6 NYCRR PART 373 – HAZARDOUS WASTE PERMIT TO CONSTRUCT/OPERATE HAZARDOUS WASTE MANAGEMENT FACILITY (HWMF)/MODIFICATION REQUEST TO SITEWIDE PART 373 PERMIT PERMIT ID 9-2934-00022/00097

CWM CHEMICAL SERVICES, LLC. MODEL CITY FACILITY

August 2013
(Revised November/December 2013)

Prepared By: *CWM Chemical Services, LLC.*
1550 Balmer Road
Model City New York, 14107

SCHEDULE I TO MODULE I

(proposed modified pages are designated with a December 2013 revision date at the bottom of the respective page)

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)	38 areas 11,952 units	Storage	Solid & Liquid Wastes	2,154,736 gallons
Tanks (S02)	16 areas 28 units	Storage	Liquid Wastes	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)	4 areas 5 units	Storage	Liquid Wastes	142,349,500 gallons
Landfill[8] (RMU-1 & RMU-2) (D80)	1 area 1 unit	Disposal	Solid & Debris Wastes	4,731 acre-feet

Footnotes:

1. Unit codes are as described in the Part A Application.

Revised 12/18/13

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 Facultative Ponds 1 & 2, Facultative Ponds 3 & 8 and proposed New Facultative Pond 5. Total quantity will be revised upon approval of the closure certification for Facultative Ponds 3 and 8.
7. Number of Areas and Units and the Waste Quantity include the total for the Existing Drum Management Building, South Trailer Parking Area, Stabilization Full Trailer Parking Areas I to IV, Tank T-109 (SLF-10) Load / Unload Area, Tank T-158 (SLF 1-11 OWS) Load / Unload Area and the proposed New Drum Management Building, New Full Trailer Parking Area, New Stabilization Trailer Parking Area, Tank T-109 (SLF-10) Load / Unload Area, and Tank T-158 (SLF 1-11 OWS) Load / Unload Area. The Existing Drum Management Building, South Trailer Parking Area, Stabilization Full Trailer Parking Areas I to IV, Tank T-109 (SLF-10) Load / Unload Area, and Tank T-158 (SLF 1-11 OWS) Load / Unload Area will be deleted from the Permit upon approval of the closure certification.
8. Landfill unit type includes Residuals Management Unit No. 1 and proposed Residuals Management Unit No. 2. Waste quantity will be revised upon approval of the closure certification for Residuals Management Unit No. 1.

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);
Application Appendix D-2 – Surface Impoundments (Process Description), Facultative Ponds 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 IX – 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; RMU-2 Landfill Drawings;
Application Appendix D-7 – RMU-1 Landfill Technical Specifications; RMU-2 Landfill Technical Specifications; and
Application Appendix D-8 – RMU-1 Landfill Quality Assurance Manual; RMU-2 Response Action Plan

K Application Appendix D-9 – RMU-1 Landfill Response Action Plan; and
Application Appendix D-11 –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 Closure Cost Estimates" (January 24, 2012 with revisions dated June 7, 2012)

3. Department-Approved "Site-Wide and RMU-1 Post-Closure Cost Estimates and Corrective Measures Cost Estimate" (January 24, 2012 with revisions dated June 7, 2012)

4. "Surety Bond #022046594" issued by Liverty Mutual Insurance Company (October 2013)[1,2] [6 NYCRR 373-2.8(d) & (f)]

5. "Surety Bond #K08931884" issued by RLI Insurance Company (April 2001)[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, 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)[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)[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)[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)]

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)]

Revised 12/18/13

Modified: Dec. 2013

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. Department-Approved "RMU-2 Closure Cost Estimate" (August 2013)
29. Department-Approved "RMU-2 Post-Closure Cost Estimate" (August 2013)
30. Part 373 Permit Application, "RMU-2 Engineering Report" (August 2013)[1] [6 NYCRR 373-2.14(c)]
31. "RMU-2 Operations and Maintenance (O&M) Manual" (Date TBD)[1] [6 NYCRR 373-2.14(c) & (e)]
32. "RMU-2 Leachate Level Compliance Plan (LLCP)" (Date TBD)[1] [6 NYCRR 373-2.14(c) & (e)]
33. "RMU-2 Soil Excavation Monitoring and Management Plan" (April 2013)[1]
34. "RMU-1 to RMU-2 Transition Plan" (August 2013)[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	Interim Date: Within 730 days of the effective

Revised 12/18/13

	of FAC Pond 8 and submit final survey report.	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.
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.

Revised 12/18/13

Item	Requirement	Compliance Date
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.
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.

Revised 12/18/13

Item	Requirement	Compliance Date
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.
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.

Revised 12/18/13

Item	Requirement	Compliance Date
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.
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.

Revised 12/18/13

Item	Requirement	Compliance Date
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.

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,

Revised 12/18/13

– 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 and F, 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
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 Exhibit F
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 Exhibit F
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

Revised 12/18/13

Item	Frequency	Due Date	Requirement
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
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
Waste Profiles for RMU-1 to Monitor	On-going	24 hours in advance	Condition E.1.b of Exhibit F
List of Generators with 3 or More Improperly Designated Wastes for Landfill	Annually	March 1	Condition E.1.h.i of Exhibit F
RMU-1 Pipe Flushing	Annually	30 days after flush	Condition F.3.e of Exhibit F
RMU-2 Pipe Flushing	Annually	30 days after flush	Condition ----- 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
Report of Leachate Level Measurement Verification (RMU-1) and level probes moved	Quarterly	Within 30 days of end of quarter	Condition G.2.d of Exhibit F

Revised 12/18/13

Item	Frequency	Due Date	Requirement
Results of SLCS Monitoring and Flow Rate	Monthly	90 days after month of event	Condition H.1.b.ii of Exhibit F
Quarterly Survey Report	Quarterly	30 days after quarter	Condition I.1.a of Exhibit F
Summary of Total Volume and Weight of Waste Landfilled During Prior Year	Annually	March 1	Condition I.1.b of Exhibit F
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 landfill	Condition I.1.b of Exhibit F
Weekly Construction Reports During Construction (Cell Construction, Landfill Capping, FAC Pond Construction)	Weekly	2 weeks after event	Condition J.2.h of Exhibit F, Condition ____ of Exhibit G, Condition E.1.a & b of Exhibit E
Groundwater Monitoring, Flow Rate and Direction Summary Report	Annually	March 1	Condition L.9.b of Exhibit F
Well Inspection Report	Every 5 years	December 31	Condition L.11 of Exhibit F 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

Revised 12/18/13

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

Revised 12/18/13

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

Exhibit F Supplement to Module VI – Landfills (RMU-1)

- 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 – Landfills (RMU-2)

Revised 12/18/13

EXHIBIT A

SUPPLEMENT TO MODULE I

(proposed modified pages are designated with a revision date at the bottom of the respective page)

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, RMU-2 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 or RMU-2, the disposal location will be documented in accordance with **Condition F.5.e of Exhibit F and Condition ___ 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.

Revised 12/18/13

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 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.

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

   a. Vehicles or equipment entering the RMU-1 or RMU-2 landfills 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 or RMU-2 landfills, 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 for RMU-1 and Condition ___of Exhibit G for RMU-2**.

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 Conditions

1. 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.

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 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.

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 RMU-1 and RMU-2 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.

EXHIBIT B

SUPPLEMENT TO MODULE II

(no modifications requested)

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.

EXHIBIT C

SUPPLEMENT TO MODULE III

(proposed modified pages are designated with a revision date at the bottom of the respective page)

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)[3,4,22] – 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)[3,4,22] – 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)[3,4,22] – 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)[3,4,22] – 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)[4,5,22] – 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)[4,22] – 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)

Revised 12/18/13

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
7. Drum Management Bldg. (DMB) – West Tanker Ramp[22] (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)
8. Drum Management Bldg. (DMB) – Truck Load/Unload Ramp[4,6,7,22] (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
11a. New Full Trailer Parking Area[8,9,19] (250' x 55')	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
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

Revised 12/18/13

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
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
15a. New Stabilization Facility, Trailer Parking Area [8,9,,20] (375' 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 (≤ 2,500 gallons)	Total Limit = 37 bulk containers (solid) Liquid Limit = 11 cargo tanks
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)
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)

Revised 12/18/13

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
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
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[8,9,15,21] (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[8,9,15,21] (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)

