate of one sample per resin blend of geomembrane material, but in no case shall the sampling frequency be less than one sample per 180,000 lbs (8.17×10^4 kgs) of the manufactured geomembrane material. The Construction Quality Assurance (CQA) Engineer, as defined by **Condition J.2.a** of this Exhibit, involved in supervising the repair must verify that the sampling frequency which is based on the weight of the geomembrane material was met and that each roll of geomembrane delivered to the Facility was manufactured from resin blends which were tested in accordance with the ASTM Methods stated above based on a comparison of the geomembrane material Resin Blend Nos. Any roll found to have been manufactured from

other resin blends, must not be used in the RMU-1 liner system repair. The CQA Engineer must document the above sampling frequency verifications in the repair certification required by **Condition D** of this Exhibit. Geomembrane materials which have been approved by the Department subsequent to compatibility testing and are "left over" after completion of a repair, may be used in future repairs without repeating compatibility testing as long as these materials meet all provisions for "left over" geosynthetic materials as specified above in **Condition C.1.a** of this Exhibit.

'b') Geonet, Geotextile, and Geocomposite Sampling/Testing Frequency

The geonet, geotextile and geocomposite materials must be sampled at a minimum rate of one sample per product per year in which they are to be used in RMU-1 repair. For the purposes of this Permit condition, the term "product" means a group of materials produced by a single manufacturer that are the same material type. Geonet, geotextile and geocomposite materials which have been approved by the Department subsequent to compatibility testing and are "left over" after completion of a repair, may be used in future repairs without repeating compatibility testing as long as these materials meet all provisions for "left over" geosynthetic materials as specified above in **Condition C.1.a** of this Exhibit.

ii. Geosynthetic Material Specification Information/Testing

'a') "Newly Purchased" Geosynthetic Materials

For "newly purchased" geosynthetic materials, the Permittee must obtain from each geosynthetic manufacturer, quality control documentation for smooth/textured geomembrane, geonet, geotextile and/or geocomposite materials to be used in a repair of RMU-1 liner and/or leachate collection system components. For the geosynthetic materials to be used, this quality control documentation must include all information and testing results as required by Sections 02400 (smooth geomembrane), 02401 (textured geomembrane), 02410 (geotextile), 02420 (geonet) and 02430 (geocomposite) of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit, and Sections 9.3 (geomembrane), 10.3 (geotextile), 11.3 (geonet) and 12.3 (geocomposite) of the RMU-1 Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The Permittee must provide the above quality control documentation to the Construction Quality Assurance (CQA) Engineer supervising the repair, prior to utilizing the purchased geosynthetic(s) in the repair. The CQA Engineer must review this documentation and certify that each geosynthetic material used in a repair meets all technical specifications for each such geosynthetic as specified in the above

listed Sections of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit. Any geosynthetic material which fails to meet these technical specifications must not be used in RMU-1 liner and/or leachate collection system repairs.

'b') "Left Over" Geosynthetic Materials

Under the circumstances listed in **Condition C.1.a** of this Exhibit for "left over" geosynthetic materials, the Permittee must perform geosynthetic material testing on samples of "left over" smooth/textured geomembrane, geonet, geotextile and/or geocomposite materials to be used in a repair of RMU-1 liner and/or leachate collection system components. This testing must be conducted by an independent laboratory. For the geosynthetic materials to be used, samples of the actual material(s) must be tested for all technical specifications which are applicable to the particular geosynthetic material as listed by Sections 02400 (smooth geomembrane), 02401 (textured geomembrane), 02410 (geotextile), 02420 (geonet) and 02430 (geocomposite) of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit, in strict accordance with the test methods specified by these Sections. The Permittee must provide all test results to the Construction Quality Assurance (CQA) Engineer supervising the repair, and to the Department. The CQA Engineer must review these test results and certify that each geosynthetic material used in a repair meets all technical specifications for each such geosynthetic as specified in the above listed Sections of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit.

The Permittee may complete repairs using these "left over" geosynthetic materials and restore the repaired area to its previous operational or closed status at its own risk, prior to receiving specification testing results, provided that all other Permit conditions pertaining to the repair involving these materials have been satisfied. Subsequently, if test results indicate that a geosynthetic material, or materials used in the repair fail to meet the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit, the Department may require that the Permittee repeat the repair of the effected area. In response to this requirement, the Permittee must comply by repeating the repair using geosynthetic materials determined to meet the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit, regardless of the fact that the previously repaired area has been restored to operational or closed status.

iii. Geosynthetic Material Conformance Testing

Regardless of whether the Permittee selects "newly purchased" or "left over" geosynthetic materials to make repairs to the RMU-1 liner and/or leachate collection systems, the Construction Quality Assurance (CQA) Engineer supervising the repair must obtain samples of the actual geosynthetic materials to be used in the repair for conformance testing. The CQA Engineer must conduct conformance testing on samples of geomembrane, geonet, geotextile and/or geocomposite materials to be used in a RMU-1 liner/leachate collection system repair in accordance with Sections 9.4 (geomembrane), 10.4 (geotextile), 11.4 (geonet) and 12.4 (geocomposite) of the RMU-1 Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The CQA Engineer must obtain and review all conformance testing results and certify that each geosynthetic material to be used in a repair meets the tested for technical specifications for each such geosynthetic as specified in the applicable Sections 02400 (smooth geomembrane), 02401 (textured geomembrane), 02410 (geotextile), 02420 (geonet) and 02430 (geocomposite) of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit. Any geosynthetic material which fails to meet the tested for technical specifications must not be used in RMU-1 liner and/or leachate collection system repairs.

b. Granular Repair Materials

For the granular material to be used in repairs of the RMU-1 leachate collection system(s), the Permittee must obtain from the material supplier, quality documentation in accordance with Section 5.2 of the RMU-1 Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The Permittee must provide the above quality control documentation to the Construction Quality Assurance (CQA) Engineer supervising the repair, prior to utilizing the granular material in the repair.

In addition, the CQA Engineer must conduct conformance testing on samples of the actual granular material to be used in a RMU-1 leachate collection system repair in accordance with Section 5.3 of the RMU-1 Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The CQA Engineer must obtain and review the quality control documentation from the material supplier and all conformance testing results, and certify that the granular material to be used in a repair meets the technical specifications for such material as specified in Section 02210 of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit. Any granular material which fails to meet these technical specifications must not be used in RMU-1 leachate collection system repairs.

c. Other Repair Materials

Other materials which may be needed for RMU-1 liner/leachate collection system repairs (e.g., clay for the soil liner(s), granular material for the operations layer, pipe for the leachate collection system and standpipes, etc.) must meet their respective technical specifications as presented in Sections of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit. The Department may require testing as deemed appropriate to confirm that such materials meet technical specifications. In addition, any clay needed for soil liner repairs must be obtained from Department approved borrow sources for liner and/or cover soil barrier materials, and must meet all requirements as specified in **Condition J.4** of this Exhibit for final cover clay soil barrier material.

D. RMU-1 Liner/Leachate Collection System Repair

1. The Permittee must implement repairs to the RMU-1 liner and/or leachate collection system when defects are identified during landfill inspections or when such repairs are required as response actions in accordance with **Condition H.1.d** of this Exhibit. The term "leachate collection system" as it is used in this particular condition, refers to components used to collect leachate (e.g., geocomposites, stone drainage layers), and not to components used to remove leachate from the landfill (e.g., pumps, electrical controls). If defects are identified in operational areas of RMU-1, the Permittee must immediately upon identification of such defects, cease all waste placement in the immediate area of the defect(s) and the surrounding area needed to facilitate repairs. Also, if such defects involve breaches of the primary and/or secondary geomembrane liner(s), the Permittee must immediately take any and all actions necessary to prevent leachate and contaminated surface water from entering the area of the defect(s) so as to prevent leakage. The Permittee must submit for Department review and approval, a schedule for completing repairs to all identified defects in cases where it will, or it does take longer than seven (7) days to complete repairs as measured from the date the defect(s) was/were identified, in accordance with 6 NYCRR 373-2.2(g)(3) and the requirements of **Condition E of Module VI** and Attachment F of the Permit.

2. The Permittee must perform repairs on the RMU-1 liner and/or leachate collection system using procedures consistent with their original construction and in strict accordance with the following documents, unless otherwise modified by requirements in this Permit condition:

   - The "RMU-1 Landfill Drawings" in Attachment J, Appendix D-6 of this Permit;
   - The "RMU-1 Landfill Technical Specifications" in Attachment J, Appendix D-7 of this Permit;
   - The "RMU-1 Landfill Quality Assurance Manual" in Attachment J, Appendix D-8 of this Permit; and

- The "RMU-1 Engineering Report" of the Permit Application which is incorporated by reference into this Permit by **Schedule 1 of Module I**.

3. The Permittee must use materials in making these repairs which are compatible and consistent with those materials used in the original construction of the RMU-1 liner/leachate collection systems, and must fulfill all requirements pertaining to such materials as specified by **Condition C.1** of this Exhibit. The Permittee must have all liner/leachate collection system repairs supervised and under the control of a Construction Quality Assurance (CQA) Engineer, as defined by **Condition J.2.a** of this Exhibit, unless such repairs only involve the operations layer component of the system. During such repairs, the CQA Engineer is responsible for fulfilling material qualification requirements as specified by **Condition C.1** of this Exhibit, and the quality control procedures applicable to the particular component(s) being repaired as specified by the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit unless otherwise modified by requirements in this Permit condition. The Permittee must also adhere to the following component specific repair requirements.

   a. Geomembrane Liner(s) Repair Requirements

      i. The Permittee must patch/cap strip all identified geomembrane defects using fusion and/or extrusion welding devices which meet requirements in the RMU-1 Technical Specifications, Attachment J, Appendix D-7 of this Permit. The Permittee must employ only welding personnel who meet the qualification requirements in the RMU-1 Technical Specifications, Attachment J, Appendix D-7 of this Permit and the RMU-1 Landfill Quality Assurance Manual, Attachment J, Appendix D-8 of this Permit. The CQA Engineer supervising the repair must instruct qualified welding personnel to perform test seams on scraps of actual geomembrane and must test all such seams for strength as required by Section 9.7 of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The CQA Engineer must confirm that the test seam results meet the seam strength requirements in Section 02400 (smooth geomembrane) or 02401 (textured geomembrane) of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit. The CQA Engineer must not allow welding equipment and/or welding personnel to perform actual repairs when a test seam produced by the welder does not meet the above referenced strength requirements. All actual repair seams must be non-destructively tested by the CQA Engineer in accordance with Section 02400 (smooth geomembrane) or 02401 (textured geomembrane) of the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit and Section 9.8 of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. Destructive testing of actual repair seams must only be performed when the total length of all such seams exceeds 500 feet, in accordance with Section 9.9 of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit.

b. Clay Soil Liner(s) Repair Requirements

i. If clay soil liner repairs are needed and the Permittee determines that the area to be repaired is not of sufficient size to facilitate the use of placement and compaction equipment employed during the liner's original construction, the Permittee must submit for Department approval an alternate clay soil placement and compaction plan for the repair area(s) which will produce a clay soil liner that meets moisture/density and permeability requirements of this Permit.

c. Upon completion of RMU-1 liner and/or leachate collection system repairs, the Permittee must submit for Department review and acceptance, the CQA Engineer's certification, along with supporting documentation, that the repair has been completed in accordance with this Permit and that the repaired area is deemed acceptable for hazardous and industrial nonhazardous waste disposal. If not all material testing results required by **Condition C.1** of this Exhibit are available at the time repairs are completed, the CQA Engineer may issue a certification that is conditioned upon the satisfactory outcome of the pending material tests. The Permittee must not re-commence waste placement in the area(s) of the repair and return it to operational or closed status, until the Permittee receives the CQA Engineer's certification or conditional certification. If the Permittee receives a conditional certification due to pending material testing results, the Permittee may re-commence waste placement in the area(s) of the repair at its own risk in accordance with the provisions in **Condition C.1.a** of this Exhibit.

E. RMU-1 Waste Disposal

1. The Permittee may receive for disposal in RMU-l only those solid hazardous and solid nonhazardous wastes identified as being acceptable for land burial in accordance with 6 NYCRR Part 376, 6 NYCRR Part 373-2.14, and the Waste Analysis Plan (WAP) in Attachment C of this Permit, subject to the restrictions and limitations of this Exhibit. The Permittee may not accept for land disposal in RMU-1 any putrescible nonhazardous waste (e.g., municipal waste).

a. Annual Waste Cap

i. The Permittee must not accept for land disposal more than 425,000 tons of waste, applying credits and excluding exemptions, in any calendar year. The determination of the amount of waste land disposed on a tonnage basis will be calculated based upon gate receipt data. The 425,000 ton total must not include any waste generated at a New York State remedial project subject to a federal or state Record of Decision (ROD), order on consent (or any other state or federally approved work plan or enforcement vehicle having the same or similar effect), a Permit condition, or that which is funded in whole or in part by New York State or any governmental subdivision of the State. Characteristic hazardous wastes that are received, de-characterized on-site,

and then sent off-site for disposal at a permitted RCRA Subtitle D facility will be entitled to a ton for ton credit up to a maximum of 25,000 tons per year. The credited amount shall be based on the gate receipt weight for each characteristic hazardous waste prior to on-site treatment. In addition, all on-site remedial wastes are exempt from the 425,000 ton total.

ii. For the purposes of determining the annual volumes of hazardous and industrial nonhazardous wastes subject to the volume restrictions contained in this condition, but without altering any of the existing Permit provisions such as the Waste Analysis Plan, "hazardous waste" shall include all wastes meeting the definition of hazardous waste set forth in 6 NYCRR 37l.1(c), (d) and (e) and in 40 CFR 261. Industrial nonhazardous wastes shall include all other wastes generated by industry.

b. Department Waste Stream Review Process

i. Each waste stream to be landfilled in RMU-1 must be reviewed by Department staff prior to placement in the landfill. This review shall not diminish the Permittee's responsibility to fully implement the provisions of the Waste Analysis Plan in Attachment C of this Permit, or other provisions of this Permit. The Permittee may not use a waste review performed by the Department staff in defense of any non-compliance with the requirements of this Permit or any State, federal, or local laws or regulations.

ii. Requests for waste stream review must be submitted to the Department in accordance with the Waste Analysis Plan in Attachment C of this Permit.

iii. The Permittee must submit all waste stream review requests in a form which is acceptable to Department staff performing the review. All information that the waste generators have provided to the Permittee for pre-acceptance review must be made available for review by the Department's waste review staff. The Permittee must allow the Department a minimum of one (1) complete 24-hour business day for review of a waste stream. The Department shall provide the Permittee with notification of any problems associated with the land disposal of a waste stream within 5 working days after all the information needed by Department staff has been supplied.

iv. If a practical alternative method of processing, reclaiming, or destroying a specific waste stream becomes available, the Permittee shall pursue with the Department the feasibility of using such an alternative method. If technologies, as above, become available for a specific waste, the Department may restrict or limit the landfilling of that waste or require treatment of the waste prior to landfilling.

v. Waste stream review requests for New York State remedial wastes defined as "Authorized" in **Condition E.1.a.i** of this Exhibit shall include the designation "NYA" in the comments section.

c. Waste Disposal Restrictions

i. Industrial Nonhazardous Waste Organic Content Restrictions

'a') The Permittee must perform a "2 percent organic limit analysis" on each landfill candidate nonhazardous waste stream which is identified as requiring organic analysis in the pre-acceptance review process. The analysis must be a method that quantifies organic priority pollutants and solvent constituents (taken from F001-F005 waste listings). The Permittee must use EPA SW-846 Method 8260 or other Department approved organic analysis method to determine concentration of the organic constituents.

'b') Nonhazardous wastes which exceed the "2 percent organic limit" using the "2 percent organic limit analysis" as described above must not be accepted for landfill disposal.

'c') The quantitative results for the non-targeted constituents which are obtained through the use of EPA SW-846 Method 8260 or other approved analytical method, must be made available for Department review. The Department may deny land disposal for non-hazardous waste streams containing significant amounts of non-target organic constituents on a case by case basis.

'd') The Permittee shall not place ignitable or reactive wastes in the landfill as restricted by 6NYCRR 373-2.14(h) and shall constituents on a case by case basis.

'e') The Department may specify a higher or lower percent by weight limitation than in this **Condition E.1.c.i** of this Exhibit for any particular organic waste constituent or nonhazardous waste stream based upon the toxicity, leachability, and mobility of such waste or constituent. Such determination may be made by the Department on its own initiative or upon the application of the Permittee as provided in 6 NYCRR 621.

'f') The Permittee may petition the Department for the continued land disposal of a specific nonhazardous waste stream prohibited by this condition, demonstrating that practical alternative treatment facilities do not exist. Such a demonstration must include a justification for why the waste cannot be otherwise treated and/or incinerated, and written statements from commercial facilities verifying that existing units cannot manage the waste.

ii. On-site Aqueous Waste Treatment (AWT) Filter Cake

'a') Filter cake from the Permittee's on-site wastewater treatment process must be sampled, analyzed, and subjected to the same Permit disposal restrictions as similar off-site generated wastes.

iii. Ignitable, Reactive and/or Incompatible Wastes

'a') The Permittee shall not place ignitable or reactive wastes in the landfill as restricted by 6NYCRR 373-2.14(h) and shall document compliance with this condition as required by 6 NYCRR 373-2.2(i)(3).

'b') The Permittee shall not place incompatible wastes or incompatible wastes and materials in the same landfill cell as restricted by 6 NYCRR 373-2.14(i), unless such placement is in compliance with 6 NYCRR 373-2.2(i)(2) and documented in accordance with 6 NYCRR 373-2.2(i)(3). Also see Conditions E.1.d.iii and E.1.d.iv with respect to specific incompatible wastes.

iv. Liquid Wastes

'a') The Permittee shall not place in the landfill unit, bulk or non-containerized liquid waste or waste containing free liquids (regardless of whether or not absorbents have been added) as restricted by 6 NYCRR 373-2.14(j)(1). The Permittee shall not place containers holding free liquids in the landfill except as allowed by 6NYCRR 373-2.14(j)(2). The Permittee must demonstrate compliance with this condition in accordance with 6NYCRR 373-2.14(j)(3) whenever the Permittee or Department staff consider it to be necessary based on visual observations of the waste and/or waste characterization information. Containers found to have free liquid shall be processed as required by the Waste Analysis Plan in Attachment C of this Permit.

v. Hazardous Waste Codes F020, F021, F022, F023, F026 & F027

'a') Hazardous waste gate receipts of F020, F021, F022, F023, F026 and F027 materials must not be placed in the landfill unit, unless otherwise authorized by 6 NYCRR 373-2.14(m) and in accordance with the Permittee's approved Dioxin Management Plan which is incorporated by reference into this Permit by **Schedule 1 of Module I**. No current production waste or outdated products with these codes can be accepted.

vi. Electronic Waste (e-waste)

'a') The Permittee shall not dispose of electronic waste (e-waste) in the landfill, as banned pursuant to ECL § 27-2611.

d. Waste Disposal Limitations

i. Lightweight Wastes

'a') Waste that has the potential to become airborne dust or debris must be containerized or otherwise managed in accordance with the Facility Fugitive Dust Control Plan in Attachment L, Appendix D-10 of this Permit.

ii. Soluble Wastes

'a') Prior to landfilling, soluble wastes must be pre-treated to the extent feasible using the Permittee's on-site treatment facilities. Soluble wastes must be placed in the landfill in such a way as to minimize pocketing of soluble material.

iii. Combustible Wastes

'a') No material that is combustible shall be placed in the acid generating zones of the landfill, as those zones are defined in **Condition E.1.d.iv** of this Exhibit, unless the material is a part of the actual waste stream or its packaging is approved by the Department.

iv. Acid-Sensitive & Acid-Generating Wastes

'a') An acid-sensitive zone must be established throughout the landfill. Only acid-sensitive materials and materials compatible with such wastes, shall be placed into this zone. A 50-foot neutral buffer zone must be established to separate acid-sensitive waste from acid-generating waste. An acid-generating landfill zone must be delineated on the opposite side of the acid-sensitive zone. At locations in Cell 9/10 where acid-sensitive wastes are to be disposed of at elevations above acid-generating wastes, a separation distance of less than 50 feet may be used as long as the vertical neutral buffer zone is at least one lift thick. All acid-sensitive and acid-generating wastes must be identified in accordance with **Condition C.2 of Exhibit A**, to distinguish them for proper disposal. The Permittee must verify the prescribed separation distances for each waste identified as acid-sensitive or acid-generating in accordance with **Condition F.5.e** of this Exhibit.

v. Low Strength Wastes

'a') For each non-containerized bulk waste stream to be disposed of in RMU-1, the Permittee must determine that the strength properties of such waste satisfy minimum required bulk waste strength values in

terms of the waste's cohesion and friction angle as presented on the "RMU-1 Minimum Waste Strength Curves" in Attachment K, Appendix D-11 of this Permit, whose development is based on the RMU-1 design and stability analyses presented in the "RMU-1 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

'b') For bulk contaminated soils, and any dry bulk contaminated soil-like materials (e.g., sandblast grit, salts, etc.) as determined by the Department on a case-by-case basis, a soil identification may be performed and, based on the established strength characteristics for the soil type in terms of cohesion and friction angle, the contaminated soil or approved soil-like material may be judged to have sufficient strength using Table 9.1 from "Design Manual - Soil Mechanics, Foundations and Earth Structures", NAVFACDM-7, March 1971.

'c') For non-soil and non-soil-like (hereafter referred to collectively as "non-soil") bulk waste streams, the Permittee must perform a compressive strength analysis using either:

- a remolded sample from the waste generator ("sale sample"), or

- a remolded sample taken prior to placement in RMU-1 ("field mix/as received sample"). The sample must be obtained from the actual field mixing process being utilized or from "as received" wastes not requiring stabilization prior to disposal.

'd') "Non-soil" bulk waste streams which are received at a rate equal to or less than 100 tons per year may be landfilled without compressive strength analysis. The first 20 tons of "non-soil" bulk waste streams that will be landfilled at a rate of greater than 100 tons per year may be landfilled prior to completion of the compressive strength analysis (waste in excess of the 20 tons may not be landfilled until satisfactory compressive strength analysis results are obtained). The Permittee must indicate the use of either exclusion on the waste stream information it submits for Department review in accordance with **Condition E.1.b** of this Exhibit.

'e') Any bulk waste whose "sale sample" fails to meet the required minimum strength values for RMU-1 as depicted by the "Min. Line" on the "RMU-1 Minimum Waste Strength Curves" in Attachment K, Appendix D-11 of this Permit, using 75% cohesion after no more than one week of curing shall not be accepted for disposal in RMU-1.

For any bulk (non-soil) waste load where a "field mix/as received sample" is undergoing testing in accordance with **Condition**

E.1.d.v.'c' of this Exhibit to confirm compliance with "RMU-1 Minimum Waste Strength Curves", but which does not require stabilization and TCLP testing to confirm compliance with Land Disposal Restrictions (LDRs), the load may be placed in Interim Storage in the landfill pending strength testing results under the following conditions:

'1') The load must be placed on a geosynthetic separation material or a stone layer with a minimum thickness of 2 inches, in a distinct interim storage pile, separate from other bulk waste loads and other wastes.

'2') Each such interim storage pile must have a flag or other marker displayed with an identifier(s) that correlates to the waste tracking information which indicates the specific waste in the pile and the date the pile was placed in the landfill.

'3') Daily cover must be applied to all interim storage piles on the date of their placement in the landfill and maintained for the duration of each pile's storage period.

Any bulk waste whose "field mix/as received sample" test result fails to meet the required minimum strength values as depicted by the "Min. Line" on the "RMU-1 Minimum Waste Strength Curves" in Attachment K, Appendix D-11 of this Permit, using 100% cohesion after no more than one week of curing shall not be disposed in RMU-1 and must be immediately removed from landfill interim storage for re-processing or disposition by other than land disposal means. Any bulk waste load whose "field mix/as received sample" test result confirms that it meets required minimum waste strengths, may be disposed of in RMU-1. The Permittee also must not dispose of any below minimum strength bulk waste in RMU-1 by placing it in macroencapsulation boxes or other non-steel containers. Results of all testing performed pursuant to this condition, and documentation on waste quantities necessary to demonstrate compliance with the restrictions contained in this condition, must be included in the Operating Record in accordance with 6 NYCRR 373-2.5(c). The Permittee must report any failed samples to the Department promptly.

'f') Bulk waste that is determined to have cohesion and friction angle values which plot above the "Min. Line" but below the "1.5 Line" on the "RMU-1 Minimum Waste Strength Curves" in Attachment K, Appendix D-11 of this Permit, may be disposed by the Permittee in RMU-1 as "Acceptable Minimum Strength (AMS)" waste under the following limitations and provisions.

- The AMS waste must be spread in thin lifts and blended with other gradable wastes. If the AMS waste is not adequately blended with other wastes, the AMS waste must be placed in maximum one (1) foot thick horizontal layers within a waste lift approximately parallel to the floor of the landfill and with a vertical separation between AMS waste layers of at least nine (9) feet.

- The maximum volume of AMS waste must not exceed ten percent (10%) of the waste placed within the landfill in any given month. The amount of AMS waste landfilled must be reported to the Department on a monthly basis.

- If any AMS waste is received at greater than 200 tons per year, this must be noted on the waste stream information submitted for Department review in accordance with **Condition E.1.b** of this Exhibit, and a strategy for placement of such AMS waste in the landfill must be developed by the Permittee and submitted for Department approval.

'g') The Permittee must promptly notify the Department of any bulk waste stream, which has previously passed the soil identification or compressive strength analysis, for which visual observation and/or testing indicates changed physical or chemical characteristics and is suspected of no longer being of acceptable compressive strength. The Department may select this or any other bulk waste stream it deems appropriate for additional compressive strength analysis by the Permittee, at its discretion. The requirements of this condition do not apply to solid debris and wastes contained in steel drums or other rigid steel containers.

'h') Containerized Wastes - To address void space, the Permittee must fill or crush waste containers as required by 6NYCRR 373-2.14(k).

e. Procedure for Disposal of Package Lab Chemicals in RMU-1

i. Disposal of Package Lab Chemicals (PLCs) in RMU-1 must be as described in Section C-1 of the Waste Analysis Plan (WAP) in Attachment C of this Permit.

ii. The packing lists must be reviewed and a confirmation made that the materials meet the criteria in **Condition E.1.e.i** of this Exhibit. In addition, the materials must be reviewed to confirm that they are acceptable under the terms of this Permit and the above referenced WAP. The packing lists must be submitted to Department staff with the waste stream information submitted for Department review in accordance with **Condition E.1.b** of this Exhibit and they will include sufficient detail to allow the Department to confirm that

the wastes meet the requirements of this Permit and the above referenced WAP. Alternately, a list of chemicals will be submitted to Department staff in addition to a database of PLC compounds previously disposed in RMU-1.

iii. The contents of each lab pack must be confirmed by removing the individual items from the lab pack and checking them against the packing lists. The containers may be returned to the original drum/container or re-packed in another drum/container (e.g., a one cubic yard box). Five-gallon pails of solid material may be labeled and disposed of directly in the landfill.

f. Interim Storage of Stabilized Waste in RMU-1

i. The Permittee may place stabilized bulk wastes in interim storage while awaiting results of Toxicity Characteristic Leaching Procedure (TCLP) tests to determine the waste's compliance with land disposal restrictions in 6 NYCRR 376. All such bulk wastes awaiting TCLP test results must be in covered roll-offs or drums which may be stored within the RMU-1 landfill or in other Container Storage Areas at the facility which are allowed by this Permit to store these container types. The placement, storage and ultimate disposition of such waste must be in accordance with the following requirements.

'a') Each such interim storage container must have a flag or other marker displayed with an identifier(s) that correlates to waste tracking information which indicates the specific waste in the container and the date the container was sampled for TCLP testing.

'b') If the TCLP test result on a stabilized bulk waste load in an interim storage container indicates that the waste meets requirements for land disposal, the Permittee may place the waste in a permanent disposal location within RMU-1.

'c') If the TCLP test results on a stabilized bulk waste load in an interim storage container indicates that the waste does <u>not</u> meet requirements for land disposal, the Permittee must either re-stabilize the waste load or have it transported for proper disposal at an appropriate off-site facility in accordance with all applicable regulations. Any such failed stabilized waste load that the Permittee elects to re-stabilize must be stored in an interim storage container subsequent to re-stabilization, and may not be permanently disposed in the landfill until it is re-tested and the test results indicate the waste's compliance with the land disposal restrictions in 6 NYCRR 376.

g. Final Waste Screening Procedures

i. The Permittee must perform final waste screening procedures to identify wastes that do not meet land disposal requirements or are restricted from land disposal by conditions in this Permit.

'a') Containerized Wastes

The Permittee must open and visually inspect all drums and other larger containers which were not filled on-site by the Permittee prior to landfill disposal, with the exception of some asbestos containers as noted in Section C-2e(2) of the Waste Analysis Plan (WAP) in Attachment C of this Permit. The Permittee must use a code(s) or other means of identifying the intended method of disposal of each waste stream contained in drums or other containers. The Permittee must also randomly select 10 percent of all such drums/containers for sampling and analysis of their contents in accordance with the WAP in Attachment C of this Permit. Exceptions to this sampling requirement are as noted in Section C-2d(1)(a) of the WAP in Attachment C of this Permit. Should the contents analysis of any randomly selected drum or container indicate waste that is unacceptable for land disposal, the Permittee must analyze all such drums/containers from that waste stream shipment or assume that all such drums/containers from the waste stream shipment contain wastes which are unacceptable for land disposal. Any and all drums/containers that are identified as containing wastes that do not meet the land disposal requirements in 6 NYCRR 376 or are restricted from land disposal by this Permit, must not be disposed of in RMU-1.

'b') Non-Containerized (Bulk) Wastes

The Permittee must spread out all bulk waste loads in thin layers within the landfill to facilitate a final inspection. During or subsequent to the spreading of a waste load, but prior to it being covered by other wastes or daily cover, the Permittee must have trained landfill personnel familiar with the waste disposal conditions of this Permit, visually inspect the waste for conformance with waste disposal Permit conditions. This inspection must be conducted in a manner consistent with the Personnel Training Plan in Attachment H of the Permit and the Permittee's safety policies, using field glasses (i.e., binoculars) where necessary to facilitate a safe and thorough inspection of the waste surface. Any bulk waste load or portion thereof, which is identified by landfill personnel as obviously not meeting the land disposal restrictions/requirements of this Permit, must be placed in an appropriate container(s) and removed from the landfill. In addition, any fire or apparent reaction identified by landfill personnel as occurring within a bulk waste load or on the waste in the landfill, shall require the immediate implementation of the Facility's Contingency Plan in Attachment G of this Permit.

h. Improper Land Disposal Waste Tracking and Retrieval

i. Waste Tracking

'a') The Permittee must maintain records of all waste containers and bulk waste loads it receives which are designated for land disposal by the waste generator, but which are determined to be unacceptable for land disposal as a result of manifest information, information obtained in accordance with the Waste Analysis Plan (WAP) in Attachment C of this Permit, identification by the screening procedures required by **Condition E.1.g** of this Exhibit, or other waste information obtained by the Permittee or the Department, prior or subsequent the waste's disposal. These records must indicate the name and EPA identification number of the waste generator in each such case, the type of waste involved, the date and reason it was determined to be unacceptable for land disposal, a brief description of how it was identified and the associated circumstances, and the final disposition of the waste.

'b') The Permittee must submit to the Department with the Annual Report required by 6 NYCRR 373-2.5(e) of this Permit, a listing of any and all waste generators (based on EPA ID Number) having three (3) or more occurrences during the previous calendar year of waste improperly designated for land disposal based on the Permittee's records required by this condition. These listings submitted with the Permittee's Annual Report must also include the details of each occurrence based on the Permittee's records. Based on the Department's review of this annual listing and accompanying information, the Department may require the Permittee to implement additional waste analysis and/or screening procedures for wastes it receives in the future from specific generators identified by the Department. If the Department determines that such additional waste analysis and/or screening procedures are warranted, it shall notify the Permittee in writing indicating the generator(s) and the specific analysis and/or procedures it considers necessary for waste accepted by the Permittee from that/those generator(s). Within thirty (30) days of any such notification the Permittee must either:

- Indicate in writing that the Permittee will implement the additional waste analysis and/or screening procedures indicated by the Department for the identified generator(s); or

- Propose in writing for Department approval, alternative additional waste analysis and/or screening procedures for identified generator(s); or

– Indicate in writing to the Department that it will no longer accept waste from the identified generator(s).

ii. Waste Retrieval

'a') Subsequent to land disposal in RMU-1, any containerized or bulk waste identified as not meeting the land disposal requirements in 6 NYCRR 376 or are restricted from land disposal by this Permit, must be located by the Permittee using the waste location system required by **Condition F.5.e** of this Exhibit, and retrieved by the Permittee for appropriate disposition, unless in specific cases the waste in question is under the final cover or two (2) or more lifts below the active landfill surface **and** the Department determines that such retrieval is not necessary based on waste information provided by the Permittee.

F. RMU-1 Operating Requirements

The Permittee must operate RMU-1 in strict accordance with 6 NYCRR 373-2.14(c), the conditions of this Exhibit, and the requirements in the Permit Attachments and other documents listed below:

– The "RMU-1 Landfill Drawings" in Attachment J, Appendix D-6 of this Permit;

– The "Fugitive Dust Control Plan" in Attachment L, Appendix D-10 of this Permit;

– The "RMU-1 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit;

– The "RMU-1 Operations and Maintenance (O&M) Manual" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and

– The "RMU-1 Leachate Level Compliance Plan (LLCP)" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

1. RMU-1 Waste Fill Progression

The Permittee must at no time advance the RMU-1 waste fill beyond the horizontal and vertical limits depicted by the topographic contours on the "Top of Waste Grades" Drawing No. 11-a in Attachment J, Appendix D-6 of this Permit.

a. Waste Fill Progression From Operation of Final Cell To Landfill Capacity

The Permittee may advance the RMU-1 waste fill up to the horizontal and vertical limits depicted by the topographic contours on the most recently approved Figure 1 contained in the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I**. The Permittee may place wastes beyond the topographic contours on the approved Figure 1 but within the topographic contours on the "Top of Waste Grades" Drawing No. 11-a in

Attachment J, Appendix D-6 of this Permit, as long as such placement is in accordance with Section 3.2.7.1 of the RMU-1 O&M Manual and the RMU-1 Leachate Level Compliance Plan (LLCP) which are both incorporated by reference into this Permit by **Schedule 1 of Module I**.

2. RMU-1 Waste Mass Stability

The Permittee must maintain RMU-1 waste mass stability throughout the landfill operation, closure, and post-closure periods. Any and all slope stability analyses required by the conditions of this Permit, must be conducted in accordance with the methods and assumptions used in the RMU-1 Engineering Report which is incorporated by reference into this Permit by **Schedule 1 of Module I**, including, but not limited to the landfill component input parameters presented in the following table:

Landfill Component	**Component Weight (pcf)**	**Component Cohesion (psf)**	**Component Friction Angle**
Protective/Vegetative Cover Soil	125	0	25°
Textured Cover System	58.7	0	15°
Compacted Clay Cover System	130	1,000	10°
GCL Cover System	130	0	26 / 17.8 / 22.4[2]
Waste	111	0	24°
Granular Operations Layer	135	0	24°
Granular Primary Leachate Collection Layer	135	0	24°
Textured Primary Liner	58.7	0	15°
Smooth Primary Liner	58.7	0	10.5°
Compacted Clay Primary Liner	130	1,000	10°
Granular Secondary Leachate Collection Layer	135	0	24°
Textured Secondary Liner	58.7	0	15°
Smooth Secondary Liner	58.7	0	10.5°

Landfill Component	Component Weight (pcf)	Component Cohesion (psf)	Component Friction Angle
Compacted Clay Secondary Liner	130	1,000	10°
Structural Fill (berm)	130	2,000	0°
Native Upper Till Soils	130	800	10°
Native Glacio-Lacustrine Clay	125	320	10°
Native Glacio-Lacustrine Sand	130	0	30°
Bedrock	140	2,000	40°

Footnotes: 1. The values in this table were derived from the RMU-1 Engineering Report. Upon Permittee request, the Department may approve other values for use in the stability analyses required by **Condition F.2.b** of this Exhibit.

2. For GCL final cover stability, the peak and residual friction angles tested at a slow strain rate are 26° and 17.8°, respectively, and the residual friction angle tested at a rapid strain rate is 22.4°.

In addition, any and all slope stability analyses required by the conditions of this Permit, must evaluate both "circular" and "sliding block" failure modes under both "static" and "seismic" conditions. All such stability analyses must yield a minimum static safety factor of 1.5 to demonstrate adequate bottom liner and final cover static stability. For bottom liner system seismic stability, a pseudo-dynamic analysis must yield a minimum seismic safety factor of 1.0 with zero liner system displacement. For final cover system seismic stability, a displacement analysis must yield a seismic deformation of less than 12 inches to demonstrate adequate final cover seismic stability.

a. Stability of Final RMU-1 Landfill Slopes

The stability analyses of the slopes depicting the final horizontal and vertical extent of the RMU-1 landfill as presented by the topographic contours on the "Top of Vegetative Cover Grades" Drawing No. 12 in Attachment J, Appendix D-6 of this Permit, are contained in the RMU-1 Engineer Report which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Any revisions to, or replacement of these stability analyses must be submitted and approved by the Department.

b. Stability of Waste Fill Progression Slopes

The stability analyses of the most critical slopes depicting the maximum approved waste fill progression as presented by the topographic contours on Figure 1 in the RMU-1 O&M Manual, are contained in the approved RMU-1 O&M Manual

which is incorporated by reference into this Permit by **Schedule 1 of Module I**. For waste slopes beyond the topographic contours on the approved Figure 1 in the RMU-1 O&M Manual but within the final topographic contours on the "Top of Waste Grades" Drawing No. 11-a in Attachment J, Appendix D-6 of this Permit, the Permittee must, upon Department request, submit additional slope stability analyses of other specified waste slopes which the Department considers as critical to waste mass stability.

c. Requirements for All Waste Slopes

RMU 1 waste slopes must not exceed a 3 on 1 gradient, except under specific circumstances allowed by this Permit condition. The Permittee may construct waste slopes in RMU-1 with gradients between 3 on 1 and 2 on 1 as long as such slopes do not exceed the maximum vertical height from toe to crest of 45 feet, based on the stability analyses of 2 on 1 waste slopes in the RMU-1 Engineer Report which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Under no circumstances may the Permittee construct any waste slope in RMU-1 exceeding a 2 on 1 gradient. The rate of vertical waste placement in any given location within RMU-1 must be no greater than 23 feet per month, and must not exceed 100 feet per year, so as to allow the development of adequate shear strength in the underlying Glaciolacustrine Clay layer, based on the landfill stability analyses assumptions used in the RMU-1 Engineer Report which is incorporated by reference into this Permit by **Schedule 1 of Module I**. The Permittee must demonstrate compliance with these limits in each Periodic Waste Mass Survey submitted in accordance with **Condition I.1.a** of this Exhibit.

3. Primary Leachate and Contaminated Surface Water Run-Off Management

The Permittee must maintain and operate a primary leachate and contaminated surface water run-off collection and removal systems to collect and remove leachate and contaminated surface water from the landfill. These systems must be maintained and operated in accordance with: 1) 6 NYCRR 373-2.14(c); 2) the "RMU-1 Landfill Drawings" and the "RMU-1 Technical Specifications" in Attachment J of this Permit; 3) the "RMU-1 Engineering Report", the "RMU-1 Operations and Maintenance (O&M) Manual" and the "RMU-1 Leachate Level Compliance Plan (LLCP)" which are incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and, 4) the conditions of this Exhibit.

a. Primary Leachate Levels

The primary leachate levels, as monitored in the primary leachate standpipes, must not exceed a depth of one (1) foot directly above the lowest elevation of the primary geomembrane within each cell (excluding each cell's sump area) for a continuous period longer than 24 hours as measured from the time when the level first exceeds the one (1) foot depth. Leachate levels within any sump area must be maintained at the lowest practical levels.

b. Primary Leachate Removal

Primary Leachate in cell standpipes must be monitored and pumped automatically using permanently installed sensors, alarms, and pumping equipment. The pumping equipment must be selected in accordance with the RMU-1 Technical Specifications in Attachment J, Appendix D-7 of this Permit, and as specified in the RMU-1 O&M Manual and the RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, with added pumping capacity as necessary to ensure compliance at all times with 6 NYCRR 373-2.14(c)(3)(ii) and **Condition F.3.a** of this Exhibit.

In addition, the Permittee shall install and place into operation supplemental leachate pumping systems in Cells 7/8, 9/10, 11/13 & 12/14 in accordance with Drawing Sheet 2 in Attachment J, Appendix D-6 of this Permit and the design and operational details contained in the Permittee's October 4, 2012 submission which is hereby incorporated by reference into this Permit. The pumps in these systems shall be installed at the low point in each cell's leachate collection pipe, and placed into operation on a Department approved schedule. These pumping systems must be operated automatically using level sensors as prescribed by the Permittee's October 4, 2012 submission. Should the Permittee determine that there is little or no leachate being collected in a cell's pipe, the Permittee may submit a written request for Department approval to either curtail the operation of that cell's supplemental pumping system or take it out of service.

Additional pumps and other spare parts must be provided on a standby basis for ready replacement. Inoperable pumps must be replaced within 48 hours of failure. Leachate pumps must be fitted with power failure and high leachate level indicator alarms; leachate level indicator alarms must be routinely monitored during each operating shift. During periods of heavy rains the monitoring frequency must be increased. The Permittee must maintain operation of all primary leachate pumping equipment in a "level sensor" automatic mode at all times, except for short periods of routine maintenance and pumping system repairs. Standpipes must be covered at all times except when sampling, taking level measurements and, performing maintenance.

c. Contaminated Surface Water Run-Off Management

The Permittee must construct Detention Basin(s) of adequate capacity within the operational areas of RMU-1 in accordance with the RMU-1 O&M Manual and the RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, to collect and control contaminated surface water run-off resulting from a 24-hour, 25-year storm as required by 6 NYCRR 373-2.14(c)(8). The Permittee must remove accumulated surface water run-off from all detention basins and other areas of the landfill. Any time the depth of such water first exceeds 12 inches, as measured from the low point in each detention basin or waste depression, it must be lowered to 12 inches or less in all such basins and depressions within seven (7) calendar days, in accordance with

6 NYCRR 373-2.14(c)(9). The Department, on a case-by-case basis, may grant an extension of this seven (7) day period, provided that the Permittee can demonstrate to the Department's satisfaction, that the volume of liquid resulting from precipitation and/or snow melt which requires removal, exceeds the run-off volume that would be generated by the 24-hour, 25-year storm event. The Permittee must manage the removed liquid as leachate.

d. RMU-1 Leachate Level Compliance Plan (LLCP)

The Permittee must operate the leachate and contaminated surface water run-off collection and removal systems within RMU-1, and the associated on-site liquid transfer, storage and treatment systems, in accordance with the RMU-1 Leachate Level Compliance Plan (LLCP) which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. In order to maintain proper leachate and contaminated surface water run-off management and control, the Permittee must submit and obtain Department approval of revisions to the RMU-1 LLCP as specified below:

- Prior to any significant increase in size of infiltration drainage areas and/or detention basin(s) drainage areas over their respective sizes as depicted on Figure 1 in the most recently approved RMU-1 O&M Manual and RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I**;

- Prior to any filling in and/or significant decrease in size or capacity of any detention basin with reference to the size(s)/capacity(s) indicated in the most recently approved RMU-1 O&M Manual and RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I**; and

- Any time the Permittee or the Department determines that the RMU-1 leachate and/or contaminated surface water character has changed in a way that more extensive treatment is required than presently assumed in the approved RMU-1 LLCP.

Any and all revisions to the approved RMU-1 LLCP submitted by the Permittee must conform to a strategy of minimizing run-off infiltration and leachate heads on the landfill's primary liner by maximizing the amount of run-off directed to detention basin(s) or other depressions within the waste mass. All such revisions must use the same evaluation methods, assumptions and Permit/engineering limitations as are contained in the currently approved RMU-1 LLCP, including, but not limited to the following:

- Precipitation rates and volumes as generated by the 24-hour, 25-year storm event;
- Storage and treatment of both RMU-1 and other on-site wastewaters generated by the storm event;

- No more than 625,000 gallons of available on-site tank capacity at the onset of the storm event;
- A minimum of one (1) foot of liquid in all detention basins or waste mass depressions at the onset of the storm event;
- An RMU-1 waste run-off coefficient of 90 (CN = 90);
- All cells with infiltration zones must have cell primary leachate pumps running at capacity throughout and, if necessary, subsequent to the storm period; however base flow rates for non-infiltrating and covered cells may be considered negligible during the storm management period;
- Pumping and treatment rates based on the on-site Aqueous Wastewater Treatment (AWT) system limitations;
- A minimum of one (1) foot of freeboard in every infiltration channel maintained throughout and subsequent to the storm event;
- A minimum of one (1) foot of freeboard in every detention basin or waste mass depression maintained throughout and subsequent to the storm event;
- Compliance with cell primary leachate level requirements in accordance with **Condition F.3.a** of this Exhibit; and
- Compliance with detention basin liquid removal requirements in accordance with **Condition F.3.c** of this Exhibit.

e. Primary Leachate Collection Pipe Integrity Check & Flush

For those RMU 1 cells with a primary leachate collection pipe (i.e., Cells 7/8, 9/10, 11/13 & 12/14), the Permittee must run a "hydroflush" device on a flexible hose along the entire length of each cell's primary leachate collection pipe at a minimum of once a year, in accordance with the procedure in the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I**. This frequency may be decreased to once every two (2) years for cells where the final cover has been in place over the entire cell for more than one year. The length of the flexible hose insertion must be measured, recorded and compared against the documented as-built length of each cell's primary leachate collection pipe to verify the pipe's integrity over its entire length. After each hydroflush, a video camera must be advanced down each pipe to provide a visual record of the pipe's condition, help determine the hydroflush's effectiveness in removing any buildup of waste residue in the pipe interior or in its perforations, and help identify any problems encountered during the hydroflush (e.g., failure of the hydroflush hose to reach the end of the pipe). The Permittee must provide on-site Department staff with 24 hours advance notice of the Permittee's performance of the pipe flush and video taping. The Permittee must record the results including any problems encountered and the video tape record, and submit them to the on-site Department staff within thirty (30) days of completing each pipe flush and video taping. Upon review of each such submission, the

Department may require the Permittee to perform additional hydroflushing or take other actions necessary to maintain each pipe's designed collection and flow capability.

f. RMU-1 Detention Basins and Infiltration Channels

The Permittee must construct and maintain detention basins and waste mass depressions within the operational area of RMU-1 in accordance with the RMU-1 O&M Manual to the designed capacities in the RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I**. Each detention basin must be lined with a temporary geosynthetic liner. An as-built topographic survey must be performed on each completed basin and waste mass depression to confirm that each basin/depression has been constructed to the capacity required by the above referenced RMU-1 LLCP. This survey must be submitted to the Department within thirty (30) days of completing a basin's or depression's construction. Detention basins and waste mass depressions must be operated in accordance with **Condition F.3.c** of this Exhibit and the above referenced RMU-1 O&M Manual and RMU-1 LLCP. Sedimentation controls must be installed and maintained on all basin/depression inlets, and any sediment in a basin/depression which is deeper than six (6) inches must be removed. Upon discontinuing the use of a detention basin, the Permittee must remove or shred the basin's geosynthetic liner to prevent restrictions of leachate flow from subsequent fill layers.

The Permittee must maintain infiltration channels within the operational area of RMU-1 in accordance with the RMU-1 O&M Manual to the designed capacities in the RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I** until such time as they are filled in and covered in accordance with the aforementioned RMU-1 O&M Manual. The Permittee must implement infiltration channel sedimentation control measures and remove any observed accumulated sediment in accordance with the above referenced RMU-1 O&M Manual to maintain the hydraulic conductivity of the operations stone in these channels until they are filled in and covered.

4. RMU-1 Operational Waste Cover Requirements

a. Daily Cover

i. The Permittee must apply cover material as defined by 6 NYCRR 370.2(b)(39), on all exposed waste, to sufficiently cover the waste, at the end of each day of operation. The daily cover must be placed in accordance with the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I**, and the conditions of this Exhibit, unless prior written approval is obtained from the Department to defer such placement. The Permittee must also restore at the end of each day of operation, any previously applied cover material on areas of the waste where it is identified

as being absent or significantly deteriorated during inspections conducted in accordance with Attachment F of this Permit.

ii. The Permittee must apply daily cover on all lifts of waste using a graded granular material, or an alternative Department approved synthetic fabric or other alternative approved cover material. If the Permittee elects to submit a proposal(s) for Department approval of alternative cover material(s), all such submissions must demonstrate that the proposed cover material will be effective in controlling odors and capable of suppressing airborne dust and light weight debris. No alternative cover material shall be used until it is approved in writing by the Department. If an approved synthetic cover material is used it may be removed from the working face to allow access and then replaced at the end of each day of operation.

iii. The Permittee may leave spaces between drums or other containers unfilled and the adjacent intact drums/containers uncovered until: 1) gradable waste is available to fill the voids; or, 2) potential environmental or safety concerns are identified by the Permittee; or, 3) the Permittee is directed by on-site Department Staff to cover the waste. Cover material must be provided over non-containerized wastes including waste exposed in partially filled voids or voids extending to uncovered waste in a lower lift.

iv. The Permittee must place daily cover as required to maintain the proper slope towards run-off detention basins, waste mass depressions and infiltration channels as required by **Condition F.3** of this Exhibit.

v. Waste material must not be used for cover material unless a specific waste stream is demonstrated as appropriate for such use in accordance with **Condition F.4.a.ii** of this Exhibit and is approved in writing by the Department. In addition, any such "waste cover" material candidate must have relatively low volatile organic concentrations, be odorless, and not be susceptible to dust generation under dry conditions.

b. Intermediate Cover

For a compacted clay Final Cover system, the Permittee may place intermediate cover on waste mass areas that are near, but not above, six (6) inches below the grades depicted on the "Top of Waste Grades" Drawing No. 11 in Attachment J, Appendix D-6 of this Permit. For a GCL Final Cover system, the Permittee may place intermediate cover on waste mass areas that are near, but not above, the grades depicted on the "Top of Waste Grades" Drawing No. 11-a in Attachment J, Appendix D-6 of this Permit; however, such intermediate clay cover must meet the specifications for GCL subbase material contained in Attachment J, Appendix D-7 of this Permit. The Permittee may place intermediate cover when wastes reach final grades. In such cases where the Permittee places intermediate cover on an area of waste, the Permittee must complete placement of final cover during the immediate next calander year, in accordance with **Condition J** of this

Exhibit, unless the Department approves a onetime extension not to exceed one (1) additional calendar year.

i. Construction, Maintenance & Integration Into Final Cover

The Permittee must use only clay that has been approved for use as Final Cover clay soil barrier material in accordance with **Condition J.4** of this Exhibit, for construction of the intermediate cover. Intermediate cover material must be placed in a single loose lift, compacted to a thickness of twelve (12) inches and covered with a temporary geomembrane in accordance with procedures in the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I**. Once constructed, the Permittee must maintain, inspect and repair the intermediate cover in accordance with the above referenced RMU-1 O&M Manual, including any identified defects in the temporary geomembrane. Immediately prior to the construction of the Final Cover on the area of intermediate cover placement, the Permittee must remove the temporary geomembrane to facilitate Final Cover construction. For intermediate cover areas where a compacted clay Final Cover system is to be constructed, as depicted on the "Top of Waste Grades" Drawing No. 11-a in Attachment J, Appendix D-6 of this Permit, the Permittee must remove the upper six (6) inches of intermediate cover and re-grade, re-compact and test the lower six (6) inches of intermediate cover clay to meet Final Cover construction requirements in **Condition J.5.a** of this Exhibit. For intermediate cover areas where a Geosynthetic Clay Liner (GCL) Final Cover system is to be constructed, as depicted on the "Top of Waste Grades" Drawing No. 11-a in Attachment J, Appendix D-6 of this Permit, the Permittee must remove the upper six (6) inches of intermediate cover and re-grade, proof roll and demonstrate that the lower six (6) inches of intermediate cover clay meets the GCL placement "general fill" Final Cover construction requirements in **Condition J.5.b** of this Exhibit. Any intermediate cover clay that does not meet Final Cover moisture/density and/or permeability requirements for a compacted clay Final Cover or GCL placement "general fill" for a GCL Final Cover system, in accordance with **Condition J.5.a and J.5.b**, respectively, of this Exhibit, must be removed and replaced.

5. RMU-1 Waste Placement Requirements

a. A waste lift must consist of one (1) drum or macroencapsulation box height for containers, or sufficient bulk waste to limit the lift thickness to six (6) feet. On a case-by-case basis, the Permittee may request and the Department may approve waste items which are larger than the above defined waste lift height as part of the waste stream review process described in **Condition E.1.b** of this Exhibit. At no time shall drums, macroencapsulation boxes or roll-offs used for interim waste storage in accordance with **Condition E.1.f** of this Exhibit be placed in the RMU-1 landfill in such a manner as the tops of these containers exceed the final

waste grades as depicted on the "Top of Waste Grades" Drawing No. 11-a in Attachment J, Appendix D-6 of this Permit.

b. The Permittee must not allow wastes to be off-loaded outside of the landfill liner perimeter.

c. The Permittee may place drummed and/or stabilized bulk waste in the landfill 24 hours per day, on all days except Sundays and Legal Holidays. Special written approval is required from the Department on a case-by-case basis for waste placement in RMU-1 on Sundays and Legal Holidays. Bulk wastes not requiring stabilization must be placed in the landfill only during the hours of 5:30 a.m. to 8:00 p.m. Monday through Saturday. Artificial lighting must be utilized any time landfill operations are conducted during other than daylight hours. The Permittee must notify on-site Department staff by 3:00 p.m. every Friday of its intended work schedule for the following Saturday through Friday.

d. The Permittee must maintain waste slopes during waste placement in accordance with the requirements in **Condition F.2** of this Exhibit to ensure waste mass stability.

e. The location of each waste load placed in RMU-1 subsequent to the issuance of this Permit must be identified and recorded by the Permittee using a Global Positioning System (GPS) capable of determining the latitude and longitude to an minimum accuracy of 5 feet (1.5 meters), and the elevation to an minimum accuracy of 12 feet (3.5 meters). Using a computerized database, the Permittee must record the GPS reading (latitude, longitude & elevation or northing, easting & elevation), the horizontal grid location identifier and the waste lift number, of each large container/item (e.g., a macroencapsulation box, etc.) and each truck load of drums placed in the same location (if drums from a single truck load are separated and placed in different locations, each such location must be identified and recorded). For each bulk waste load, the Permittee must record the horizontal grid location identifier and the waste lift number, using the GPS device and computerized database. Each waste load disposal location record must also include the date of disposal and the identity of the wastes in each load, in accordance with intra-facility waste tracking requirements in **Condition C.2 of Exhibit A**. The Permittee must use this information to document compliance with waste segregation requirements in **Condition E.1.d.iv** of this Exhibit, and to retrieve improperly landfilled wastes in accordance with **Condition E.1.h.ii** of this Exhibit.

6. RMU-1 Run-On Control Requirements

The Permittee must maintain the surface water diversion berm around the Perimeter of the landfill depicted on the RMU-1 Landfill Drawings in Attachment J, Appendix D-6 of the Permit, to provide run-on control as required by 6 NYCRR 373-2.14(c)(7) until closure.

7. Requirements for Vehicles and Equipment Operating in the Landfill

   Vehicles and equipment operating directly on the operations layer within the landfill must adhere to the special operating requirements in the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Commuter and personal vehicles must be restricted from entering the operational area of the RMU-1 landfill, except for employee or contractor vehicles authorized by the Permittee and State vehicles used by Department staff in monitoring compliance with this Permit.

   All vehicles and equipment entering the RMU-1 operational area must be cleaned at the Department approved Truck Wash facility prior to leaving the landfill. Gross contamination on wheels or other vehicle/equipment exterior surfaces must be physically removed for appropriate disposal in the landfill before washing these surfaces. All visible waste on exterior surfaces must be removed prior to vehicles/equipment leaving RMU-1 to prevent contamination of on-site and off-site roads. The approved RMU-1 Truck Wash facility as depicted on Figure 1 in the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I**, must be operated in accordance with the referenced RMU-1 O&M Manual. This or any new or replacement Department approved facility must have sloped pavement to direct wash water to a collection point and a sump to retain wash water sediments along with discharge sedimentation controls.

G. RMU-1 Monitoring and Inspection

1. RMU-1 Perimeter Berm Inspection & Repair

   If structural problems are observed on the berms of RMU-1 the Permittee must:

   a. Notify the Department's Region 9 Office in writing within one working day after first observing the problem;

   b. Prepare and submit to the Department the necessary engineering plans and specifications for the repair of the berm(s) for Department approval;

   c. Perform repairs in accordance with the approved plans and specifications; and,

   d. Within one week of completing any necessary repairs, submit a report to the Department describing in detail the completed work and procedures followed.

2. Primary Leachate Monitoring

   The Permittee must monitor the leachate in all primary standpipes in accordance with the following requirements.

   a. The leachate level in each cell must be monitored on a continuous basis using automatic data read-out equipment;

b. The Permittee must sample and analyze the primary leachate on a quarterly basis for pH, specific conductance, PCBs, and Priority Pollutant volatile organics;

c. The Permittee must sample and analyze the primary leachate on a semiannual basis for Priority Pollutant Metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc); and,

d. On a quarterly basis and every time the leachate level indicator probes are moved, the liquid level must be manually measured and compared to the results of the automatic data read-out to calibrate the leachate level indicators (probes).

The results of the above analyses must be submitted to the Department on a monthly basis contained within the monthly environmental monitoring report for the month in which the samples were collected. The level measurements required by **Condition G.2.a** of this Exhibit must be monitored from the automatic data read-out and the results must be made available to on-site Department staff. Also, the results of the level measurements required by **Condition G.2.d** of this Exhibit must be presented to on-site Department staff. The results of all level measurements required by **Condition G.2.d** must be submitted to the Department on a quarterly basis, within 30 days after the end of the quarter.

Upon Department acceptance of the certification of closure for any cell, or cells, as required by 6 NYCRR 373-2.7(f)(1), the monitoring for that cell, or cells, required by **Conditions G.2.b through G.2.d** of this Exhibit, must be performed semiannually. At anytime after the first semiannual monitoring event during the cell(s)' post-closure period, the Permittee may request Department approval to decrease the frequency or suspend the monitoring activities required by **Conditions G.2.b through G.2.d** of this Exhibit altogether based on a data supported demonstration of consistent leachate character.

3. Monitoring & Inspection of RMU-1 Appurtenances

The Permittee must inspect and monitor the following appurtenant items of RMU-1.

a. Leachate Transfer System Inspection Requirements

The leachate transfer pipelines and the Leachate Pump Station must be inspected in accordance with the Inspection Plan in Attachment F of this Permit and **Condition B.1.a.ii of Exhibit D**. Proper operation of all electronic leak detection systems installed at vaults and piping manholes, must be verified at least quarterly by visually checking for liquids at all locations where a visual check can be performed without entering a confined space. In addition, alarms for leak detection systems will be verified annually by either manually placing the probe in water or by electrical simulation in locations where a manual check would require a confined space entry.

b. Leachate Transfer System Testing Requirements

Subsequent to the repair of any leaks in the leachate transfer line, the Permittee must test the pipe as required by **Condition B.1.a.ii of Exhibit D** in accordance with the procedures in Attachment D, Appendix D-3, Section VIII of this Permit.

4. Detention Basin(s) and Accumulated Surface Water Monitoring

The Permittee must monitor the level of accumulated surface water run-off in detention basins and other waste depression areas in accordance with the Inspection Plan in Attachment F of this Permit. For all run-off detention basins, the Permittee must provide a visible demarcation of each basin's one (1) foot depth, to evaluate compliance with **Condition F.3.c** of this Exhibit. The level measurements must be manually estimated and recorded on the inspection forms for inclusion in the daily operating record.

H. RMU-1 Secondary Leachate Collection System (SLCS)

1. The Permittee must monitor, report and evaluate the flow from each RMU-1 cell's Secondary Leachate Collection System (SLCS) in accordance with 6 NYCRR 373-2.14(e)(3), 6 NYCRR 373-2.14(n)(2), the RMU-1 O&M Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and the conditions in this Exhibit. The Permittee must also implement SLCS Response Actions as necessary in accordance with 6 NYCRR 373-2.14(o)(2)&(3), the RMU-1 Response Action Plan in Attachment K, Appendix D-9 of this Permit, and the conditions of this Exhibit.

a. RMU-1 SLCS Monitoring

i. The Permittee must monitor the SLCS in each RMU-1 cell and sample and analyze accumulated liquids to obtain accurate and reliable data on the quantity and chemical composition of the liquid in each cell's SLCS. At a minimum, the Permittee must perform the following tasks at the specified frequencies.

'a') On a weekly basis, the Permittee must remove all pumpable liquid from each cell's SLCS sump and record the volume.

'b') On a monthly basis, the Permittee must sample the liquid removed from each cell's SLCS sump and analyze each sample for pH and specific conductance.

'c') On a quarterly basis, the Permittee must sample the liquid removed from each cell's SLCS sump and analyze each sample for pH, specific conductance, and Priority Pollutant volatile organics.

'd') On a yearly basis, the Permittee must sample the liquid removed from each cell's SLCS sump and analyze each sample for pH, specific

conductance, Priority Pollutant organics and Priority Pollutant metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc).

ii. Upon Department acceptance of the certification of closure for any cell, or cells, as required by 6 NYCRR 373-2.7(f)(1), the monitoring for that cell, or cells, required by **Condition H.1.a.i.'b' and H.1.a.i.'c'** of this Exhibit, must be performed semiannually.

b. RMU-1 SLCS Evaluation and Reporting

i. SLCS Flow Rate Evaluation

'a') Each time liquid is manually removed from a cells' SLCS in accordance with **Condition H.1.a.i.'a'** of this Exhibit, the Permittee must record the volume pumped. If a cell's SLCS pumping system operates automatically in-between manual weekly pumping events due to level sensor activation, the Permittee must add the volume pumped automatically to the recorded weekly volume. The Permittee must take the total weekly volume pumped from each cell's SLCS and divide it by the area of the cell in acres and by the number of days since the cell's last SLCS pumping event, to derive each cell's average daily SLCS flow rate in gallons per acre per day (gpad). For each SLCS manual pumping event, the Permittee must compare each cell's average daily SLCS flow rate to the Response Rate for the cell as defined by **Condition H.1.c** of this Exhibit. If a cell's average daily SLCS flow rate exceeds the defined Response Rate for that cell, the Permittee must implement the RMU-1 Response Action Plan (RAP) in Attachment K, Appendix D-9 of this Permit, as required by **Condition H.1.d** of this Exhibit.

ii. SLCS Reporting

'a') The Permittee must report the results of the SLCS monitoring and flow rate evaluation required by **Conditions H.1.a and H.1.b.i** of this Exhibit to the Department. The results of all such RMU-1 SLCS monitoring and evaluations that occur during a month must be submitted to the Department within 90 days from the end of that month. The sampling data must be submitted as required by **Condition B of Exhibit A** and **Condition N of Module I** of this Permit. Along with the above results, the Permittee must submit the results of pH and specific conductance which were obtained at the time SLCS sampling occurred.

c. Response Rates (RRs) for RMU-1 Cells

i. The Response Rate for any RMU-1 cell from the time it begins operation (i.e., initial waste placement) until exactly one (1) year after the Department's

acceptance of the certification of closure for the cell, must be 75 gpad. This Response Rate value was set based on safety margins for discharge over the cell's operational life of water trapped between the primary and secondary liners (e.g., primary clay moisture), as required by 6 NYCRR 373-2.14(n)(1). The Response Rate for any RMU-1 cell subsequent to one (1) year after the Department's acceptance of the certification of closure for the cell, must be 20 gpad.

d. RMU-1 SLCS Response Actions

i. On any occasion, should the SLCS average daily flow rate for a cell exceed its Response Rate, the Permittee must implement the RMU-1 Response Action Plan (RAP) in Attachment K, Appendix D-9 of this Permit for the involved cell. In addition, the Permittee must take any and all response actions as deemed necessary by the Department to protect human health and the environment.

I. RMU-1 Surveying, Reporting and Recordkeeping

1. The Permittee must maintain an operating record for RMU-1 as required by 6 NYCRR 373-2.5(c) and 6 NYCRR 373-2.14(f). The Permittee must also make written submissions to the Department concerning RMU-1 as indicated in this Exhibit, in accordance with **Condition B of Exhibit A** and **Condition N of Module I** of this Permit.

a. Periodic Waste Mass Surveys

i. The Permittee must perform topographical surveys of the waste mass that has not received final cover on a quarterly basis and at other times as requested by the Department. From each survey, a topographic map of the waste must be prepared which must depict the actual drainage areas for each infiltration zone and each detention basin, the actual waste slope gradients and slope set back dimensions, and the locations and dimensions of all run-off control channels and culverts. In conjunction with these surveys, the Permittee must perform a thorough inspection of the operational area of the landfill with special attention to identifying any accumulated sediments in channels, basins and culverts, as well as the condition of sediment control features. From the results of each survey/inspection, the Permittee must prepare a report which includes the following:

- The topographic waste map prepared from the survey;
- An evaluation of the surveyed waste mass for compliance with **Condition F.1** of this Exhibit regarding maximum waste mass topographic limitations;
- An evaluation of the actual waste height increases and slope gradients for compliance with **Condition F.2** of this Exhibit regarding the rate

of vertical waste placement and slope gradient limitations pertaining to waste mass stability;

- An evaluation of the actual dimensions and condition of all drainage areas, run-off control channels, culverts and basins for compliance with **Conditions F.3.d and F.3.f** of this Exhibit, and the RMU-1 O&M Manual and RMU-1 LLCP which are incorporated by reference into this Permit by **Schedule 1 of Module I**, regarding flow/volume capacity requirements and sedimentation prevention requirements; and,
- A calculation of the landfill's remaining capacity based on the topographic survey.

ii. The Permittee must submit each survey/inspection report to the Department within thirty (30) days from the end of each quarter, and in the case of a survey performed per a Department request, within thirty (30) days subsequent to such a survey. The Permittee must correct any compliance or other problems identified by a survey/inspection prior to the end of the next consecutive quarter and note any such corrections in that quarter's survey/inspection report, unless the Permittee requests and the Department grants an extension to make certain corrections based on adverse weather conditions or other circumstances beyond the Permittee's control.

b. Waste Disposal Records and Reporting

i. With the submission of the facility's Annual Report required by 6 NYCRR 373-2.5(e), the Permittee must submit a summary of the actual total volume and weight of all waste placed in the landfill. The weight, or volume and density of each waste received must be determined prior to landfilling either from generator supplied information or by measurement at the Permittee's facility, in a manner consistent with required Annual Report forms and instructions.

ii. Within six months after the end of waste placement in a cell of RMU-1, the Permittee must submit to the Department a complete report of all wastes disposed in the cell in accordance with 6 NYCRR 373-2.14(f) including the three-dimensional (3-D) location and a concise description of each waste. Alternately, disposal can be submitted on a monthly basis throughout the life of the landfill. Disposal reports are to be available during inspections. The actual 3-D location and concise description of each waste must be contained in the report using the waste identification and recording system required by **Condition F.5.e** of this Exhibit with appropriate nomenclature, map coordinates, and waste descriptions.

J. RMU-1 Closure Requirements

The Permittee must close RMU-1 in accordance with 6 NYCRR 373-2.7(a) through (f), 6 NYCRR 373-2.14(g), the conditions of this Permit and construct the RMU-1 Final Cover in strict accordance with the following:

- The "RMU-1 & Site Wide Closure Plan" in Attachment I, Section I.1 of this Permit;
- The "RMU-1 Landfill Drawings" in Attachment J, Appendix D-6 of this Permit;
- The "RMU-1 Landfill Technical Specifications" in Attachment J, Appendix D-7 of this Permit;
- The "RMU-1 Landfill Quality Assurance Manual" in Attachment J, Appendix D-8 of this Permit;
- The "RMU-1 Engineering Report" in the Permit application which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and
- The conditions of this Exhibit.

1. Final Cover Construction Schedule

   The Permittee must submit a construction schedule for Department review at least 30 days prior to the start of the closure of any portion of RMU-1. Activity scheduling must provide a reasonable opportunity for supplemental inspection by Department staff prior to burying or otherwise obscuring the work. This schedule must be revised as necessary to reflect new tasks, new initiation dates or new completion dates and re-submitted within one week of any such changes, and all revisions should accompany the weekly construction reports. If no revision is received, the Department shall assume that the project is on schedule.

2. Final Cover Construction Quality Assurance (CQA) Engineer & Progress Reports

   a. The CQA Engineer

      In order to ensure that the construction is performed in conformance with the Permit and with sound engineering principles that safeguard life, health, and property, the Permittee must ensure that the RMU-1 Final Cover is constructed under the direct supervision and control of an independent person and firm registered to practice Professional Engineering in the State of New York who will certify construction. This person or firm is referred to in this Exhibit as the Engineer.

   b. Requirements of Engineers, Assisting Personnel, Laboratories, and Other Consultants

      The Permittee and the Engineer must ensure that persons employed or supervised by the Engineer are licensed professional engineers or meet the requirements of

exemption from the practice of engineering under Title VIII of the New York State Education Law, Article 145 Section 7208 Paragraph f.

c. Engineer's Personnel Experience Information, Training, and Procedures Report

The following information must be submitted to the Department (for information purposes only) at least two weeks prior to the start of each phase of final cover construction. Also, at least two weeks prior to employing new Engineering Personnel which have not been part of any previous submission, the Permittee must also submit to the Department the following information:

i. Regarding each Professional Engineer involved in the certification of the construction in any capacity:

- the name,
- work address,
- professional engineer license number assigned by the University of the State of New York Education Department,
- the date registration period ends,
- date of first issuance of license, and
- a resume of experience related to the types of construction involved in this Facility.

ii. Regarding all persons that will provide field observations and measurements under the Engineer's direction (such as intern engineers, geologists, soil scientists, liner installers, etc.) and all laboratories, or other consultants that will perform analyses or observations upon which the Engineer will depend:

- the names of firms or individuals,
- their addresses, and
- their qualifications.

iii. The components or steps of construction which will be inspected or observed by each of the following:

- the Engineer,
- subordinate professional engineers and intern engineers,
- others without professional engineer licenses.

iv. The training and instructions that will be given to any field observers who are not registered professional engineers, including instructions to contact the professional engineer on-call (either the Engineer or one of the subordinate

professional engineers) when the field observers are aware that the requirements of this Permit are not being met.

v. The instructions that will be given to any subordinate professional engineers to contact the Engineer when the subordinate professional engineers are aware that the requirements of this Permit are not being met.

d. Availability of the Engineer

The Engineer, or one of his/her subordinate professional engineers, must be available continually during any construction of the RMU-1 Final Cover, and must inspect any suspected sub-standard work promptly when notified by the trained field observers.

e. Witnessing of Critical Aspects by the Engineer

The Engineer or his or her subordinate professional engineer must be present and witness initial installation of any significant components, critical aspects of work, and all completed components prior to burying, covering, or otherwise becoming obscured. As required by **Condition J.2.c.iii** of this Exhibit, the Engineer must submit to the Department a list of items that he or she will inspect in the field.

f. Availability of Design Engineer

The person or firm that was the registered professional engineer who certified the final cover design reports and drawings must be available to the Engineer on an as needed basis to answer questions that may arise about the details or intent of the final cover design or to revise the design, if necessary.

g. Field Observer Reports

Written reports from field observers and subordinate professional engineers must be made and submitted to the Engineer on a daily basis.

h. Weekly Construction Reports

The Permittee must ensure that weekly construction reports, prepared and approved by the Engineer, are submitted for review and acceptance to the Department every week that construction occurs. These reports must address the applicable items listed in the bullet for Weekly Construction Reports in **Condition J.8** of this Exhibit, and must be used to track items or issues to resolution. These reports must be submitted to the Department's Central and Region 9 offices within 2 weeks of the end of the construction work week.

3. Final Cover Design Clarification Procedure

For all clarifications and additions to details, the Permittee must implement the following procedure.

a. Make a thorough verbal or written presentation to the Department demonstrating the need for the clarification/addition, the engineering basis for the clarification/addition, and that the clarification/addition will provide equal or better service (the Permittee must have the Design Engineer or the Engineer make supporting portions of the presentation).

b. Obtain the Design Engineer's written approval and submit to the Department. The Department, at its discretion, may accept the verbal concurrence of the Design Engineer prior to receiving the written approval.

c. Obtain the written approval of the Department or, at its discretion, the Department, may give verbal approval to institute the clarification/addition prior to giving its written approval.

d. Record the details of clarification or addition in weekly or special construction reports.

e. Detail clarifications or additions in as-built drawings.

Failure in any of above can be basis for qualification of acceptance of closure certification by the Department.

4. Final Cover Material Requirements

All natural and synthetic materials used to construct the RMU-1 Final Cover must meet all technical specifications for final cover components as presented in the RMU-1 Landfill Technical Specifications in Attachment J, Appendix D-7 of this Permit. The Engineer must certify that all such technical specifications have been met by reviewing material manufacturer's/supplier's test results and performing all testing as indicated by the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. No material which fails to meet these technical specifications shall be used in the construction of the RMU-1 Final Cover. The Engineer must also oversee and certify that the following material specific qualifications have been met.

a. Clay Soil Cover Material Additional Requirements

i. Clay Test Fill

The Permittee must construct a representative test fill for each clay source and construction equipment and methods to demonstrate that the design parameters will be met in the actual construction of the clay barrier layers in RMU-1. The Permittee must notify the Department in writing of the time when each test fill will be conducted. Each test fill must be constructed and evaluated in conformance with the specifications in the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit.