Storage Area	Waste Type and Codes	Container Specifications[1,17]	Quantity[2]
34. New Drum Management Bldg. (New DMB)[3,4] – Area 1 (57' x 144')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers 1A, 1G, 1H, 4G, 6G 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, ,13H	Total Limit = 504 drums (solid & liquid) Liquid Limit = 504 drums
35. New Drum Management Bldg. (New DMB)[3,4] – Area 2 (44' x 144')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H	Total Limit = 1008 drums (solid & liquid) Liquid Limit =1008 drums
36. New Drum Management Bldg. (New DMB)[3,4] – Area 3 (44' x 149')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers 1A, 1G, 1H, 4G, 6G, 11G, 31H,11H, 11HZ,, 5L, 5M, 13L, 13H	Total Limit = 1008 drums (solid & liquid) Liquid Limit =1008 drums
37. Drum Management Bldg. (DMB)[3,4] – Area 4 (26' x 44')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers 1A, 1G, 1H, 4G, 6G, 11G, 11H, 11HZ, 31H, 5L, 5M, 13L, 13H	Total Limit = 96 drums (solid & liquid) Liquid Limit = 96 drums
38. Drum Management Bldg. (DMB)[4,5] – Area 5 (20' x 38')	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers 1A, 1G, 1H, 4G, 6Gm 5L, 5M, 11G, 11H, 11HZ, 13H, 13L, 31H	Total Limit = 96 drums (solid & liquid) Liquid Limit = 96 drums
39. Drum Management Bldg. (DMB)[4] – Area 6 (37’ x 139’)	Solid & Liquid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers 1A, 1G, 1H, 4G, 6G, 5L, 5M, 11G, 11H, 11HZ, 13H, 13L, 31H	Total Limit = 336 drums (solids & liquids) Liquid Limit = 336 drums
40. Drum Management Bldg. (DMB) – 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. Drum Management Bldg. (DMB) – Area 8 – Transformer Flush Area (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 (≤ 345 gallons) or Containers (≤ 55 gallons) 1A, 1H	Total Limit = 6 Transformers (liquids) or 37 drums (solid & liquid) Liquid Limit = 37 drums
41. Drum Management Bldg. (DMB) – Area 9 - Truck Load/Unload Ramp[4,6,7] (177.9' x 58.20')	Solid Wastes Listed in Attachment C, Section C-1, including Tables C-1 & C-2	Containers (≤ 55 gallons) 1A, 1G, 1H, 4G, 6G, 5L, 5M, 11G, 11H, 11HZ, 13H, 13L, 31H	Total Limit =1,040 drums (solids & liquids) Liquid Limit = 1,040 drums

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, New DMB Areas 1-6, 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 DMB Areas 1-6, new DMB Truck Load/Unload Ramp (Area 9), 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 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. A New Full Trailer Parking Area to be constructed to replace existing CSA 11 – South Full Trailer Parking Area for Construction of Cell 18 RMU-2 according to the design in Attachment D, Appendix D-1.

20. A New Stabilization Facility Trailer Parking Area to be constructed to replace existing CSAs 12, 13, 14, and 15 – Stabilization Facility Trailer Parking Areas for construction of Cells 15 and 16 of RMU-2 according to the design in Attachment D, Appendix D-1.

21. The Loading/Unloading Ramps at CSA 32 and 33 will be replaced with ramps with the same dimensions for construction of RMU-2 according to the design in Attachment D, Appendix D-1.

22. The existing Drum Management Building (DMB) (CSAs 1 through 8) will be replaced with a New DMB (CSAs 34 through 41) prior to construction of Cell 17 of RMU-2.

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 T-158 Load/Unload 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.

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.

ii. For the Truck Load/Unload Ramp at the new DMB, The Permittee may place trailers with containers of incompatible wastes on the Truck Load/Unload Ramp on the date of their arrival at the new 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. If incompatibles will be left on flatbeds/box vans at the end of the work shift, they must be segregated as prescribed in Attachment D, Appendix D-1 of this Permit.

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.

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. Fuels Drum Pumping Area in new DMB

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, to tankers located in Fuels Transfer 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.

'a') No containers are allowed to be stored in the Fuels Drum Pumping Room. Containers will be staged in Area 1 of the new DMB for transfer of the liquids to tankers in the Fuels Tranfer Ramp.

'b') 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.

EXHIBIT D

SUPPLEMENT TO MODULE IV

(proposed modified pages are designated with a revision date at the bottom of the respective page)

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

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
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
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

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	8,000	Storage/ Treatment[1,24] Steel (lined)	Onsite Generated Aqueous Wastes	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 or RMU-2 Leachate	F039	913,155

Revised 12/18/13

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 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 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 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
Tanks Located Inside A Building, West of the AWT Building					
T-8001	5,000	Storage Steel (lined)	On-site Contaminated Groundwater	F039	6,445

Tank System I.D.	Capacity (gallons)	Tank Usage & Material of Construction	Waste Origin & Description	EPA Hazardous Waste Code Nos.	Second. Contain. Volume (gallons)
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
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]
Tank Located East of Facultative Pond 5					
T-9001	1,100	Storage HDPE[28]	Liquid from Pond Leak/Leachate Collection System	F039[29]	Double Contained Tank

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.

Revised 12/18/13

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. Tank is permitted for hazardous waste storage in case a leak of treated effluent from the fac pond is detected in the leak detection zone. If a leak is detected, all waste codes associated with the fac pond liquid will carry into the leak detection liquid.

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 VIII 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, T-9002, 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
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
T-9001	Conductivity Testing	Conductivity Threshold Criteria = 5,000 umhos

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.

Revised 12/18/13

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 at no time store leachate from landfills SLF 1 through 11, 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. 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 or RMU-2 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).

EXHIBIT E

SUPPLEMENT TO MODULE V

(proposed modified pages are designated with a revision date at the bottom of the respective page)

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)
FAC[1] Pond 1 / 2	Treated Aqueous Waste[2]	22,880,700
FAC[1] Pond 3[5]	Treated Aqueous Waste[2]	51,355,300
FAC[1] Pond 8[3,5]	Treated Aqueous Waste[2]	43,413,500
FAC[1] Pond 5[4]	Treated Aqueous Waste2	24,700,000

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. New FAC Pond 5 will be constructed in accordance with 6 NYCRR Part 373-2.11(b)(3) for development of landfill RMU-2.
5. FAC Ponds 3 and 8 will be removed from the permit upon acceptance by the Department that closure was performed in accordance with the Sitewide Closure Plan (Attachment I of the Permit).

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. Upon construction of FAC Pond 5, transfers from FAC Pond Pond 1 / 2 or FAC Pond 3 to FAC Pond 5 and from FAC Pond 5 to Pond 1 / 2 or FAC Pond 3 may be performed as necessary. 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.

C. Special Operating & Monitoring Conditions

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, & 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**. 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 & 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 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. New FAC Pond 5 are not exempt from the liner system requirements of 6 NYCRR 373-2.11(b)(1).

   d. 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 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. Construction of FAC Pond 5

1. General Unit Construction Conditions

The Permittee is required to comply with the unit construction standards specified in 6NYCRR 373-2.11(b)(3). The conditions in this section shall apply to construction of the unit designated by the Permittee as FAC Pond 5. The Permittee shall not commence upgrade or construction of the unit, or any portion there of 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. General Construction Requirement

FAC Pond 5 shall be constructed in strict conformance with relevant FAC pond sections of the Engineering Report for Residuals Management Unit 2 (Permit Reference Document), the Drawings (Attachment D of this Permit), the Construction Quality Assurance Plan for RMU-2 (Attachment J of this Permit), and the Technical Specifications for RMU-2 (Attachment J of this Permit), and as amended by the conditions contained in this Permit. These conditions maybe modified in accordance with Part 373-1.7 and Part 621 of the regulations.

b. The requirements of Conditions J.1 and J.2 of Exhibit F of Schedule I of Module I must be followed for scheduling and engineer requirements.

F. FAC Pond Secondary Leachate Collection System (SLCS)

1. The Permittee must monitor, report and evaluate the flow from FAC Pond 5 Secondary Leachate Collection System (SLCS) in accordance with 6 NYCRR 373-2.11(d)(4) and 6 NYCRR 373-2.11(j)(2). The Permittee must also implement SLCS Response Actions as necessary in accordance with 6 NYCRR 373-2.11(o)(2)&(3), the FAC Pond 5 Response Action Plan in Attachment D, of this Permit, and the conditions of this Exhibit.

a. FAC Pond SLCS Monitoring

i. The Permittee must monitor the SLCS in FAC Pond 5 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.

Revised 12/18/13

'a') On a weekly basis, the Permittee must remove all pumpable liquid from FAC Pond 5's SLCS sump and record the volume.

'b') On a monthly basis, the Permittee must sample the liquid removed from FAC Pond 5's SLCS sump and analyze each sample for specific conductance.

'c') On a yearly basis, the Permittee must sample the liquid removed from FAC Pond 5's SLCS sump and analyze each sample for chloride and sulfate.

b SLCS Evaluation and Reporting

i. SLCS Flow Rate Evaluation

'a') Each time liquid is pumped from FAC Pond 5's SLCS the volume must be documented in accordance with **Condition F.1.a.i.'a'** of this Exhibit. The Permittee must take the total weekly volume pumped from FAC Pond 5's SLCS and divide it by the area of the pond in acres and by the number of days, to derive the ponds average daily SLCS flow rate in gallons per acre per day (gpad). For each weekly calculation, the Permittee must compare the pond's average daily SLCS flow rate to the Response Rate for the pond as defined by **Condition F.1.c** of this Exhibit. If the pond's average daily SLCS flow rate exceeds the defined Response Rate for the pond, the Permittee must implement the FAC Pond Response Action Plan (RAP) in Attachment D, of this Permit, as required by **Condition F.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 F.1.a and F.1.b.i** of this Exhibit to the Department. The results of FAC Pond 5's 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.

c. Response Rates (RRs) for FAC Ponds

i. The Response Rate for FAC Pond 5 from the time it begins operation (i.e., initial receipt of treated wastewater), must be 552 gpad for FAC Pond 5. This Response Rate value was set based on safety margins for discharge over the ponds operational life of water trapped between the primary and secondary liners, as required by 6 NYCRR 373-2.11(j)(1).

d. FAC Pond SLCS Response Actions

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

EXHIBIT F

SUPPLEMENT TO MODULE VI

(proposed modified pages are designated with a revision date at the bottom of the respective page)

EXHIBIT F
SUPPLEMENT TO
MODULE VI - 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[E]
Compacted Clay Cover System	130	1,000	10[E]
GCL Cover System	130	0	26 / 17.8 / 22.4[2]
Waste	111	0	24[E]
Granular Operations Layer	135	0	24[E]
Granular Primary Leachate Collection Layer	135	0	24[E]
Textured Primary Liner	58.7	0	15[E]
Smooth Primary Liner	58.7	0	10.5[E]
Compacted Clay Primary Liner	130	1,000	10[E]
Granular Secondary Leachate Collection Layer	135	0	24[E]
Textured Secondary Liner	58.7	0	15[E]
Smooth Secondary Liner	58.7	0	10.5[E]

Landfill Component	Component Weight (pcf)	Component Cohesion (psf)	Component Friction Angle
Compacted Clay Secondary Liner	130	1,000	10^{E}
Structural Fill (berm)	130	2,000	0
Native Upper Till Soils	130	800	10^{E}
Native Glacio-Lacustrine Clay	125	320	10^{E}
Native Glacio-Lacustrine Sand	130	0	30^{E}
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, 5, 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 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.

   b. 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.

   c. 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.