A report including all information specified in the procedures in the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit must be submitted and approved by the Department before placement of any clay barrier layer material in the landfill final cover. The field hydraulic conductivity should be determined using the Sealed Double Ring Infiltrometer Test or the Boutwell Two Stage Borehole Test specified in Attachment J, Appendix D-8 of this Permit and must be observed by, and approved by the Engineer. Construction of clay barrier must be performed using only the methods and parameters of construction quality assurance from a test fill where the above field hydraulic conductivity test results demonstrate a hydraulic conductivity of $1x10^{-7}$ cm/sec, or less was achieved.

ii. Clay Soil Cover Material Qualification

Material removed from a borrow source and intended for use in RMU-1 must be excavated to the full extent of the clay deposits in the borrow source and in a manner that will not exceed the limits of these deposits as identified through testing and field observations of the Engineer (i.e., Test Pits and/or Soil Borings). Test pits and/or soil borings must be conducted in advance of the excavation to the full depth of the borrow source layer to be excavated. The number and location of the test pits and/or soil borings must be determined by the sampling frequency requirements in Section 4.3 of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. Additional test pits and/or soil borings must be performed at any location in the borrow source to further define the extent of any unacceptable material, upon the request of the Engineer. Conformance testing samples must be obtained and subjected to analysis as required by Section 4.3 of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The Engineer must record observations made at each test pit and/or soil boring and specifically note the type and thickness of any obviously unsuitable material, so that it can be segregated during the excavation. The Engineer must determine the suitability of the material in the area represented by each test pit or soil boring based on visual observations and conformance testing results, and grant acceptance, or qualified acceptance of the represented area of the borrow source prior to excavation of that area. The Engineer must present the recorded field observations along with conformance testing results of each area for Department review prior to excavation of the represented area. Material identified from test pit and soil boring observations or observations of the actual borrow source excavation, which obviously does not meet the specifications given in the RMU-1 Landfill Technical Specifications in Attachment J, Appendix D-7 of this Permit, as well as material which conformance testing has shown does not meet these specifications, must be put aside in a separate spoil pile or piles, or avoided during the borrow source excavation. The Department reserves the right to inspect any borrow source to be used in the construction of RMU-1 Final Cover at any time during the normal working hours.

If stockpiles are constructed, suitable clay soil material must be placed in lifts in the stockpile area in a manner that allows control of the material and its moisture content. Stockpiles of material from different borrow sources, or from markedly different sub-areas within one source, must be kept separate from each other. Proctor moisture/density tests must be performed on stockpiled clay material prior to and during placement to establish the acceptable moisture/density zone as required by Appendix C of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit.

b. Textured Geomembrane Cover Material Additional Requirements

The textured geomembrane cover must consist of new, first-quality products designed and manufactured specifically for the purpose of this work, which shall have been satisfactorily demonstrated to be suitable and durable for such purposes. The material provided must meet the requirements of the RMU-1 Landfill Technical Specifications in Attachment J, Appendix D-7 of this Permit and the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The Department may reject outright improperly handled or stored rolls or sheets of textured geomembrane.

c. Additional Testing of Cover Materials' Frictional Properties

The Permittee must test all the cover materials to be used for final cover on RMU-1 to determine the interfacial friction angles between the materials. The Permittee must submit to the Department, at least 30 days prior to the installation of the compacted clay or Geosynthetic Clay Liner (GCL) in any portion of RMU-1 final cover, the results of this test. For the compacted clay Final Cover system, the interfacial friction angles must be a minimum of 25º. For the GCL Final Cover system, friction angles determined from testing conducted in accordance with ASTM D5321 and D6243 over a load range up to 1,000 psf, must be a minimum of 26" peak and 17.8" residual under slow strain rate testing conditions (0.0004 in./min.), and 22.4" residual under rapid strain rate testing conditions.

d. Gradient Ratio Testing of the Geocomposite

The Permittee must perform Gradient Ratio testing on the selected geocomposite, using the selected protective soil cover materials. The Permittee must submit the results to the Department for review and acceptance prior to installation of the geocomposite in the RMU-1 Final Cover. The most current version of the Gradient Ratio Test ASTM 5101 or other Department approved methodology must be used for the testing, and the Gradient Ratio must be less than or equal to 3, as recommended by the U. S. Army Corps of Engineers, or other Department approved criteria. After the initial testing is completed and accepted by the Department, it must be repeated if the geocomposite to be used is different from the one previously tested or if the percentage of fines (i.e., particles passing #200

sieve) in the protective soil is greater than the percentage of fines in the soils previously tested.

5. Final Cover Construction

The Permittee must construct the RMU-1 Final Cover in accordance with the RMU-1 Landfill Drawings in Attachment J, Appendix D-6 of this Permit, the RMU-1 Landfill Technical Specifications in Attachment J, Appendix D-7 of this Permit, the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit, and the conditions in this Exhibit, under the direct supervision of the Engineer as required by **Condition J.2** of this Exhibit.

a. Compacted Clay Soil Cover System Material Placement and Compaction

The natural clay material must be placed and compacted in conformance with, and to the specifications found in the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit, to the lines and grades shown in the RMU-1 Landfill Drawings in Attachment J, Appendix D-6 of this Permit. The Construction Testing (Soil Compaction and Moisture Content, and Lab Hydraulic Conductivity) must be as specified in Section 4.6 of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit, and must meet the pass criteria specified therein.

All laboratory hydraulic conductivity tests on the undisturbed clay samples, must be $1x10^{-7}$ cm/sec, maximum or less and must be performed by a laboratory independent from the Permittee and approved by the Engineer. The test methods and parameters must be appropriate for the sample location or intended material location and must not alter the sample beyond the condition that would be expected to occur in the clay at the actual unit.

b. Geosynthetic Clay Liner (GCL) Cover System Material and Installation

The GCL material provided and the sub-grade on which it is to be placed must: meet the specifications in the RMU-1 Landfill Technical Specifications in Attachment J, Appendix D-7 of this Permit; be installed to the lines and grades shown on the RMU-1 landfill Drawings in Attachment J, Appendix D-6 of this Permit; and be tested and demonstrated as satisfying requirements in accordance with the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The Department's on-site representative and/or the CQA Engineer may reject damaged or improperly handled/stored rolls/sheets of GCL material and/or withhold approval for GCL placement in any area where the sub-grade has been observed to contain items that could damage the GCL.

c. Geomembrane Cover Seaming Procedures

The cover seaming and monitoring must meet the requirements of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. Wherever feasible, the membrane panels must be joined by automatic, self-

propelled double weld fusion welding equipment. The surface of the lapped edges of the membrane sheets must be prepared as recommended by the manufacturer. All seam connections must be continuous and must meet the seam requirements of the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The air channel of the double fusion weld must be sealed off by an extrusion weld at its end, at any location where the seam terminates at a T-connection or under a patch or cap strip. At T-connection locations, the hot wedge device must either be removed or the hot wedge device roller pressure must be released, approximately 6 inches from the intersecting seam where the third panel meets the intersection of the first two. The hot wedge device should then be reinserted or roller pressure re-engaged a short distance (approximately 6 inches) beyond the intersection point. This T-connection must be completed by extrusion fillet seaming as is depicted in Figure 7.7 of the document entitled Technical Guidance Document: Inspection Techniques for the Fabrication of Geomembrane Field Seams, USEPA, EPA/530/SW-91/051, May 1991. As depicted in this figure, the un-bonded free overlaps of the sheets are to be cut away to expose the edge of the outside of the hot wedge seam. The surface must be ground to remove the surface oxide and the extrudate bead must be placed in a continuous fashion in accordance with the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The bead must provide complete coverage of areas not completed by the hot wedge device.

d. Geomembrane Cover Test Seams, Visual Inspection, and Non-Destructive Testing

A Passing test seam shall be an indicator of the adequacy of the seaming unit and seamer working under prevailing site conditions, but not necessarily an indicator of seam adequacy.

If the laboratory tests of the test seams fail, they must be taken as an indicator of the possible inadequacy of the entire seamed length of installed cover corresponding to the test seam. Destructive test portions must then be taken by the Geomembrane Cover Installer at locations suggested by the Engineer and the same laboratory tests required of test seams must be performed. Passing tests shall be taken as an indicator of adequate installed cover seams. Failing tests shall be an indicator of non-adequate seams and the seams represented by the destructive test location must be repaired with a cap strip. The cap strip must be non-destructively tested and repaired, as required, until adequacy of the seams is achieved.

Locations where field seams can be seen to be separated or can be pulled or peeled apart by hand must be treated as if they were a location where a laboratory test had failed.

A passing non-destructive test of field seams and repairs and a passing seam inspection shall be taken to indicate the adequacy of field seams and repairs.

e. Geomembrane Cover Destructive Seam Testing

The portion of each seam sample designated in the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit, for laboratory testing should be examined and tested by a laboratory independent from the Permittee and designated by the Engineer. The samples should be examined for holes, grooves, melt through, wavering welds, small welds, and any other unusual characteristics. All occurrences of the aforementioned characteristics must be reported to the Department. The laboratory tests in the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit, to be performed, "Bonded Seam Strength" and "Peel Adhesion," must be performed in accordance with ASTM D4437 as indicated in Attachment J, Appendix D-7 of this Permit. A report, or a series of reports, must be prepared by the laboratory, of the results of examination and testing. This report, or reports, must be submitted to the Engineer and to the Department on a timely basis for review and consideration of further action. No installation of materials above the Geomembrane Cover shall be done until all destructive testing of the Geomembrane Cover section is completed, reported on, accepted by the Engineer, and accepted in writing by the Department.

Failure to meet either of the above testing requirements in any more than one of five of the tests in both peel adhesion and shear strength testing shall indicate a defective seam. A failed seam or other defects must be evaluated and repaired as required by the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit. The Department reserves the right to specify further sampling and testing based on the frequency of defective seams and/or to require the Permittee's Project Manager, in coordination with the Engineer, to call an immediate Problems Resolution Meeting to which all principal parties to the problem are gathered. At the Problems Resolution Meeting corrective actions shall be discussed and a specific course of action to the noted problem(s) shall be chosen. The Engineer must follow up and provide documentation to ensure that corrective actions or procedures are carried out, in a timely fashion in the field. Subsequent to the Resolution Meeting, the Department reserves the right to temporarily halt seaming operations if, for whatever reason, the chosen corrective action cannot be implemented in a timely manner or if the implemented corrective action fails to provide an adequate resolution to the problem based on the frequency of defective seams.

f. Protection of Geosynthetic Cover Components

No equipment shall be allowed to operate on or above geosynthetic cover components until at least one (1) foot of protective soil has been placed above these components. The size of equipment operating on or above the 1-foot of protective soil on the final cover shall be limited to a CAT D8K dozer or smaller.

6. Surface Water Management During Final Cover Construction

   Surface water management during final cover construction shall focus on the restriction of sediment discharge from the work area. Except as described below, no surface water must be allowed to exit the landfill until a minimum of one (1) foot of intermediate cover soil and a temporary geomembrane has been placed. In the case of GCL Final Cover system installation, surface water may exit the landfill after placement of the 6-inch select fill layer, however within seven (7) days of such placement, the Permittee must install either a temporary geomembrane or the GCL and permanent geomembrane above the select fill layer. Construction surface water management measures to be taken by the Permittee must involve sediment control barriers consisting of silt fences, hay bales or other Department approved sediment control measures. The number and location of these shall be determined by the progress of construction in order to cover the perimeter of construction zones.

   Placement procedures for any silt fence used must involve the use of 2-foot wide geotextile either supported by a ¾-inch polypropylene mesh with a nylon top cord and 4-foot wooded posts at 3-foot maximum spacing or by a 6-inch mesh with a 14-gauge wire support fence and a steel top cord, secured by 4-foot wooded posts at a 8-foot spacing. Additional bracing shall be added as required. Anchoring of the geotextile must consist of a 4-inch wide by 6-inch deep trench with backfill compacted over the folded fabric.

   Any erosion prevention hay bales used shall be placed with twine parallel to the ground and must be secured with two 2”x2” stakes per bale each 30 inches in length, driven through the top of the bale.

   Removal of silt fences, hay bales or other Department approved sediment controls shall only be done after vegetation is firmly established on the final cover topsoil areas, and the soil areas of these removed sedimentation controls must be re-vegetated.

   Unless otherwise approved by the Department on a case specific basis, synthetic mesh, jute mesh, cellulose or wood fiber, or other biodegradable meshes must be installed in channels designed to have a vegetative cover to enhance the establishment of such vegetation.

7. Fugitive Dust Control During Final Cover Construction

   The Permittee must reduce impacts on air quality for all construction activities for the final cover through proper operation and maintenance of construction equipment and fugitive dust control techniques, and must comply with the Fugitive Dust Control Plan in Attachment L, Appendix D-10 of this Permit.

8. Final Cover Construction Reporting Requirements

   The Permittee must submit to the Department the following construction reports and certifications as listed in the Permit and the RMU-1 Landfill Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit.

   - Construction Schedules
   - Engineer's Personnel Experience Information, Training, and Procedures Report
   - Design Clarifications or Additions
   - Clay or GCL Protective Soil Test Fill Report (when required)
   - Borrow Area(s) and Stockpile(s) Report(s)
   - GCL Material Properties Report and Quality Control Certificates
   - GCL Conformance Testing Results Report
   - Geomembrane Cover Material Properties Report and Quality Control Certificates
   - Geomembrane Cover Conformance Testing Results Report
   - Geocomposite Properties Report and Quality Control Certificates
   - Geocomposite Conformance Testing Results Report
   - Geomembrane Cover Installer Qualifications
   - Inspection of Waste Surface Report
   - Guarantees on Geomembrane Cover by Installer, unless the Department approves a case specific exemption
   - Engineer's Acceptance of Geomembrane Cover
   - Engineer's and Permittee's Certification
   - Weekly Reports on Construction including inspection of all installation practices and quality assurance and quality control monitoring including:
     - clay placement and compaction
     - prepared surface inspection
     - material shipment and storage
     - GCL installation
     - geomembrane cover
     - geomembrane cover installation and seam testing
     - geocomposite installation
     - miscellaneous installation issues

- tracking of significant Final Cover issues to resolution

Note: Weekly construction reports must be submitted to the Department's Central and Region 9 offices within two (2) weeks of the end of the construction work week.

9. Seasonal or Adverse Weather Requirements

Whenever the construction schedule indicates that placement and compaction of earthen materials and installation of geomembrane cover will be performed after November 30 and before April 1, the Permittee must submit to the Department for review and approval a description of the activities that will be performed to ensure compliance with this Permit. This description must include, but not necessarily be limited to, a description of any special construction procedures and/or materials that may be utilized, and a description of any special quality control/quality assurance procedures that will be performed. No construction or quality assurance or quality control activities shall be conducted in the field during these periods until the Department has approved the submittal.

10. RMU-1 Closure Certifications

Within 60 days of completion of final closure of RMU-1 or within 60 days of any RMU-1 partial closure, the Permittee must submit to the Department certifications by the Permittee and by an independent NYS registered Professional Engineer that RMU-1 (or the applicable portion thereof) has been closed in accordance with: 6 NYCRR 373-2.7(a) through 373-2.7(f); 6 NYCRR 373-2.14(g); **Condition G** of **Module VI** of this Permit; **Conditions A.6 and A.7 of Exhibit A**; the "RMU-1 & Site Wide Closure Plan" in Attachment I, Section I.1 of this Permit; the "RMU-1 Landfill Drawings" in Attachment J, Appendix D-6 of this Permit; the "RMU-1 Landfill Technical Specifications" in Attachment J, Appendix D-7 of this Permit; the "RMU-1 Landfill Quality Assurance Manual" in Attachment J, Appendix D-8 of this Permit; and the conditions in this Exhibit. The Permittee must also submit the following:

a. Guarantees on Geomembrane Cover

Unless the Department approves a case specific exemption, the Engineer and the Permittee must submit to the Department certification by the Geomembrane Cover Installer that the installed Geomembrane Cover and field seams have been constructed in accordance with the specifications and requirements of this Permit, especially the RMU-1 Quality Assurance Manual in Attachment J, Appendix D-8 of this Permit.

b. Acceptance of Geomembrane Cover

Any portion of the Geomembrane Cover shall be accepted by the Department when: that portion of the installation is finished in accordance with the schedule prepared pursuant to the Construction Schedule required by **Condition J.1** of this

Exhibit; the Engineer's acceptance and supporting documentation for that portion is submitted to the Department; and, the Department notifies the Permittee of its acceptance. No burying or otherwise obscuring of the cover shall take place prior to supplemental inspection pursuant to the Construction Schedule required by **Condition J.1** of this Exhibit and documentation by one of the Department's on-site staff of preliminary acceptance by the Department of that portion of the Geomembrane Cover.

K. Perpetual Post-Closure Care Requirements

The Permittee must fully comply with **Condition G of Module VI** of this Permit and the conditions below with regard to the perpetual post-closure care.

Perpetual Post-Closure Care requirements are applicable to the following land disposal units:

- Landfills: Secure Landfills (SLFs) 1-6, 7, 10, 11 & 12, and RMU-1.
- Surface Impoundments: Lagoons 1, 2, 5, 6 & 7, and Salts North, East & West.
- Former Process Area Tank Locations: L-1, L-3, L-6, T-44, FOD-1, FOD-2, T-29, TO-9, TO-10, TO-12, T-64, T-65, FD-1, FD-2, TO-3, TO-6, T-48, T-47 & Carbon Bldg. Sump, as defined on figures in the Corrective Measures Requirements in Attachment E of the Permit.

1. Closed Secure Landfills (SLFs) 1-6, 7, 10, 11 & 12

   a. General Requirements for SLF 1-6, 7, 10, 11 and 12 Leachate Collection and Removal

      i. Primary leachate in all landfill standpipes must be monitored and pumped automatically using permanently installed sensors, alarms, and pumping equipment, with the exception indicated by **Condition K.1.f.ii** of this Exhibit. Additional pumps and other spare parts must be available on-site at all times for ready replacement. Primary leachate pumps must be fitted with power failure and high leachate level indicator alarms which must be electronically monitored on a continuous basis. If a sustained high level alarm is noted, a manual level measurement must be taken within 24 hours of the time that the alarm occurs and a determination made whether an exceedence of the maximum allowable leachate level has occurred. The operation of the pump must then be investigated.

      ii. Inoperable primary pumps and secondary pumps (where applicable) must be replaced within forty-eight (48) hours of failure.

iii. On a quarterly basis and every time the leachate level indicator probes are moved, the liquid level must be manually measured. This manual measurement must be used to confirm compliance with maximum leachate level requirements and to check pump activation and alarm level settings. In addition, such measurements will be compared to the results of the automatic data read-out to calibrate the leachate level indicators (probes) on landfills where such devices are present.

iv. If a statistically significant change in the groundwater quality is noted for SLF 1-6, 7, 10 or 11A and such change indicates that the landfill may be impacting the groundwater, the standpipe(s) nearest to the affected monitoring well(s) must be sampled for the same suite of parameters and at the same frequency indicated in the Groundwater Monitoring Program in **Condition L** of this Exhibit of this Permit until the source of the potential problem is identified and corrected to the satisfaction of the Department.

v. Standpipes must be covered at all times, except when being attended.

vi. Proper operation of all electronic leak detection systems installed at riser vault buildings and piping manholes, must be verified at least quarterly by visually checking for liquids at all locations where a visual check can be performed. On an annual basis, sensor/probes must be manually placed in water, or electronically simulated in locations where a manual check would require confined space entry, to verify that the alarm is electronically triggered.

b. SLF 1-6 Leachate Collection and Removal

i. The maximum leachate level, as measured in the standpipes of SLF 1-6, except standpipes listed in **Condition K.1.b.ii** of this Exhibit, must not exceed a depth of two (2) feet directly above the base of the standpipe, unless such exceedence is clearly attributable to a pump or other obvious leachate removal system malfunction which is corrected within 48 hours of the exceedence.

ii. The maximum leachate levels for the following standpipes must not exceed the listed elevation, unless such exceedence is clearly attributable to a pump or other obvious leachate removal system malfunction which is corrected within 48 hours of the exceedence:

Standpipe No.	Elevation (ft., msl)
1	320.4
2	325.9
3	322.9
5	312.1
7T	324.4
10	318.5
17	321.9

c. SLF-7 Leachate Collection and Removal

i. The maximum leachate level in the standpipes must not exceed 2 feet above the lowest elevation of the floor of the area being drained in the standpipe, unless such exceedence is clearly attributable to a pump or other obvious leachate removal system malfunction which is corrected within 48 hours of the exceedence. The sump in the standpipe has 6 inches of concrete at the bottom which is set on top of the floor and therefore the compliance level is 18 inches above the sump bottom.

d. SLF-10 Leachate Collection and Removal

i. The maximum leachate level in the standpipes must not exceed 2 feet above the lowest elevation of the floor of the area being drained in the standpipe, unless such exceedence is clearly attributable to a pump or other obvious leachate removal system malfunction which is corrected within 48 hours of the exceedence.

e. SLF-11 Leachate Collection and Removal

i. The maximum leachate level in the standpipes must not exceed 1 foot above the primary liner as measured from the liner's lowest elevation at the edge of the sump in each landfill cell, unless such exceedence is clearly attributable to a pump or other obvious leachate removal system malfunction which is corrected within 48 hours of the exceedence.

ii. Secondary leachate in the SLF 11B/C Secondary Leachate Collection System (SLCS) will be sampled biannually for Site Specific Volatile Organic Compounds (27 VOCs) and annually for Organic Priority Pollutants (i.e., semi-volatile organics, PCBs and pesticides) and Priority Pollutant Metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc).

iii. If a statistically significant change in the SLF-11B or 11C SLCS water quality is noted and is not clearly attributable to a sampling or analytical error, then response actions will be taken in accordance with **Condition K.1.g** of this Exhibit.

iv. Using either manual or automatic pumping methods, the Permittee must, on a weekly basis, remove all secondary leachate from the SLCS in each SLF 11B & 11C landfill cell to pump's refusal (i.e., when all pumpable liquids have been removed), and measure and record the volume removed (in gallons). At the end of each calendar month, the Permittee must add up the secondary leachate volumes removed from each cell's SLCS for each pumping in the month and record the summed volumes (in gallons). The Permittee must determine the SLCS average daily flow rate (in gallons per acre per day) for each SLF 11B & 11C cell in accordance with 6 NYCRR 373-2.14(n)(2) by dividing the above mentioned summed volume removed from each cell by the

respective cell's area (in acres) based on as-built surveys. That resultant value shall be divided by the number of days between the last pumping event in the preceding month and the last pumping event of the current month. The SLCS average daily flow rates must be recorded and reported each month in accordance with **Condition F of Schedule 1 of Module I**.

v. For each calendar month, the Permittee must compare the SLCS average daily flow rate (in gallons per acre per day) for each SLF 11B & 11C cell, determined in accordance with **Condition K.1.e.iv** of this Exhibit, with the Response Rate for SLF 11B & 11C of 20 gallons per acre per day (gpad). If the SLCS average daily flow rate for any given cell exceeds the 20 gpad Response Rate, then response actions will be taken in accordance with **Condition K.1.g** of this Exhibit.

f. SLF-12 Leachate Collection and Removal

i. The maximum leachate level in the standpipes must not exceed a depth of one (1) foot above the primary liner as measured from the liner's lowest elevation at the edge of the sump in each landfill cell, unless such exceedence is clearly attributable to a pump or other obvious leachate removal system malfunction which is corrected within 48 hours of the exceedence.

ii. The leachate in Standpipe No. 54 can be pumped manually, provided the Permittee maintains compliance at all times with **Condition K.1.f.i** of this Exhibit.

iii. Secondary leachate in the SLF 12 Secondary Leachate Collection System (SLCS) will be sampled biannually for Site Specific Volatile Organic Compounds (27 VOCs) and annually for Organic Priority Pollutants (i.e., semi-volatile organics, PCBs and pesticides) and Priority Pollutant Metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc).

iv. If a statistically significant change in the SLF-12 SLCS water quality is noted and is not clearly attributable to a sampling or analytical error, then response actions must be taken in accordance with **Condition K.1.g** of this Exhibit.

v. Using either manual or automatic pumping methods, the Permittee must, on a weekly basis, remove all secondary leachate from the SLCS in each SLF 12 landfill cell to pump's refusal (i.e., when all pumpable liquids have been removed), and measure and record the volume removed (in gallons). At the end of each calendar month, the Permittee must add up the secondary leachate volumes removed from each cell's SLCS for each pumping in the month and record the summed volumes (in gallons). The Permittee must determine the SLCS average daily flow rate (in gallons per acre per day) for each SLF 12 cell in accordance with 6 NYCRR 373-2.14(n)(2) by dividing the above mentioned summed volume removed from each cell by the respective cell's

area (in acres) based on as-built surveys. That resultant value shall be divided by the number of days between the last pumping event in the preceding month and the last pumping event of the current month. The SLCS average daily flow rates must be recorded and reported each month in accordance with **Condition F of Schedule 1 of Module I**.

vi. For each calendar month, the Permittee must compare the SLCS average daily flow rate (in gallons per acre per day) for each SLF 12 cell, determined in accordance with **Condition K.1.f.v** of this Exhibit, with the Response Rate for SLF 12 of 20 gallons per acre per day (gpad). If the SLCS average daily flow rate for any given cell exceeds the 20 gpad Response Rate, then response actions must be taken in accordance with **Condition K.1.g** of this Exhibit.

g. Response Actions for SLF 11B, 11C & 12 SLCSs: If the SLCS average daily flow rate for any given cell exceeds the 20 gpad Response Rate, as determined in accordance with **Conditions K.1.e.v or K.1.f.vi** of this Exhibit or if the above re-sampling and analysis confirms a noted change in SLCS water quality for a given landfill cell, the Permittee must:

i. For the landfill cell, or cells involved, immediately implement the response actions required by 6 NYCRR 373-2.14(o)(2&3) and continue implementation of remedial actions and monthly reporting in accordance with 6 NYCRR 373-2.14(o)(2)(vi) until the SLCS flow has been mitigated to the Department's satisfaction.

ii. Immediately increase SLCS liquid removal/pumping frequency for the involved cell, or cells, from weekly to daily, and maintain daily removal/pumping until a level actuated automatic pumping system is installed or the Permittee requests and the Department approves a return to weekly pumping as a result of other measures taken that adequately mitigate the SLCS flow. Measure, record and report the daily SLCS flow rate (in gpad), and the 30-day rolling average daily SLCS flow rate (in gpad).

iii. Immediately increase SLCS liquid sampling and analysis frequency for the involved cell, or cells, from biannual to monthly for the parameters specified in **Conditions K.1.e.ii or K.1.f.iii** of this Exhibit or other Department approved parameters, and maintain this monthly frequency until the Department approves a return to biannual sampling and analysis as a result of other measures taken that adequately mitigate the SLCS flow.

iv. Sample the wells located down-gradient of the involved cell, or cells, within (14) days of an SLCS water quality or volumetric exceedence and increase the groundwater monitoring frequency for these wells to monthly. All such samples must be analyzed for the indicator parameters specified by the Groundwater Protection program in **Condition L** of this Exhibit and any other parameters as deemed necessary by the Department. The monthly frequency

must be maintained until the Department approves a reduced frequency as a result of other measures taken that adequately mitigate the SLCS flow.

v. The Permittee must implement other remedial actions as deemed necessary, by the Department, to adequately mitigate the SLCS flow in the involved cell, or cells.

2. Closed Process Area Tank Locations

a. For the currently closed process area tank locations as listed in the beginning of this Condition located south of Lagoons 1, 2, 5, 6 & 7 and north of the East & West Salts Impoundments as defined on figures in the Corrective Measures Requirements in Attachment E of the Permit and any currently operating tank systems within this same area that are closed in accordance with 6 NYCRR 373-2.10(h)(2) (i.e., closure as a landfill) due to remaining soil contamination, the Permittee must perform the following additional perpetual post-closure care activities.

i. Inspect and maintain all final covers for the closed tank systems within the process area. The Permittee must inspect these covers on at least a semi-annual basis for defects (e.g., cracks, gaps, holes, separated joints, areas of differential settlement, etc.) which visually expose the underlying soil and which could allow migration of soil contaminants. The Permittee must record these inspections in the Facility's operating record. The Permittee must repair any and all such defects by application of cover materials or a weather-resistant caulk or sealant. In lieu of making these specific repairs, the Permittee may submit and the Department may approve, an alternative cover design to replace or enhance any existing cover, including a schedule for its construction. Once approved by the Department, the Permittee must construct the alternative cover in accordance with the approved schedule.

ii. If at any time the Department considers that contamination within the Process Area is, or may be causing exceedences of the facility's SPDES storm water discharge limits, the Permittee must, upon written notification from the Department, enhance and/or expand the covers in the area of the suspected source(s), or take other actions as deemed necessary by the Department to lower the levels of these hazardous constituents in process area surface water.

3. Closed Lagoons & Salts Surface Impoundments

a. The Permittee must perform perpetual post-closure care including inspecting and making all necessary repairs to the final cover of Lagoons 1, 2, 5, 6 & 7, and Salts North, East & West, and mow and fertilize these covers in accordance with Section 1.3, Section 1.5 and Table 1 of the Site Wide Post-Closure Plan in Attachment I, Section I.2 of this Permit.

4. RMU-1 Landfill

   a. The Permittee must perform perpetual post-closure care for the RMU-1 landfill in accordance with the RMU-1 Post-Closure Plan in Attachment I, Section I.2 of this Permit, **Conditions F.3.b, F.3.e, F.6, G.1-G.3, H and L** of this Exhibit and **Conditions E.1, E.5-E.7, G, N and O in Module VI** of this Permit.

L. Groundwater Protection

Background

The CWM Model City Facility groundwater monitoring program has continued to evolve since Permit No. 90-87-0476 was issued on July 31, 1989. As required in the Permit, CWM has conducted groundwater investigations in the vicinity of the landfills and surface impoundments and other areas of the site. The Department has used the results of those investigations to develop monitoring programs to detect any future releases from the units that have not released hazardous constituents to the groundwater, and to keep track of the groundwater contamination which has been observed in the vicinity of a number of the landfills and impoundments.

In some locations (Landfills 2, 3, 4/East West Salts), it is not possible to conclusively attribute the presence of groundwater contamination to waste management activities at the regulated units, nor is it possible to rule out those units as potential sources of the contamination. In other locations (Landfills 7, 10, 11, RMU-1), the observed groundwater contamination has resulted from waste management activities that occurred before the units were constructed and, hence, is not attributable to releases from them. The Department will continue to require CWM to keep track of the magnitude and extent of the contamination and to evaluate remedial programs for the groundwater contamination.

In many areas of the site where substantial groundwater contamination has been found, the Department has required CWM to implement an Remedial Measures programs to mitigate the potential threat to the environment posed by the contamination. The details of the Remedial Measures Program are described in **Module II**, **Exhibit B** and Attachment E of this Permit.

This Exhibit contains the groundwater Detection Monitoring Programs which are required under 6 NYCRR Part 373-2. The programs are designed to provide unit-specific detection capabilities at those active or inactive Landfills and Surface impoundments which have not released hazardous waste constituents to the groundwater. The purpose of the detection monitoring programs is to allow for rapid detection of releases should they occur.

Applicability

- The Permittee must comply with all applicable groundwater monitoring requirements set forth in 6 NYCRR 373-2.6.

- The Permittee must modify the groundwater monitoring program, as necessary, to maintain compliance with any future changes in 6 NYCRR 373-2.6 within ninety (90) days after the effective date of such changes.

- Detection Monitoring Program: Groundwater quality data collected during the permit application process support the implementation of a Detection Monitoring Program for the following units:

  Active:

  Residuals Management Unit 1 (RMU-1)
  Facultative Ponds 1, 2, 3, and 8

  Inactive:

  Secure Landfill 1 (SLF 1)
  Secure Landfill 2 (SLF 2)
  Secure Landfill 3 (SLF 3)
  Secure Landfill 4 (SLF 4)
  Secure Landfill 5 (SLF 5)
  Secure Landfill 6 (SLF 6)
  Secure Landfill 7 (SLF 7)
  Secure Landfill 10 (SLF 10)
  Secure Landfill 11 (SLF 11)
  Secure Landfill 12 (SLF 12)
  Aggressive Biological Treatment Unit 58 (A.B.T.U.58)

The Permittee is required to maintain and follow the Detection Monitoring Program as described below:

1. Point of Compliance. The Points of Compliance for the applicable units are as follows:

   a. Residuals Management Unit 1: The Point of Compliance for this landfill is defined as the vertical surface passing through the downgradient monitoring wells R101S, R102SR, R103S, R104S, R105S, R106S, R107S, R1N08S, R109S, R1N10S, R111S, R112S, R113S, R114S, R115S R116S, R118S, R125D, R126D, R127D, R128D, R129D, R130D, R131D, R132D, R133D, R134D and R135D.

   b. Facultative Ponds 1 & 2: The Point of Compliance for this surface impoundment is defined as the vertical surface passing through the downgradient monitoring wells F101S, F102S and F103S.

   c. Facultative Pond 3: The Point of Compliance for this surface impoundment is defined as the vertical surface passing through the downgradient monitoring wells F301S and F302S.

d. Facultative Pond 8: The Point of Compliance for this surface impoundment is defined as the vertical surface passing through the downgradient monitoring wells F801S and F802S.

e. Secure Landfill 1: The Point of Compliance for this landfill is defined as a vertical surface passing through the downgradient monitoring wells W102S and W101S.

f. Secure Landfills 2, 3 & 4: The Point of Compliance for these landfills is defined as the vertical surface passing through the downgradient monitoring wells W201S, W202S, W301S, W303S, W401S and W402S.

g. Secure Landfill 5: The Point of Compliance for this landfill is defined as a vertical surface passing through the downgradient monitoring wells W501S and W502S.

h. Secure Landfill 6: The Point of Compliance for this landfill is defined as a vertical surface passing through the downgradient monitoring wells W601S, W602S and W603S.

i. Secure Landfill 7: The Point of Compliance for this landfill is defined as a vertical surface passing through the downgradient monitoring wells W701S, W702S, W703S, W704S and W705S.

j. Secure Landfill 10: The Point of Compliance for this landfill is defined as a vertical surface passing through the downgradient monitoring wells W1001S, W1002S, W1003S and W1004S.

k. Secure Landfill 11: The Point of Compliance for this landfill is defined as the vertical surface passing through the downgradient monitoring wells W1101S, W1102S, W1103S, W1104S, W1105S, W1106S, W1107S, W1108S and W1109S.

l. Secure Landfill 12: The Point of Compliance for this landfill is defined as a vertical surface passing through the downgradient monitoring wells W1201S, W1202S, W1203S, W1204S, W1205S, W1206S, W1207S and W1208S.

m. A.B.T.U. 58: The Point of Compliance for this former surface impoundment is defined as the vertical surface passing through the downgradient monitoring wells F5801S and F5802S.

The Points of Compliance are shown on Figure 1 provided at the end of this Exhibit.

2. Length of Monitoring Requirements. At a minimum, the groundwater monitoring requirements set forth herein shall extend for a period no less than thirty (30) years beyond the closure of the units except for those land disposal units (surface impoundments) where "clean" closure is achieved consistent with the requirements of 6 NYCRR 373-2.11(f)(1). In the event that a compliance monitoring program is

needed at the unit, a compliance period equal to the active life of the unit plus thirty (30) years shall be established.

3. Description of Wells. The Detection Monitoring network shall consist of the following wells:

   a. Upgradient. Background monitoring wells BW01S, BW01D, BW03S, BW03D, BW04S, BW04D, BW05S and BW05D.

   b. Downgradient. Monitoring wells R101S, R101D, R102SR, R102D, R103S, R103D, R104S, R104D, R105S, R105D, R106S, R106D, R107S, R107D, R1N08S, R108D, R109S, R109D, R1N10S, R110D, R111S, R111D, R112S, R113S, R114S, R114D, R115S, R116S, R116D, R118S, R125D, R126D, R127D, R128D, R129D, R130D, R131D, R132D, R133D, R134D and R135D will be used to monitor Secure Landfill RMU-1.

      Monitoring wells F101S, F102S, F102D and F103S will be used to monitor Facultative Pond 1 & 2.

      Monitoring wells F301S, F302S and F302D will be used to monitor Facultative Pond 3.

      Monitoring wells F801S, F802S, F802UD and F802LD will be used to monitor Facultative Ponds 8.

      Monitoring wells W101S, W101D and W102S will be used to monitor Secure Landfill 1.

      Monitoring wells W201S, W201D, W202S, W202UD, W202LD, W301S, W301D, W303S, W401S, W401D and W402S will be used to monitor Secure Landfills 2, 3 & 4.

      Monitoring wells W501S, W501D and W502S will be used to monitor Secure Landfill 5.

      Monitoring wells W601S, W601D, W602S and W603S will be used to monitor Secure Landfill 6.

      Monitoring wells W701S, W701D, W702S, W702D, W703S, W703D, W704s, W704D, W705S and W705D will be used to monitor Secure Landfill 7.

      Monitoring wells W1001S, W1001D, W1002S, W1003S, W1003D, W1004S and W1004D will be used to monitor Secure Landfill 10.

      Monitoring wells W1101S, W1101D, W1102S, W1102D, W1103S, W1103D, W1104S, W1104D, W1105S, W1105D, W1106S, W1106D, W1107S, W1107D, W1108S, W1108D, W1109S and W1109D will be used to monitor Secure Landfill 11.

Monitoring wells W1201S, W121UD, W121LD, W1202S, W122UD, W122LD, W1203S, W123UD, W123LD, W1204S, W1204D, W1205S, W1205D, W1206S, W1206D, W1207S, W1207D, W1208S, W128UD and W128LD will be used to monitor Secure Landfill 12.

Monitoring wells F5801S, F5801D and F5802S will be used to monitor A.B.T.U. 58.

4. Additional Monitoring

   a. Each time the active RMU-1 Detection monitoring wells are sampled during the active life of the Landfill:

      i. Samples of RMU-1 leachate from the primary and secondary leachate collection/detection systems must be collected and analyzed for the same suite of parameters as the monitoring wells.

      ii. Water level measurements will be taken from all RMU-1 piezometers and all inactive RMU-1 Detection Monitoring Wells.

   b. Each time the SLF 11 Detection monitoring wells are sampled:

      i. Water level measurements will be taken from piezometers P1102S, P1103S, P1104S and P1105S.

   c. Each time the SLF 7 Detection monitoring wells are sampled, water level measurements will be taken from piezometers P701S, P702S and P703S.

   d. Each time the SLF 10 Detection monitoring wells are sampled, water level measurements will be taken from piezometers P1001S and P1002S.

   e. Each time the SLF 12 Detection Monitoring Wells are sampled, water level measurements will be taken from piezometers P1201S, P1202S and monitoring well TW-15S.

5. Sampling Frequency. All monitoring wells in the Detection Monitoring Program, with the exception of monitoring wells F802LD, W202LD, W121LD, W122LD, W123LD and W128LD, must be sampled at least semiannually. Monitoring wells F802LD, W202LD, W121LD, W122LD, W123LD and W128LD must be sampled at least once every two years.

6. Site Specific Indicator Parameters (27 VOCs). As set forth in 6 NYCRR 373-2.6(i)(1), the following parameters must be used as site specific indicator parameters in the Detection Monitoring Program:

Volatile Organic Compounds

Benzene	Ethylbenzene
Bromoform	Methyl Bromide

Carbon Tetrachloride	Methyl Chloride
Chlorobenzene	Methylene Chloride
Chlorodibromomethane	1,1,2,2-Tetrachloroethane
Chloroethane	Tetrachloroethylene
1,2-Dichlorobenzene	Toluene
Chloroform	trans-1,2-Dichloroethylene
Dichlorobromomethane	1,1,1-Trichloroethane
1,1-Dichloroethane	1,1,2-Trichloroethane
1,2-Dichloroethane	Trichloroethylene
1,1-Dichloroethene	Vinyl Chloride
1,2-Dichloropropane	cis-1,3-Dichloropropylene
trans-1,3-Dichloropropylene	

The Permittee must analyze all Detection Monitoring wells for the site specific indicator parameters (27 VOCs) and must statistically compare the values obtained during each sampling event with the background values of the parameters.

7. Background Values for Site Specific Indicator Parameters: To date, no hazardous waste constituents have been detected in groundwater samples obtained from background monitoring wells BW01S, BW01D, BW03S, BW03D, BW04S, BW04D, BW05S and BW05D.

8. Statistical Evaluation. Whenever the Permittee determines groundwater quality at the Point of Compliance, the Permittee must determine whether there has been a statistically significant increase in any of the site specific indicator parameters (27 VOCs) when compared against the established trigger values. That determination must be made for each indicator parameter and for every well.

   For the Model City Facility, Poisson Prediction Limits must be used for statistical comparison of monitoring well data. This method is appropriate for data that exhibit truncated distributions with skewed tails, produced by detection limit problems. The Poisson prediction interval includes three data evaluation mechanisms:

   - Statistical Criterion 1 - Poisson Prediction Interval (Concentration)
   - Statistical Criterion 2 - Multiple Detections
   - Statistical Criterion 3 - Persistent Detections

   a. Statistical Criterion 1 - Poisson Prediction Interval (Concentration): A concentration based t-prediction interval has been developed for the Model City site. Based on data obtained from analysis of background groundwater quality, field and trip blanks, the t-prediction interval has been calculated to be a sum total of site specific indicator parameters (27 VOCs) in a single scan. The prediction interval for the specific units covered by this Exhibit is as follows:

      i. RMU-1: For wells, except R105S, R106S and R107S, which comprise the Point of Compliance for the landfill, the prediction interval (PI) has been

calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'a') For well R105S, data will be evaluated using a modified PI, namely that the summed total concentration of all indicator parameters, excluding Methylene Chloride and 1,1-Dichloroethane (1,1-DCA), must not exceed 23 ug/l. Furthermore, the concentration of 1,1-DCA will then be compared with a compound specific PI of 23 ug/l, which was derived from the analytical history of this well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride and 1,1-DCA.

'b') For well R106S, data will be evaluated using a modified PI, namely that the summed total concentration of all indicator parameters, excluding Methylene Chloride, Vinyl Chloride and 1,1-Dichloroethane (1,1-DCA), must not exceed 23 ug/l. Furthermore, the concentrations of Vinyl Chloride and 1,1-DCA will each be compared with a compound specific PI of 23 ug/l, which was derived from the analytical history of this well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride, Vinyl Chloride and 1,1-DCA.

'c') For well R107S, data will be evaluated using a modified PI, namely that the summed total concentration of all indicator parameters, excluding Methylene Chloride, Trichloroethene (TCE), 1,2-Dichloroethane (1,2-DCA) and 1,1-Dichloroethane (1,1-DCA), must not exceed 23 ug/l. Furthermore, the concentrations of TCE, 1,2-DCA and 1,1-DCA will each be compared with a compound specific PI of 23 ug/l, which was derived from the analytical history of this well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride, TCE, 1,2-DCA and 1,1-DCA.

ii. Facultative Ponds 1, 2, 3 & 8: For wells which comprise the Point of Compliance for the Facultative Ponds, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

iii. SLF 1: For wells which comprise the Point of Compliance for the landfill, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

iv. SLFs 2,3 & 4:

'a') For wells W201S, W201D, W202UD, W202LD, W301D, W303S, W401D and W402S, the prediction interval (PI) has been calculated to

be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Well W202S: Low level (ppb) contamination has been detected in this well. An investigation of this contamination concluded that SLF 2, SLF 3, SLF 4, the East/West Salts Area and past practices and spills are all potential sources of the VOCs present in the groundwater. The Department has recognized that the close proximity of the above units limits the ability to determine a specific source of the contamination. However, since SLF 2, 3 & 4 cannot be eliminated as a source of contamination, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters (excluding methylene chloride) compared to a modified prediction interval (PI) of 340 ug/l.

'c') Well W301S: Low level (ppb) contamination has been detected in this well. An investigation of this contamination concluded that SLF 2, SLF 3, SLF 4, the East/West Salts Area and past practices and spills are all potential sources of the VOCs present in the groundwater. The Department has recognized that the close proximity of the above units limits the ability to determine a specific source of the contamination. However, since SLF 2, 3 & 4 cannot be eliminated as a source of contamination, its presence requires the use of an alternative statistical approach. The statistical procedure will be the summed total concentration of all indicator parameters, with the exception of methylene chloride, trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE) and trans-1,2-dichloroethene. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The compound specific prediction intervals for trichloroethene, 1,1-DCE and trans-1,2-dichloroethene are as follows:

Trichloroethene	1,200 ug/l
trans-1,2-Dichloroethene	570 ug/l
1,1-Dichloroethene	23 ug/l

'd') Well W401S: Low level (ppb) contamination has been detected in this well. An investigation of this contamination concluded that SLF 2, SLF 3, SLF 4, the East/West Salts Area and past practices and spills are all potential sources of the VOCs present in the groundwater. The Department has recognized that the close proximity of the above units limits the ability to determine a specific source of the contamination. However, since SLF 2, 3 & 4 cannot be eliminated as a source of the contamination, its presence requires the use of an alternative statistical approach. In addition to the Site Specific Indicator Parameters (27 VOCs) specified in **Condition L.6 of this Exhibit**, the Permittee must also monitor for Acetone, 2-Butanone (MEK), 4-Methyl-2-Pentanone (MIBK), 2-Hexanone, Carbon Disulfide, Styrene, Vinyl Acetate and

Xylene. The statistical procedure will be to determine the summed total concentration of Acetone, 2-Butanone, 4-Methyl-2-Pentanone and 2-Hexanone. This total value will then be compared to a modified prediction interval (PI) of 23 ug/l. The summed total concentration of all other indicator parameters (excluding methylene chloride and vinyl chloride) will then be determined and compared to a modified prediction interval of 3 mg/l.

v. SLF 5:

'a') Wells W501D & W502S: The prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Well W501S: Low level (ppb) contamination has been detected in this well. After an investigation, the Department has determined that the contamination is not associated with a release from SLF 5; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to compare the summed total concentration of all indicator parameters, excluding Methylene Chloride, to a modified prediction interval (PI) of 340 ug/l.

The contamination detected in monitoring well W501S has been attributed to past waste handling practices in this area. Evaluation of this release will be performed as outlined in **Module II**, **Exhibit B**, this Condition and Attachment E (corrective action) of this Permit.

vi. SLF 6: For wells which comprise the Point of Compliance for the landfill, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

vii. SLF 7:

'a') For wells W701S, W701D, W702S, W702D, W703D, W704D and W705D, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Well W703S: Low levels (ppb) of chloroform and carbon tetrachloride have been detected in this well. After investigation, the Department has determined that the contamination is not associated with waste management practices at SLF 7; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters, with the exception of methylene chloride, chloroform, and carbon tetrachloride. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentrations of chloroform and carbon tetrachloride will then be

compared to a compound specific prediction interval (PI) for each of these compounds based on the historical data base collected from the well. The prediction intervals for chloroform and carbon tetrachloride are 510 ug/l and 400 ug/l respectively.

The contamination detected in monitoring well W703S has been attributed to past waste handling practices by the Department of Defense. Evaluation of this release will be performed as outlined in **Module II**, **Exhibit B**, this Condition and Attachment E (corrective action) of this Permit.

'c') Well W704S: Low levels of 1,1-dichloroethane (1,1-DCA) have been detected in this well. After investigation, the Department has determined that the contamination is not associated with a release from SLF 7; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters, excluding methylene chloride and 1,1-DCA. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentration of 1,1-DCA will then be compared to a compound specific prediction interval (PI) of 23 ug/l based on the historical data base collected from the well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride and 1,1-DCA.

'd') Well W705S: Low levels of 1,1,1-Trichloroethane (1,1,1-TCA) and 1,1-Dichloroethane (1,1-DCA) have been detected in this well. After investigation, the Department has determined that the contamination is not associated with a release from SLF 7; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters, with the exception of methylene chloride, 1,1,1-TCA and 1,1-DCA. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentrations of 1,1,1-TCA and 1,1-DCA will each be compared to a compound specific prediction interval (PI) of 23 ug/l based on the historical data base collected from the well.

viii. SLF 10:

'a') For wells W1001S, W1001D, W1003S, W1003D, W1004S and W1004D, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Well W1002S: Low level (ppb) contamination has been detected in this well. After an investigation, the Department has determined that

the contamination is not associated with releases from SLF 10; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of 1,1,1-trichloroethane, 1,1-dichloroethane, tetrachloroethane, toluene and vinyl chloride. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The summed total concentration of all other indicator parameters (excluding methylene chloride) will then be determined and compared to a modified prediction interval (PI) of 3 mg/l.

The contamination detected in monitoring well W1002S has been attributed to past waste handling practices and drum storage along MacArthur Street. Evaluation of this release will be performed as outlined in **Module II**, **Exhibit B**, this Condition and Attachment E (corrective action) of this Permit.

ix. SLF 11:

'a') For monitoring wells W1101S, W1101D, W1102S, W1102D, W1103D, W1104D, W1105D, W1106D, W1107S, W1107D, W1108S, W1108D and W1109D, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Monitoring Wells W1103S, W1104S, W1105S and W1106S: Low levels (ppb) of trichloroethylene (TCE), trans-1,2-dichloroethylene (t-DCE), 1,1-Dichloroethene (1,1-DCE) and Vinyl Chloride (VCl) have been detected in these wells. After investigation, the Department has determined that the contamination is not associated with a release from SLF 11; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters, with the exception of methylene chloride, TCE, t-DCE, 1,1-DCE and VCl. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentrations of TCE and t-DCE will then be compared to a prediction interval (PI) for each of these compounds based on the historical data base collected from these four (4) wells. The prediction intervals for TCE and t-DCE in these wells are 260 ug/l and 85 ug/l, respectively.

The concentrations of 1,1-DCA and VCl will each be compared to a prediction interval (PI) of 23 ug/l based on the historical data base collected from these wells. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride, TCE, t-DCE and VC1.

The contamination detected in monitoring wells W1103S, W1104S, W1105S and W1106S has been attributed to past drum storage along "H" Street. Evaluation of this release will be performed as outlined in **Module II**, **Exhibit B**, this Condition and Attachment E (corrective action) of this Permit.

'c') Well W1109S: Low levels of 1,1-dichloroethane (1,1-DCA) have been detected in this well. After an investigation, the Department has determined that the contamination is not associated with a release from SLF 11; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters excluding methylene chloride and 1,1-DCA. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentration of 1,1-DCA will be compared to a compound specific prediction interval (PI) of 23 ug/l based on the historical data base collected from the well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride and 1,1-DCA.

x. SLF 12:

'a') For wells which comprise the Point of Compliance for the landfill, except well W1207S, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Well W1207S: Low levels (ppb) of chloroform and carbon tetrachloride have been detected in this well. After investigation, the Department has determined that the contamination is not associated with a release from SLF 12; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters, with the exception of methylene chloride, chloroform and carbon tetrachloride. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentrations of chloroform and carbon tetrachloride will be compared to compound specific prediction intervals (PI) of 50 ug/l and 23 ug/l, respectively, based on the historical data base collected from this well.

xi. A.B.T.U. 58:

'a') For wells F5801D and F5802S, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'b') Well F5801S: Low levels (ppb) of chlorobenzene have been detected in this well. After investigation, the Department has determined that the contamination is not associated with a release from A.B.T.U. 58; however, its presence requires the use of an alternative statistical approach. The statistical procedure will be to determine the summed total concentration of all indicator parameters, excluding Methylene Chloride and Chlorobenzene. This value will then be compared to a modified prediction interval (PI) of 23 ug/l. The concentration of Chlorobenzene will then be compared to a compound specific prediction interval (PI) of 23 ug/l for this compound based on the historical data base collected from the well.

The contamination detected in monitoring well F5801S has been attributed to past waste handling in the Process Area. Evaluation of this release will be performed as outlined in **Module II**, **Exhibit B**, this Condition and Attachment E (corrective action) of this Permit.

b. Statistical Criterion 2 - Multiple Detections: A Prediction Interval, based on the number of compounds detected in a single scan, has been calculated for the Model City site. The number shall be more than 3 site specific indicator parameters (27 VOCs) detected in any well in a single scan, independent of summed total concentration and excluding methylene chloride. Persistent compounds detected in wells evaluated using an "alternative statistical approach" must not be counted when determining the number of detections in a single scan.

c. Statistical Criterion 3 - Persistent Detections: An alternative "trigger" will be if any one site specific indicator parameter is detected in any well in a series of three (3) consecutive scans (independent of concentration) and excluding methylene chloride. Persistent compounds detected in wells evaluated using an "alternative statistical approach" must not be counted when determining persistent detections.

Statistical Based Trigger mechanisms are outlined on Figure 2 provided at the end of this Exhibit.

9. Reporting Requirements

a. Routine Monitoring Reporting: The Permittee must report the results of all groundwater analyses which are obtained from the Detection Monitoring Network.

The results of all routine environmental monitoring that occurs during a month must be submitted to the Department within 90 days from the end of that month. The sampling data must be submitted to the Department in accordance with the requirements of Condition N of Module I.

Prior to well purging, the depth to the static water surface must be measured to the nearest 0.01 feet each time a well is sampled. As a check, a duplicate water level measurement must be taken and recorded on every fifth well.

The Permittee must evaluate the data using the procedures set forth on Figure 2 provided at the end of this Exhibit and submit the results of the statistical comparison of the indicator parameters as part of the Routine Environmental Monitoring Report. If the analyses reveal a statistically significant increase in the concentration of a indicator parameter at any well in the Detection Monitoring Network, the Permittee must:

i. If the results of analyses fail either Statistical Criteria 1 or 2, the data must have a QA/QC review of the analysis. If the results fail Statistical Criterion 3, the well in question must be resampled within fourteen (14) days.

ii. If the QA/QC data review indicates that the analytical data is erroneous, the evaluation returns to Detection Monitoring with a statement in the annual report that indicates the reasons for the erroneous data. Otherwise, the well in question must be resampled within thirty (30) days of receipt of the original detection monitoring results.

iii. Within seven (7) days of receipt of the results of the resampling, the results must be subjected to the same statistical evaluation criteria (total concentration and multiple detections).

iv. If the resampling results pass Statistical Criteria 1 and 2, then the well in question returns to detection monitoring with a statement in the annual report.

v. If the resampling results fail Statistical Criteria 1 and 2, then, within 7 days of receiving the results, the Permittee must provide written notification of the failure of the evaluation criteria to the Department. Within thirty (30) days of receiving results of the resampling, a plan must be submitted to the Department to determine the source of the detected organic compounds. Within ninety (90) days of receiving the results of the resampling, a Permit modification request must be submitted to the Department.

vi. In addition to **Condition L.9.a.v** of this Exhibit, if the resampling results fail Statistical Criteria 1 or 2, then, within fourteen (14) days of receiving the resampling results (for evaluations under Statistical Criteria 1 and 2), the affected well and adjacent wells that monitor the regulated unit, and for SLF monitoring wells, the leachate from the Landfill Cell upgradient of the well, must all be sampled for Appendix 33 constituents. Adjacent wells will be those wells immediately next to the well(s) with the detected compounds. For example, for a shallow (upper tills) monitoring well with detected compounds, the corresponding deep (glaciolacustrine silt/sand) well and the two shallow wells on either side will be considered adjacent wells. For a deep monitoring well, the adjacent wells would be the corresponding shallow well and the deep wells on either side. If compounds are detected in a well at which there is not a well or a well pair on one side monitoring the same regulated unit, then the number of adjacent wells will be reduced by one.

vii. For wells that fail Statistical Criterion 3, within thirty (30) days of receiving the results of the resampling called for in **Condition L.9.a.i** of this Exhibit, the Permittee must meet with the Department to discuss the results. Based on discussions, the Department will determine if further action is required. If further action is not required, then the consecutive count must reset to zero, and the well returns to detection monitoring. If further action is required, a source investigation must be submitted to the Department within thirty (30) days (if required).

viii. Upon approval of the source investigation plans, called for in **Conditions L.9.a.v and L.9.a.vii** of this Exhibit, by the Department; an evaluation must be made to determine the source of the detected compounds.

ix. If the source investigation determines that the regulated unit is not the source of the detected compounds, the Permittee must submit a Permit modification request to continue detection monitoring. In addition, an investigation must be conducted to determine the source, rate and extent of the contamination as well as determine what, if any remedial action is required.

x. If the source investigation determines that the regulated unit is the source of the detected compounds, the Permittee must submit a Permit modification request to determine maximum contaminant levels in order to determine the need for potential remedial action.

The evaluation procedure is outlined on Figure 2 provided at the end of this Exhibit.

b. Annual Reporting: Annually, the Permittee must submit a summary report of all sampling results obtained during the preceding year.

The Annual Report must be due by March 1 of each year and must contain all data and evaluations as required for monthly reporting under **Condition F of Schedule 1 of Module I**. Any data previously submitted to the Department may be referenced.

In addition, the following information must be contained in the Annual Report:

i. The Permittee must determine the groundwater flow rate and direction [6 NYCRR 373-2.6(i)(5)].

ii. Proposal for any changes to the Groundwater Monitoring Plan.

10. Inability to Obtain Samples. If the Permittee knows that a well or piezometer may not provide representative samples or accurate piezometric values, may be damaged in some way, or is inaccessible, the Permittee must, within fourteen (14) days of such knowledge, attempt to remedy the problem and, when appropriate, sample the well or piezometer. Within thirty (30) days of such knowledge, the Permittee must, through written notification to the Department, provide information which describes the

nature of the problem associated with the device, and in the event of a failure to obtain a sample, the reason why a sample was not obtained.

In addition, the notification must contain:

a. A description of how the problem was corrected; or

b. A schedule for the rehabilitation or replacement of the device.

If a problem with a well prevented obtaining a sample as scheduled, a sample must be obtained within fourteen (14) days after rehabilitation or replacement of the well.

11. Well Rehabilitation. Every five (5) years, the Permittee must inspect the Detection Monitoring Network to determine its integrity. The inspection must be certified by a professional engineer or qualified geologist. The inspection must include the following:

    a. A survey of all groundwater wells and piezometers in the monitoring network (performed by a New York State licensed surveyor) to the top of well casing elevation and to provide an updated site plan. The survey must be accurate to within 0.01 feet of elevation and the site plan must be presented on a scale of 1 inch equals 200 feet.

    b. An establishment of the ability of all wells and piezometers in the monitoring network to yield meaningful groundwater elevations when measured with an instrument accurate to within 0.01 feet. The ability of the wells to yield such information shall be based upon a comparison of the sounding of a well to its historical depth. Wells shall be considered obstructed if 10% or more of the well screen is covered or otherwise inaccessible. At a minimum, these wells will be redeveloped to remove sediments from the bottom of the well.

    c. An establishment of the ability of all groundwater wells to yield representative samples for determining the concentration of hazardous waste constituents that may be present in the groundwater. Physical examination of the well must include removal and inspection of any dedicated sampling device to assure that the device is functioning as designed.

    d. Due to the rusting problems noted during the initial inspection, Well W1108D must be inspected once every three years.

12. Permit Modification. If the Permittee determines that the monitoring programs required under this Permit no longer satisfy the requirements of the regulations, the Permittee must, within ninety (90) days of such determination, submit an application for a Permit modification which describes the changes that will be necessary to maintain regulatory compliance at the site. The Department may require the Permittee to perform additional sampling and install additional monitoring wells, as necessary, to maintain compliance with 6 NYCRR Part 373-2.6 at the site. If at any time it is determined that the groundwater monitoring network is not in compliance,

the Department shall require the Permittee to take whatever actions are necessary to bring the monitoring network into compliance.

13. Additions to the Sampling Program. If hazardous waste constituents are consistently present in the Detection Monitoring Wells below the statistical "trigger" levels, the Department may require the Permittee to perform additional sampling and install additional wells to determine whether the constituents originate from the Regulated Unit.

14. Leak Detection. In the event that the Detection Monitoring Program for the secondary leachate collection/detection systems that is set forth in this Permit indicates the exceedence of volumetric "trigger" values in the secondary system of any landfill or there is a significant change in water quality (as expressed in **Condition K** of this Exhibit for SLF 11 & 12 and **Condition H** of this Exhibit for RMU-1), the Permittee must sample the wells in the Detection Monitoring network downgradient of the cell within fourteen (14) days and perform a statistical comparison of the indicator parameters.

    For the RMU-1 landfill, if hazardous waste constituents are present in the secondary leachate collection/detection system and the results of the statistical analysis of the indicator parameters in monitoring wells downgradient of the landfill cell indicates that the landfill may be impacting the groundwater, the Permittee must discontinue the placement of additional wastes in the landfill cell. Thereafter, future landfilling of wastes may only take place with written approval of the Department.

15. Sampling and Analysis. All Sampling and Analysis must be performed in accordance with the approved Groundwater Monitoring Sampling and Analysis Plan (GWSAP) which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Any modification of the approved GWSAP must be approved by the Department prior to its implementation.

16. Collection of Groundwater Samples by NYSDEC. At the request of the Department, the Permittee must allow the Department and/or its authorized representatives to collect samples or splits of any samples collected by the Permittee pursuant to the requirements of this Permit. Similarly, at the request of the Permittee, the Department will allow the Permittee or the Permittee's authorized representatives to take splits or duplicates of any samples collected by the Department. The Permittee must provide for adequate disposal of purge water whenever samples are collected by the Department.

SCHEDULE 1 of MODULE I EXHIBIT G

Facility-Specific Conditions Supplement To Module V [RMU-2]

[*NOTE: Schedule 1 of Module I Exhibit G is being added to the Permit in its entirety. All text proposed for addition is indicated in RED.*]

EXHIBIT G

SUPPLEMENT TO MODULE VI

[RMU-2]

EXHIBIT G
SUPPLEMENT TO
MODULE VI – LANDFILLS [RMU-2]

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

A. Authorized Disposal of Waste in Landfill

1. The Permittee may dispose of solid and debris wastes as identified in this Permit in the following landfill at the Facility up to its indicated capacity, subject to the terms of this Permit:

Unit/Activity	Waste Type	Waste Codes	Quantity/Capacity
Residual Management Units No. Two (RMU-2)	Hazardous and Nonhazardous, Non-putrescible Solid Waste, including Debris	Listed in Attachment C, Section C-1, including Tables C-1 & C-2[1]	43.5 acres[2] 2,498 acre-feet[3]

Footnotes:

1. Only those Waste Codes listed in the Attachment C Tables with a "L" TSD Option for "Landfill" are authorized for disposal, subject to the restrictions in 6 NYCRR 373-2.14, 6 NYCRR 376 and the conditions of this Permit.
2. The unit size presented in this table represents the approximate size of the total landfill including waste area and perimeter berm. The actual limits of the landfill are presented on the Drawings in Attachment J, Appendix D-6a of this Permit.
3. The unit capacity presented in this table represents the approximate air volume capacity of the landfill. The actual horizontal and vertical limits which govern the amount of waste that may be disposed of in this landfill are presented on "Top of Waste Grade" Drawing No. 6 in Attachment J, Appendix D-6a of this Permit.

B. General Conditions

1. This Permit does **not** authorize the placement or disposal of putrescible-type, non-hazardous waste in RMU-2 (e.g., municipal solid waste), nor does it authorize the placement or disposal of electronic waste (e-waste) pursuant to the disposal ban under ECL § 27-2611.

C. RMU-2 Liner, Leachate Collection and Final Cover Materials

Unless otherwise specified below, the requirements in this Condition apply to all RMU-2 natural and synthetic materials used in both cell and final cover construction.

1. Leachate Compatibility Tests For Liner/Leachate Collection Systems [CELL ONLY]

The Permittee must demonstrate that both the natural and synthetic materials used to construct RMU-2's Liner & Leachate Collection Systems, are compatible with the type of leachate generated by the waste. This demonstration must be performed using the testing methods and testing frequencies specified by this condition. Leachate shall be obtained prior to each testing event from RMU-1 for the initial event, then from RMU-2 operational cells for subsequent events. The Permittee shall notify the Department's on-site representative at least forty-eight (48) hours prior to the collection of leachate for this testing.

For synthetic materials, leachate compatibility testing must be performed on the actual materials to be used in each RMU-2 cell prior to their installation in each cell (i.e., one series of tests per cell) unless more than one cell is to be constructed in a single year. For natural materials, leachate compatibility testing must be performed on each material source (i.e., each borrow area, each stone quarry, etc.) to be used in RMU-2 construction.

a. Synthetic Liner and Leachate Collection Components

Utilizing the leachate obtained in accordance with **Condition C.1** of this Exhibit, the Permittee shall retain an independent laboratory to immerse samples of the synthetic materials (geomembrane, geotextile, geocomposite, geosynthetic clay liner and leachate collection piping) in strict accordance with ASTM Method D5322, or other established immersion testing methods approved by the Department. Subsequent to completing the immersion procedures, each synthetic material shall undergo testing using the methods specified for each material as indicated below under this condition. Upon completion of these tests, the Permittee shall submit to the Department a Report which includes all immersion test results from the independent laboratory and an evaluation of the results by the "Engineer", as defined by **Condition D.1.d** of this Exhibit, which indicates whether the tested material properties have or have not been measurably degraded by leachate exposure. In all cases, the Department must grant its acceptance of this Report prior to waste placement in any RMU-2 Cell which contains the synthetic materials being tested. In certain cases, the Permittee may, at its own risk, install the synthetic materials being tested, prior to the Permittee's submission of this Report, as long as the criteria specified in **Condition C.1.a.i** of this Exhibit are met.

i. Special Installation Situations

In cases where the Permittee has elected to use the same specific synthetic material products (i.e. same manufacturer and product name) previously tested

and approved for use in an RMU-2 cell liner/leachate collection system, the Permittee may install these synthetic materials in a cell, at its own risk, prior to the submission to the Department of the Immersion Testing Report specified by **Condition C.1.a** of this Exhibit, provided that all other Permit conditions pertaining to installation of these materials have been satisfied. Subsequently, if the Report does not conclusively indicate that the installed synthetic materials are compatible with the RMU-2 leachate as required by the regulations, and the Department does not accept the Report, the materials must be replaced and the fact that these materials have been installed shall not be considered, in whole or in part, as a reason for their acceptability as liner/leachate system components.

ii. Synthetic Material Sampling Frequencies and Testing Methods

'a') Geomembrane

For each RMU-2 cell, the geomembrane material shall be sampled at a rate of one sample per resin blend of geomembrane material, but in no case shall the sampling frequency be less than one sample per 180,000 lbs (8.17×10^4 kgs) of the manufactured geomembrane material to be used in cell liner construction. Subsequent to leachate immersion in accordance with **Condition C.1.a** of this Exhibit, the geomembrane samples shall be subjected to testing in accordance with ASTM Method D5747. The results of such tests shall be compared to the results of the same tests performed on samples of the geomembrane material which have not been immersed in leachate (i.e., control samples). The Engineer shall verify that the sampling frequency which is based on the weight of the geomembrane material was met and that each roll of geomembrane delivered to the facility was manufactured from resin blends which were tested in accordance with the ASTM Methods stated above, based on a comparison of the geomembrane material Resin Blend #s. Any roll or rolls found to have been manufactured from a resin blend other then the blends tested shall not be used in the RMU-2 liner system. The Engineer shall document the above sampling frequency verifications in the certification required by **Condition D.5** of this Exhibit.

'b') Geotextile, Geocomposite, Geosynthetic Clay Liner (GCL) & Pipe

The geotextile, geocomposite, GCL and leachate collection pipe materials shall be sampled at a minimum rate of one sample per product per RMU-2 cell (unless more than one cell is to be constructed in a given year). For the purposes of this Permit condition, the term "product" means a group of materials produced by a single manufacturer that are the same material type. For example, geotextiles that are the same material type may differ in thickness and weight per area. Subsequent to leachate immersion in accordance with **Condition C.1.a** of this Exhibit, samples of these geosynthetics shall be subject to testing in accordance with the methods

listed below, with the results compared to tests on control samples:

- Geotextiles: ASTM D6389
- Geocomposite: ASTM D6389 (for geotextile component)
  ASTM D4716 (for geocomposite transmissivity)
- GCL: ASTM D6389 (for geotextile component)
  ASTM D6141 (for bentonite clay component)
- Pipe: ASTM D2412 (for collection and side riser pipe)

The Engineer shall verify that each leachate collection material delivered to the facility was sampled and tested for leachate compatibility in accordance with the ASTM Methods stated above. The Engineer shall document the above sampling and testing verification in the certification required by **Condition D.5** of this Exhibit.

b. Natural Liner and Leachate Collection Components

i. Clay Liner Sampling Frequencies and Testing Methods

Representative samples of clay soil from each borrow area approved for use as RMU-2 liner material by the Engineer, shall be tested using leachate from RMU-1 initially, then from RMU-2 once it begins to generate leachate. Other clay samples from the same borrow area shall be simultaneously tested using tap water to act as a "control". All samples shall be tested in accordance with USEPA Method 9100 from the latest edition of the USEPA SW-846, utilizing the hydraulic conductivity laboratory method ASTM D5084. Upon completion of these tests, the Permittee shall submit to the Department a Report which includes all test results from the independent laboratory and an evaluation of the results by the Engineer, which indicates whether or not the permeability of the tested clay was measurably increased by the leachate based on a comparison to the control tests. The Department must grant its acceptance of this Report prior to waste placement in any RMU-2 Cell which contains the clay materials from the tested borrow source. The Permittee may, at its own risk, install the clay liner material from the tested borrow source, prior to the Permittee's submission of this Report, as long as the Engineer agrees that the results indicate the clay to be compatible with the leachate.

ii. Granular Material Sampling Frequencies and Testing Methods

Representative samples of granular material from each quarry to be used to supply RMU-2 granular drainage and operations layer material, shall be tested using leachate from RMU-1 initially, then from RMU-2 once it begins to generate leachate. Other granular material samples from the same quarry shall be simultaneously tested using tap water to act as a "control". All samples shall be tested in accordance with USEPA Method 9100 from the latest edition of the USEPA SW-846, utilizing the hydraulic conductivity laboratory

method ASTM D2434. Upon completion of these tests, the Permittee shall submit to the Department a Report which includes all test results from the independent laboratory and an evaluation of the results by the Engineer, which indicates whether or not the hydraulic conductivity of the tested granular material was measurably decreased by the leachate based on a comparison to the control tests. The Department must grant its acceptance of this Report prior to waste placement in any RMU-2 Cell which contains the granular material from the tested quarry. The Permittee may, at its own risk, install the granular material from the tested quarry, prior to the Permittee's submission of this Report, as long as the Engineer agrees that the results indicate the granular material to be compatible with the leachate.

2. Leachate Transfer Piping Compatibility Demonstration [CELL ONLY]

   The Permittee shall submit a Leachate Transfer Piping Materials Report to the Department which compares the manufacturer's information on the chemical resistance of the product, or products, to be used, to the most recent analytical information available on the leachate from RMU-1 initially, then from RMU-2 once it begins to generate leachate. The Report shall include the manufacturer's chemical resistance information, the leachate analytical data, and the Engineer's evaluation supporting the selection of the piping materials based on their intended function. The Department must accept this Report prior to the installation of the leachate transfer piping.

3. Riser Vault Concrete Coating Compatibility Demonstration [CELL ONLY]

   The Permittee shall submit to the Department, at least 60 days prior to first application of riser vault concrete coatings, compatibility information for the coating system selected in accordance with the project specifications. This information shall demonstrate compatibility with constituents contained in the leachate. The Permittee shall receive written approval from the Department for this coating before it is applied to the concrete.

4. Flow Testing of Leachate Collection & Final Cover Drainage Geosynthetics

   a. Geotextile Permittivity Testing

      Prior to the construction of each RMU-2 cell and each phase of the final cover, the Permittee shall have testing performed on each geotextile product to be used in leachate collection and final cover drainage systems (including the geotextile component of the geocomposite products) to determine their permittivity. This testing shall be conducted in accordance with ASTM D4491 on product samples obtained at the frequency required by Section 11.4.1 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. For geotextile products to be installed in the RMU-2 leachate collection systems, testing shall be conducted using leachate obtained from RMU-1 for the initial

RMU-2 cell construction, then from RMU-2 operational cells for subsequent cell construction. The Engineer shall evaluate all test results to verify that each geotextile product meets the permittivity specifications required under Part 2.01 in Section 02410 (Section 02430 for geocomposites) of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. These results along with the Engineer's evaluation must be submitted to the Department at least two (2) weeks prior to installation of the geotextile product(s).

b. Geocomposite Transmissivity Testing

Prior to the construction of each RMU-2 cell and each phase of the final cover, the Permittee shall have testing performed on each geocomposite product to be used in leachate collection and final cover drainage systems to determine their transmissivity. This testing shall be conducted in accordance with ASTM D4716 under the simulated RMU-2 landfill conditions required by Section 02430, Part 1.03H of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. Product samples for testing shall be obtained at the frequency required by Section 12.4.1 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. For geocomposite products to be installed in the RMU-2 leachate collection systems, testing shall be conducted using leachate obtained from RMU-1 for the initial RMU-2 cell construction, then from RMU-2 operational cells for subsequent cell construction. The Engineer shall evaluate all test results to verify that each geocomposite product meets the transmissivity specifications required under Part 2.01 in Section 02430 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. These results along with the Engineer's evaluation must be submitted to the Department at least two (2) weeks prior to installation of the geocomposite product(s).

5. Clogging Potential Testing of Leachate Collection & Final Cover Geotextiles

Prior to the construction of each RMU-2 cell and each phase of the final cover, the Permittee shall have testing performed on each geotextile product to be used in leachate collection and final cover drainage systems (including the geotextile component of the geocomposite products) to determine their clogging potential. This testing shall be conducted in accordance with ASTM D5101 or ASTM D5567 (as determined by the Engineer) on product samples. The tests shall be conducted utilizing the granular material / protective soil to be used in the RMU-2 cell / final cover. The amount of effective stress applied during the tests shall be determined from the estimated density and maximum height of the RMU-2 waste mass for leachate collection geotextiles, and the estimated density and thickness of the RMU-2 protective soil for final cover geotextiles. The Engineer shall evaluate all test results to verify that each geotextile product meets the clogging potential specifications required under Part 2.01 in Section 02410 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. These results along with the Engineer's evaluation must be submitted to the Department at least two (2)

weeks prior to installation of the geotextile product(s).