Revised 12/18/13

d. 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.

e. Facultative 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.

f. 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.

g. 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.

h. 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.

i. 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.

j. 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.

k. 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.

l. 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.

m. 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.

n. 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.

o. 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.

Revised 12/18/13

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 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 Secure Landfill RMU-2.

   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 F501S, F501D and F502S will be used to monitor Facultative Pond 5.

   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.

Revised 12/18/13

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-2 Detection monitoring wells are sampled during the active life of the Landfill:

      i. Samples of RMU-2 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-2 piezometers and all inactive RMU-2 Detection Monitoring Wells.

   b. 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.

Revised 12/18/13

c. Each time the SLF 11 Detection monitoring wells are sampled:

   i. Water level measurements will be taken from piezometers P1102S, P1103S, P1104S and P1105S.

d. Each time the SLF 7 Detection monitoring wells are sampled, water level measurements will be taken from piezometers P701S, P702S and P703S.

e. Each time the SLF 10 Detection monitoring wells are sampled, water level measurements will be taken from piezometers P1001S and P1002S.

f. 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-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.

ii. 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.

iii. 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.

Revised 12/18/13

iv. 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

Revised 12/18/13

ix. 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.

x. 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.

Revised 12/18/13

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.

xi. 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.

xii. 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)].

Revised 12/18/13

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.

Revised 12/18/13

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.

Revised 12/18/13

ATTACHMENT A

(proposed modified pages are designated with a November 2013 revision date at the bottom of the respective page)

OMB# 2050-0024; Expires 12/31/2014

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (MARK ALL BOX(ES) THAT APPLY)

Reason for Submittal:

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☐ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # 1)
- ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

2. Site EPA ID Number

EPA ID Number N Y D 0 4 9 8 3 6 6 7 9

3. Site Name

Name: CWM Chemical Services, LLC

4. Site Location Information

Street Address: 1550 Balmer Road

City, Town, or Village: Porter | **County:** Niagara

State: New York | **Country:** USA | **Zip Code:** 14107

5. Site Land Type

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

6. NAICS Code(s) for the Site (at least 5-digit codes)

A. | **C.**

B. | **D.**

7. Site Mailing Address

Street or P.O. Box: P.O. Box 200

City, Town, or Village: Model City

State: New York | **Country:** USA | **Zip Code:** 14107

8. Site Contact Person

First Name: Jill | **MI:** A | **Last:** Banaszak

Title: Technical Manager

Street or P.O. Box: P.O. Box 200

City, Town or Village: Model City

State: New York | **Country:** USA | **Zip Code:** 14107

Email: jbanasz@wm.com

Phone: 716-286-0246 | **Ext.:** | **Fax:** 716-286-0224

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner: CWM Chemical Services, LLC | **Date Became Owner:** 08/22/2006

Owner Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street or P.O. Box: P.O. Box 200

City, Town, or Village: Model City | **Phone:** 716-286-1550

State: New York | **Country:** USA | **Zip Code:** 14107

B. Name of Site's Operator: CWM Chemical Services, LLC | **Date Became Operator:** 01/30/1998

Operator Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

EPA ID Number N Y D 0 4 9 8 3 6 6 7 9 OMB#: 2050-0024; Expires 12/31/2014

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-10.

Y ☑ N ☐ **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- ☑ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- ☐ b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- ☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities in 2-4.

Y ☐ N ☑ **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

Y ☑ N ☐ **3. United States Importer of Hazardous Waste**

Y ☐ N ☑ **4. Mixed Waste (hazardous and radioactive) Generator**

Y ☐ N ☑ **5. Transporter of Hazardous Waste**
If "Yes", mark all that apply.

- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☑ N ☐ **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.

Y ☐ N ☑ **7. Recycler of Hazardous Waste**

Y ☐ N ☑ **8. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.

- ☐ a. Small Quantity On-site Burner Exemption
- ☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☑ **9. Underground Injection Control**

Y ☑ N ☐ **10. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y ☑ N ☐ **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

- a. Batteries ☑
- b. Pesticides ☐
- c. Mercury containing equipment ☑
- d. Lamps ☑
- e. Other (specify) _____ ☐
- f. Other (specify) _____ ☐
- g. Other (specify) _____ ☐

Y ☑ N ☐ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

Y ☐ N ☑ **1. Used Oil Transporter**
If "Yes", mark all that apply.

- ☐ a. Transporter
- ☐ b. Transfer Facility (at your site)

Y ☐ N ☑ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.

- ☐ a. Processor
- ☐ b. Re-refiner

Y ☐ N ☑ **3. Off-Specification Used Oil Burner**

Y ☐ N ☑ **4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.

- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

EPA ID Number | N | Y | D | 0 | 4 | 9 | 8 | 3 | 6 | 6 | 7 | 9 | OMB#: 2050-0024; Expires 12/31/2014

D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

❖ You can **ONLY** Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y ☐ N ☑ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ a. College or University

☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y ☐ N ☑ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

See	Attached	List				

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

B001	B002	B003	B004	B005	B006	B007

EPA ID Number | N | Y | D | 0 | 4 | 9 | 8 | 3 | 6 | 6 | 7 | 9 | OMB#: 2050-0024; Expires 12/31/2014

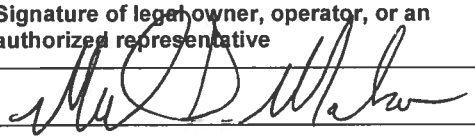
12. Notification of Hazardous Secondary Material (HSM) Activity

Y☐ N☑ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Michael D Mahar, District Manager	11/08/2013

United States Environmental Protection Agency

HARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact	**First Name:** Jill	**MI:** A	**Last Name:** Banaszak
	Contact Title: Technical Manager		
	Phone: 716-286-0246	**Ext.:**	**Email:** jbanasz@wm.com
2. Facility Permit Contact Mailing Address	**Street or P.O. Box:** P.O. Box 200		
	City, Town, or Village: Model City		
	State: New York		
	Country: USA	**Zip Code:** 14107	
3. Operator Mailing Address and Telephone Number	**Street or P.O. Box:** P.O. Box 200		
	City, Town, or Village: Model City		
	State: New York	**Phone:** 716-286-1550	
	Country: USA	**Zip Code:** 14107	
4. Facility Existence Date	**Facility Existence Date (mm/dd/yyyy):** 05/01/1971		

5. Other Environmental Permits

A. Facility Type *(Enter code)*	B. Permit Number												C. Description
N	N	Y	0	0	7	2	0	6	1				SPDES treated waste water and storm water
P	9	-	2	9	3	4	-	0	0	0	2	2	00226 Facility Air Registration
R	9	-	2	9	3	4	-	0	0	0	2	2	0097 Site Wide Part 373 Hazardous Waste Permit
R	9	-	2	9	3	4	-	0	0	0	2	2	00225 Part 373 RMU-2 Permit Modification (pending)
E													USEPA TSCA Authorization
E	2	0	0	0	-	0	1	5	3	4			Section 404 of the Clean Water Act Permit
E	9	-	2	9	3	4	-	0	0	0	2	2	00230 Part 633/Article 24 (State Wetlands) Permit
E	9	-	2	9	3	4	-	0	0	0	2	2	00230 Section 401 of the CWA (Water Quality Cert)

6. Nature of Business: Treatment, storage, disposal, and reclamation of industrial chemical hazardous wastes.

Revised October 11, 2013

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. **AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.**

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
Disposal		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
Storage		
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
Treatment		
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
Miscellaneous (Subpart X)		
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

EPA ID Number | N | Y | D | 0 | 4 | 9 | 8 | 3 | 6 | 6 | 7 | 9 | OMB#: 2050-0024; Expires 12/31/2014

7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	1	S	0	2	533.788	G	001	
	1	D	8	0	4731	A	002	
	2	S	0	2	988051	G	028	
	3	S	0	1	2154736	G	038	
	4	S	0	4	142349500	G	005	
	5	T	0	1	259180	U	032	
	6	T	0	4	150	D	002	
	7							
	8							
	9							
1	0							
1	1							
1	2							
1	3							