6. Interface Shear Strength Testing of Liner & Final Cover Geosynthetics

Prior to the construction of each RMU-2 cell and each phase of the final cover, the Permittee shall have testing performed on the actual natural and geosynthetic materials to be used in the liner and final cover systems to determine the peak and residual interface shear strengths of each system. This testing shall be conducted in accordance with ASTM D5321 on material samples arranged and under the simulated RMU-2 landfill conditions required by Section 02401, Part 2.01 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. The Engineer shall evaluate all test results to verify that the liner and cover systems meet the interface shear strength specifications required under Part 2.01 in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. These results along with the Engineer's evaluation must be submitted to the Department at least two (2) weeks prior to installation of the geosynthetic products.

7. MSE Wall Material Testing [CELL ONLY]

a. MSE Geosynthetics Testing

Prior to the construction of each RMU-2 cell, the Permittee shall have interface interaction testing performed on the actual geosynthetic materials to be used in the MSE Wall. This testing shall be conducted in accordance with ASTM D6706 on samples obtained in accordance with ASTM D4353 and under the conditions required by Section 02450, Part 2.04 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. The Engineer shall evaluate all test results to verify that the MSE geosynthetics meet the interface interaction specifications required under Part 2.04 in Section 02450 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. These results along with the Engineer's evaluation must be submitted to the Department at least two (2) weeks prior to installation of the geosynthetic products.

b. MSE Structural Fill & Stone Testing

Prior to the construction of each RMU-2 cell, the Permittee shall have testing performed on samples of structural fill to be used in the MSE Wall. Sample collection and testing shall be conducted as required by Section 02210 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 9.2 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit, including testing of the structural fill's internal shear strength and its external shear strength in conjunction with adjacent geosynthetics in accordance with ASTM D5321. The Engineer shall evaluate all test results to verify that the MSE structural fill meets the

specifications required under Part 2.07 in Section 02210 and Part 2.03 in Section 02450 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. These results along with the Engineer's evaluation must be submitted to the Department at least two (2) weeks prior to placement of the structural fill.

D. RMU-2 Cell & Final Cover Construction

Unless otherwise specified below, the requirements in this Condition apply to both cell and final cover construction.

Prior to commencing physical construction of RMU-2 Cell 20, the Permittee must complete and certify closure of Fac Pond 8, in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Such closure will be considered achieved upon completion of all tasks required by the Compliance Schedule in **Condition C of Schedule 1 of Module I** of this Permit, including all requirements stipulated by **Condition D in Exhibit E** and all closure activities required by **Condition F in Module V** of this Permit, including submission and Department acceptance of the closure certification.

Prior to commencing physical construction of either RMU-2 Cell 18 or 19, the Permittee must complete and certify closure of Fac Pond 3 and the existing T-109 Load/Unload Area in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Closure of Fac Pond 3 will be considered achieved upon completion of the radiological survey of the Fac Pond required by **Condition D.1 in Exhibit E** and all closure activities required by **Condition F in Module V** of this Permit, including submission and Department acceptance of the closure certification. Closure of the existing T-109 Load/Unload Area will be considered achieved upon completion of all closure activities required by **Condition I in Module III** of this Permit, including submission and Department acceptance of the closure certification. Also, all above and below grade structural components of this existing CSA must be removed prior to commencing construction of the aforementioned cells.

Prior to commencing physical construction of either RMU-2 Cell 15 or 16, the Permittee must complete and certify closure of the existing Drum Management Building (DMB) and the existing Stabilization Facility Trailer Parking Areas in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Closure of these existing CSAs will be considered achieved upon completion of all closure activities required by **Condition I in Module III** of this Permit, including submission and Department acceptance of the closure certification. Also, all above and below grade structural components of these existing CSAs must be removed prior to commencing construction of the aforementioned cells.

Prior to commencing physical construction of RMU-2 Cell 15, the Permittee must complete and certify closure of the existing T-158 Load/Unload Area in accordance with the "Transition Plan for RMU-2" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Closure of the existing T-158 Load/Unload Area will be considered achieved upon completion of all closure activities required by **Condition I in Module III** of this Permit, including submission and Department acceptance of the closure certification. Also, all above and below grade structural components of this existing CSA must be removed prior to commencing construction of the aforementioned cells.

1. General Cell & Final Cover Construction Conditions

   The Permittee is required to comply with the cell and final cover construction standards specified in 6 NYCRR 373-2.14(c)(3) and 6 NYCRR 373-2.14(g)(1). The conditions in this section shall apply to construction of each cell and the final cover of RMU-2. The Permittee shall not commence construction of a cell or any portion of the final cover until the Permittee has received from the Department all approvals required by the conditions of this Permit necessary for beginning construction, unless otherwise authorized by the Department in writing.

   a. Cell & Final Cover Construction Requirements

      RMU-2 cells and final cover shall be constructed in strict conformance with the following requirements:

      - The "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit;
      - The RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit;
      - The "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit;
      - The "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit;
      - The "RMU-2 Closure Plan" contained in Attachment I, Section I.1 of this Permit;
      - The "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; and
      - The conditions contained in this Permit.

   b. Area Restriction [CELL ONLY]

This authorization to construct RMU-2 is limited only to the area designated in the drawings, Attachment J, Appendix D-6a of this Permit.

c. Construction Schedules

The Permittee must submit a construction schedule for Department review at least 30 days prior to the start of cell construction or the start of final cover installation on any portion of RMU-2. Activity scheduling must provide a reasonable opportunity for supplemental inspection by Department staff prior to burying or otherwise obscuring the work. These schedules must be revised as necessary to reflect new tasks, new initiation dates or new completion dates and re-submitted within one week of any such changes. All revisions should accompany the weekly construction reports. If no revision is received, the Department shall assume that the project is on schedule.

d. The CQA Engineer

In order to ensure that the construction is performed in conformance with the Permit and with sound engineering principles that safeguard life, health, and property, the Permittee must ensure that the RMU-2 cells and final cover are constructed under the direct supervision and control of an independent person and firm registered to practice Professional Engineering in the State of New York who will certify construction. This person or firm is referred to in this Exhibit as the "Engineer".

e. Requirements of Engineers, Assisting Personnel, Laboratories & Consultants

The Permittee and the Engineer shall ensure that persons employed or supervised by the Engineer are licensed professional engineers or meet the requirements of exemption from the practice of engineering under Title VIII of the Education Law, Article 145, Section 7208, Paragraph f.

f. Engineer's Personnel Experience Information, Training and Procedures Report

The following information shall be submitted to the Department (for information purposes only) at least two weeks prior to the start of any cell construction or the start of final cover installation on any portion of RMU-2. Also, the Permittee shall submit to the Department the following information for new Engineering Personnel which was not a part of the initial submittal and for previously involved Engineering Personnel where an updating of previously submitted information is required:

i. Regarding each professional engineer involved in the certification of the construction in any capacity:

- the name;

- work address;

- professional engineer license number assigned by the University of the State of New York Education Department;
- the date registration period ends;
- date of first issuance of license; and
- a resume of experience related to the types of construction involved in this Facility.

ii. Regarding all persons that will provide field observations and measurements under the Engineer's direction (such as intern engineers, geologists, soil scientists, liner installers, etc.) and all laboratories, or other consultants that will perform analyses or observations upon which the Engineer will depend:

- the names of firms or individuals;
- their work addresses; and
- their qualifications.

iii. The components or steps of construction which will be inspected or observed by each of the following:

- the Engineer;
- subordinate professional engineers and intern engineers; and
- others without professional engineering licenses.

iv. The training and instructions that will be given to any field observers who are not registered professional engineers, including instructions to contact the professional engineer on-call (either the Engineer or one of the subordinate professional engineers) when the field observers are aware that the requirements of this Permit are not being met.

v. The instructions that will be given to any subordinate professional engineers to contact the Engineer when the subordinate professional engineers are aware that the requirements of this Permit are not being met.

g. Availability of the Engineer

The Engineer, or one of his/her subordinate professional engineers, must be available continually during construction of any RMU-2 cell or final cover installation on any portion of RMU-2, and must inspect any suspected sub-standard work promptly when notified by the trained field observers.

h. Witnessing of Critical Aspects by the Engineer

The Engineer or his or her subordinate professional engineer shall be present and witness initial installation of any significant components, critical aspects of work, and all completed components prior to burying, covering, or otherwise becoming obscured. As required in **Condition D.f.iii** of this Exhibit, the Engineer must submit to the Department a list of items that he or she will inspect in the field.

i. Availability of Design Engineer

The person or firm that was the registered professional engineer who certified the RMU-2 engineering design report, technical specifications, drawings and construction quality assurance manual must be available to the Engineer on an "as needed" basis to answer questions that may arise about the details or intent of the design or to propose design revisions, if necessary. If at any time the Permittee elects to replace the person or firm responsible for the RMU-2 design, the Permittee must submit a letter to the Department signed and stamped by the new design engineer saying he/she/they are assuming responsibility for all aspects of the RMU-2 design, and which provides the person or firm's qualifications with respect to landfill design.

j. Field Observer Reports

Written reports from field observers and subordinate professional engineers must be made and submitted to the Engineer on a daily basis.

k. Weekly Construction Reports

The Permittee must ensure that weekly construction reports, prepared and approved by the Engineer, are submitted for review and acceptance to the Department every week that construction occurs. These reports must address the applicable items listed in the bullets for Weekly Construction Reports presented in **Condition D.8** of this Exhibit, and must be used to track items or issues to resolution. These reports must be submitted to the Department in accordance with **Module I, Condition N** of this Permit within 2 weeks of the end of the construction work week.

l. Submission of Shop Drawings

The Permittee must submit all "shop drawings" required by the Technical Specifications in Attachment J, Appendix D-7a of this Permit, to the Department at least two weeks prior to installation of the components depicted in the shop drawing.

2. Design Clarification Procedure

For all design clarifications and additions to design details, the Permittee must follow the procedure presented under this condition. This procedure shall not be used to modify the RMU-2 design as presented in the conditions, attachments and

incorporated documents of this Permit. Such modifications, if necessary, must be proposed in accordance with 6 NYCRR Parts 373-1.7 and 621:

a. Make a thorough verbal or written presentation to the Department demonstrating the need for the clarification/addition, the engineering basis for the clarification/addition, and that the clarification/addition will provide equal or better service (the Permittee must have the Design Engineer or the Engineer make supporting portions of the presentation).

b. Obtain the Design Engineer's written approval and submit it to the Department. The Department, at its discretion, may accept the verbal concurrence of the Design Engineer prior to receiving the written approval.

c. Obtain the written approval of the Department or, at its discretion, the Department may give verbal approval to institute the clarification/addition prior to giving its written approval.

d. Record the details of clarification or addition in weekly or special construction reports.

e. Detail clarifications or additions in as-built drawings or other construction certification documents.

Failure to adhere to any of above procedure can be basis for qualification of acceptance of certification by the Department.

3. RMU-2 Cell & Final Cover Periodic Design Re-Evaluation

Subsequent to the construction of the first RMU-2 cell, but at least 180 days prior to starting construction of additional cells or any phase of the final cover, the Permittee must re-evaluate the RMU-2 cell / final cover design, construction materials and quality assurance/quality control procedures in comparison with the current Federal and State regulations and guidance documents deemed applicable by the Department which have been published to assist the regulated community in meeting the current regulations. It shall be the Permittee's responsibility to verify that the design, construction materials and quality assurance/quality control procedures, or any subsequent design, construction materials and quality assurance/quality control procedures, meet or exceed all current Federal and State regulations. The re-evaluation may include meetings and other forums of communication with the Department and Design Engineers, but must include, at a minimum, the submission of a Re-Evaluation Report which addresses each aspect of the re-evaluation. The Permittee shall submit this Report for Department review and approval at least 120 days prior to commencing RMU-2 cell or final cover construction. Upon approval of the report, the Department, at its discretion, may allow construction to commence prior to the end of this 120 day period if it determines that no changes in the RMU-2 design, materials and quality assurance/quality control procedures are necessary.

Based on the Re-Evaluation Report, any changes to the design, construction materials or quality assurance/quality control procedures for RMU-2 cell or final cover construction which are deemed necessary by the Permittee or the Department, will require modifications to this Permit in accordance with 6 NYCRR 373-1.7 and 621 of the regulations. In the event that Permit modifications are required, RMU-2 cell or final cover construction shall not commence until the proceedings specified in the regulations have been completed.

4. RMU-2 Cell & Final Cover Construction Material Requirements

All natural and synthetic materials used to construct RMU-2 cells and final cover must meet all technical specifications for cell and final cover components as presented in the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. The Engineer must certify that all such technical specifications have been met by reviewing material manufacturer's/supplier's test results and performing all testing as indicated by the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. The Engineer must review all additional test results required by **Condition C** of this Exhibit, and certify that the tested materials meet all such Permit requirements. No material which fails to meet these technical specifications shall be used in the construction of RMU-2 cells or final cover. The Engineer must also oversee and certify that the following material specific qualifications have been met.

a. Clay Barrier Layer Test Fill [CELL ONLY]

The Permittee must construct a representative test fill for each clay source and construction equipment and methods to demonstrate that the design parameters will be met in the actual construction of the RMU-2 cell liner clay barrier layer. The Permittee must notify the Commissioner in writing of the time when each test fill will be conducted. Each test fill must be constructed and evaluated in conformance with the specifications in the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit.

A report including all information specified in the procedures in Attachment J, Appendix D-8a of this Permit, must be submitted and approved by the Department before placement of any clay barrier layer material in an RMU-2 cell. The field hydraulic conductivity must be determined using the Sealed Double Ring Infiltrometer (SDRI) Test conducted in accordance with ASTM D5093 or the Boutwell Two Stage Borehole (BTSB) Test, as specified in Attachment J, Appendix D-8a of this Permit. The testing must be observed and approved by the Engineer. Construction of the RMU-2 cell liner clay barrier layer must be performed using only the methods and parameters of construction quality assurance from test fills where the field hydraulic conductivity test results demonstrate a hydraulic conductivity of $1x10^{-7}$ cm/sec or less was achieved.

b. Protective Soil Layer Test Fill [FINAL COVER ONLY]

The Permittee must construct a representative test fill for each cohesive soil source and construction equipment and methods to demonstrate that the design parameters will be met in the actual construction of the RMU-2 final cover protective soil layer. The Permittee must notify the Commissioner in writing of the time when each test fill will be conducted. Each test fill must be constructed and evaluated in conformance with the specifications in the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit.

c. Clay Barrier Layer Material Qualification [CELL ONLY]

Material removed from a borrow source and intended for use as RMU-2 clay barrier layer material must be excavated to the full extent of the clay deposits in the borrow source and in a manner that will not exceed the limits of these deposits as identified through testing and field observations by the Engineer (i.e., Test Pits and/or Soil Borings). Test pits and/or soil borings must be conducted in advance of the excavation to the full depth of the borrow source layer to be excavated. The number and location of the test pits and/or soil borings must be determined by the sampling frequency requirements in Section 4.3 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. Additional test pits and/or soil borings must be performed at any location in the borrow source to further define the extent of any unacceptable material, upon the request of the Engineer. Conformance testing samples must be obtained and subjected to analysis as required by Section 4.3 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. The Engineer must record observations made at each test pit and/or soil boring and specifically note the type and thickness of any obviously unsuitable material, so that it can be segregated during the excavation. The Engineer must determine the suitability of the material in the area represented by each test pit or soil boring based on visual observations and conformance testing results, and grant acceptance, or qualified acceptance of the represented area of the borrow source prior to excavation of that area. The Engineer must present the recorded field observations along with conformance testing results of each area for Department review prior to excavation of the represented area. Material identified from test pit and soil boring observations, or observations of the actual borrow source excavation, which obviously does not meet the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit, as well as material which conformance testing has shown does not meet these specifications, must be put aside in a separate spoil pile or piles, or avoided during the borrow source excavation. The Department reserves the right to inspect any borrow source to be used in the construction of RMU-2 cells at any time during the normal working hours.

If stockpiles are constructed, suitable clay soil material must be placed in lifts in the stockpile area in a manner that allows control of the material and its moisture content. Stockpiles of material from different borrow sources, or from markedly different sub-areas within one source, must be kept separate from each other. Proctor moisture/density tests must be performed on stockpiled clay material prior

to and during placement to establish the acceptable moisture/density zone as required by Appendix C of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit.

5. RMU-2 Cell & Final Cover Specific Construction Requirements

   a. Cell, Cutoff Wall and Sump Excavations [CELL ONLY]

      All excavation related to RMU-2 Cell construction must be conducted in accordance with the "RMU-2 Soil Excavation Monitoring and Management Plan" including the "RMU-2 Corrective Action Plan", which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. In addition, the following requirements apply to RMU-2 Cell, Cutoff Wall and Sump Excavations:

      i. Cutoff Wall & Sump Excavation Uplift Precautions

         Piezometric measurements must be taken in the wells nearest to the cutoff wall section or sump to be excavated, and test pits excavated to below wall/sump designed excavation depths. The measurements and test pit observations must be reviewed and evaluated by the Engineer, and the Engineer must determine if there is an adequate factor of safety against heave to allow for wall section or sump excavation. For each wall section or sump, the Permittee shall provide the Department's on-site representative with the Engineer's evaluation of the piezometric measurements and test pit observations (along with the measurements and observations themselves), the determined factor of safety and any recommendations he/she may have with regard to additional measures needed to protect against subgrade heave during wall section or sump excavation. This information must be provided to the Department's representative at least 24 hours prior to wall section/sump excavation, for Department review and acceptance and documented in Weekly Construction Reports required by **Condition D.1.k** of this Exhibit. As soon as wall section or sump excavation is complete, clay shall be placed and compacted to sufficient grades to prevent heaving due to changes in the peizometric surface, in accordance with Part 3.04 in Section 02210 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit.

      ii. Cutoff Wall and Glaciolucustrine Clay (GC) Key-In

         To the greatest extent feasible, the cutoff wall compacted clay shall be keyed into the insitu GC layer. If the GC layer does not appear to be present at the base of the excavation of a cutoff wall section, the Engineer shall evaluate whether deepening or widening of the wall section excavation may facilitate keying into the GC layer. If the Engineer determines that a wall section cannot feasibly be keyed into the GC layer and the Department's representative accepts this determination, the Permittee shall proceed with the

excavation using the alternate procedure required by Part 3.04.C.6 in Section 02210 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. The Engineer shall document the location and length of any cutoff wall section that was not keyed into the GC layer in Weekly Construction Reports required by **Condition D.1.k** of this Exhibit.

iii. Cutoff Wall Extension

The cutoff wall shall be extended to a sufficient distance beyond the cell being constructed to facilitate future excavation for the wall in adjacent cells without compromising landfill stability. Prior to completing construction of a cell's cutoff wall, the Design Engineer shall determine the length of the wall extensions based on the stability analyses contained in the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and any additional stability analyses that are deemed necessary. The Permittee shall extend cutoff wall beyond the cell being constructed to the lengths determined by the Design Engineer.

iv. Installation of Wire Piezometers

At least ninety (90) days prior to commencing excavation of any RMU-2 cell, the Permittee must submit for Department approval, a detailed plan for the installation of vibrating wire piezometers and all appurtances necessary for their operation, as required by Appendix C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. The plan shall indicate the number and location of the cell's piezometers as prescribed by the Design Engineer in order to provide for sufficient monitoring of subgrade pore pressures to insure landfill stability during waste placement. The Permittee shall not commence construction of the cell's MSE Wall or its soil liner prior to the Department's approval of the wire piezometer installation plan. Subsequent to plan approval, the Permittee shall install the wire piezometers in accordance with the plan, and the Engineer shall witness the installation and verify compliance with the approved plan.

b. MSE Wall Construction [CELL ONLY]

The MSE Wall shall be constructed in strict accordance with the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit, and Sections 02210 & 02450 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. During MSE Wall construction, the Engineer shall perform inspections of the work, conduct conformance testing on both natural and geosynthetic MSE Wall materials and carry out construction testing as required by Section 9 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. The Permittee must discard any amount of natural or geosynthetic material which the Engineer indicates as not meeting technical specifications based on conformance testing results and/or inspections. Each lift

of the MSE Wall must be tested and approved as meeting compaction specifications by the Engineer prior to placement of the subsequent lift.

The MSE Wall shall be constructed in lifts, with the vertical construction from base to crest (top) of any wall section evenly spread out over a period of not less than 60 days to allow for pore pressure dissipation in the underlying in-situ Glaciolacustrine Clay (GC) layer as assumed by the stability analyses in Appendix C-8 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. The Permittee may request and the Department may approve a shortening of the 60 day vertical construction period for any MSE Wall segment. However, any such request must be accompanied by an approval of the Design Engineer and a plan to conduct piezometric monitoring during MSE Wall construction.

c. Cut-off Wall and Cell Soil Liner Clay Placement and Compaction [CELL ONLY]

The natural clay material must be placed to the lines and grades indicated on the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit, and compacted in conformance with, and to the specifications found in Section 02210 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit, to the lines and grades shown in the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit. The Construction Testing (Soil Compaction and Moisture Content, and Lab Hydraulic Conductivity) shall be as specified in Section 4.6 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit, and shall meet the pass criteria specified therein.

All laboratory hydraulic conductivity tests on the undisturbed clay samples must be performed by a laboratory independent from the Permittee and approved by the Engineer and all must have a result of $1x10^{-7}$ cm/sec or less. The sample preparation, test methods and parameters shall not alter the sample properties from that which existed at the time the sample was obtained from the compacted clay lift.

d. Geosynthetic Clay Liner (GCL) Cell & Final Cover Installation

The GCL material provided must: meet the specifications in the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit; be installed to the lines and grades shown on the RMU-2 Drawings in Attachment J, Appendix D-6a of this Permit; and be tested and demonstrated as satisfying requirements in accordance with the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. For the Final Cover, the GCL subgrade shall consist of a well-graded, cohesive soil with a hydraulic conductivity of $1x10^{-5}$ cm/sec or less and meet the specifications for Geosynthetic Clay Liner (GCL) subbase material presented in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit. The Department's on-site representative and/or the Engineer may reject

damaged or improperly handled/stored rolls/sheets of GCL material and/or withhold approval for GCL placement in any area where the sub-grade has been observed to contain items that could damage the GCL.

e. Textured Geomembrane Cell & Final Cover Installation

The textured geomembrane must consist of new, first-quality products designed and manufactured specifically for the purpose of this work. For cell liner, it shall have been satisfactorily demonstrated by prior compatibility testing to be suitable and durable for such purposes. The material provided must meet the requirements of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and undergo testing and inspection in accordance with the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. The Department and/or the Engineer may reject outright improperly handled or stored rolls or sheets of geomembrane. No area of installed geomembrane shall be buried or otherwise obscured from view by subsequent layers or other materials prior to a documented inspection by the Engineer and the Department's representative.

i. Geomembrane Field Seaming Procedures

The field seaming of the geomembrane must meet the requirements of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. Wherever feasible, the membrane panels must be joined by automatic, self-propelled double weld fusion welding equipment. The surface of the lapped edges of the membrane sheets must be prepared as recommended by the manufacturer. The air channel of the double fusion weld must be sealed off by an extrusion weld at its end, at any location where the seam terminates at a T-connection or under a patch or cap strip. At T-connection locations, the hot wedge device must either be removed or the hot wedge device roller pressure must be released, approximately 6 inches from the intersecting seam where the third panel meets the intersection of the first two. The hot wedge device should then be reinserted or roller pressure re-engaged a short distance (approximately 6 inches) beyond the intersection point. This T-connection must be completed by extrusion fillet seaming as is depicted in Figure 7.7 of the document entitled Technical Guidance Document: Inspection Techniques for the Fabrication of Geomembrane Field Seams, USEPA, EPA/530/SW-91/051, May 1991. As depicted in this figure, the un-bonded free overlaps of the sheets are to be cut away to expose the edge of the outside of the hot wedge seam. The surface must be ground to remove the surface oxide and the extrudate bead must be placed in a continuous fashion. The bead must provide complete coverage of areas not completed by the hot wedge device.

ii. Visual Inspection and Non-Destructive Testing of Trial & Field Seams

All trial seams and 100% of the length of all field seams shall be visually inspected and non-destructively tested using an air pressure test for all double fusion seams and a vacuum test for all single fusion seams, in accordance with the procedures in Part 3.04 in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 10.8 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. Trial and field seam non-destructive test results meeting the requirements of Part 3.04 in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit, shall be deemed a passing test with respect to seam integrity. A passing non-destructive test on a trial seam shall be an indicator of the adequacy of the seaming unit and seamer working under prevailing site conditions to produce seams of adequate integrity for field seaming. No seamer or seaming unit failing a trial seam non-destructive test shall be allowed to perform field seaming until the problem causing the failure is identified, corrected and the seamer and seaming unit passes a non-destructive test on a trial seam. Any field seam failing non-destructive testing shall require repair of all identified defects in accordance with the procedures in Part 3.03.H in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 10.10.3 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit, and re-tested using the appropriate non-destructive procedure.

iii. Field and Laboratory Destructive Testing of Trial & Field Seams

All trial seams shall be subjected to field destructive testing in accordance with ASTM D 4437 and the procedures in Part 3.04 in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. Trial seam field destructive test results meeting the strength requirements of Part 3.03.F in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit, shall be deemed as passing the test with respect to seam strength. A passing field destructive test on a trial seam shall be an indicator of the adequacy of the seaming unit and seamer working under prevailing site conditions to produce seams of adequate strength for field seaming. No seamer or seaming unit failing a trial seam field destructive test shall be allowed to perform field seaming until the problem causing the failure is identified, corrected and the seamer and seaming unit passes a field destructive test on a trial seam.

Field seams shall be sampled for field/laboratory destructive testing at the frequency specified by Part 3.04 in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. Whenever possible during cell construction, preference shall be given to obtaining samples from the top of berm and anchor trench areas so as to minimize the number of holes and patches in the waste containment portion of each cell. Each sample shall be cut into sub-samples to be divided up for field and laboratory testing in accordance with ASTM D 4437 and as required by

Part 3.04 in Section 02401 of the aforementioned Permit Attachment and Section 10.9 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. Field and laboratory seam destructive test results meeting the strength requirements of Part 3.03.F in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit, shall be deemed a passing test with respect to seam strength. Each set of sub-samples passing field (i.e., on-site) destructive testing shall have the sub-samples from their corresponding original sample sent to a laboratory independent of the Permittee and designated by the Engineer for confirmatory strength testing. If either a field or laboratory tested sub-sample fails to meet strength requirements, it shall constitute a failed destructive test for the sample and indicates the possibility of inadequate strength in the field seam from which the sample was obtained. Such situations will require repair of the entire seam represented by the failed destructive sample (i.e., from the failed sample to passing destructive samples in both directions). These seams will require repair by use of a cap strip in accordance with the procedures in Part 3.03.H in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 10.10.3 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. All cap strip welds shall undergo non-destructive testing.

iv. Supplemental Evaluation of Geomembrane Seams

The Department reserves the right to require additional sampling and testing based on any frequent occurrence of defective seams and/or to require the Permittee, in coordination with the Engineer, to call an immediate Problems Resolution Meeting to which all principal parties to the problem are gathered. At the Problems Resolution Meeting corrective actions shall be discussed and a specific course of action to the noted problem(s) shall be chosen. The Engineer must follow up and provide documentation to ensure that corrective actions or procedures are carried out, in a timely fashion in the field. Subsequent to the Resolution Meeting, the Department reserves the right to temporarily halt seaming operations if, for whatever reason, the chosen corrective action cannot be implemented in a timely manner or if the implemented corrective action fails to provide an adequate resolution to the problem based on the frequency of defective seams.

v. Geomembrane Leak Location Survey [CELL ONLY]

A geomembrane leak location survey shall be performed on the cell's primary and secondary geomembrane liners following the procedures in Section 02402 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 10.11 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. The surveys shall be conducted in accordance with ASTM D7007 by a

qualified Leak Location Contractor independent of the Permittee and designated by the Engineer.

The secondary geomembrane survey shall commence upon completion of the secondary granular drainage layer. No subsequent layers of the cell's liner/leachate collection system shall be installed above the secondary granular drainage layer until the secondary geomembrane survey is complete in each designated area of the cell and all identified geomembrane defects have been repaired and the area re-surveyed to confirm the adequacy of the repairs.

The primary geomembrane survey shall commence upon completion of the operations layer over the entire base of the cell and partially on the sideslopes. No waste shall be placed in the cell until the primary geomembrane survey is complete over the entire area of the cell and all identified geomembrane defects have been repaired and the area re-surveyed to confirm the adequacy of the repairs.

Repairs to any identified primary or secondary geomembrane defects shall be made in accordance with the procedures in Part 3.03.H in Section 02401 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 10.10.3 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit.

f. Primary & Secondary Leachate Collection Systems' Installation [CELL ONLY]

Primary and secondary geotextiles and geocomposites shall be installed in accordance with the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit, Section 02430 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Sections 11 & 12 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. The Department reserves the right to reject stored rolls of geotextile and geocomposite, or portions thereof, which it considers as being damaged or clogged with soil.

Primary and secondary granular drainage layers shall be installed in accordance with Section 02210 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and Section 5 of the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit. All vehicles/equipment used in the placement of the granular drainage layers or operating directly on these layers must exhibit a ground pressure of 4.4 psi or less. Vehicles/equipment exhibiting greater than 4.4 psi of ground pressure operating above these granular layers will require greater thickness of material to protect underlying geosynthetic materials. This minimum thickness shall be determined by the Design Engineer based on the maximum ground pressure of the vehicles/equipment, and approved by the Department.

i. Leachate Collection Piping

Primary and secondary leachate collection piping shall be installed in accordance with Section 15064 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. All vehicles/equipment operating above leachate collection piping must exhibit a ground pressure of 4.4 psi or less.

Subsequent to completion of the secondary granular drainage layer, but prior to installation of succeeding layers, the Permittee must run video camera equipment along the entire length of the secondary leachate collection pipe. Also, subsequent to completion of the operations layer, but prior to placing waste in the cell, the Permittee must run video camera equipment along the entire length of the primary leachate collection pipe. In each case, the Permittee must confirm that the equipment can access the entire length of each pipe without any problems and use the video to inspect the pipes interior for defects, deflections or other problems that could affect pipe flow. Any identified defects, deflections or other problems must be corrected prior to waste placement in the cell. The Department's on-site representative shall be notified at least forty-eight (48) hours prior to video inspection of each pipe, and the Engineer or his/her qualified subordinate shall be present to observe each inspection. A video recording shall be made of each pipe inspection and included with the cell construction documents.

ii. Secondary Leachate Collection System (SLCS) Flow Measurement

After completing construction of the cell's SLCS, the Permittee must remove the accumulated water in the system at a minimum of once every seven (7) days. Upon completing installation of the cell's primary geomembrane liner (including completion of the leak location survey), the Permittee must remove SLCS water on a daily basis and take measurements of volume removed to determine the Daily SLCS Flow Rate in gallons per acre per day (gpad) based on each cell's lined area in acres. These measurements must be taken for at least two consecutive weeks during which at least one precipitation event occurs that generates a volume of 1-inch or greater. Alternatively, the Permittee may apply an equivalent volume of water over the entire cell. The Permittee must compare the Daily SLCS Flow Rate to the 20 gpad Response Rate set by **Condition H.3** of this Exhibit. If the Daily SLCS Flow Rate is greater than the 20 gpad Response Rate, the Permittee must conduct additional leak location surveys and implement measures in the RMU-2 Response Action Plan (RAP) in Attachment Ka of this Permit to identify and repair defects in the primary geomembrane. No waste may be placed in the cell until measurements indicate a Daily SLCS Flow Rate at or below 20 gpad.

iii. Secondary Leachate Collection System (SLCS) Flow Chemical Analysis

After the construction of the SLCS, the Permittee must analyze the accumulated water removed from the cell's secondary sump for the constituents found in Appendix 33 of 6 NYCRR 373-2. The Permittee shall sample the accumulated SLCS water on two separate occasions prior to waste placement in the cell and submit the results to the Department for review and acceptance. The scope of the second round of analyses shall include the target compound list, TCL parameters and any other Appendix 33 constituent which was detected in the sump during the initial sampling event.

g. New Leachate Transfer Pipe Installation & Testing [CELL ONLY]

New leachate transfer piping shall be installed in accordance with the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit and Section 15064 of the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit. Subsequent to installation, new leachate transfer pipe must be tested in accordance with the "Procedures for Pressure Testing Underground Hazardous Waste Transfer Lines" in Section VII of Appendix D-3 in Attachment D of this Permit.

h. Final Cover Geosynthetics [FINAL COVER ONLY]

No equipment shall be allowed to operate on or above geosynthetic cover components until at least one (1) foot of protective soil has been placed above these components. The equipment operating on or above the 1-foot of protective soil on the final cover shall be limited to that producing a ground pressure of 4.4 psi or less.

i. Cell Berm, Drainage Channel and Final Cover Vegetation

Synthetic mesh, jute mesh, cellulose or wood fiber, or other biodegradable meshes must be used to enhance the establishment of vegetation.

j. Completion of Construction "Punchlist" [CELL ONLY]

When approximately ninety percent of the primary collection system is complete in any cell, the Permittee shall submit to the Department for review a "punchlist" of items in that cell that are still to be installed, constructed, or completed and items for which the Quality Assurance reports are not complete.

6. Surface Water Management During RMU-2 Cell & Final Cover Construction

The Permittee must reduce impacts on surface water quality for all RMU-2 construction activities through proper operation and maintenance of construction equipment and sediment control techniques, and must comply with the "Surface Water Sampling and Analysis Plan (SWSAP)" in Attachment M of this Permit and the Facility's "State Pollution Discharge Elimination Systems (SPDES)" Permit. Any exceedance of the criteria or standards in the SWSAP or SPDES Permit related to

construction shall require immediate suspension of all earthwork activities and implementation of all necessary surface water management and control measures.

a. Additional Surface Water Management Controls

Surface water management during construction shall focus on the restriction of sediment discharge from the work areas. Construction surface water management measures to be taken by the Permittee must involve sediment control barriers consisting of silt fences, hay bales or other Department approved sediment control measures. The number and location of these shall be determined by the progress of construction in order to cover the perimeter of construction zones.

Placement procedures for any silt fence used must involve the use of 2-foot wide geotextile either supported by a ¾-inch polypropylene mesh with a nylon top cord and 4-foot wooded posts at 3-foot maximum spacing or by a 6-inch mesh with a 14-gauge wire support fence and a steel top cord, secured by 4-foot wooded posts at a 8-foot spacing. Additional bracing shall be added as required. Anchoring of the geotextile must consist of a 4-inch wide by 6-inch deep trench with backfill compacted over the folded fabric.

Any erosion prevention hay bales used shall be placed with twine parallel to the ground and must be secured with two 2"x2" stakes per bale each 30 inches in length, driven through the top of the bale.

Removal of silt fences, hay bales or other Department approved sediment controls shall only be done after vegetation is firmly established on the berm, drainage channels or final cover topsoil areas, and the soil areas of these removed sedimentation controls must be re-vegetated.

Unless otherwise approved by the Department on a case specific basis, synthetic mesh, jute mesh, cellulose or wood fiber, or other biodegradable meshes must be installed in channels designed to have a vegetative cover to enhance the establishment of such vegetation.

7. Fugitive Dust Control During RMU-2 Cell & Final Cover Construction

The Permittee must reduce impacts on air quality for all construction activities for RMU-2 through proper operation and maintenance of construction equipment and fugitive dust control techniques and must comply with Sections II & III of the "Fugitive Dust Control Plan (FDCP)" in Attachment L of this Permit. Any exceedance of the particulate standards in the FDCP related to construction shall require immediate suspension of all earthwork activities and implementation of all necessary dust suppression and control measures.

8. Reporting Requirements

The Permittee must submit to the Department the following construction reports and certifications as listed in the Permit and in the RMU-2 Landfill Quality Assurance Manual in Attachment J, Appendix D-8a of this Permit:

- Construction Schedules
- Engineer's Personnel Experience Information, Training, and Procedures Report
- Design Clarifications or Additions
- Clay or GCL Protective Soil Test Fill Report
- Borrow Area(s) and Stockpile(s) Report(s)
- GCL Material Properties Report and Quality Control Certificates
- GCL Conformance Testing Results Report
- Geomembrane Material Properties Report and Quality Control Certificates
- Geomembrane Conformance Testing Results Report
- Geocomposite Properties Report and Quality Control Certificates
- Geocomposite Conformance Testing Results Report
- Geotextile Properties Report and Quality Control Certificates
- Geotextile Conformance Testing Results Report
- Geomembrane Installer Qualifications
- Inspection of Exposed Surface Following Excavation Report
- Measurements and Calculations of the Factor of Safety Against Heave
- Guarantees on Geomembrane by Installer, unless the Department approves a case specific exemption
- Engineer's Acceptance of Geomembrane
- As-Built Drawings and Summary Report
- Engineer's and Permittee's Certification
- Weekly Reports on Construction including inspection of all installation practices and quality assurance and quality control monitoring including:

    - clay placement and compaction
    - prepared surface inspection
    - material shipment and storage
    - GCL installation
    - geomembrane material inspection and testing
    - geomembrane installation and seam testing
    - geotextiles installation
    - geocomposite installation
    - miscellaneous installation issues
    - tracking of significant issues to resolution

Note: Weekly construction reports must be submitted to the Department's Central and Region 9 offices within two (2) weeks of the end of each construction work week.

9. Seasonal or Adverse Weather Construction Requirements

Whenever the construction schedule indicates that placement and compaction of earthen materials and installation of geomembrane will be performed after November 30 and before April 1, the Permittee must submit to the Department for review and approval a description of the activities that will be performed to ensure compliance with this Permit. This description must include, but not necessarily be limited to, a description of any special construction procedures and/or materials that may be utilized, and a description of any special quality control/quality assurance procedures that will be performed. No construction or quality assurance / quality control activities shall be conducted in the field during these periods until the Department has approved the submittal.

10. Certifications

In accordance with 6 NYCRR Part 373-2.2(k)(4), no waste will be received in a landfill cell until the Permittee has submitted to the Department by certified mail or hand delivery a certification signed by the Engineer that the approved CQA plan has been successfully carried out and that the cell meets the requirements of 6 NYCRR 373-2.14(c)(3) or (4) (secure landburial facilities) and the conditions of this Permit; and that the procedure in 6 NYCRR 373-1.6(a)(12)(ii)('b') (i.e., Department inspection) has been completed.

The Permittee must also submit the following:

a. Geomembrane Guarantees

Unless the Department approves a case specific exemption, the Engineer and the Permittee shall submit to the Department certification by the Geomembrane Installer that the installed Geomembrane and field seams have been constructed in accordance with the the RMU-2 Landfill Technical Specifications in Attachment J, Appendix D-7a of this Permit and the requirements of the RMU-2 Construction Quality Assurance Plan, Attachment J, Appendix D-8a of this Permit.

b. Geomembrane Acceptance

Any portion of the Geomembrane shall be accepted by the Department when: that portion of the installation is finished; the Engineer's acceptance and supporting documentation for that portion is submitted to the Department; and, the Department notifies the Permittee of its acceptance. No burying or otherwise obscuring of the geomembrane shall take place prior to supplemental inspection pursuant to **Condition D.5.e** of this Exhibit and documentation by the

Department's representative of preliminary acceptance by the Department of that portion of the Geomembrane.

c. Construction Certification, As-built Drawings and Supporting Documentation

The Permittee shall submit the Engineer's written certification that the cell or portion of the final cover, and associated appurtenances of RMU-2, as constructed, meets the specifications and requirements of this Permit and the accepted engineering reports, plans, and specifications. As-built drawings shall accompany the certification and include any modifications made during construction and final topography of the constructed cell or final cover.

E. RMU-2 Waste Disposal

The Permittee may receive for disposal in RMU-2 only those solid hazardous and solid industrial non-hazardous wastes identified as being acceptable for land burial in accordance with 6 NYCRR Part 376, 6 NYCRR Part 373-2.14, and the Waste Analysis Plan (WAP) in Attachment C of this Permit, subject to the restrictions and limitations of this Exhibit. The Permittee may not accept for land disposal in RMU-2 any putrescible nonhazardous waste (e.g., municipal waste).

1. Annual, Monthly & Daily Waste Disposal Limits

The Permittee shall not accept for land disposal in RMU-2 hazardous and industrial non-hazardous wastes in quantities above the annual, monthly and daily limits indicated below:

- Annual Limit = 500,000 tons per calendar year (Ref.: RMU-2 Part 361 application)
- Monthly Limit = 41,650 tons per calendar month (Ref.: RMU-2 Part 361 application)
- Daily Limit = 1600 tons per operating day (Ref.: Derived from monthly limit above)

For the purposes of determining the disposal quantities of hazardous and industrial non-hazardous wastes subject to the above restrictions, "hazardous waste" shall include all wastes meeting the definition of hazardous waste set forth in 6 NYCRR 37l.1(c), (d) and (e) and in 40 CFR 261 and "industrial non-hazardous waste" shall include all other wastes generated by industry. The Permittee must determine and record the waste quantities, in tons, by weighing each incoming waste load destined for RMU-2 disposal and adding up the weights at the end of each operating day, each calendar month and each calendar year. To demonstrate compliance with the above limits, the Permittee must provide these daily, monthly and annual RMU-2 disposal quantities in reports to the Department in accordance with **Condition I.2** of this Exhibit.

2. Management of Incoming RMU-2 Waste Loads

To prevent the parking or stopping of incoming RMU-2 waste loads (i.e. waste trucks) on the public road outside the entrance to the facility, the Permittee must submit for Department approval, an "Incoming Waste Truck Management Plan". The Plan must be submitted prior to beginning construction of the first RMU-2 cell, and no waste shall be placed in RMU-2 prior to Department approval of this Plan. This Plan must contain the following:

a. Incoming Waste Truck Management Plan Content Requirements

This Plan must be designed to prevent any backup of arriving RMU-2 waste trucks onto the public road based on an average 20 ton load and the RMU-2 daily disposal limit in **Condition E.1** of this Exhibit. The plan must also contain the following elements:

- A proposal for the establishment of an on-site waste truck check-in point, at or near the facility's existing Scale House, with procedures for checking of manifests, inspection of waste container(s) and rectifying any identified manifest or container integrity problems.

- A proposal for the establishment of no fewer than twenty (20) on-site waste truck parking spaces between the above check-in point and the facility entrance gate, either along existing facility roads or in a newly constructed parking area. Each parking space should be designed based on the dimensions of a typical waste truck.

- A procedure allowing waste trucks to rapidly pass through the facility entrance gate and continue on to the on-site check-in point or parking spaces.

- A set of rules requiring that waste trucks not be left un-attended while in parking spaces and which require that no waste trucks be left in parking spaces at the end of each operating day.

- A waste truck arrival scheduling method which will prevent the backup of arriving waste trucks onto the public road, based on the RMU-2 daily disposal limit in **Condition E.1** of this Exhibit, the limitations on waste truck arrival times stipulated by **Condition D** in **Schedule 1 of Module I, Exhibit A** of this Permit, an average waste truck capacity of 20 tons, an average waste truck check-in time and the Permittee's proposed number of on-site parking spaces.

3. Department Waste Stream Review Process

a. Each waste stream to be landfilled in RMU-2 must be reviewed by Department staff prior to placement in the landfill. This review shall not diminish the Permittee's responsibility to fully implement the provisions of the Waste Analysis Plan in Attachment C of this Permit, or other provisions of this Permit. The Permittee may not use a waste review performed by the Department staff in defense of any non-compliance with the requirements of this Permit or any State, Federal, or local laws or regulations.

b. Requests for waste stream review must be submitted to the Department in accordance with the Waste Analysis Plan in Attachment C of this Permit.

c. The Permittee must submit all waste stream review requests in a form which is acceptable to Department staff performing the review. All information that the waste generators have provided to the Permittee for pre-acceptance review must be made available for review by the Department's waste review staff. The Permittee must allow the Department a minimum of one (1) complete 24-hour business day for review of a waste stream. The Department shall provide the Permittee with notification of any problems associated with the land disposal of a waste stream within 5 working days after all the information needed by Department staff has been supplied.

d. If a practical alternative method of processing, reclaiming, or destroying a specific waste stream becomes available, the Permittee shall pursue with the Department the feasibility of using such an alternative method. If technologies, as mentioned above, become available for a specific waste, the Department may restrict or limit the landfilling of that waste or require treatment of the waste prior to landfilling.

e. Waste stream review requests for New York State remedial wastes shall include the designation "NYA" in the comments section of the request.

4. Waste Disposal Restrictions

All wastes to be landfilled must be managed in compliance with the Land Disposal Restrictions in 6 NYCRR Part 376, the restrictions contained in the Waste Analysis Plan in Attachment C of this Permit, and the following additional restrictions.

a. Industrial Non-Hazardous Waste Organic Content Restrictions

i. The Permittee must perform a "2 percent organic limit analysis" on each landfill candidate non-hazardous waste stream which is identified as requiring organic analysis in the pre-acceptance review process. The analysis must be a method that quantifies organic priority pollutants and solvent constituents (taken from F001-F005 waste listings). The Permittee must use EPA SW-846 Method 8260 or other Department approved organic analysis method to determine concentration of the organic constituents.

ii. Non-hazardous wastes which exceed the "2 percent organic limit" using the "2 percent organic limit analysis" as described above must not be accepted for landfill disposal.

iii. The quantitative results for the non-targeted constituents which are obtained through the use of EPA SW-846 Method 8260 or other approved analytical method must be made available for Department review. The Department may deny land disposal for non-hazardous waste streams containing significant amounts of non-target organic constituents on a case by case basis.

iv. The Permittee shall not place ignitable or reactive non-hazardous wastes in the landfill as restricted by 6NYCRR 373-2.14(h) and shall constituents on a case by case basis.

v. The Department may specify a higher or lower percent, by weight, limitation than in **Condition E.4.a** of this Exhibit for any particular organic waste constituent or non-hazardous waste stream based upon the toxicity, leachability, and mobility of such waste or constituent. Such determination may be made by the Department on its own initiative or upon the application of the Permittee as provided in 6 NYCRR 621.

vi. The Permittee may petition the Department for the continued land disposal of a specific non-hazardous waste stream prohibited by this condition, demonstrating that practical alternative treatment facilities do not exist. Such a demonstration must include a justification for why the waste cannot be otherwise treated and/or incinerated, and written statements from commercial facilities verifying that existing units cannot manage the waste.

b. On-site Aqueous Waste Treatment (AWT) Filter Cake

Filter cake from the Permittee's on-site wastewater treatment process must be sampled, analyzed, and subjected to the same Permit disposal restrictions as similar off-site generated wastes.

c. Ignitable, Reactive and/or Incompatible Wastes

i. The Permittee shall not place ignitable or reactive wastes in the landfill as restricted by 6NYCRR 373-2.14(h) and shall document compliance with this condition as required by 6 NYCRR 373-2.2(i)(3).

ii. The Permittee shall not place incompatible wastes or incompatible wastes and materials in the same landfill cell as restricted by 6 NYCRR 373-2.14(i), unless such placement is in compliance with 6 NYCRR 373-2.2(i)(2) and documented in accordance with 6 NYCRR 373-2.2(i)(3). Also see Conditions E.5.c and E.5.d with respect to specific incompatible wastes.

d. Liquid Wastes

The Permittee shall not place in the landfill unit, bulk or non-containerized liquid waste or waste containing free liquids (regardless of whether or not absorbents have been added) as restricted by 6 NYCRR 373-2.14(j)(1). The Permittee shall not place containers holding free liquids in the landfill except as allowed by 6 NYCRR 373-2.14(j)(2). The Permittee must demonstrate compliance with this condition in accordance with 6 NYCRR 373-2.14(j)(3) whenever the Permittee or Department staff considers it to be necessary based on visual observations of the waste and/or waste characterization information. Containers found to have free liquid shall be processed as required by the Waste Analysis Plan in Attachment C of this Permit.

e. Hazardous Waste Codes F020, F021, F022, F023, F026 & F027

Hazardous waste gate receipts of F020, F021, F022, F023, F026 and F027 materials must not be placed in the landfill unit, unless otherwise authorized by 6 NYCRR 373-2.14(m) and in accordance with the Permittee's approved Dioxin Management Plan which is incorporated by reference into this Permit by **Schedule 1 of Module I**. No current production waste or outdated products with these codes can be accepted.

f. Electronic Waste (e-waste)

The Permittee shall not dispose of electronic waste (e-waste) in the landfill, as banned pursuant to ECL § 27-2611.

5. Waste Disposal Limitations

a. Lightweight Wastes

Waste that has the potential to become airborne dust or debris must be containerized or otherwise managed in accordance with the Facility Fugitive Dust Control Plan in Attachment L, Appendix D-10 of this Permit.

b. Soluble Wastes

Prior to landfilling, soluble wastes must be pre-treated to the extent feasible using the Permittee's on-site treatment facilities. Soluble wastes must be placed in the landfill in such a way as to minimize pocketing of soluble material.

c. Combustible Wastes

No material that is combustible shall be placed in the acid generating zones of the landfill, as those zones are defined in **Condition E.5.d** of this Exhibit, unless the material is a part of the actual waste stream or its packaging is approved by the Department.

d. Acid-Sensitive and Acid-Generating Wastes

An acid-sensitive zone must be established throughout the landfill. Only acid-sensitive materials and materials compatible with such wastes shall be placed into this zone. A 50-foot neutral buffer zone must be established to separate acid-sensitive waste from acid-generating waste. An acid-generating landfill zone must be delineated on the opposite side of the acid-sensitive zone. All acid-sensitive and acid-generating wastes must be identified in accordance with **Condition C.2** of Exhibit A, to distinguish them for proper disposal. The Permittee must verify the prescribed separation distances for each waste identified as acid-sensitive or acid-generating in accordance with **Condition F.7.d** of this Exhibit.

e. Low Strength Wastes

i. For each non-containerized bulk waste stream to be disposed of in RMU-2, the Permittee must determine that the strength properties of such waste satisfy minimum required bulk waste strength values, in terms of the waste's cohesion and friction angle that were assumed in the RMU-2 design and stability analyses presented in Section 3.4.1 and Appendices C-5 through C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

ii. For bulk contaminated soils, and any dry bulk contaminated soil-like materials (e.g., sandblast grit, salts, etc.) as determined by the Department on a case-by-case basis, a soil identification may be performed and, based on the established strength characteristics for the soil type in terms of cohesion and friction angle, the contaminated soil or approved soil-like material may be judged to have sufficient strength using Table 9.1 from "Design Manual - Soil Mechanics, Foundations and Earth Structures", NAVFACDM-7, March 1971.

iii. For non-soil and non-soil-like (hereafter referred to collectively as "non-soil") bulk waste streams, the Permittee must perform a compressive strength analysis using either:

- a remolded sample from the waste generator ("sale sample"), or

- a remolded sample taken prior to placement in RMU-2 ("field mix/as received sample"). The sample must be obtained from the actual field mixing process being utilized or from "as received" wastes not requiring stabilization prior to disposal.

iv. "Non-soil" bulk waste streams which are received at a rate equal to or less than 100 tons per year may be landfilled without compressive strength analysis. The first 20 tons of "non-soil" bulk waste streams that will be landfilled at a rate of greater than 100 tons per year may be landfilled prior to completion of the compressive strength analysis (waste in excess of the 20 tons may not be landfilled until satisfactory compressive strength analysis results are obtained). The Permittee must indicate the use of either exclusion on the waste stream information it submits for Department review in accordance with **Condition E.3** of this Exhibit.

v. Any bulk waste whose "sale sample" fails to meet the required minimum strength values for RMU-2 as assumed in the RMU-2 design and stability analyses presented in Section 3.4.1 and Appendices C-5 through C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, using 75% cohesion after no more than one week of curing, shall not be accepted for disposal in RMU-2.

For any bulk (non-soil) waste load where a "field mix/as received sample" is undergoing testing in accordance with **Condition E.5.e.iii** of this Exhibit to confirm compliance with minimum strength values, but which does not require stabilization and TCLP testing to confirm compliance with Land Disposal Restrictions (LDRs), the load may be placed in Interim Storage in the landfill pending strength testing results under the following conditions:

- The load must be placed on a geosynthetic separation material or a stone layer with a minimum thickness of 2 inches, in a distinct interim storage pile, separate from other bulk waste loads and other wastes.

- Each such interim storage pile must have a flag or other marker displayed with an identifier(s) that correlates to the waste tracking information which indicates the specific waste in the pile and the date the pile was placed in the landfill.

- Daily cover must be applied to all interim storage piles on the date of their placement in the landfill and maintained for the duration of each pile's storage period.

Any bulk waste whose "field mix/as received sample" test result fails to meet the required minimum strength values for RMU-2 as assumed in the RMU-2 design and stability analyses presented in Section 3.4.1 and Appendices C-5 through C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, using 100% cohesion after no more than one week of curing shall not be disposed in RMU-2 and must be immediately removed from landfill interim storage for re-processing or disposition by other than land disposal means. Any bulk waste load whose "field mix/as received sample" test result confirms that it meets required minimum waste strengths, may be disposed of in RMU-2. The Permittee also must not dispose of any below minimum strength bulk waste in RMU-2 by placing it in macroencapsulation boxes or other non-steel containers. Results of all testing performed pursuant to this condition, and documentation on waste quantities necessary to demonstrate compliance with the restrictions contained in this condition, must be included in the Operating Record in accordance with 6 NYCRR 373-2.5(c). The Permittee must report any failed samples to the Department promptly.

vi. The Permittee must promptly notify the Department of any bulk waste stream, which has previously passed the soil identification or compressive strength analysis, for which visual observation and/or testing indicates changed physical or chemical characteristics and is suspected of no longer being of acceptable strength. The Department may select this or any other bulk waste stream it deems appropriate for additional compressive strength analysis by the Permittee, at its discretion. The requirements of this condition do not apply to solid debris and wastes contained in steel drums or other rigid steel containers.

vii. Containerized Wastes: To address void space, the Permittee must fill or crush waste containers as required by 6 NYCRR 373-2.14(k).

6. Procedure for Disposal of Package Lab Chemicals

a. Disposal of Package Lab Chemicals (PLCs) in RMU-2 must be as described in Section C-1 of the Waste Analysis Plan (WAP) in Attachment C of this Permit.

b. The packing lists must be reviewed and a confirmation made that the materials meet the criteria in **Condition E.6.a** of this Exhibit. In addition, the materials must be reviewed to confirm that they are acceptable under the terms of this Permit and the above referenced WAP. The packing lists must be submitted to Department staff with the waste stream information submitted for Department review in accordance with **Condition E.3** of this Exhibit and they will include sufficient detail to allow the Department to confirm that the wastes meet the requirements of this Permit and the above referenced WAP. Alternately, a list of chemicals will be submitted to Department staff in addition to a database of PLC compounds previously disposed in RMU-2.

c. The contents of each lab pack must be confirmed by removing the individual items from the lab pack and checking them against the packing lists. The containers may be returned to the original drum/container or re-packed in another drum/container (e.g., a one cubic yard box). Five-gallon pails of solid material may be labeled and disposed of directly in the landfill.

7. Interim Storage of Stabilized Waste in Containers in RMU-2

The Permittee may place stabilized bulk wastes in interim storage while awaiting results of Toxicity Characteristic Leaching Procedure (TCLP) tests to determine the waste's compliance with land disposal restrictions in 6 NYCRR 376. All such bulk wastes awaiting TCLP test results must be in covered roll-offs or drums which may be stored within the RMU-2 landfill or in other Container Storage Areas at the facility which are allowed by this Permit to store these container types. The placement, storage and ultimate disposition of such waste must be in accordance with the following requirements:

a. Each such interim storage container must have a flag or other marker displayed with an identifier(s) that correlates to waste tracking information which indicates the specific waste in the container and the date the container was sampled for TCLP testing.

b. If the TCLP test result on a stabilized bulk waste load in an interim storage container indicates that the waste meets requirements for land disposal, the Permittee may place the waste in a permanent disposal location within RMU-2.

c. If the TCLP test results on a stabilized bulk waste load in an interim storage container indicate that the waste does not meet requirements for land disposal, the Permittee must either re-stabilize the waste load or have it transported for proper

disposal at an appropriate off-site facility in accordance with all applicable regulations. Any such failed stabilized waste load that the Permittee elects to re-stabilize must be stored in an interim storage container subsequent to re-stabilization, and may not be permanently disposed in the landfill until it is re-tested and the test results indicate the waste's compliance with the land disposal restrictions in 6 NYCRR 376.

8. Final Waste Screening Procedures

The Permittee must perform final waste screening procedures to identify wastes that do not meet land disposal requirements or are restricted from land disposal by conditions in this Permit.

a. Containerized Wastes

The Permittee must open and visually inspect all drums and other larger containers which were not filled on-site by the Permittee prior to landfill disposal, with the exception of some asbestos containers as noted in Section C-2e(2) of the Waste Analysis Plan (WAP) in Attachment C of this Permit. The Permittee must use a code(s) or other means of identifying the intended method of disposal of each waste stream contained in drums or other containers. The Permittee must also randomly select 10 percent of all such drums/containers for sampling and analysis of their contents in accordance with the WAP in Attachment C of this Permit. Exceptions to this sampling requirement are as noted in Section C-2d(1)(a) of the WAP in Attachment C of this Permit. Should the contents analysis of any randomly selected drum or container indicate waste that is unacceptable for land disposal, the Permittee must analyze all such drums/containers from that waste stream shipment or assume that all such drums/containers from the waste stream shipment contain wastes which are unacceptable for land disposal. Any and all drums/containers that are identified as containing wastes that do not meet the land disposal requirements in 6 NYCRR 376 or are restricted from land disposal by this Permit, must not be disposed of in RMU-2.

b. Non-Containerized (Bulk) Wastes

The Permittee must spread out all bulk waste loads in thin layers within the landfill to facilitate a final inspection. During or subsequent to the spreading of a waste load, but prior to it being covered by other wastes or daily cover, the Permittee must have trained landfill personnel familiar with the waste disposal conditions of this Permit visually inspect the waste for conformance with all waste disposal Permit conditions. This inspection must be conducted in a manner consistent with the Personnel Training Plan in Attachment H of the Permit and the Permittee's safety policies, using field glasses (i.e., binoculars) where necessary to facilitate a safe and thorough inspection of the waste surface. Any bulk waste load, or portion thereof, which is identified by landfill personnel as not meeting the land disposal restrictions/requirements of this Permit, must be placed in an appropriate container(s) and removed from the landfill. In addition, any fire or

apparent reaction identified by landfill personnel as occurring within a bulk waste load or on the waste in the landfill shall require the immediate implementation of the Facility's Contingency Plan in Attachment G of this Permit.

9. Improper Land Disposal Waste Tracking and Removal

a. Waste Tracking

The Permittee must maintain records of all waste containers and bulk waste loads it receives which are designated for land disposal by the waste generator, but which are determined to be unacceptable for land disposal as a result of manifest information, information obtained in accordance with the Waste Analysis Plan (WAP) in Attachment C of this Permit, identification by the screening procedures required by **Condition E.8** of this Exhibit, or other waste information obtained by the Permittee or the Department, prior or subsequent the waste's disposal. These records must indicate the name and EPA identification number of the waste generator in each such case, the type of waste involved, the date and reason it was determined to be unacceptable for land disposal, a brief description of how it was identified and the associated circumstances and final disposition of the waste.

The Permittee must submit to the Department with the Annual Report required by 6 NYCRR 373-2.5(e) of this Permit, a listing of any and all waste generators (based on EPA ID Number) having three (3) or more occurrences during the previous calendar year of waste improperly designated for land disposal based on the Permittee's records required by this condition. These listings submitted with the Permittee's Annual Report must also include the details of each occurrence based on the Permittee's records. Based on the Department's review of this annual listing and accompanying information, the Department may require the Permittee to implement additional waste analysis and/or screening procedures for wastes it receives in the future from specific generators identified by the Department. If the Department determines that such additional waste analysis and/or screening procedures are warranted, it shall notify the Permittee in writing indicating the generator(s) and the specific analysis and/or procedures it considers necessary for waste accepted by the Permittee from that/those generator(s). Within thirty (30) days of any such notification the Permittee must either:

- Indicate in writing that the Permittee will implement the additional waste analysis and/or screening procedures indicated by the Department for the identified generator(s); or

- Propose in writing for Department approval, alternative additional waste analysis and/or screening procedures for identified generator(s); or

- Indicate in writing to the Department that it will no longer accept waste from the identified generator(s).

b. Waste Retrieval

Subsequent to land disposal in RMU-2, any containerized or bulk waste identified as not meeting the land disposal requirements in 6 NYCRR 376 or are restricted from land disposal by this Permit, must be located by the Permittee using the waste location system required by **Condition F.7.d** of this Exhibit, and retrieved by the Permittee for appropriate disposition, unless in specific cases the waste in question is under the final cover or two (2) or more lifts below the active landfill surface **and** the Department determines that such retrieval is not necessary based on waste information provided by the Permittee.

F. RMU-2 Operating Requirements

The Permittee must operate RMU-2 in strict accordance with 6 NYCRR 373-2.14(c), the conditions of this Exhibit, and the requirements in the Permit Attachments and other documents listed below:

- The RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit;
- The "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit;
- The "Fugitive Dust Control Plan" in Attachment L, Appendix D-10 of this Permit; and
- Additional documents to be submitted and approved by the Department as required by this Exhibit.

1. Additional RMU-2 Operational Plans

The Perrmittee shall submit for Department approval, the RMU-2 operational plans listed below. Upon Department approval, these Plans are to be considered as incorporated into this Permit by reference, and are binding upon the Permittee and have the same legal force and effect as any other document incorporated by reference into this Permit.

a. RMU-2 Operations & Maintenance (O&M) Manual

i. Initial Cell

Prior to commencing construction of the first RMU-2 cell, the Permittee must submit for Department approval, an RMU-2 O&M Manual which provides operational details for the first RMU-2 landfill cell. It must include the landfill operational requirements as presented in the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and as stipulated by this Exhibit. This RMU-2 O&M Manual must be based on and formatted in conformance with, and contain all the comparable landfill operational elements as presented in the "RMU-1

Operations & Maintenance (O&M) Manual which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, including, but not limited to:

- a figure, or figures, indicating the haul routes into and out of the cell at all stages of cell fill progression, from initial waste placement up through the cell's maximum fill progression as depicted on RMU-2 Landfill Drawing No. 8 ("Cell 20 Initial Fill Progression") contained in Attachment J, Appendix D-6a of this Permit;

- A description and a figure indicating the "acid-sensitive", "acid-generating" and "buffer" zones within the cell;

- An indication of the elevation corresponding to one (1) foot of leachate head on the cell's primary geomembrane liner (outside the sump) which is associated with leachate collection and removal requirements specified by **Condition F.5.a** of this Exhibit, based on the cell's design; and

- Detailed specific designs for all storm water perimeter infiltration channels, culverts and retention basins based on the leachate and storm water management elements and evaluations contained in Appendices E & F of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

No waste shall be placed in the initial RMU-2 cell prior to Department approval of this manual.

ii. Subsequent Cells

Prior to commencing construction of each subsequent RMU-2 cell, the Permittee must submit for Department approval, an addendum to the previously approved RMU-2 O&M Manual which provides operational details for the new RMU-2 landfill cell and all other previously operating cells. It must include the landfill operational requirements as presented in the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and as stipulated by **Condition F** of this Exhibit. This addendum must be based on and formatted in conformance with, and contain all the comparable landfill operational elements as presented in the previously approved manual, including, but not limited to:

- a figure, or figures, indicating the haul routes into and out of the cell, or cells, at all stages of cell fill progression, from initial waste placement up through the cell's maximum fill progression;

- A description and a figure indicating the "acid-sensitive", "acid-generating" and "buffer" zones within the cell;

- An indication of the elevation corresponding to one (1) foot of leachate head on the cell's primary geomembrane liner (outside the sump) which is associated with leachate collection and removal requirements specified by **Condition F.5.a** of this Exhibit, based on the cell's design; and

- Detailed specific designs for all storm water perimeter infiltration channels, culverts and retention basins based on the leachate and storm water management elements and evaluations contained in Appendices E & F of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit.

No waste shall be placed in each subsequent RMU-2 cell prior to Department approval of each manual addendum.

b. RMU-2 Cell Fill Progression Plan

i. Initial Cell

Prior to commencing construction of the initial RMU-2 cell, the Permittee must submit for Department approval, an RMU-2 Cell Fill Progression Plan. The Plan must contain details on the placement of waste in the initial RMU-2 cell from initial waste placement up through the cell's maximum fill progression as depicted on RMU-2 Landfill Drawing No. 8 ("Cell 20 Initial Fill Progression") contained in Attachment J, Appendix D-6a of this Permit, and must depict the design of any and all storm water management features within the cell (e.g., retention basins, etc.). This Plan must conform to the waste placement and landfill stability requirements presented in the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and as stipulated by **Condition F.4** of this Exhibit. No waste shall be placed in the initial RMU-2 cell prior to Department approval of this Plan.

ii. Subsequent Cells

Prior to commencing construction of each subsequent RMU-2 cell, the Permittee must submit for Department approval, an addendum to the previously approved RMU-2 Cell Fill Progression Plan. Each Plan addendum must contain details on the placement of waste in the subsequent RMU-2 cell from initial waste placement in the new cell up through the maximum fill progression in the new and previously operational cells. Each addendum must indicate a fill progression and final cover installation which is consistent with the waste filling sequencing depicted on RMU-2 Landfill Drawing No. 9 ("Conceptual Waste Filling and Final Cover Sequencing") contained in Attachment J, Appendix D-6a of this Permit, and must depict the design of any and all storm water management features within the operational area of the landfill including the new cell (e.g., retention basins, etc.). Each Plan addendum must present landfill stability analyses (both static and seismic) for

the maximum fill progression up through the new cell which conforms to the waste placement and landfill stability requirements presented in the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and as stipulated by **Condition F.4** of this Exhibit. No waste shall be placed in each subsequent RMU-2 cell prior to Department approval of each Plan addendum.

c. RMU-2 Cell Leachate and Storm Water Management Plan

i. Initial Cell

Prior to commencing construction of the initial RMU-2 cell, the Permittee must submit for Department approval, an RMU-2 Cell Leachate and Storm Water Management Plan. The Plan must contain details on the management of leachate and stormwater in the initial RMU-2 cell from initial waste placement up through the cell's maximum fill progression as depicted on RMU-2 Landfill Drawing No. 8 ("Cell 20 Initial Fill Progression") contained in Attachment J, Appendix D-6a of this Permit, and must include design details and evaluations of any and all leachate and storm water management features within the cell (e.g., retention basins, etc.). This Plan must be based on and formatted in conformance with the "RMU-1 Leachate Level Compliance Plan which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. This Plan must include the leachate and storm water management elements and evaluations contained in Appendices E & F of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and as stipulated by **Condition F** of this Exhibit. No waste shall be placed in the initial RMU-2 cell prior to Department approval of this Plan.

ii. Subsequent Cells

Prior to commencing construction of each subsequent RMU-2 cell, the Permittee must submit for Department approval, an addendum to the previously approved RMU-2 Cell Leachate and Storm Water Management Plan. Each Plan addendum must contain details on the management of leachate and storm water in the subsequent RMU-2 cell from initial waste placement in the new cell up through the maximum fill progression in the new and previously operational cells, based on the corresponding RMU-2 Cell Fill Progression Plan addendum. Each addendum must be based on and formatted in conformance with the initially approved RMU-2 Cell Leachate and Storm Water Management Plan. Each addendum must include the leachate and storm water management elements and evaluations contained in Appendices E & F of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, and as stipulated by **Condition F** of this Exhibit. No waste shall be placed in each subsequent RMU-2 cell prior to Department approval of each Plan addendum.

2. RMU-2 Liner & Leachate Management System Repair Requirements

Should damage occur or if defects are identified in any RMU-2 cell's liner or leachate management system, the Permittee must obtain materials and affect repairs in strict accordance with the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, the RMU-2 Drawings contained in Attachment J, Appendix D-6a of this Permit, "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit, the "RMU-2 Landfill Quality Assurance Manual" contained in Attachment J, Appendix D-8a of this Permit.

If new materials are needed to affect repairs, they must undergo testing in accordance with the conditions in this Exhibit as listed below:

- **Condition C.1** - Leachate Compatibility Tests For Liner/Leachate Collection Systems;
- **Condition C.2** - Leachate Transfer Piping Compatibility Demonstration;
- **Condition C.4** - Flow Testing of Leachate Collection Geosynthetics;
- **Condition C.5** - Clogging Potential Testing of Leachate Collection Geotextiles; and
- **Condition C.6** - Interface Shear Strength Testing of Liner Geosynthetics.

Any and all liner and/or leachate collection system repairs must be conducted in accordance with the conditions in this Exhibit as listed below:

- **Condition D.1** - General Cell Construction Conditions;
- **Condition D.2** - Design Clarification Procedure;
- **Condition D.4.c** - Clay Barrier Layer Material Qualification;
- **Condition D.5.c** - Cell Soil Liner Clay Placement and Compaction;
- **Condition D.5.d** - Geosynthetic Clay Liner (GCL) Cell Installation;
- **Condition D.5.e** - Textured Geomembrane Cell Installation;
- **Condition D.5.f** - Leachate Collection Systems' Installation;
- **Condition D.6** - Surface Water Management During RMU-2 Cell Construction;
- **Condition D.7** - Fugitive Dust Control During RMU-2 Cell Construction;
- **Condition D.8** - Reporting Requirements;
- **Condition D.9** - Seasonal or Adverse Weather Construction Requirements; and
- **Condition D.10** – Certifications.

3. RMU-2 Waste Fill Progression

The Permittee must at no time advance the RMU-2 waste fill beyond the horizontal and vertical limits depicted by the topographic contours on the "RMU-2 Top of Waste Grades" Drawing No. 6 in Attachment J, Appendix D-6a of this Permit.

a. Initial and Subsequent Cell Fill Progression

Upon Department approval of the RMU-2 Cell Fill Progression Plan in accordance with **Condition F.1.b.i** of this Exhibit, the Permittee may place waste up to the horizontal and vertical limits depicted by the topographic contours on RMU-2 Landfill Drawing No. 8 ("Cell 20 Initial Fill Progression") contained in Attachment J, Appendix D-6a of this Permit. Upon Department approval of each RMU-2 Cell Fill Progression Plan addendum for each subsequent cell in accordance with **Condition F.1.b.ii** of this Exhibit, the Permittee may place waste up to the horizontal and vertical limits depicted by the topographic contours on the drawing contained in the approved Plan addendum.

4. RMU-2 Waste Mass Stability

The Permittee must maintain RMU-2 waste mass stability at all times during the landfill operational period. Any and all slope stability analyses required by **Condition F.1.b.ii** of this Exhibit, must be conducted in accordance with the methods and assumptions used in Section 3.4.1.4 and Appendix C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, including, but not limited to the landfill material and subgrade properties presented in Tables 2.2 & 3.1 of the above referenced Appendix C-9. All such stability analyses must evaluate both "circular" and "sliding block" failure modes under both "static" and "seismic" conditions. The results of these stability analyses must indicate a Factor of Safety of 1.5 or greater for static conditions and a liner system displacement of no greater than ¼ of an inch for seismic conditions in accordance with the above referenced Appendix C-9.

a. Cell Interior Waste Slopes

RMU-2 cell interior waste slopes (i.e., waste slopes within a cell at all stages of fill progression) must not exceed a 3 on 1 gradient, except under specific circumstances allowed by this Permit condition. The Permittee may construct waste slopes within an RMU-2 cell with gradients between 3 on 1 and 2 on 1 as long as such slopes do not exceed the maximum vertical height from toe to crest of 20 feet, based on the stability analyses of 2 on 1 waste slopes in Appendix C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Under no circumstances may the Permittee construct any cell interior waste slopes exceeding a 2 on 1 gradient.

5. Primary Leachate and Contaminated Storm Water Run-Off Management

The Permittee must maintain and operate primary leachate and contaminated surface water run-off collection and removal systems to collect and remove leachate and contaminated storm water from the landfill. These systems must be maintained and operated in accordance with: 1) 6 NYCRR 373-2.14(c); 2) the "RMU-2 Landfill Drawings" and the "RMU-2 Technical Specifications" in Attachment J of this Permit; 3) the "RMU-2 Engineering Report" which is incorporated by reference into this

Permit by **Schedule 1 of Module I** of this Permit; 4) the approved "RMU-2 Operations and Maintenance (O&M) Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit; 5) the "RMU-2 Cell Fill Progression Plan " and Addendums thereof as required by **Condition F.1.b** of this Exhibit; 6) the "RMU-2 Cell Leachate and Storm Water Management Plan" and Addendums thereof as required by **Condition F.1.c** of this Exhibit; and 7) the conditions in this Exhibit.

a. RMU-2 Cell Primary Leachate Levels

The primary leachate levels, as monitored in the primary leachate standpipes, must not exceed a depth of one (1) foot directly above the lowest elevation of the primary geomembrane within each cell (excluding each cell's sump area) for a continuous period longer than 24 hours as measured from the time when the level first exceeds the one (1) foot depth. However, until initial waste placement in the fourth lift of waste in any cell commences, the leachate level on the primary liner in that cell may exceed the previously defined one (1) foot depth for a period of time not exceeding seven (7) consecutive days, as measured from when the level first exceeds the one (1) foot depth. Leachate levels within any sump area must be maintained at the lowest practical levels.

b. RMU-2 Cell Primary Leachate Removal

Primary leachate in cell standpipes must be monitored and pumped automatically using permanently installed sensors, alarms, and pumping equipment. The pumping equipment must be selected in accordance with Section 11309 of the RMU-2 Technical Specifications in Attachment J, Appendix D-7a of this Permit, and must be capable of installed flow capacities at, or greater than those specified in Appendices E & F of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. All RMU-2 leachate pumping systems must be operated in accordance with the approved "RMU-2 Operations and Maintenance (O&M) Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit and the approved "RMU-2 Cell Leachate and Storm Water Management Plan" and Addendums thereof as required by **Condition F.1.c** of this Exhibit, with added pumping capacity as necessary to ensure compliance at all times with 6 NYCRR 373-2.14(c)(3)(ii) and **Condition F.5** of this Exhibit.