Note: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	(2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	2	T	0	4	100.00	U	001	
0	6	T	0	4	150	D	002	

9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. EPA HAZARDOUS WASTE NUMBER – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item 9.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.
2. In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
	1	B	0	0	1	4×10^6	P	S	0	1	S	0	2	T	0	1	T04
	2	B	0	0	2	4×10^6	P	S	0	1	S	0	2	T	0	1	T04
	3	B	0	0	3	4×10^6	P	S	0	1	S	0	2	T	0	1	T04
	4	B	0	0	4	4×10^6	P	S	0	1	D	8	0				
	5	B	0	0	5	4×10^6	P	S	0	1	D	8	0				
	6	B	0	0	6	4×10^6	P	S	0	1	D	8	0	S	0	2	T01 T04
	7	B	0	0	7	4×10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
	8																
	9	D	0	0	1	7.2×10^5	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
1	0	D	0	0	2	3×10^7	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
1	1	D	0	0	3	3×10^5	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
1	2	D	0	0	4	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	3	D	0	0	5	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	4	D	0	0	6	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	5	D	0	0	7	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	6	D	0	0	8	3.36×10^7	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	7	D	0	0	9	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	8	D	0	1	0	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
1	9	D	0	1	1	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	0	D	0	1	2	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	1	D	0	1	3	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	2	D	0	1	4	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	3	D	0	1	5	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	4	D	0	1	6	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	5	D	0	1	7	3.36×10^6	P	S	0	1	S	0	4	T	0	1	T04 D80 S02
2	6	D	0	1	8	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
2	7	D	0	1	9	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
2	8	D	0	2	0	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
2	9	D	0	2	1	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	0	D	0	2	2	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	1	D	0	2	3	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	2	D	0	2	4	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	3	D	0	2	5	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	4	D	0	2	6	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	5	D	0	2	7	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	6	D	0	2	8	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	7	D	0	2	9	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	8	D	0	3	0	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
3	9	D	0	3	1	3.36×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
4	0	D	0	3	2	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	1	D	0	3	3	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	2	D	0	3	4	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	3	D	0	3	5	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	4	D	0	3	6	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	5	D	0	3	7	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	6	D	0	3	8	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	7	D	0	3	9	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	8	D	0	4	0	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
4	9	D	0	4	1	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
5	0	D	0	4	2	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
5	1	D	0	4	3	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
5	2																
5	3	F	0	0	1	3.84 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80 S04
5	4	F	0	0	2	3.84 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80 S04
5	5	F	0	0	3	3.0 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80 S04
5	6	F	0	0	4	2.04 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80 S04
5	7	F	0	0	5	2.04 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80 S04
5	8	F	0	0	6	4.42 X 10^6	P	S	0	1	T	0	4	D	8	0	T01 S02 S04
5	9	F	0	0	7	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
6	0	F	0	0	8	4.42 X 10^6	P	S	0	1	T	0	4	D	8	0	T01 S02 S04
6	1	F	0	0	9	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
6	2	F	0	1	0	3.84 X 10^5	P	S	0	1	T	0	4	D	8	0	T01 S02
6	3	F	0	1	1	3.36 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
6	4	F	0	1	2	3.84 X 10^5	P	S	0	1	T	0	4	D	8	0	T01 S02
6	5	F	0	1	9	3.0 X 10^6	P	S	0	1	T	0	4	D	8	0	T01 S02
6	6	F	0	2	0	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
6	7	F	0	2	1	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
6	8	F	0	2	2	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
6	9	F	0	2	3	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	0	F	0	2	4	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
7	1	F	0	2	5	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	2	F	0	2	6	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	3	F	0	2	7	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	4	F	0	2	8	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	5	F	0	3	2	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	6	F	0	3	4	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	7	F	0	3	5	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
7	8	F	0	3	7	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
7	9	F	0	3	8	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
8	0	F	0	3	9	6.62 X 10^6	P	T	0	1	S	0	2	D	8	0	T04 S04 S01
8	1																
NOTE: THE WASTE CODES F020 - F023 AND F026 - F028 REFER ONLY TO WASTE THAT MAY BE DEBRIS, CONTAINED IN OR DERIVED FROM F020 - F023 AND F026 - F028. NO CURRENT PRODUCTION WASTE OR OUTDATED PRODUCTS WITH THESE CODES WILL BE ACCEPTED.																	
8	5																
8	6	K	0	0	1	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
8	7	K	0	0	2	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
8	8	K	0	0	3	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
8	9	K	0	0	4	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
9	0	K	0	0	5	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
9	1	K	0	0	6	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
9	2	K	0	0	7	4.42 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
9	3	K	0	0	8	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
9	4	K	0	0	9	1.68 X 10^6	P	S	0	1	S	0	2	T	0	1	T04 D80
9	5	K	0	1	0	3.36 X 10^4	P	S	0	1	S	0	2	T	0	1	T04 D80
9	6	K	0	1	1	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
9	7	K	0	1	3	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 T04
9	8	K	0	1	4	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 T04
9	9	K	0	1	5	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 T04
10	0	K	0	1	6	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
10	1	K	0	1	7	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
10	2	K	0	1	8	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
10	3	K	0	1	9	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
10	4	K	0	2	0	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
10	5	K	0	2	1	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
10	6	K	0	2	2	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
10	7	K	0	2	3	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 T04
10	8	K	0	2	4	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
10	9	K	0	2	5	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	0	K	0	2	6	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	1	K	0	2	7	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	2	K	0	2	8	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	3	K	0	2	9	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
11	4	K	0	3	0	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	5	K	0	3	1	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	6	K	0	3	2	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	7	K	0	3	3	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 T04

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
11	8	K	0	3	4	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
11	9	K	0	3	5	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	0	K	0	3	6	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	1	K	0	3	7	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	2	K	0	3	8	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
12	3	K	0	3	9	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
12	4	K	0	4	0	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	5	K	0	4	1	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	6	K	0	4	2	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	7	K	0	4	3	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
12	8	K	0	4	4	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
12	9	K	0	4	5	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
13	0	K	0	4	6	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
13	1	K	0	4	7	6.62 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
13	2	K	0	4	8	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
13	3	K	0	4	9	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
13	4	K	0	5	0	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
13	5	K	0	5	1	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
13	6	K	0	5	2	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
13	7	K	0	6	0	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
13	8	K	0	6	1	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
13	9	K	0	6	2	3.36 X 10^4	P	S	0	1	S	0	2	D	8	0	T01 S04
14	0	K	0	6	4	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
14	1	K	0	6	5	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
14	2	K	0	6	6	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
14	3	K	0	6	9	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
14	4	K	0	7	1	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
14	5	K	0	7	3	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
14	6	K	0	8	3	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
14	7	K	0	8	4	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
14	8	K	0	8	5	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
14	9	K	0	8	6	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
15	0	K	0	8	7	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 S04 T04
15	1	K	0	8	8	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
15	2	K	0	9	0	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
15	3	K	0	9	1	4 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
15	4	K	0	9	3	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
15	5	K	0	9	4	3.84 X 10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
15	6	K	0	9	5	4.42 X 10^6	P	S	0	1	S	0	2	D	8	0	T01 T04

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
15	7	K	0	9	6	4.42×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04
15	8	K	0	9	7	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
15	9	K	0	9	8	4.42×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
16	0	K	0	9	9	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
16	1	K	1	0	0	4.42×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
16	2	K	1	0	1	6.62×10^{6}	P	S	0	1	T	0	4	D	8	0	
16	3	K	1	0	2	4.42×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04
16	4	K	1	0	3	4.42×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04
16	5	K	1	0	4	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
16	6	K	1	0	5	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
16	7	K	1	0	6	4.42×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04
16	8	K	1	0	7	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
16	9	K	1	0	8	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	0	K	1	0	9	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	1	K	1	1	0	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	2	K	1	1	1	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	3	K	1	1	2	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	4	K	1	1	3	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	5	K	1	1	4	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	6	K	1	1	5	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	7	K	1	1	6	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	8	K	1	1	7	4.42×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
17	9	K	1	1	8	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	0	K	1	2	3	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	1	K	1	2	4	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	2	K	1	2	5	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	3	K	1	2	6	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	4	K	1	3	1	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	5	K	1	3	2	3.36×10^{4}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	6	K	1	3	6	3.84×10^{5}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	7	K	1	4	0	6.62×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	8	K	1	4	1	6.62×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
18	9	K	1	4	2	6.62×10^{6}	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
19	0	K	1	4	3	6.62×10^{6}	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	1	K	1	4	4	6.62×10^{6}	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	2	K	1	4	5	6.62×10^{6}	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	3	K	1	4	7	6.62×10^{6}	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	4	K	1	4	8	6.62×10^{6}	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	5	K	1	4	9	6.62×10^{6}	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
19	6	K	1	5	0	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	7	K	1	5	1	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	8	K	1	5	6	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
19	9	K	1	5	7	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	0	K	1	5	8	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	1	K	1	5	9	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	2	K	1	6	1	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	3	K	1	6	9	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	4	K	1	7	0	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	5	K	1	7	1	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	6	K	1	7	2	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	7	K	1	7	4	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	8	K	1	7	5	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
20	9	K	1	7	6	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	0	K	1	7	7	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	1	K	1	7	8	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	2																
21	3	P	0	0	1	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
21	4	P	0	0	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	5	P	0	0	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	6	P	0	0	4	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
21	7	P	0	0	5	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	8	P	0	0	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
21	9	P	0	0	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	0	P	0	0	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	1	P	0	0	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	2	P	0	1	0	3.36 X 10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	3	P	0	1	1	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
22	4	P	0	1	2	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	5	P	0	1	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	6	P	0	1	4	6.62 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	7	P	0	1	5	6.62 X 10^6	P	S	0	1	T	0	4	D	8	0	
22	8	P	0	1	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
22	9	P	0	1	7	4.42 X 10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	0	P	0	1	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	1	P	0	2	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	2	P	0	2	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	3	P	0	2	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	4	P	0	2	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
23	5	P	0	2	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	6	P	0	2	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	7	P	0	2	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	8	P	0	2	8	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
23	9	P	0	2	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	0	P	0	3	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	1	P	0	3	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	2	P	0	3	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	3	P	0	3	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	4	P	0	3	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	5	P	0	3	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
24	6	P	0	3	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	7	P	0	3	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	8	P	0	4	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
24	9	P	0	4	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
25	0	P	0	4	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
25	1	P	0	4	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
25	2	P	0	4	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
25	3	P	0	4	5	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
25	4	P	0	4	6	4.42×10^6	P	S	0	1	T	0	4	D	8	0	S02 T01
25	5	P	0	4	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
25	6	P	0	4	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
25	7	P	0	4	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
25	8	P	0	5	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
25	9	P	0	5	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
26	0	P	0	5	4	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
26	1	P	0	5	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
26	2	P	0	5	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
26	3	P	0	5	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
26	4	P	0	5	9	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
26	5	P	0	6	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
26	6	P	0	6	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
26	7	P	0	6	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
26	8	P	0	6	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
26	9	P	0	6	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	0	P	0	6	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	1	P	0	6	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	2	P	0	6	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	3	P	0	6	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
27	4	P	0	7	0	5.04×10^4	P	S	0	1	T	0	4	D	8	0	
27	5	P	0	7	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
27	6	P	0	7	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	7	P	0	7	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	8	P	0	7	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
27	9	P	0	7	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	0	P	0	7	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	1	P	0	7	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	2	P	0	7	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	3	P	0	8	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	4	P	0	8	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	5	P	0	8	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	6	P	0	8	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	7	P	0	8	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	8	P	0	8	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
28	9	P	0	8	9	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
29	0	P	0	9	2	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	1	P	0	9	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	2	P	0	9	4	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
29	3	P	0	9	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	4	P	0	9	6	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	5	P	0	9	7	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
29	6	P	0	9	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	7	P	0	9	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	8	P	1	0	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
29	9	P	1	0	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	0	P	1	0	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	1	P	1	0	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	2	P	1	0	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	3	P	1	0	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	4	P	1	0	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	5	P	1	0	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	6	P	1	1	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	7	P	1	1	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	8	P	1	1	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
30	9	P	1	1	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	0	P	1	1	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	1	P	1	1	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	2	P	1	1	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
31	3	P	1	1	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	4	P	1	1	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
31	5	P	1	2	0	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	6	P	1	2	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	7	P	1	2	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	8	P	1	2	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
31	9	P	1	2	7	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	0	P	1	2	8	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	1	P	1	8	5	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	2	P	1	8	8	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	3	P	1	8	9	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	4	P	1	9	0	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	5	P	1	9	1	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	6	P	1	9	2	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	7	P	1	9	4	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	8	P	1	9	6	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
32	9	P	1	9	7	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	0	P	1	9	8	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	1	P	1	9	9	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	2	P	2	0	1	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	3	P	2	0	2	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	4	P	2	0	3	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	5	P	2	0	4	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	6	P	2	0	5	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
33	7																
33	8	U	0	0	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
33	9	U	0	0	2	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
34	0	U	0	0	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
34	1	U	0	0	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
34	2	U	0	0	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
34	3	U	0	0	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
34	4	U	0	0	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
34	5	U	0	0	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
34	6	U	0	0	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
34	7	U	0	1	0	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
34	8	U	0	1	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
34	9	U	0	1	2	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
35	0	U	0	1	4	3.36×10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
35	1	U	0	1	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
35	2	U	0	1	6	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
35	3	U	0	1	7	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
35	4	U	0	1	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
35	5	U	0	1	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
35	6	U	0	2	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
35	7	U	0	2	1	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
35	8	U	0	2	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
35	9	U	0	2	3	4.42×10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
36	0	U	0	2	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
36	1	U	0	2	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
36	2	U	0	2	6	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
36	3	U	0	2	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
36	4	U	0	2	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
36	5	U	0	2	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
36	6	U	0	3	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
36	7	U	0	3	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
36	8	U	0	3	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
36	9	U	0	3	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
37	0	U	0	3	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
37	1	U	0	3	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
37	2	U	0	3	6	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
37	3	U	0	3	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
37	4	U	0	3	8	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
37	5	U	0	3	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
37	6	U	0	4	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
37	7	U	0	4	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
37	8	U	0	4	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
37	9	U	0	4	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
38	0	U	0	4	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
38	1	U	0	4	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
38	2	U	0	4	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
38	3	U	0	4	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
38	4	U	0	4	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
38	5	U	0	5	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
38	6	U	0	5	1	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
38	7	U	0	5	2	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
38	8	U	0	5	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
38	9	U	0	5	5	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
39	0	U	0	5	6	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
39	1	U	0	5	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
39	2	U	0	5	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
39	3	U	0	5	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
39	4	U	0	6	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
39	5	U	0	6	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
39	6	U	0	6	2	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
39	7	U	0	6	3	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
39	8	U	0	6	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
39	9	U	0	6	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
40	0	U	0	6	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
40	1	U	0	6	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
40	2	U	0	6	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
40	3	U	0	7	0	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
40	4	U	0	7	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
40	5	U	0	7	2	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
40	6	U	0	7	3	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
40	7	U	0	7	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
40	8	U	0	7	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
40	9	U	0	7	6	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	0	U	0	7	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	1	U	0	7	8	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	2	U	0	7	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	3	U	0	8	0	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	4	U	0	8	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
41	5	U	0	8	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
41	6	U	0	8	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	7	U	0	8	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
41	8	U	0	8	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
41	9	U	0	8	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
42	0	U	0	8	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
42	1	U	0	8	8	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
42	2	U	0	8	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
42	3	U	0	9	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
42	4	U	0	9	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
42	5	U	0	9	2	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
42	6	U	0	9	3	6000	P	S	0	1	S	0	2	S	0	4	D80 T04
42	7	U	0	9	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
42	8	U	0	9	5	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
42	9	U	0	9	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
43	0	U	0	9	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
43	1	U	0	9	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
43	2	U	0	9	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
43	3	U	1	0	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
43	4	U	1	0	2	4.46×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
43	5	U	1	0	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
43	6	U	1	0	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
43	7	U	1	0	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
43	8	U	1	0	7	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
43	9	U	1	0	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
44	0	U	1	0	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
44	1	U	1	1	0	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
44	2	U	1	1	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
44	3	U	1	1	2	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
44	4	U	1	1	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
44	5	U	1	1	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
44	6	U	1	1	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
44	7	U	1	1	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
44	8	U	1	1	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
44	9	U	1	1	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
45	0	U	1	1	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
45	1	U	1	2	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
45	2	U	1	2	1	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
45	3	U	1	2	2	3.36×10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
45	4	U	1	2	3	3.36×10^4	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
45	5	U	1	2	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
45	6	U	1	2	5	3.34×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
45	7	U	1	2	6	3.34×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
45	8	U	1	2	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
45	9	U	1	2	8	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
46	0	U	1	2	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
46	1	U	1	3	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
46	2	U	1	3	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
46	3	U	1	3	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
46	4	U	1	3	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
46	5	U	1	3	4	3.36×10^6	P	S	0	1	T	0	4	D	8	0	T01 S02 S04
46	6	U	1	3	5	6000	P	S	0	1	T	0	4	D	8	0	S02 S04 T01
46	7	U	1	3	6	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
46	8	U	1	3	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
46	9	U	1	3	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
47	0	U	1	4	0	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
47	1	U	1	4	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
47	2	U	1	4	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
47	3	U	1	4	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
47	4	U	1	4	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
47	5	U	1	4	5	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
47	6	U	1	4	6	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
47	7	U	1	4	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
47	8	U	1	4	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
47	9	U	1	4	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
48	0	U	1	5	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
48	1	U	1	5	1	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
48	2	U	1	5	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
48	3	U	1	5	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
48	4	U	1	5	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
48	5	U	1	5	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
48	6	U	1	5	6	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
48	7	U	1	5	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
48	8	U	1	5	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
48	9	U	1	5	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
49	0	U	1	6	0	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
49	1	U	1	6	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
49	2	U	1	6	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
49	3	U	1	6	3	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
49	4	U	1	6	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
49	5	U	1	6	5	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
49	6	U	1	6	6	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
49	7	U	1	6	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
49	8	U	1	6	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
49	9	U	1	6	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	0	U	1	7	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
50	1	U	1	7	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	2	U	1	7	2	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	3	U	1	7	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	4	U	1	7	4	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	5	U	1	7	6	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	6	U	1	7	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
50	7	U	1	7	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
50	8	U	1	7	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
50	9	U	1	8	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	0	U	1	8	1	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	1	U	1	8	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	2	U	1	8	3	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	3	U	1	8	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	4	U	1	8	5	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
51	5	U	1	8	6	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
51	6	U	1	8	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	7	U	1	8	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	8	U	1	8	9	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
51	9	U	1	9	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
52	0	U	1	9	1	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
52	1	U	1	9	2	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
52	2	U	1	9	3	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
52	3	U	1	9	4	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
52	4	U	1	9	6	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
52	5	U	1	9	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
52	6	U	2	0	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
52	7	U	2	0	1	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
52	8	U	2	0	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
52	9	U	2	0	3	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
53	0	U	2	0	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
53	1	U	2	0	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
53	2	U	2	0	6	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
53	3	U	2	0	7	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
53	4	U	2	0	8	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
53	5	U	2	0	9	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
53	6	U	2	1	0	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
53	7	U	2	1	1	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
53	8	U	2	1	3	4.42×10^6	P	S	0	1	S	0	2	D	8	0	T01 T04
53	9	U	2	1	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
54	0	U	2	1	5	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
54	1	U	2	1	6	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
54	2	U	2	1	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
54	3	U	2	1	8	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
54	4	U	2	1	9	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
54	5	U	2	2	0	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
54	6	U	2	2	1	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04