Additional pumps and other spare parts must be provided on a standby basis for ready replacement. Inoperable pumps must be replaced within 48 hours of failure. Leachate pumps must be fitted with power failure and high leachate level indicator alarms, and leachate level indicator alarms must be routinely monitored during each operating shift. During periods of heavy rains the monitoring frequency must be increased. The Permittee must maintain operation of all primary leachate pumping equipment in a "level sensor" automatic mode at all times, except for short periods of routine maintenance and pumping system repairs. Standpipes must be covered at all times except when sampling, taking level measurements and, performing maintenance.

c. RMU-2 Storm Water Run-On and Run-Off Management

i. Run-On Control

The Permittee must maintain the surface water diversion berm around the Perimeter of the landfill depicted on the RMU-2 Landfill Drawings in Attachment J, Appendix D-6a of the Permit, to provide run-on control as required by 6 NYCRR 373-2.14(c)(7) until closure.

ii. Cell Storm Water Detention Basins

The Permittee must construct and maintain Storm Water Detention Basin(s) of adequate capacity within the operational areas of RMU-2 to collect and control contaminated storm water run-off resulting from a 24-hour, 25-year storm as required by 6 NYCRR 373-2.14(c)(8) with a minimum of one (1) foot of freeboard. All such basins must be designed and constructed in accordance with Appendix E of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; the approved "RMU-2 O&M Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit; and the approved "RMU-2 Cell Leachate and Storm Water Management Plan" and Addendums thereof as required by **Condition F.1.c** of this Exhibit. The Detention Basin in the initial RMU-2 cell must be constructed in accordance with the lines and grades depicted on RMU-2 Landfill Drawing No. 8 ("Cell 20 Initial Fill Progression") contained in Attachment J, Appendix D-6a of this Permit. Each Detention Basin must be lined with a temporary geosynthetic liner and sedimentation controls must be installed and maintained on all basin inlets. An as-built topographic survey must be performed on each completed basin to confirm that it has been constructed to the capacity required by the above referenced Permit documents and conditions. Each basin survey must be submitted to the Department within thirty (30) days of completing a basin's construction, along with a certification from an independent person registered to practice Professional Engineering in the State of New York.

The Permittee must remove accumulated storm water run-off from all detention basins and other areas of the landfill. Any time the depth of such water first exceeds 12 inches, as measured from the low point in each detention basin, it must be lowered to 12 inches or less in all such basins within seven (7) calendar days, in accordance with 6 NYCRR 373-2.14(c)(9). The Department, on a case-by-case basis, may grant an extension of this seven (7) day period, provided that the Permittee can demonstrate to the Department's satisfaction, that the volume of liquid resulting from precipitation and/or snow melt which requires removal, exceeds the run-off volume that would be generated by the 24-hour, 25-year storm event. The Permittee must manage all such removed liquid as leachate. Upon discontinuing the use of a detention basin, the Permittee must remove or shred the basin's geosynthetic liner to prevent restrictions of leachate flow from subsequent fill layers.

iii. Cell Storm Water Perimeter Infiltration Channels

The Permittee must construct and maintain Storm Water Perimeter Infiltration Channels of adequate capacity within the operational areas of RMU-2 to collect and control contaminated storm water run-off resulting from a 24-hour, 25-year storm as required by 6 NYCRR 373-2.14(c)(8) with a minimum of one (1) foot of freeboard. All such channels must be designed and constructed in accordance with Appendix E of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit; the approved "RMU-2 O&M Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit; and the approved "RMU-2 Cell Leachate and Storm Water Management Plan" and Addendums thereof as required by **Condition F.1.c** of this Exhibit. The perimeter infiltration channels in the initial RMU-2 cell must be constructed in accordance with the lines and grades depicted on RMU-2 Landfill Drawing No. 8 ("Cell 20 Initial Fill Progression") contained in Attachment J, Appendix D-6a of this Permit. Each channel shall be constructed with sedimentation controls and the Permittee must remove any observed accumulated sediment within these channels to maintain the hydraulic conductivity of the operations stone in these channels during their operational period.

d. RMU-2 Cell Primary Leachate Collection Pipe Flush & Check

For all RMU-2 cells, the Permittee must run a "hydroflush" device on a flexible hose along the entire length of each cell's primary leachate collection pipe at a minimum of twice per calendar year, with the second flush coming no sooner than five (5) months after the first. This frequency may be decreased to once every two (2) years for cells where the final cover has been in place over the entire cell for more than one year. The length of the flexible hose insertion must be measured, recorded and compared against the documented as-built length of each cell's primary leachate collection pipe to verify the pipe's integrity over its entire length. After each hydroflush, a video camera must be advanced down each pipe to provide a visual record of the pipe's condition, help determine the hydroflush's effectiveness in removing any buildup of waste residue in the pipe interior or in its perforations, and help identify any problems encountered during the hydroflush (e.g., failure of the hydroflush hose to reach the end of the pipe). The Permittee must provide on-site Department staff with 24 hours advance notice of the Permittee's performance of the pipe flush and videotaping. The Permittee must record the results including any problems encountered and the video tape record, and submit them to the Department within thirty (30) days of completing each pipe flush and videotaping. Upon review of each such submission, the Department may require the Permittee to perform additional hydroflushing or take other actions necessary to maintain each pipe's designed collection and flow capability.

6. RMU-2 Operational Cover Requirements

a. Daily Cover

The Permittee must apply cover material as defined by 6 NYCRR 370.2(b)(39), on all exposed waste, to sufficiently cover the waste, at the end of each day of operation. The daily cover must be placed in accordance with the approved "RMU-2 O&M Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit, and the conditions of this Exhibit, unless prior written approval is obtained from the Department to defer such placement. The Permittee must also restore at the end of each day of operation, any previously applied cover material on areas of the waste where it is identified as being absent or significantly deteriorated during inspections conducted in accordance with Attachment F of this Permit.

The Permittee must use daily cover consisting of a graded granular material, or an alternative Department approved synthetic fabric or other alternative Department approved cover material. If the Permittee elects to submit a proposal(s) for Department approval of alternative cover material(s), all such submissions must demonstrate that the proposed cover material will be effective in controlling odors and capable of suppressing airborne dust and light weight debris. No alternative cover material shall be used until it is approved in writing by the Department. If an approved synthetic cover material is used it may be removed from the working face to allow access and then replaced at the end of each day of operation.

Waste must not be used for cover material unless a specific waste stream is demonstrated as appropriate for such use in accordance with the above requirements for alternative cover material and is approved in writing by the Department. In addition, any such "waste cover" material candidate must have relatively low volatile organic concentrations, be odorless, and not be susceptible to dust generation under dry conditions.

b. Intermediate Cover

The Permittee may place intermediate cover on areas of the RMU-2 waste mass that are at final permitted grades as depicted on the "RMU-2 Top of Waste Grades" Drawing No. 6 in Attachment J, Appendix D-6a of this Permit. All intermediate cover shall consist of a well-graded, cohesive soil with a hydraulic conductivity of $1x10^{-5}$ cm/sec or less and which meets the specifications for Geosynthetic Clay Liner (GCL) subbase material presented in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit. In cases where the Permittee places intermediate cover on an area of waste, the Permittee must complete placement of final cover during the immediate next calendar year, unless the Department approves a one-time extension not to exceed one (1) additional calendar year.

i. Construction, Maintenance and Integration Into Final Cover

Intermediate cover material must be placed in a single loose lift, compacted to a thickness of at least twelve (12) inches and covered with a temporary geomembrane. Once constructed, the Permittee must maintain, inspect and repair the intermediate cover, including any identified defects in the temporary geomembrane (e.g., holes, tears, etc.). To construct the Final Cover on an area where intermediate cover has been placed, the Permittee must first remove the temporary geomembrane and approximately the upper six (6) inches of intermediate cover material to facilitate Final Cover construction. The remaining intermediate cover material must be re-graded and proof rolled to meet the lines and grades for GCL subbase material depicted on the RMU-2 Landfill Drawings contained in Attachment J, Appendix D-6a of this Permit. Prior to GCL installation in these intermediate cover areas, the Permittee must demonstrate through testing that the in-place GCL subbase material meets the specifications for such material as presented in Section 02210 of the "RMU-2 Technical Specifications" contained in Attachment J, Appendix D-7a of this Permit. Any intermediate cover material that does not meet GCL subbase material requirements for the Final Cover, shall be removed and replaced with material meeting these requirements.

7. RMU-2 Specific Waste Placement Requirements

In all RMU-2 cells, the Permittee shall place wastes in lifts in accordance with the waste fill progression requirements in **Condition F.3** of this Exhibit and the waste mass stability requirements in **Condition F.4** of this Exhibit. A waste lift must consist of one (1) drum or macroencapsulation box height for containers, or sufficient bulk waste to limit the lift thickness to six (6) feet. On a case-by-case basis, the Permittee may request and the Department may approve waste items which are larger than the above defined waste lift height as part of the waste stream review process required by **Condition E.3** of this Exhibit. At no time shall drums, macroencapsulation boxes or roll-off containers used for interim waste storage in accordance with **Condition E.7** of this Exhibit be placed in the RMU-2 landfill in such a manner as the tops of these containers exceed the final waste grades as depicted on the "RMU-2 Top of Waste Grades" Drawing No. 6 in Attachment J, Appendix D-6a of this Permit. In addition, RMU-2 waste placement must be in accordance with the requirements below.

a. RMU-2 Waste Placement Time Periods

The Permittee may place waste in RMU-2 landfill cells only between the hours of 5:00 a.m. and 6:00 p.m., on all days except Sundays and Legal Holidays. Special written approval is required from the Department on a case-by-case basis for waste placement in RMU-2 outside of these hourly limits or on Sundays and Legal Holidays. Any request by the Permittee for Department approval of additional RMU-2 waste placement time periods must be accompanied by detailed reasons for the additional time requested and a plan for artificial lighting if the request involves waste placement during other than daylight hours. The

Permittee must notify on-site Department staff by 3:00 p.m. every Friday of its intended work schedule for the following Saturday through Friday.

b. Initial Waste Placement In Any Cell

Drums and any bulk wastes containing or potentially containing rigid, sharp or other debris that could damage liner system geosynthetics (except for hazardous debris contained in macroencapsulation boxes), shall not be placed in the first waste lift in any cell or within ten (10) feet of any cell side slope.

c. Waste Placement Rate for the First 10 Lifts in Any Cell

The waste placement rate for the first 10 lifts in any RMU-2 cell shall be limited to no greater than 16,600 cubic yards per month in accordance with the 50,000 cubic yards per quarter assumption used in the landfill operational stability analyses presented in Appendix C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. The Permittee must demonstrate compliance with this limit in each Periodic Waste Mass Survey submitted in accordance with **Condition I.1** of this Exhibit.

The Permittee shall prepare a plan as prescribed by the Design Engineer for monitoring of pore pressures under each cell during waste placement in the first 10 lifts. The plan shall require utilization of the vibrating wire piezometers installed in accordance with **Condition D.5.a.iv** of this Exhibit, and indicate the type and frequency of monitoring, as well as propose an allowable rate of pore pressure increase during waste placement based on the stability analyses presented in Appendix C-9 of the "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. This plan must be included in the initial submission of the RMU-2 O&M Manual for the first operational cell and in each Addendum for subsequent cells, as required by **Condition F.1.a** of this Exhibit. Any exceedance the allowable rate of pore pressure increase shall require immediate suspension of waste placement in the cell and a re-evaluation of the waste placement rate in terms of landfill operational stability.

d. Waste Location Tracking Requirements

The location of each waste load placed in RMU-2 must be identified and recorded by the Permittee using a Global Positioning System (GPS) capable of determining the latitude and longitude to a minimum accuracy of 5 feet (1.5 meters), and the elevation to a minimum accuracy of 12 feet (3.5 meters). Using a computerized database, the Permittee must record the GPS reading (latitude, longitude & elevation or northing, easting & elevation), the horizontal grid location identifier and the waste lift number, of each large container/item (e.g., a macroencapsulation box, etc.) and each truck load of drums placed in the same location (if drums from a single truck load are separated and placed in different

locations, each such location must be identified and recorded). For each bulk waste load, the Permittee must record the horizontal grid location identifier and the waste lift number, using the GPS device and computerized database. Each waste load disposal location record must also include the date of disposal and the identity of the wastes in each load, in accordance with intra-facility waste tracking requirements in **Condition C.2 of Exhibit A**. The Permittee must use this information to document compliance with waste segregation requirements in **Conditions E.5.d & E.9** of this Exhibit.

8. Requirements for Vehicles and Equipment Operating in the Landfill

All vehicles and equipment used in the placement of wastes in the first lift of any cell must exhibit a ground pressure of 4.4 psi or less if operating directly on the cell's operational layer. Vehicles and equipment exhibiting greater than 4.4 psi of ground pressure operating above this layer will require a minimum thickness of waste or other material to protect underlying geosynthetic materials. This minimum thickness shall be determined by the Design Engineer based on the maximum ground pressure of the vehicles and equipment, and included in the initial submission of the RMU-2 O&M Manual for the first operational cell, as required by **Condition F.1.a** of this Exhibit. Also, no vehicle or equipment exhibiting greater than 4.4 psi of ground pressure shall be allowed to operate above the cell's leachate collection pipe until the full depth of the first waste lift is established over the pipe, or an equivalent depth of road material is placed above the pipe.

Commuter and personal vehicles must be restricted from entering the operational area of the RMU-2 landfill, except for employee or contractor vehicles authorized by the Permittee and State vehicles used by Department staff in monitoring compliance with this Permit.

All vehicles and equipment entering the RMU-2 operational area must be cleaned prior to leaving the landfill at a Truck Wash facility within the landfill operational area. The design of such a Truck Wash facility for each cell or a combination of cells must be included in the initial submission of the RMU-2 O&M Manual for the first operational cell and in each Addendum for subsequent cells, as required by **Condition F.1.a** of this Exhibit. All such Truck Wash facilities must have sloped pavement to direct wash water to a collection point and a sump to retain wash water sediments along with discharge sedimentation controls. Gross contamination on wheels or other vehicle/equipment exterior surfaces must be physically removed for appropriate disposal in the landfill before washing these surfaces. All visible waste on exterior surfaces must be removed prior to vehicles and equipment leaving the RMU-2 operational area to prevent contamination of on-site and off-site roads.

G. RMU-2 Monitoring and Inspection Requirements

1. RMU-2 MSE Wall Inspection, Repair/Reinforcement Plan

Prior to waste placement in the initial RMU-2 cell, the Permittee must submit for Department approval, an RMU-2 MSE Wall Inspection, Repair/Reinforcement Plan for the operational, closure and post-closure periods. The plan must detail the types of defects and deterioration in the MSE Wall to be assessed during each inspection, and indicate the frequency of such inspections. The plan must also indicate the frequency of periodic surveys of permanently fixed benchmarks to be installed at locations on and adjacent to the MSE Wall to determine if there is movement of the wall over time and if so, the magnitude of such movement. In addition, the plan must include methods and procedures for repairing and/or reinforcing the MSE Wall if defects or movement in the wall are indicated from inspections/surveys. All such repairs and reinforcement methods/procedures must in no way compromise landfill stability. No waste shall be placed above the MSE Wall prior to Department approval of this Plan.

2. Cell Primary Leachate Monitoring

The Permittee must monitor the leachate in all RMU-2 cells in accordance with the following requirements:

a. The primary leachate level in each cell must be monitored on a continuous basis using automatic data read-out equipment.

b. The volume of primary leachate pumped from each cell must be monitored using permanently installed metering equipment and recorded on a weekly basis.

c. The Permittee must sample and analyze the primary leachate pumped from each cell on a quarterly basis for pH, specific conductance, PCBs, and Priority Pollutant volatile organics.

d. The Permittee must sample and analyze the primary leachate pumped from each cell on a semiannual basis for Priority Pollutant Metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc).

e. On a quarterly basis and every time a cell's leachate level indicator probe is moved, the liquid level in the cell must be manually measured and compared to the results of the automatic data read-out to calibrate the leachate level indicators (probes).

The results of the analyses required by **Conditions G.2.c & G.2.d** of this Exhibit must be submitted to the Department on a monthly basis contained within the monthly environmental monitoring report for the month in which the samples were collected. The results of the level and volume measurements required by **Conditions G.2.a & G.2.b** of this Exhibit and the results of the manual level check on the automatic data required by **Condition G.2.e** of this Exhibit must be made available to Department staff upon request. The results of all level and volume measurements required by **Conditions G.2.a & G.2.b** of this Exhibit and the results of the manual level checks required by **Condition G.2.e** of this Exhibit, must be

submitted to the Department on a quarterly basis, within 30 days after the end of the quarter.

Upon closure of any cell, or cells, (i.e., completion of final cover over the entire area of the cell, or cells) and Department acceptance of the closure certification as required by 6 NYCRR 373-2.7(f)(1), the monitoring for that cell, or cells, required by **Conditions G.2.c & G.2.d** of this Exhibit, must be performed semiannually. At any time after the first semiannual monitoring event during the cell(s)' post-closure period, the Permittee may request Department approval to decrease the frequency or suspend the monitoring activities required by **Conditions G.2.b & G.2.d** of this Exhibit altogether based on a data supported demonstration of consistent leachate character.

3. Monitoring & Inspection Requirements for RMU-2 Leachate Systems

The Permittee must inspect and monitor the following RMU-2 leachate removal and transfer system components.

a. Leachate Removal and Transfer System Inspection Requirements

The cell riser vaults, leachate transfer pipe manholes and pump station must be inspected in accordance with the Inspection Plan in Attachment F of this Permit. Proper operation of all electronic leak detection systems installed at vaults and piping manholes, must be verified at least quarterly by visually checking for liquids at all locations where a visual check can be performed without entering a confined space. In addition, alarms for leak detection systems will be verified annually by either manually placing the probe in water or by electrical simulation in locations where a manual check would require a confined space entry.

b. Leachate Transfer System Testing Requirements

Subsequent to the repair of any leaks in an RMU-2 leachate transfer pipe, the Permittee must test the pipe as required by **Condition B.1.a.ii of Exhibit D** in accordance with the procedures in Attachment D, Appendix D-3, Section VIII of this Permit.

4. Detention Basin(s) Monitoring Requirements

The Permittee must monitor the level of accumulated storm water run-off in detention basins in accordance with the Inspection Plan in Attachment F of this Permit. For all run-off detention basins, the Permittee must provide a visible demarcation of each basin's one (1) foot depth, to evaluate compliance with **Condition F.5.c.ii** of this Exhibit. The level measurements must be manually estimated and recorded on the inspection forms for inclusion in the daily operating record.

H. RMU-2 Secondary Leachate Collection Sysytem (SLCS) Requirements

The Permittee must monitor, report and evaluate the flow from each RMU-2 cell's Secondary Leachate Collection System (SLCS) in accordance with 6 NYCRR 373-2.14(e)(3), 6 NYCRR 373-2.14(n)(2), the approved "RMU-2 O&M Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit, and the conditions in this Exhibit. The Permittee must also implement SLCS Response Actions as necessary in accordance with 6 NYCRR 373-2.14(o)(2)&(3), the RMU-2 Response Action Plan in Attachment K, Appendix D-9a of this Permit, and the conditions of this Exhibit.

1. RMU-2 SLCS Monitoring

   The Permittee must monitor the SLCS in each RMU-2 cell and conduct sampling and analysis of accumulated liquids to obtain accurate and reliable data on the quantity and chemical composition of the liquid in each cell's SLCS. At a minimum, the Permittee must perform the following tasks at the specified frequencies.

   a. On at least a weekly basis, the Permittee must remove all pumpable liquid from each cell's SLCS sump and record the volume.

   b. On a monthly basis, the Permittee must sample the liquid removed from each cell's SLCS sump and analyze each sample for pH and specific conductance.

   c. On a quarterly basis, the Permittee must sample the liquid removed from each cell's SLCS sump and analyze each sample for pH, specific conductance, PCBs and Priority Pollutant volatile organics.

   d. On a yearly basis, the Permittee must sample the liquid removed from each cell's SLCS sump and analyze each sample for pH, specific conductance, PCBs, Priority Pollutant organics and Priority Pollutant metals (i.e., antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc).

   Upon closure of any cell, or cells, (i.e., completion of final cover over the entire area of the cell, or cells) and Department acceptance of the closure certification as required by 6 NYCRR 373-2.7(f)(1), the monitoring for that cell, or cells, required by **Conditions H.1.b & H.1.c** of this Exhibit, must be performed semiannually.

2. RMU-2 SLCS Evaluation and Reporting Requirements

   a. SLCS Flow Rate Evaluation

      Each time liquid is manually removed from the cells' SLCS in accordance with **Condition H.1.a** of this Exhibit, the Permittee must record the volume manually pumped and any volume automatically pumped in-between manual weekly pumping events using permanently installed metering equipment, and add the amounts to determine each cell's total weekly SLCS volume. The Permittee must take the total weekly volume pumped from each cell's SLCS and divide it by the area of the cell in acres and by the number of days since the cell's last SLCS pumping event, to derive each cell's average daily SLCS flow rate in gallons per

acre per day (gpad). For each SLCS manual pumping event, the Permittee must compare each cell's average daily SLCS flow rate to the Response Rate for the cell as defined by **Condition H.3** of this Exhibit. If a cell's average daily SLCS flow rate exceeds the defined Response Rate for that cell, the Permittee must implement the RMU-2 Response Action Plan (RAP) in Attachment K, Appendix D-9 of this Permit, as required by **Condition I.1.d** of this Exhibit and take any and all response actions as deemed necessary by the Department to protect human health and the environment.

b. SLCS Reporting

The Permittee must report the results of the SLCS monitoring and flow rate evaluation required by **Conditions H.1.a and H.2.a** of this Exhibit to the Department. The results of all such RMU-2 SLCS monitoring and evaluations that occur during a month must be submitted to the Department within 90 days from the end of that month. The sampling data must be submitted as required by **Condition B of Exhibit A** and **Condition N of Module I** of this Permit. Along with the above results, the Permittee must submit the results of pH and specific conductance which were obtained at the time SLCS sampling occurred.

3. RMU-2 SLCS Response Rate for RMU-2 Cells

The Response Rate for any RMU-2 cell from the time of initial waste placement through its entire post-closure period shall be 20 gpad.

4. RMU-2 SLCS Response Actions

On any occasion, should the SLCS average daily flow rate for a cell exceed its Response Rate, the Permittee must implement the RMU-2 Response Action Plan (RAP) in Attachment K, Appendix D-9 of this Permit for the involved cell. In addition, the Permittee must take any and all response actions as deemed necessary by the Department to protect human health and the environment.

I. RMU-2 Surveying, Reporting and Recordkeeping

The Permittee must maintain an operating record for RMU-2 as required by 6 NYCRR 373-2.5(c) and 6 NYCRR 373-2.14(f). The Permittee must also make written submissions to the Department concerning RMU-2 as indicated in this Exhibit, in accordance with **Condition B of Exhibit A** and **Condition N of Module I** of this Permit.

1. Periodic Waste Mass Surveys

The Permittee must perform topographical surveys of the RMU-2 waste mass that has not received final cover on a quarterly basis and at other times as requested by the Department. From each survey, a topographic map of the waste must be prepared which must depict the actual drainage areas for each infiltration zone and each

detention basin, the actual waste slope gradients and slope set back dimensions, and the locations and dimensions of all run-off control channels and culverts. In conjunction with these surveys, the Permittee must perform a thorough inspection of the operational area of the landfill with special attention to identifying any accumulated sediments in channels, basins and culverts, as well as the condition of sediment control features. From the results of each survey/inspection, the Permittee must prepare a report which includes the following:

- A topographic map of the RMU-2 waste mass prepared from the survey;

- An evaluation of the surveyed waste mass for compliance with **Condition F.3.a** of this Exhibit regarding each cell's maximum waste mass topographic limitations;

- An evaluation of the actual waste height increases and slope gradients for compliance with **Conditions F.4 & F.7.c** of this Exhibit regarding the rate of vertical waste placement and slope gradient limitations pertaining to waste mass stability;

- An evaluation of the actual dimensions and condition of all drainage areas, run-off control channels, culverts and basins for compliance with **Conditions F.5.c.ii & F.5.c.iii** of this Exhibit, and the approved "RMU-2 O&M Manual" and Addendums thereof as required by **Condition F.1.a** of this Exhibit, regarding flow/volume capacity requirements and sedimentation prevention requirements;

- A calculation of each cell's remaining fill progression capacity based on the topographic survey, the as-built grades of the cell's operations layer and the design grades of the waste mass from the approved RMU-2 Cell Fill Progression Plan or most recently approved plan addendum; and

- A calculation of the entire landfill's remaining capacity based on the topographic survey, the as-built grades of the operations layer and the design grades of the waste mass as depicted on the "RMU-2 Top of Waste Grades" Drawing No. 6 in Attachment J, Appendix D-6a of this Permit.

The Permittee must submit each survey/inspection report to the Department within thirty (30) days from the end of each quarter, and in the case of a survey performed per a Department request, within thirty (30) days subsequent to such a survey. The Permittee must correct any compliance or other problems identified by a survey/inspection prior to the end of the next consecutive quarter and note any such corrections in that quarter's survey/inspection report, unless the Permittee requests and the Department grants an extension to make certain corrections based on adverse weather conditions or other circumstances beyond the Permittee's control.

2. Waste Disposal Records and Reporting Requirements

   a. With the submission of the facility's Annual Report required by 6 NYCRR 373-2.5(e), the Permittee must submit a summary of the actual total volume and

weight of all waste placed in the landfill. The weight, or volume and density, of each waste received must be determined prior to landfilling either from generator supplied information or by measurement at the Permittee's facility, in a manner consistent with required Annual Report forms and instructions.

b. Within six months after the end of waste placement in a cell of RMU-2, the Permittee must submit to the Department a complete report of all wastes disposed in the cell in accordance with 6 NYCRR 373-2.14(f) including the three-dimensional (3-D) location and a concise description of each waste. Alternately, disposal reports can be submitted on a monthly basis throughout the life of the landfill. Disposal reports are to be available during inspections. The actual 3-D location and concise description of each waste must be contained in the report using the waste identification and recording system required by **Condition F.7.d** of this Exhibit with appropriate nomenclature, map coordinates, and waste descriptions.

J. RMU-2 Closure Requirements

The Permittee must close RMU-2 in accordance with 6 NYCRR 373-2.7(a) through (f), 6 NYCRR 373-2.14(g), the conditions of this Permit and construct the RMU-2 Final Cover in strict accordance with the following:

- The "RMU-2 Closure Plan" in Attachment I, Section I.1a of this Permit;
- The "RMU-2 Landfill Drawings" in Attachment J, Appendix D-6a of this Permit;
- The "RMU-2 Landfill Technical Specifications" in Attachment J, Appendix D-7a of this Permit;
- The "RMU-2 Landfill Quality Assurance Manual" in Attachment J, Appendix D-8a of this Permit;
- The "RMU-2 Engineering Report" which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit;
- Requirements for final cover material testing as specified by **Conditions C.4 through C.6** of this Exhibit;
- Requirements for final cover construction as specified by **Conditions D.1.a, D.1.c through D.1.l, D.2, D.3, D.4.b, D.5.d, D.5.e, D.5.h, D.5.i and D.6 through D.10** of this Exhibit; and
- The closure requirements specified under **Condition J** of this Exhibit.

1. RMU-2 Closure Certifications

Within 60 days of completion of final closure of RMU-2 or within 60 days of any RMU-2 partial closure, the Permittee must submit to the Department certifications by the Permittee and by an independent New York State registered Professional Engineer that RMU-2 (or the applicable portion thereof) has been closed in accordance with: 6 NYCRR 373-2.7(a) through 373-2.7(f); 6 NYCRR 373-2.14(g); **Condition G of Module VI** of this Permit; **Conditions A.6 and A.7 of Exhibit A**; and all documents and Permit conditions listed under **Condition J** in this Exhibit.

2. RMU-2 Closure Cost Estimate

The Permittee must maintain a Department approved detailed RMU-2 closure cost estimate, which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, in current dollars, in accordance with 6 NYCRR 373-2.8(c), and **Condition O in Module I** of this Permit. The approved estimate must reflect the cost of closure of each RMU-2 landfill cell and the entire landfill in accordance with the RMU-2 Closure Plan in Attachment I, Section I.1a of this Permit and all other documents and Permit conditions listed under **Condition J** in this Exhibit. The Department may, at its discretion, require the Permittee to increase the RMU-2 closure cost estimate in accordance with Part 621 of the regulations, if at any time it determines that the amount is insufficient to cover the costs of closure.

3. Financial Assurance for RMU-2 Closure

a. The Permittee shall demonstrate continuous compliance with 6 NYCRR 373-2.8(d) or, when applicable, with 6 NYCRR 373-2.8(g) by providing documentation of financial assurance for RMU-2 closure to the Commissioner, as required by 6 NYCRR 373-2.8(j), **Condition O in Module I** of this Permit and **Condition G.2 in Exhibit A**. Changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(d). The Permittee shall provide annual evidence to the Commissioner that the financial assurance mechanisms for RMU-2 closure have been maintained and not allowed to lapse.

b. At least 60 days before the date hazardous waste is first placed in any RMU-2 landfill cell, the Permittee shall provide documentation of financial assurance to the Commissioner as indicated by **Condition J.3.a** of this Exhibit, in at least the amount required for RMU-2 closure up to, and including the cell where waste is to be placed, in current dollars, based on the approved RMU-2 closure cost estimate as adjusted for inflation.

K. RMU-2 Perpetual Post-Closure Care Requirements

The Permittee must perform perpetual post-closure care for the RMU-2 landfill in accordance with 6 NYCRR 373-2.7(g) through 373-2.7(j); 6 NYCRR 373-2.14(g); the RMU-2 Post-Closure Plan in Attachment I, Section I.2a of this Permit; **Conditions F.2,**

F.5.b, G.1, G.2, G.3.a, G.3.b, H & L of this Exhibit and **Conditions E.1, E.5, E.6, E.7, G, N and O of Module VI** of this Permit.

1. RMU-2 Post-Closure Cost Estimate

   The Permittee must maintain a Department approved detailed RMU-2 post-closure cost estimate, which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit, in current dollars, in accordance with 6 NYCRR 373-2.8(e), and **Condition O in Module I** of this Permit. The approved estimate must reflect the cost of post-closure care for each closed RMU-2 landfill cell and for the entire landfill in accordance with the RMU-2 Post-Closure Plan in Attachment I, Section I.2a of this Permit and all Permit conditions listed under **Condition K** in this Exhibit. The Department may, at its discretion, require the Permittee to increase the RMU-2 post-closure cost estimate in accordance with Part 621 of the regulations, if at any time it determines that the amount is insufficient to cover the costs of post-closure care.

2. Financial Assurance for RMU-2 Post-Closure Care

   a. The Permittee shall demonstrate continuous compliance with 6 NYCRR 373-2.8(f) or, when applicable, with 6 NYCRR 373-2.8(g) by providing documentation of financial assurance for RMU-2 post-closure care to the Commissioner, as required by 6 NYCRR 373-2.8(j), **Condition O in Module I** of this Permit and **Conditions G.2 & H in Exhibit A**. Changes in financial assurance mechanisms must be approved by the Commissioner pursuant to 6 NYCRR 373-2.8(f). The Permittee shall provide annual evidence to the Commissioner that the financial assurance mechanisms for RMU-2 post-closure care have been maintained and not allowed to lapse.

   b. At least 60 days before the date hazardous waste is first placed in any RMU-2 landfill cell, the Permittee shall provide documentation of financial assurance to the Commissioner as indicated by **Condition K.2.a** of this Exhibit, in at least the amount required for RMU-2 post-closure care up to, and including the cell where waste is to be placed, in current dollars, based on the approved RMU-2 post-closure cost estimate as adjusted for inflation.

L. RMU-2 Groundwater Monitoring and Protection Requirements

The Permittee must comply with all applicable groundwater monitoring requirements set forth in 6 NYCRR 373-2.6.

The Permittee must modify the groundwater monitoring program, as necessary, to maintain compliance with any future changes in 6 NYCRR 373-2.6 within ninety (90) days after the effective date of such changes.

Detection Monitoring Program: Groundwater quality data collected during the RMU-2 Permit modification application process support the implementation of a Detection Monitoring Program for RMU-2.

The Permittee is required to maintain and adhere to the following Detection Monitoring Program for RMU-2.

1. Point of Compliance

   The Points of Compliance for RMU-2 are as follows:

   a. RMU-2: The Point of Compliance for this landfill is defined as the vertical surface passing through the downgradient monitoring wells R201SR, R204S, R205S, R206S, R207S, R208S, R209S, R210S, R211S, R212S, R213S, R214S, R215S, and R216S.

   The Points of Compliance are shown on Figure 1 provided at the end of this Exhibit.

2. Length of Monitoring Requirements

   At a minimum, the groundwater monitoring requirements set forth herein shall extend for a period no less than thirty (30) years beyond the closure of RMU-2. In the event that a compliance monitoring program is needed at the RMU-2 landfill, a compliance period equal to the active life of RMU-2 plus thirty (30) years shall be established.

3. Description of Wells

   a. Upgradient. Background monitoring wells BW01S, BW01D, BW03S, BW03D, BW04S, BW04D, BW05S and BW05D.

   b. Downgradient. Monitoring wells R204S, R204D, R205S, R205D, R206S, R206D, R207S, R207D, R208S, R208D, R209S, R209D, R210S, R210D, R211S, R211D, R212S, R212UD, R212LD, R213S, R213D, R214S, R214D, R215S, R215D, R216S, and R216D will be used to monitor RMU-2.

4. Additional Monitoring

   Each time the active RMU-2 Detection monitoring wells are sampled during the active life of the Landfill:

   a. Samples of RMU-2 leachate from the primary and secondary leachate collection systems must be collected and analyzed for the same suite of parameters as the monitoring wells.

   b. Water level measurements will be taken from all RMU-2 piezometers and all active RMU-2 Detection Monitoring Wells.

5. Sampling Frequency

All monitoring wells in the Detection Monitoring Program must be sampled at least semiannually.

6. Indicator Parameters

As set forth in 6 NYCRR 373-2.6(i)(1), the following parameters must be used as indicator parameters in the Detection Monitoring Program:

Volatile Organic Compounds

Benzene	Ethylbenzene
Bromoform	Methyl Bromide
Carbon Tetrachloride	Methyl Chloride
Chlorobenzene	Methylene Chloride
Chlorodibromomethane	1,1,2,2-Tetrachloroethane
Chloroethane	Tetrachloroethylene
2-Chloroethylvinylether	Toluene
Chloroform	trans-1,2-Dichloroethylene
Dichlorobromomethane	1,1,1-Trichloroethane
1,1-Dichloroethane	1,1,2-Trichloroethane
1,2-Dichloroethane	Trichloroethylene
1,1-Dichloroethene	Vinyl Chloride
1,2-Dichloropropane	cis-1,3-Dichloropropylene
trans-1,3-Dichloropropylene	

The Permittee must analyze all Detection Monitoring wells for the indicator parameters and must statistically compare the values obtained during each sampling event with the background values of the parameters.

7. Background Values for Indicator Parameters

To date, no hazardous waste constituents have been detected in groundwater samples obtained from background monitoring wells BW01S, BW01D, BW03S, BW03D, BW04S, BW04D, BW05S and BW05D.

8. Statistical Evaluation

Whenever the Permittee determines groundwater quality at the Point of Compliance, the Permittee must determine whether there has been a statistically significant increase in any of the indicator parameters when compared against the established trigger values. That determination must be made for each indicator parameter and for every well.

For RMU-2, Poisson Prediction Limits must be used for statistical comparison of monitoring well data. This method is appropriate for data that exhibit truncated distributions with skewed tails, produced by detection limit problems. The Poisson prediction interval includes three data evaluation mechanisms:

- Statistical Criterion 1 - Poisson Prediction Interval (Concentration)
- Statistical Criterion 2 - Multiple Detections
- Statistical Criterion 3 - Persistent Detections

a. Statistical Criterion 1

Poisson Prediction Interval (Concentration): A concentration based t-prediction interval has been developed for the Model City site. Based on data obtained from analysis of background groundwater quality, field and trip blanks, the t-prediction interval has been calculated to be a sum total of indicator parameters in a single scan. The prediction interval for the specific units covered by this Exhibit is as follows:

i. RMU-2: For wells, except R204S and R208S, which comprise the Point of Compliance for the landfill, the prediction interval (PI) has been calculated to be 23 ug/l as a summed total concentration of all indicator parameters, excluding Methylene Chloride.

'a') For well R204S, data will be evaluated using a modified PI, namely that the summed total concentration of all indicator parameters, excluding Methylene Chloride and 1,1-Dichloroethane (1,1-DCA), 1,2-Dichloroethane (1,2-DCA), and Trichloroethene (TCE), must not exceed 23 ug/l. Furthermore, the concentration of 1,1-DCA, 1,2-DCA, and TCE will each be compared with a compound with a compound specific PI of 23 ug/l, which was derived from the analytical history of this well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride and 1,1-DCA, 1,2-DCA, and TCE.