EPA ID NO: I_N_I_Y_I_D_I I_0_I_4_I_9_I I_8_I_3_I_6_I I_6_I_7_I_9_I OMB #: 2050-0024; expires 12/31/2014

9. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in 9.D.1)
54	7	U	2	2	2	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
54	8	U	2	2	3	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
54	9	U	2	2	5	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
55	0	U	2	2	6	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
55	1	U	2	2	7	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
55	2	U	2	2	8	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04 S04
55	3	U	2	3	4	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
55	4	U	2	3	5	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
55	5	U	2	3	6	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
55	6	U	2	3	7	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
55	7	U	2	3	8	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
55	8	U	2	3	9	3.84×10^5	P	S	0	1	S	0	2	D	8	0	T01 T04
55	9	U	2	4	0	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
56	0	U	2	4	3	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
56	1	U	2	4	4	6.62×10^6	P	S	0	1	T	0	4	D	8	0	
56	2	U	2	4	6	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	3	U	2	4	7	6000	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	4	U	2	4	8	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	5	U	2	4	9	4.42×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	6	U	2	7	1	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	7	U	2	7	8	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	8	U	2	7	9	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
56	9	U	2	8	0	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	0	U	3	2	8	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	1	U	3	5	3	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	2	U	3	5	9	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	3	U	3	6	4	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	4	U	3	6	7	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	5	U	3	7	2	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	6	U	3	7	3	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	7	U	3	8	7	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	8	U	3	8	9	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
57	9	U	3	9	4	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
58	0	U	3	9	5	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
58	1	U	4	0	4	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
58	2	U	4	0	8	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
58	3	U	4	0	9	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
58	4	U	4	1	0	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80
58	5	U	4	1	1	6.62×10^6	P	S	0	1	S	0	2	S	0	4	T01 T04 D80

10. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

11. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

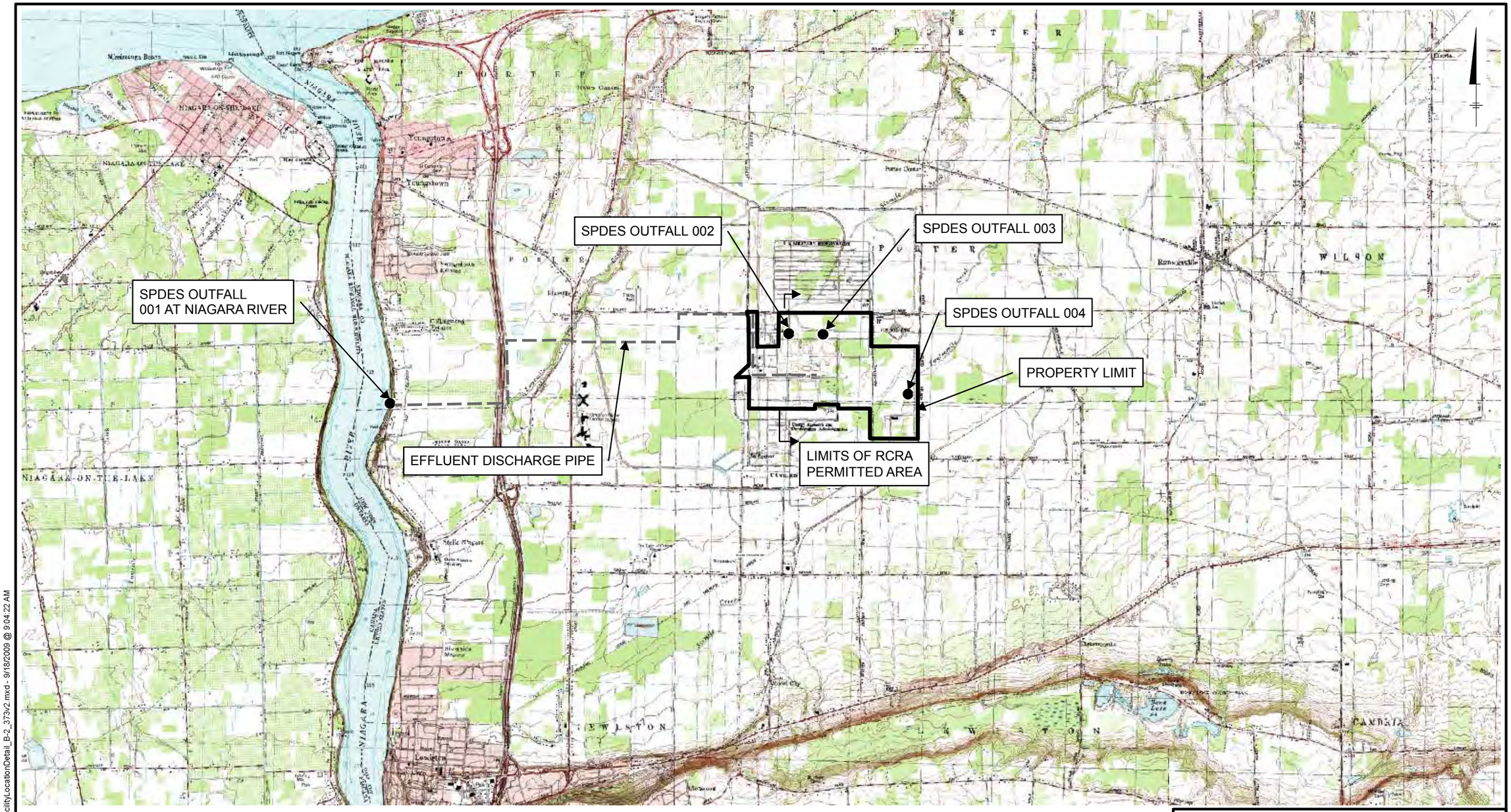
12. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas (see instructions for more detail).

13. Comments

Item 9, Column B, Estimated Annual Quantity of Waste – It is not possible to list each waste stream, its waste codes and the estimated annual quantity by waste code. For example, incinerator ash carries hundreds of waste codes. If the same quantity is provided for each waste code, that quantity of waste would be overstated by a factor of more than one hundred. That would lead to confusion with the permitted annual volume of 425,000 tons. The information for the waste streams managed in a given year (including waste codes and volume) is provided to the NYSDEC in the Annual Report. The maximum quantity of waste that may be landfilled in a year is specified in the facility's permit.

Item 9, Column D, Process Codes – The process codes indicated are an estimate. Actual TSD options will be driven by current permit conditions and current regulations, both State and Federal.



NOTES:

1. PROPERTY LINES ARE APPROXIMATE.
2. NO DRINKING WATER WELLS EXIST WITHIN 1/4 MILE OF THE FACILITY.
3. THE TREATED EFFLUENT DISCHARGE IS LOCATED AT THE NIAGARA RIVER.
4. 710 TOTAL ACRES.
5. 630 RCRA PERMITTED ACRES.