'b') For well R208S, data will be evaluated using a modified PI, namely that the summed total concentration of all indicator parameters, excluding Methylene Chloride and Benzene, Ethylbenzene, and Toluene, must not exceed 23 ug/l. Furthermore, the concentration of Benzene, Ethylbenzene, and Toluene will each be compared with a compound with a compound specific PI of 23 ug/l, which was derived from the analytical history of this well. In addition, routine evaluation procedures for Multiple and Persistent Detections will be used, excluding Methylene Chloride and Benzene, Ethylbenzene, and Toluene.

b. Statistical Criterion 2

Multiple Detections: A Prediction Interval, based on the number of compounds detected in a single scan, has been calculated for the Model City site. The number shall be more than 3 indicator parameters detected in any well in a single scan, independent of summed total concentration and excluding methylene chloride. Persistent compounds detected in wells evaluated using an "alternative statistical

approach" must not be counted when determining the number of detections in a single scan.

c. Statistical Criterion 3

Persistent Detections: An alternative "trigger" will be if any one indicator parameter is detected in any well in a series of three (3) consecutive scans (independent of concentration) and excluding methylene chloride. Persistent compounds detected in wells evaluated using an "alternative statistical approach" must not be counted when determining persistent detections.

Statistical Based Trigger mechanisms are outlined on Figure 2 provided at the end of this Exhibit.

9. Reporting Requirements

a. Routine Monitoring Reporting: The Permittee must report the results of all groundwater analyses which are obtained from the Detection Monitoring Network.

The results of all routine environmental monitoring that occurs during a month must be submitted to the Department within 90 days from the end of that month. The sampling data must be submitted to the Department in accordance with the requirements of **Condition N of Module I** of this Permit.

Prior to well purging, the depth to the static water surface must be measured to the nearest 0.01 feet each time a well is sampled. As a check, a duplicate water level measurement must be taken and recorded on every fifth well.

The Permittee must evaluate the data using the procedures set forth on Figure 2 provided at the end of this Exhibit and submit the results of the statistical comparison of the indicator parameters as part of the Routine Environmental Monitoring Report. If the analyses reveal a statistically significant increase in the concentration of an indicator parameter at any well in the Detection Monitoring Network, the Permittee must:

i. If the results of analyses fail either Statistical Criteria 1 or 2, the data must have a QA/QC review of the analysis. If the results fail Statistical Criterion 3, the well in question must be resampled within fourteen (14) days.

ii. If the QA/QC data review indicates that the analytical data is erroneous, the evaluation returns to Detection Monitoring with a statement in the annual report that indicates the reasons for the erroneous data. Otherwise, the well in question must be resampled within thirty (30) days of receipt of the original detection monitoring results.

iii. Within seven (7) days of receipt of the results of the resampling, the results must be subjected to the same statistical evaluation criteria (total concentration and multiple detections).

iv. If the resampling results pass Statistical Criteria 1 and 2, then the well in question returns to detection monitoring with a statement in the annual report.

v. If the resampling results fail Statistical Criteria 1 and 2, then, within 7 days of receiving the results, the Permittee must provide written notification of the failure of the evaluation criteria to the Department. Within thirty (30) days of receiving results of the resampling, a plan must be submitted to the Department to determine the source of the detected organic compounds. Within ninety (90) days of receiving the results of the resampling, a Permit modification request must be submitted to the Department.

vi. In addition to **Condition L.9.a.v** of this Exhibit, if the resampling results fail Statistical Criteria 1 or 2, then, within fourteen (14) days of receiving the resampling results (for evaluations under Statistical Criteria 1 and 2), the affected well and adjacent wells that monitor the regulated unit, and for SLF monitoring wells, the leachate from the Landfill Cell upgradient of the well, must all be sampled for Appendix 33 constituents. Adjacent wells will be those wells immediately next to the well(s) with the detected compounds. For example, for a shallow (upper tills) monitoring well with detected compounds, the corresponding deep (glaciolacustrine silt/sand) well and the two shallow wells on either side will be considered adjacent wells. For a deep monitoring well, the adjacent wells would be the corresponding shallow well and the deep wells on either side. If compounds are detected in a well at which there is not a well or a well pair on one side monitoring the same regulated unit, then the number of adjacent wells will be reduced by one.

vii. For wells that fail Statistical Criterion 3, within thirty (30) days of receiving the results of the resampling called for in **Condition L.9.a.i** of this Exhibit, the Permittee must meet with the Department to discuss the results. Based on discussions, the Department will determine if further action is required. If further action is not required, then the consecutive count must reset to zero, and the well returns to detection monitoring. If further action is required, a source investigation must be submitted to the Department within thirty (30) days (if required).

viii. Upon approval of the source investigation plans, called for in **Conditions L.9.a.v and L.9.a.vii** of this Exhibit, by the Department; an evaluation must be made to determine the source of the detected compounds.

ix. If the source investigation determines that the regulated unit is not the source of the detected compounds, the Permittee must submit a Permit modification request to continue detection monitoring. In addition, an investigation must

be conducted to determine the source, rate and extent of the contamination as well as determine what, if any remedial action is required.

x. If the source investigation determines that the regulated unit is the source of the detected compounds, the Permittee must submit a Permit modification request to determine maximum contaminant levels in order to determine the need for potential remedial action.

The evaluation procedure is outlined on Figure 2 provided at the end of this Exhibit.

b. Annual Reporting

Annually, the Permittee must submit a summary report of all sampling results obtained during the preceding year.

The Annual Report must be due by March 1 of each year and must contain all data and evaluations as required for monthly reporting under **Condition F in Schedule 1 of Module I**. Any data previously submitted to the Department may be referenced.

In addition, the following information must be contained in the Annual Report:

i. The Permittee must determine the groundwater flow rate and direction [6 NYCRR 373-2.6(i)(5)].

ii. Proposal for any changes to the Groundwater Monitoring Plan.

10. Inability to Obtain Samples

If the Permittee knows that a well or piezometer may not provide representative samples or accurate piezometric values, may be damaged in some way, or is inaccessible, the Permittee must, within fourteen (14) days of such knowledge, attempt to remedy the problem and, when appropriate, sample the well or piezometer. Within thirty (30) days of such knowledge, the Permittee must, through written notification to the Department, provide information which describes the nature of the problem associated with the device, and in the event of a failure to obtain a sample, the reason why a sample was not obtained.

In addition, the notification must contain:

a. A description of how the problem was corrected; or

b. A schedule for the rehabilitation or replacement of the device.

If a problem with a well prevented obtaining a sample as scheduled, a sample must be obtained within fourteen (14) days after rehabilitation or replacement of the well.

11. Well Rehabilitation

Every five (5) years, the Permittee must inspect the Detection Monitoring Network to determine its integrity. The inspection must be certified by a professional engineer or qualified geologist. The inspection must include the following:

a. A survey of all groundwater wells and piezometers in the monitoring network (performed by a New York State licensed surveyor) to the top of well casing elevation and to provide an updated site plan. The survey must be accurate to within 0.01 feet of elevation and the site plan must be presented on a scale of 1 inch equals 200 feet.

b. An establishment of the ability of all wells and piezometers in the monitoring network to yield meaningful groundwater elevations when measured with an instrument accurate to within 0.01 feet. The ability of the wells to yield such information shall be based upon a comparison of the sounding of a well to its historical depth. Wells shall be considered obstructed if 10% or more of the well screen is covered or otherwise inaccessible. At a minimum, these wells will be redeveloped to remove sediments from the bottom of the well.

c. An establishment of the ability of all groundwater wells to yield representative samples for determining the concentration of hazardous waste constituents that may be present in the groundwater. Physical examination of the well must include removal and inspection of any dedicated sampling device to assure that the device is functioning as designed.

12. Permit Modification

If the Permittee determines that the monitoring programs required under this Permit no longer satisfy the requirements of the regulations, the Permittee must, within ninety (90) days of such determination, submit an application for a Permit modification which describes the changes that will be necessary to maintain regulatory compliance at the site. The Department may require the Permittee to perform additional sampling and install additional monitoring wells, as necessary, to maintain compliance with 6 NYCRR Part 373-2.6 at the site. If at any time it is determined that the groundwater monitoring network is not in compliance, the Department shall require the Permittee to take whatever actions are necessary to bring the monitoring network into compliance.

13. Additions to the Sampling Program

If hazardous waste constituents are consistently present in the Detection Monitoring Wells below the statistical “trigger” levels, the Department may require the Permittee to perform additional sampling and install additional wells to determine whether the constituents originate from the Regulated Unit.

14. Leak Detection

In the event that the monitoring program for the secondary leachate collection systems that is set forth in this Permit indicates the exceedence of volumetric "trigger" values in the secondary system of the landfill, the Permittee must sample the wells in the Detection Monitoring network downgradient of the cell within fourteen (14) days and perform a statistical comparison of the indicator parameters.

For the RMU-2 landfill, if hazardous waste constituents are present in the secondary leachate collection system and the results of the statistical analysis of the indicator parameters in monitoring wells downgradient of the landfill cell indicates that the landfill may be impacting the groundwater, the Permittee must discontinue the placement of additional wastes in the landfill cell. Thereafter, future landfilling of wastes may only take place with written approval of the Department.

15. Sampling and Analysis

All Sampling and Analysis must be performed in accordance with the approved Groundwater Monitoring Sampling and Analysis Plan (GWSAP) which is incorporated by reference into this Permit by **Schedule 1 of Module I** of this Permit. Any modification of the approved GWSAP must be approved by the Department prior to its implementation.

16. Collection of Groundwater Samples by the Department

At the request of the Department, the Permittee must allow the Department and/or its authorized representatives to collect samples or splits of any samples collected by the Permittee pursuant to the requirements of this Permit. Similarly, at the request of the Permittee, the Department will allow the Permittee or the Permittee's authorized representatives to take splits or duplicates of any samples collected by the Department. The Permittee must provide for adequate disposal of purge water whenever samples are collected by the Department.

MODULE II

Corrective Action Requirements

[*NOTE: Module II is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

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(l) 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 in **Condition A.2** of this Module and Attachment E of this Permit.

2. The Permittee must follow the requirements for Groundwater Protection as specified in **Schedule 1 of Module I** of this Permit, including any groundwater sampling and analysis plan which may be required therein.

3. The Permittee and its consultants/contractors performing corrective action field activities must document completion of appropriate training in accordance with the Department-approved Personnel Training Plan provided as Attachment H of this Permit 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 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":

RCRA Program Element	***Equivalent Superfund Program Element***
RCRA Facility Assessment (RFA) (including Preliminary Review [PR], Visual Site Inspection [VSI] and 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 (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 element 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 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 proposed 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 Permit 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

[*NOTE: Module III is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

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 wastes in containers that may be stored in each permitted container storage area. The Permittee must not manage and/or store any 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 wastes in accordance with 6 NYCRR 373-2.9(a), with the following noted exceptions: 1) storage exempt under 6 NYCRR Part 373-1.1(d) 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); 2) storage exempt under 6 NYCRR 371.1(j) and managed in compliance with 6 NYCRR 374-3; 3) storage authorized under 6 NYCRR 373-4; and 4) storage pursuant to ECL § 27-2613 for recycling purposes only.

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 nonhazardous wastes and other materials stored in an area designated for hazardous wastes will be subject to all the terms and conditions of this Permit as required by 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 and between drums and any building walls 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 maintain documentation at the facility which demonstrates compliance with the applicable portions of the New York State Fire Code and the NFPA 30, and make such documents available for Department review.

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 Inspection Plan provided in Attachment F of this Permit.

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 it is determined that a leaking container threatens human health or the environment in accordance with 6 NYCRR 373-2.4(g), the Permittee must immediately report the situation as specified in 6 NYCRR 373-2.4(g)(4)(ii) and implement the Department-approved Contingency Plan provided as Attachment G of this Permit as necessary to adequately control and resolve the situation.

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, take steps 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) using the procedures contained in the Department-approved Contingency Plan provided as Attachment G of this Permit.

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 utilize procedures in the Department-approved Contingency Plan provided as Attachment G of this Permit to clean up any leaked or spilled material; and, c) immediately cease operation of the containment 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 does 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; or

   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.

   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)]

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 ensure 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 provided as Attachment C of this Permit.

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 I 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 373-2.28 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. 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. All containers, equipment and miscellaneous debris must be removed so that all surfaces of the containment system are completely exposed for inspection. 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.

MODULE IV

Tank Systems

[*NOTE: Module IV is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

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, 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 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 Inspection Plan provided in Attachment F of this Permit and **Schedule 1 of Module 1**.

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 or overflows are discovered associated with any tank system (including ancillary equipment) which are beyond the secondary containment or within the secondary containment if the tank system is required to have Level 1 or 2 controls by 6 NYCRR 373-2.29(e) (except those which are less than or equal to a quantity of one pound as per 6 NYCRR 373-2.10(g)(4)(ii)), the Permittee must immediately report the situation as specified in 6 NYCRR 373-2.10(g)(4) and implement the Department-approved Contingency Plan provided as Attachment G of this Permit as necessary to adequately control and resolve the situation.

5. For any identified leak/overflow which is less than one pound beyond the secondary containment, or any quantity within the secondary containment of a tank system not required to have Level 1 or 2 controls by 6 NYCRR 373-2.29, or a 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) using the procedures contained in the Department-approved Contingency Plan provided as Attachment G of this Permit. In addition, the Emergency Coordinator (or Alternate) must respond to determine the appropriate level of response in accordance with the aforementioned Contingency Plan, and provide Department notification of the leak/overflow no later than the next business day.

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.

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 Contingency Plan provided as Attachment G of this Permit 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 either:

    a. Schedule and complete repairs to the defect within thirty (30) days from the date the defect was first identified; or

    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.

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 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 I 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 373-2.14(g), 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 I 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) incorporated by reference into 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 overfill 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, 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 overfill 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 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 annual 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 annual report must be submitted to the Department within 90 days of the assessment (or as otherwise specified in **Schedule 1 of Module 1**), unless the Department approves an extension of no greater than 30 days.

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 annually for all containment areas. 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. 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

Surface Impoundments

[*NOTE: Module V is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

PART 373 PERMIT

MODULE V - SURFACE IMPOUNDMENTS

A. AUTHORIZED STORAGE, WASTE TYPES AND STORAGE VOLUME

1. The Permittee is authorized to use the surface impoundments for the storage 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 surface impoundment.

2. In the event that the Facility has multiple surface impoundments, the following provisions apply individually to each surface impoundment.

B. DESIGN AND OPERATING REQUIREMENTS [6 NYCRR 373-2.11(b)]

1. The Permittee must design and operate each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(b) and this Permit including **Schedule 1 of Module I**, except as may be authorized by **Schedule 1 of Module I**.

C. DOUBLE-LINED SURFACE IMPOUNDMENTS NOT EXEMPT FROM 6 NYCRR 373-2.6 [6 NYCRR 373-2.11(c)]

1. Double-lined or single-lined surface impoundments authorized by this Permit are not exempt from the 6 NYCRR 373-2.6 groundwater protection requirements in accordance with 6 NYCRR 373-2.11(c) and this Permit including **Schedule 1 of Module I**.

D. MONITORING AND INSPECTION [6 NYCRR 373-2.11(d)]

1. The Permittee must perform monitoring and inspection of each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(d) and this Permit, including **Schedule 1 of Module I** and the Department-approved Inspection Plan provided in Attachment F of this Permit.

2. For each occurrence where evidence of any of the items listed in 6 NYCRR 373-2.11(d)(2) are identified in any surface impoundment, 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.

3. If overflows are discovered associated with any surface impoundment (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 Contingency Plan provided as Attachment G of this Permit as necessary to adequately control and resolve the situation.

4. For any identified condition creating the potential for an overflow from a surface impoundment, the Permittee must take immediate action to prevent any overflow using the procedures contained in the Department-approved Contingency Plan provided as Attachment G of this Permit.

5. The Permittee must take action in response to any of the aforementioned deficiencies in accordance with 6 NYCRR 373-2.2(g)(3), **Condition D.7** of this Module and, if applicable, **Conditions E and K** of this Module.

6. If the dike of a surface impoundment is found to be breached or in such a deteriorated condition that it is obviously incapable of containing liquid, or if the liquid level in any surface impoundment suddenly drops due to reasons other than changes in flow into or out of the impoundment, the Permittee must: a) notify the Department and take immediate action to stop or prevent any release from the impoundment; b) take steps in accordance with the Department-approved Contingency Plan provided as Attachment G of this Permit to clean up any overflow material; c) immediately cease operation of the impoundment and relocate any material stored within the impoundment until the defect is repaired to the satisfaction of the Department; and, d) implement the requirements of **Condition E** of this Module.

7. 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 D.6** of this Module) or for situations where the waste has been removed from the impoundment in accordance with **Condition D.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; or

    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.

    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.

E. EMERGENCY REPAIRS AND CONTINGENCY PLANS [6 NYCRR 373-2.11(e)]

1. The Permittee must immediately implement response actions and perform emergency repairs on each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(e) and this Permit, including **Schedule 1 of Module I** and the Department-approved Contingency Plan provided as Attachment G of this Permit. The Department-approved Contingency Plan, prepared in accordance with 6 NYCRR 373-2.4, includes procedures for compliance with the requirements of 6 NYCRR 373-2.11(e).

F. CLOSURE AND POST-CLOSURE CARE [6 NYCRR 373-2.11(f)]

1. The Permittee must perform closure for each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(f), 6 NYCRR 373-2.7 and this Permit, including **Schedule 1 of Module I** and the Department-approved Closure Plan and/or Post-Closure Plan provided as Attachment I of this Permit. For surface impoundments closed in accordance with 6 NYCRR 373-2.11(f)(2), the Permittee must meet the closure and post-closure requirements of 6 NYCRR 373-2.14(g), 6 NYCRR 373-2.7(g). If, at closure, some waste residues or contaminated materials are left in place, the Permittee must comply with all post-closure requirements in 6NYCRR 373-2.11(f)(2), and submit, for Department approval, a post-closure plan, a post-closure cost estimate and financial assurance in at least the amount of the post-closure cost estimate for the subject surface impoundment(s).

G. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE [6 NYCRR 373-2.11(g)]

1. The Permittee must follow the special requirements for ignitable or reactive wastes for each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(g) and this Permit including **Schedule 1 of Module I**.

H. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES [6 NYCRR 373-2.11(h)]

1. The Permittee must follow the special requirements for incompatible wastes for each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(h) and this Permit including **Schedule 1 of Module I**.

I. SPECIAL REQUIREMENTS FOR HAZARDOUS WASTES F020, F021, F022, F023, F026 AND F027 [6 NYCRR 373-2.11(i)]

1. The Permittee must follow the special requirements for hazardous wastes F020, F021, F022, F023, F026 and F027 for each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(i) and this Permit including **Schedule 1 of Module I**.

J. ACTION LEAKAGE RATE [6 NYCRR 373-2.11(j)]

1. For any double-lined surface impoundment, the Permittee must comply with the action leakage rate for each surface impoundment with leak detection authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(j) and this Permit including **Schedule 1 of Module I**.

K. RESPONSE ACTIONS [6 NYCRR 373-2.11(k)]

1. For any double-lined surface impoundment, the Permittee must perform the response actions for each surface impoundment with leak detection authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(k) and this Permit, including **Schedule 1 of Module I** and the Department-approved Response Action Plan incorporated by reference into this Permit.

L. AIR EMISSION STANDARDS [6 NYCRR 2.11(l)]

1. The Permittee must comply with the air emission standards for each surface impoundment authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.11(l) and this Permit including **Schedule 1 of Module I**.

M. OTHER REQUIREMENTS

1. The Permittee must operate each surface impoundment authorized by this Permit to prevent overtopping in accordance with 6 NYCRR 373-2.11(b)(7) and maintain a minimum of two (2) feet of freeboard at all times, unless specified otherwise in **Schedule 1 of Module I**.

2. The Permittee must inspect each surface impoundment daily to determine whether each surface impoundment has a minimum of two (2) feet of freeboard as required by **Condition M.1** of this Module.

3. Prior to discharging the contents of any surface impoundment to an off-site surface water body, the Permittee must submit and receive Department approval of a Discharge Pre-Qualification Report containing analytical data and other information which indicates conformance with the limitations stipulated in the Facility's State Pollutant Discharge Elimination Systems (SPDES) Permit. The Permittee must not discharge from any surface impoundment to an off-site surface water body without prior written approval from the Department. All such discharges must be conducted in accordance with the Facility's SPDES Permit.

4. If a surface impoundment is ever not in service for a period of nine (9) months or more (i.e., the surface impoundment does not receive at least 1% of its capacity during any given 9-month period), the Permittee must obtain and submit to the Department a certification from an independent Professional Engineer, licensed to practice in New York, which stipulates that the surface impoundment's dike (i.e.,

berm), including that portion which provides freeboard, has adequate structural integrity in accordance with 6 NYCRR 373-2.11(d)(3).

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 VI

Landfills

[*NOTE: Module VI is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

PART 373 PERMIT

MODULE VI - LANDFILLS

A. AUTHORIZED STORAGE, WASTE TYPES AND STORAGE VOLUME

1. The Permittee is authorized to use landfills for the disposal 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 that can be disposed in each permitted landfill, as well as the design and operational requirements.

2. In the event that the Facility has multiple landfills, the following provisions apply individually to each landfill.

B. SITE CHARACTERISTICS [6 NYCRR 373-2.14(b)]

1. The Permittee must comply with the site characteristics for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(b) and this Permit including **Schedule 1 of Module I**.

C. DESIGN AND OPERATING REQUIREMENTS [6 NYCRR 373-2.14(c)]

1. The Permittee must design and operate each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(c) and this Permit including **Schedule 1 of Module I**. All piping outside the landfill liner system which is used to transport leachate and/or contaminated runoff outside of the landfill must meet the requirements for tank ancillary equipment in accordance with 6 NYCRR 373-2.10(d)(6) and this Permit, including **Module IV** and **Schedule 1 of Module I**.

D. DOUBLE-LINED LANDFILLS NOT EXEMPT FROM 6 NYCRR 373-2.6 [6 NYCRR 373-2.14(d)]

1. Double-lined landfills authorized by this Permit are not exempt from the 6 NYCRR 373-2.6 groundwater protection requirements in accordance with 6 NYCRR 373-2.14(d) and this Permit including **Schedule 1 of Module I**.

E. MONITORING AND INSPECTION [6 NYCRR 373-2.14(e)]

1. The Permittee must perform monitoring (including groundwater) and inspection of each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.6(a) through (j) for groundwater, 6 NYCRR 373-2.14(e) and this Permit, including **Schedule 1 of Module I** and the Department-approved Inspection Plan provided in Attachment F of this Permit.

2. For each occurrence where evidence of any of the items listed in 6 NYCRR 373-2.14(e)(2) are identified in any operating landfill, 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.

3. If surface water runoff overflows are discovered from any operating landfill, 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 Contingency Plan provided as Attachment G of this Permit as necessary to adequately control and resolve the situation.

4. For any identified condition creating the potential for overflow of surface water runoff from an operating landfill, the Permittee must take immediate action to prevent any overflow using the procedures contained in the Department-approved Contingency Plan provided as Attachment G of this Permit.

5. The Permittee must take action to repair any identified defect in a landfill's liner and leachate collection systems and to repair or replace any defective landfill equipment (e.g., pumps, piping, etc.) in accordance with 6 NYCRR 373-2.2(g)(3) and **Condition O** of this Module.

6. For any identified defect in the integrity of the landfill's primary liner (e.g., hole, tear, seam failure, etc.), the Permittee must: a) notify the Department and take immediate action as necessary to prevent or stop waste and/or primary leachate from passing through the defect; b) take immediate steps to remove any waste and/or primary leachate from the secondary leachate collection system in accordance with the Department-approved Contingency Plan provided as Attachment G of this Permit; and, c) take steps to repair the defect in accordance with **Condition E.5** of this Module and **Schedule 1 of Module I**.

7. For any identified deterioration or malfunction of equipment or structures associated with a hazardous waste management unit, 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; or

    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. 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.

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. SURVEYING AND RECORDKEEPING [6 NYCRR 373-2.14(f)]

1. The Permittee must perform surveying and recordkeeping for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(f) and this Permit including **Schedule 1 of Module I**.

G. CLOSURE AND POST-CLOSURE CARE [6 NYCRR 373-2.14(g)]

1. The Permittee must perform closure and post-closure care for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(g), 6 NYCRR 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 I of this Permit.

H. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE [6 NYCRR 373-2.14(h)]

1. The Permittee must follow the special requirements for ignitable or reactive waste for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(h) and this Permit including **Schedule 1 of Module I**.

I. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES [6 NYCRR 373-2.14(i)]

1. The Permittee must follow the special requirements for incompatible wastes for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(i) and this Permit including **Schedule 1 of Module I**.

J. SPECIAL REQUIREMENTS FOR LIQUID WASTE [6 NYCRR 373-2.14(j)]

1. The Permittee must follow the special requirements for liquid waste for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(j) and this Permit including **Schedule 1 of Module I**.

K. SPECIAL REQUIREMENTS FOR CONTAINERS [6 NYCRR 373-2.14(k)]

1. The Permittee must follow the special requirements for containers for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(k) and this Permit including **Schedule 1 of Module I**.

L. DISPOSAL OF SMALL CONTAINERS OF HAZARDOUS WASTE IN OVERPACKED DRUMS (LAB PACKS) [6 NYCRR 373-2.14(l)]

1. The Permittee must follow the requirements for the disposal of small containers of hazardous waste in overpacked drums (lab packs) for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(l) and this Permit including **Schedule 1 of Module I**.

M. SPECIAL REQUIREMENTS FOR HAZARDOUS WASTES F020, F021, F022, F023, F026 AND F027 [6 NYCRR 373-2.14(m)]

1. The Permittee must follow the special requirements for hazardous wastes F020, F021, F022, F023, F026 and F027 for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(m) and this Permit including **Schedule 1 of Module I**.

N. ACTION LEAKAGE RATE [6 NYCRR 373-2.14(n)]

1. The Permittee must comply with the action leak rate for each landfill authorized by this Permit that is subject to 6 NYCRR 373-2.14(c)(3) and (4) in accordance with the requirements of 6 NYCRR 373-2.14(n) and this Permit including **Schedule 1 of Module I**.

O. RESPONSE ACTIONS [6 NYCRR 373-2.14(o)]

1. The Permittee must perform the response actions for each landfill authorized by this Permit that is subject to 6 NYCRR 373-2.14(c)(3) and (4) in accordance with the requirements of 6 NYCRR 373-2.14(o) and this Permit, including **Schedule 1 of Module I** and the Department-approved Response Action Plan provided as Attachment K of this Permit.

P. OTHER REQUIREMENTS

1. Precautions in Flammable & Oxidizer Waste Process Areas: Machinery and equipment must not be permitted in flammable and oxidizer waste process areas 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 process areas.

MODULE VIII

Intermediate Commercial Hazardous Waste Storage and Treatment Facilities and Land Disposal Restrictions (LDR)

[*NOTE: Module VIII is **NOT** being modified. It is presented in association with the Draft RMU-2 landfill modification since some of the conditions contained in this module are or may be applicable to the proposed units.*]

PART 373 PERMIT

MODULE VIII - INTERMEDIATE COMMERCIAL HAZARDOUS WASTE STORAGE AND TREATMENT FACILITIES AND LAND DISPOSAL RESTRICTIONS (LDR)

The conditions of this Module apply to the Permittee's operation of intermediate commercial hazardous waste management units that commingle, fuel blend, and/or repackage hazardous waste which is subject to the Land Disposal Restrictions (LDRs) required by 6 NYCRR 376.

The Permittee must assume generator status for LDR purposes for all hazardous waste the Permittee commingles, fuel blends or repackages.

The Permittee must comply with the waste analysis, notification, certification and record keeping requirements of 6 NYCRR Part 376 (land disposal restrictions) and its subsequent revisions throughout the life of this Permit and this Permit whenever generating, treating (i.e., commingling, consolidating, fuel blending, and/or repackaging hazardous waste), shipping or otherwise managing a hazardous waste.

A. WASTE ANALYSIS REQUIREMENTS

1. The Permittee must comply with all the applicable requirements of this Permit including the Department-approved Waste Analysis Plan provided as Attachment C of this Permit.

2. Before treating, storing or disposing of any hazardous waste, the Permittee must obtain a detailed chemical and physical analysis of a representative sample of the hazardous waste as specified in 6 NYCRR 373-2.2(e). At a minimum, this analysis must contain all the information that must be known to treat, store or dispose of the waste in accordance with the following requirements:

   a. 6 NYCRR 373-2;

   b. 6 NYCRR 376; and

   c. This Permit, including the Department-approved Waste Analysis Plan provided as Attachment C of this Permit, and all documents incorporated by reference.

   The detailed chemical and physical analysis may be provided by the Permittee and/or by the generator of the hazardous waste from whom the Permittee receives the waste.

3. The Permittee must conduct testing in accordance with **Condition B** of this Module of the hazardous wastes the Permittee commingles or fuel blends, and must conduct independent corroborative testing (i.e., periodic detailed physical and chemical analysis) as required in the Department-approved Waste Analysis Plan provided as

Attachment C of this Permit of the hazardous waste received at the Facility to ensure compliance with this Module.

This testing should be performed for every fifth shipment of a waste stream received from a generator or, if less than five shipments are received per year, twice annually or as otherwise specified in the Department-approved Waste Analysis Plan provided as Attachment C of this Permit.

B. COMMINGLING AND FUEL BLENDING OF HAZARDOUS WASTES

1. The Permittee must ship the hazardous waste the Permittee commingles or fuel blends directly to a RCRA authorized facility (hereafter referred to as the "end treater") or, alternatively, to a RCRA-authorized facility located immediately adjacent to the RCRA-authorized facility that will burn the fuel blended waste. Prior to off-site transportation, the Permittee must either:

   a. For transport to a RCRA-permitted incinerator, obtain written communication, in accordance with 6 NYCRR 372.2(b)(2)(i), that the end treater is authorized to manage the commingled hazardous waste; or

   b. For transport to a facility authorized under the RCRA Boilers and Industrial Furnaces (BIF) regulations (6 NYCRR 374-1.8, 40 CFR 266 Subpart H, or other state equivalent), or, alternatively, to a RCRA-authorized facility located immediately adjacent to the BIF facility that will burn the fuel blended waste, obtain documentation indicating stating that the end treater is authorized to burn fuel blended hazardous waste for energy recovery. The waste derived fuel receiving/blending facility associated with the BIF may have a separate RCRA Permit; regardless however, the blending/burning must occur at the same or adjacent facility. The Permittee must obtain the following:

      i. Written communication, in accordance with 6 NYCRR 372.2(b)(2)(i), that the BIF is authorized to manage the commingled hazardous waste;

      ii. The type of waste, applicable waste codes, constituents limited by the end treater and treatability groups specified by the end treater;

      iii. The chemical and physical specifications of the fuel blended or commingled waste that the end treater is authorized to accept including any limitations on underlying or regulated hazardous constituents;

      iv. Any analytical requirements for testing, to be performed by the Permittee, which are necessary to ensure that the blended or commingled waste conforms to the end treater's receiving chemical and physical specifications; and,

      v. A statement as to whether the BIF meets the residue exclusion requirements of 6 NYCRR 374-1.8(m) if the BIF is in New York, or 40 CFR 266.112 or other state equivalent if the BIF is in another state and whether hazardous wastes meeting the specifications provided in Condition B.1.b.ii through iv are

subject to 6 NYCRR 376, 40 CFR 268 and/or other state equivalent regulations.

c. For transport to a combustion facility outside of the United States, the Permittee must obtain written communication in accordance with 6 NYCRR 372.2(b)(2)(i), that the facility is authorized to manage the commingled hazardous waste under the receiving country's laws and/or regulations and obtain approval to export the hazardous waste in accordance with 6 NYCRR 372.5(c).

2. The Permittee must perform compatibility testing of the hazardous wastes before commingling or fuel blending the waste in accordance with the procedure outlined in the latest edition of ASTM Designation: D 5058 and as described in the Department-approved Waste Analysis Plan provided as Attachment C of this Permit.

3. The Permittee must perform all chemical and physical testing required by the end treater of the hazardous waste the Permittee commingles or fuel blends.

4. The Permittee must provide, upon Department request, the written communications required by **Condition B.1** of this Module, including the name of each end treater, and the chemical and physical data developed in **Condition A.2** of this Module for the hazardous wastes the Permittee commingles or fuel blends. The Permittee must also maintain all chemical and physical testing data on each individual waste that is blended or commingled, including all information received from the generators of said waste, as part of the Facility's operating record in accordance with 6 NYCRR 373-2.5(c).

5. The Permittee must perform the necessary testing to ensure that each fuel blended shipment to a BIF has a minimum heating value of 5,000 BTU/lb before shipment to an end treater. Only wastes having total organic carbon (TOC) greater than or equal to 10% as generated can be fuel blended.

6. The Permittee must not dilute the regulated inorganic constituents present at concentrations that exceed their respective concentrations listed in 6 NYCRR 376.4 to circumvent the LDR treatment standards before shipment to an end treater. Hazardous waste with waste codes listed in Appendix 54 of 6 NYCRR 376 must not be included in a blended waste for combustion unless that hazardous waste met, at its original point of generation, the requirements of 6 NYCRR 376.1(c)(3)(iii) or (v).

7. The Permittee must obtain and retain a Certificate of Disposal (COD) from the end treater in the Facility's operating record.

8. The Permittee is subject to all applicable Air Emission Standards identified in 6 NYCRR 373-2.27, 373-2.28 and 373-2.29 when the Permittee commingles or fuel blends hazardous waste.

C. STORAGE OF RESTRICTED HAZARDOUS WASTES

1. The Permittee may store restricted hazardous wastes that the Permittee commingles or repackages to which the land disposal prohibition applies for up to one year unless the Department can demonstrate that such storage was not solely for the purpose of an accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal [6 NYCRR 376.5(a)(2)].

2. The Permittee may store restricted hazardous wastes that the Permittee commingles or repackages to which the land disposal prohibition applies beyond one year; however, the Permittee bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal [6 NYCRR 376.5(a)(3)].

D. MANIFESTING, REPORTING & RECORDKEEPING

1. The Permittee must manifest the hazardous wastes the Permittee commingles, fuel blends or repackages to the end treater in compliance with the manifest requirements of 6 NYCRR 372.2(b) and with the notification and record keeping requirements identified in 6 NYCRR 376.1(g)(1).

2. The Permittee must maintain at the Facility an operating record in accordance with 6 NYCRR 373-2.5(c) that includes at a minimum the following information on hazardous wastes that the Permittee commingles, fuel blends or repackages:

   a. Copies of the written communications required by **Condition B.1** of this Module, the name and location of all end treaters, the waste streams approved at those facilities, the hazardous waste code(s) authorized and any constituent(s) limitations by the end treater (facility information and waste stream approval(s)).

   b. Copies of the outbound manifests with the shipment dates and quantity shipped, the LDR form with hazardous waste code(s), treatability groups, results of any testing performed and the destination for shipments to end treaters (outbound shipments).

E. LAB PACKS

1. Lab Packs Subject to Alternate Treatment Standards (LDR Lab Packs)

   a. For the purposes of this Module, “LDR Lab Packs” are those lab packs for which the original generator has elected to meet the 6 NYCRR 376 LDR treatment standards using 6 NYCRR 376.1(g)(1)(ix) and 376.4(c)(3).

   b. When the Permittee repackages or consolidates lab packs subject to the 6 NYCRR 376.4(c)(3) alternate Lab Pack treatment standards (referred to as an LDR Lab Pack), the Permittee must dispose of the repackaged or consolidated LDR Lab Pack by incineration at an approved RCRA facility.

c. The Permittee must not open individual containers packaged in LDR Lab Packs received from an off-site generator.

d. The Permittee must assume generator status for LDR purposes for all repackaged or consolidated LDR Lab Packs at the time of repackaging or consolidation and manifest the hazardous waste as an LDR Lab Pack along with the LDR certification as required by 6 NYCRR 376.1(g)(ix).

e. To maintain the integrity of the initial generator's LDR certification for any lab pack waste managed under the requirements of **Condition E.1** of this Module, the Permittee must obtain a Certificate of Disposal (COD) from the 40 CFR 264 or 265 Subpart O incineration facility or state equivalent and must issue a COD to the original generator indicating that each hazardous waste packaged within the original generator's lab pack was incinerated at the Subpart O incineration facility. The Permittee must retain a copy of the COD for three years in the operating record.

f. The Permittee need not assume generator status for LDR purposes when LDR Lab Packs are opened by the Permittee only for quality control purposes and then repackaged by the Permittee in the same LDR Lab Pack received from the off-site generator.

2. Lab Packs Not Subject to Alternate Treatment Standards (Non-LDR Lab Packs)

a. For the purposes of this Module, a "Non-LDR Lab Pack" is a lab pack that is not an "LDR Lab Pack" and for which all hazardous wastes present will meet the applicable 6 NYCRR 376.4(a) LDR treatment standards prior to land disposal.

b. The Permittee must assume hazardous waste generator status for LDR purposes and comply with all the requirements of 6 NYCRR 372 and 376 as applicable to such generators when the Permittee repackages or consolidates containers from a Non-LDR Lab Pack into an LDR Lab Pack or from one Non-LDR Lab Pack to another Non-LDR Lab Pack.

c. When the Permittee commingles the contents of individual containers packaged in the Non-LDR Lab Packs, the Permittee must comply with **Condition A.2** of this Module.