AREA LOCATION

0 1 2
MILES
GRAPHIC SCALE

DATA SOURCE: 24K USGS TOPO QUAD, NRCS Geospatial Data Gateway

CWM CHEMICAL SERIVCES, LLC
MODEL CITY, NEW YORK

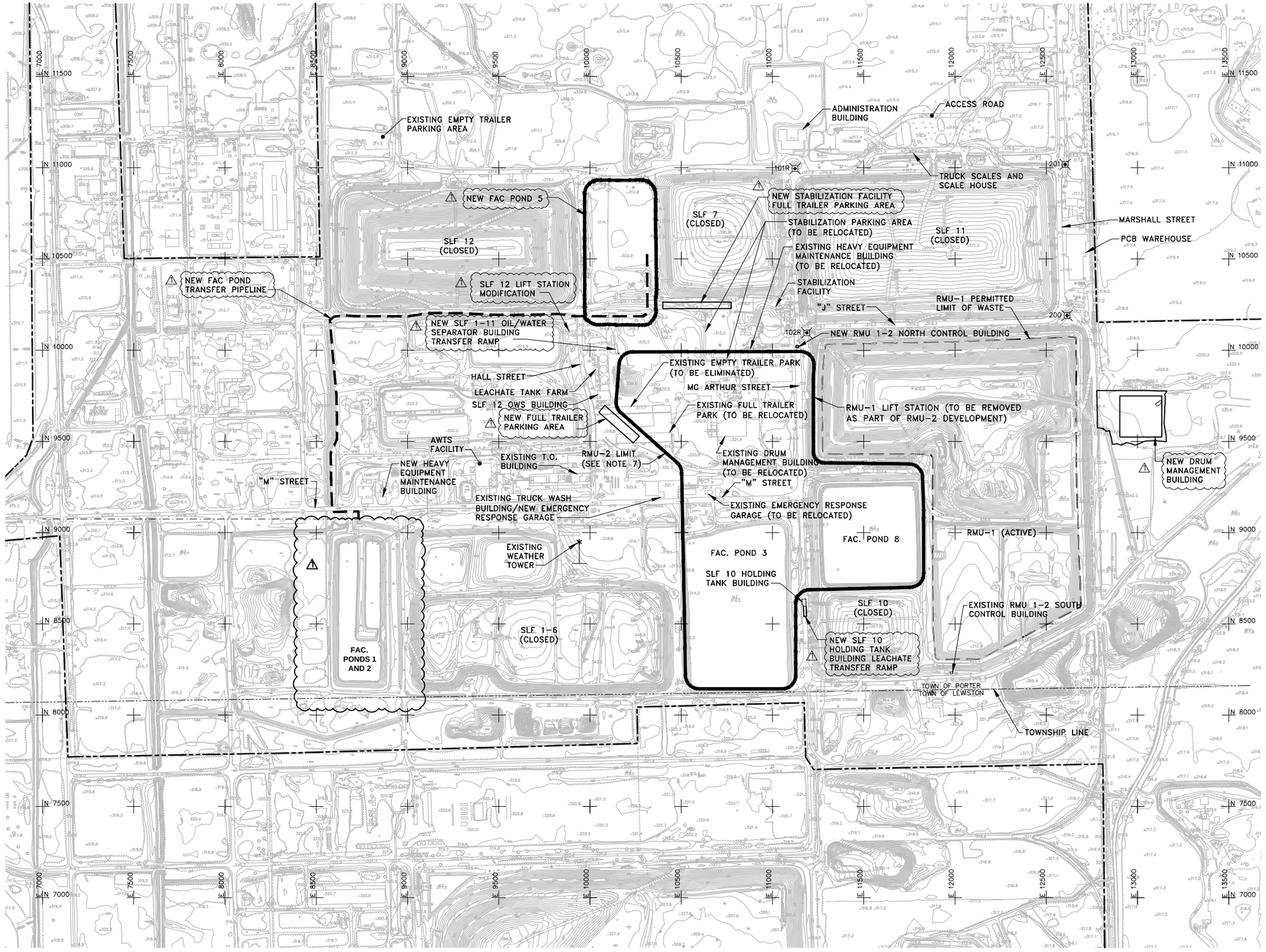
6NYCRR PART 373 PERMIT APPLICATION

REGIONAL TOPOGRAPHIC MAP

ARCADIS

FIGURE A-1

CITY: CLE DIV/GROUP: AIT 40 DB: L.GREENE EAL LD: EAL PIC: WP PM: TM: GNG TR: MODEL CITY 23725.003
Q:\CWM\ModelCity\RevisionsToDEIS\mxd\FacilityLocationDetail_B-2_373v2.mxd - 9/18/2009 @ 9:04:22 AM



LEGEND:

- BRUSHLINE
- CABLE MARKER
- CATCH BASIN
- DROP INLET
- FENCE
- FIRE HYDRANT
- GUARD RAIL
- LIGHT POLE
- MISCELLANEOUS POLE
- MONUMENT
- POST
- RAILROAD TRACKS
- SIGN
- SWAMP
- TRAFFIC LIGHT
- TREE
- TREELINE
- UNIDENTIFIED OBJECT
- UTILITY POLE
- VALVE
- WATER LINE
- EXISTING CONTOUR
- EXISTING GRADEBREAK
- PROPERTY LINE
- NEW FAC POND TRANSFER PIPELINE
- CONTROL MONUMENT (SEE TABLE BELOW)
- E 13500 N 7000 COORDINATE GRID (SEE NOTE 3)

RMU-1/RMU-2 CONTROL MONUMENTS

MONUMENTS	ELEVATION	CWM PLANT GRID		RMU-1 GRID		NY STATE PLANE COORDINATES (NAD-27)		NGVD-29 ELEVATION
		NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING	
102R	319.72	100+94.55	111+87.56	100+94.65	11+87.56	1,175,430.46	396,380.12	319.66
200	318.33	101+89.56	126+13.77	101+89.56	26+13.77	1,175,488.28	397,808.18	318.27
101R	316.01	109+94.28	111+23.09	---	---	1,176,331.436	396,339.034	315.92
201	316.62	110+17.82	126+3.49	---	---	---	---	---

CONTROL MONUMENTS NOTE:

1. RMU-1 EASTING GRID COORDINATES ARE SIMPLIFIED PLANT GRID COORDINATES. SUBTRACTING 10,000 FROM THE CWM PLANT GRID EASTING COORDINATE WILL CONVERT THE CWM PLANT GRID TO THE RMU-1 GRID. NOTE THAT NO CONVERSION IS REQUIRED FOR NORTHING COORDINATES.

NOTES:

1. TOPOGRAPHIC BASE MAP CONSISTS OF COMBINATION OF DATA COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 5/31/01 BY AIR SURVEY CORP. (PROJECT NO.71010503). AND AN AUGUST 2008 SURVEY BY ENSOL, INC.
2. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL.
3. GRID COORDINATES SHOWN ARE CWM PLANT GRID.
4. CONTOUR INTERVAL 2 FT.
5. DASHED CONTOURS INDICATE THAT GROUND IS PARTIALLY OBSCURED BY VEGETATION OR SHADOWS. THESE AREAS MAY NOT MEET STANDARD ACCURACY AND REQUIRE FIELD VERIFICATION.
6. PROPERTY LINE IS APPROXIMATE. EASEMENTS AND RIGHT-OF-WAYS NOT SHOWN.
7. RMU-2 LIMIT REPRESENTS TOE OF PERIMETER MSE WALL.

CITY: SYRACUSE, NY DIV/GROUP: ENVCAD DB: K.DAVIS LD: PIC: W.POPHAM PM: W.RANKIN TM: B.STONE LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0023725\2013\00003\DWG\CONTRACT\PART373\23725GA2.dwg LAYOUT: A-2 SAVED: 10/31/2013 3:43 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTCONT1.CTB PLOTTED: 11/1/2013 1:30 PM BY: DAVIS, KATHI
XREFS:
23725X02
23725X01
23725X00
IMAGES:
PROJECTNAME: ---

300' 0 300' 600'
1"=300'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
1	11/2013	REMOVED FAC POND 1/2 RECONSTRUCTION	GNG	BMS

Professional Engineer's Name: JOSEPH MOLINA
Professional Engineer's No.: 072644

State	Date Signed	Project Mgr.
NY		WAR
Designed by	Drawn by	Checked by
BMS/PTO	LAF	BMS

ARCADIS OF NEW YORK, INC.

CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK
RESIDUALS MANAGEMENT UNIT 2 6NYCRR PART 373 PERMIT APPLICATION

FACILITY LAYOUT

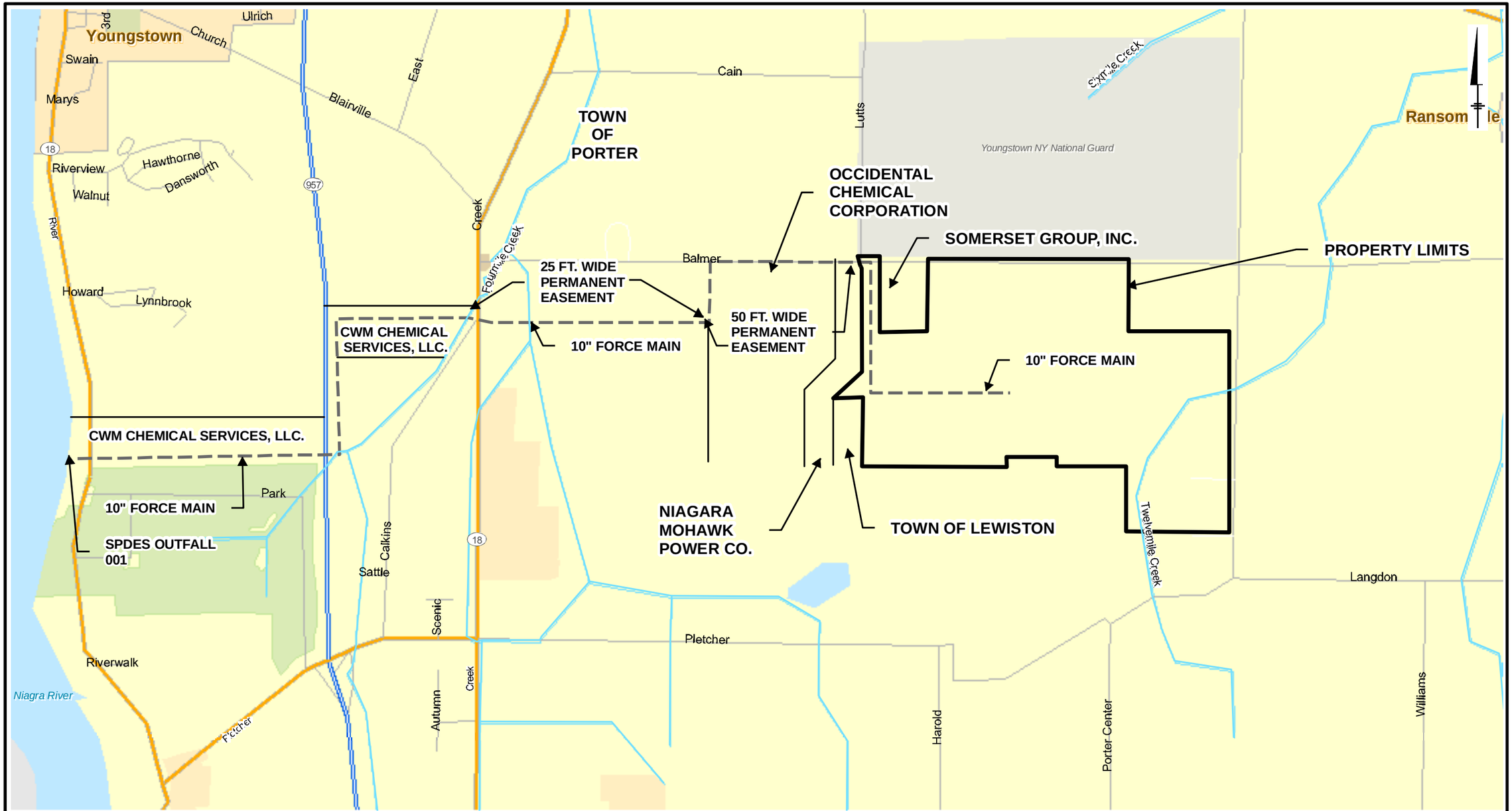
GENERAL

ARCADIS Project No.
B0023725.2009.00006

Date
OCTOBER 2009

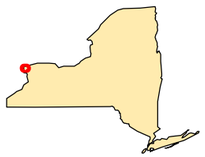
ARCADIS of New York, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse, New York
TEL. 315.446.91220

A-2



NOTES:

1. PROPERTY LINES ARE APPROXIMATE.
2. NO DRINKING WATER WELLS EXIST WITHIN 1/4 MILE OF THE FACILITY.
3. THE TREATED EFFLUENT DISCHARGE IS LOCATED AT THE NIAGARA RIVER.
4. 710 TOTAL ACRES.
5. 630 RCRA PERMITTED ACRES.



AREA LOCATION

0 2,000 4,000
FEET
GRAPHIC SCALE

CWM CHEMICAL SERIVCES, LLC
MODEL CITY, NEW YORK
6NYCRR PART 373 PERMIT APPLICATION

EFFLUENT DISCHARGE PIPELINE

ARCADIS

FIGURE
A-3

CITY: CLE DIV/GROUP: AIT 40 DB: LGREENE LD: EAL PIC: WP PM: TM: GNG TR:
MODEL CITY 23726.003
Friday, June 19, 2009 1:28:50 PM
G:\enviro\Common\GIS\CWM\ModelCity\Revisions To373\mxd\FacilityLocationDetail_A-3.mxd

CWM CHEMICAL SERVICES, LLC
MODEL CITY, NEW YORK
PART A APPLICATION

ITEM XVII - PHOTOGRAPHS

PHOTOGRAPHS TAKEN APRIL 18, 2001

PROCESS CODES: D80 LANDFILL
S01 CONTAINER STORAGE
S02 TANK STORAGE
S04 SURFACE IMPOUNDMENT STORAGE
T01 TANK TREATMENT
T04 OTHER TREATMENT

PHOTO 1 – TRAILER PARKING AREA (SC1)

PHOTO 2 – SLF 1-11 LEACHATE PRETREATMENT SYSTEM (T01)

PHOTO 3 – FACULTATIVE (FAC) PONDS #1 AND 2 (S04)

PHOTO 4 – FACULTATIVE (FAC) POND #3 (SC4)

PHOTO 5 – FACULTATIVE (FAC) POND #8 (S04)

PHOTO 6 – AQUEOUS WASTEWATER TREATMENT FACILITY (T01)

PHOTO 7 – WASTEWATER STORAGE TANK (S02)

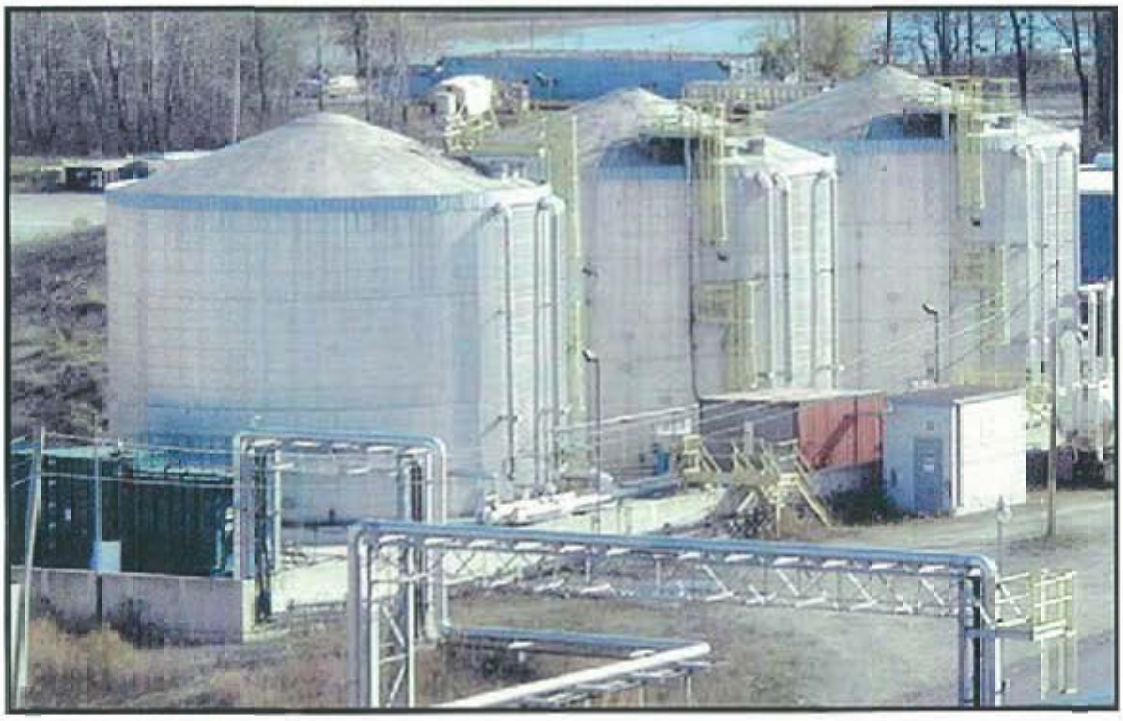


PHOTO 8 – LEACHATE TANK FARM (S02)

PHOTO 9 – PCB DRUM WAREHOUSE (S01)

PHOTO 10 – DRUM MANAGEMENT BUILDING LOADING DOCK (S01)

PHOTO 11 – DRUM MANAGEMENT BUILDING (S01)

PHOTO 12 – WASTE STABILIZATION FACILITY (T04)

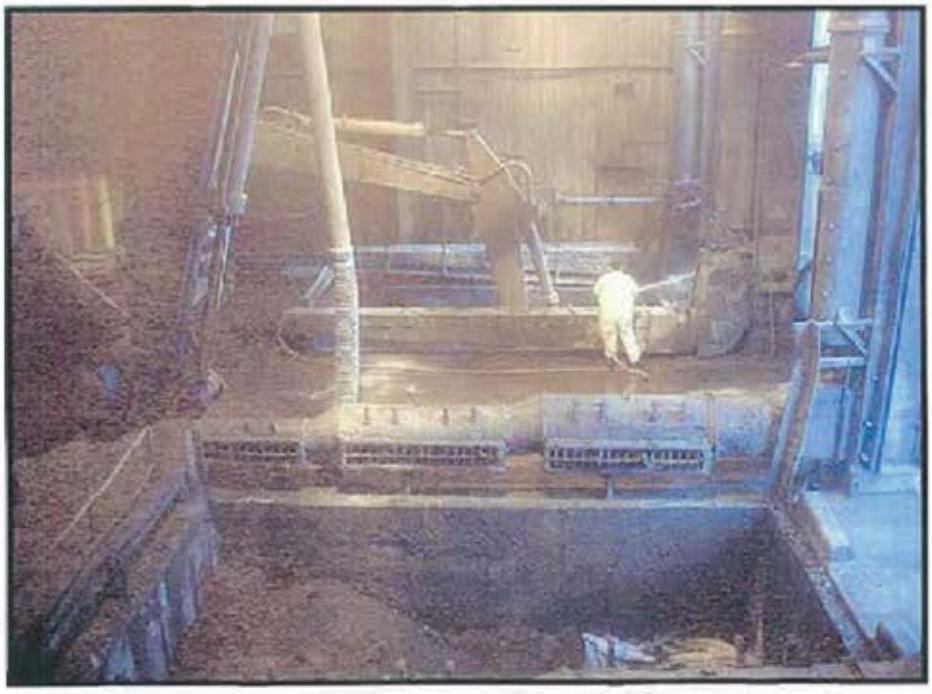


PHOTO 13 – WASTE STABILIZATION FACILITY (T04)

PHOTO 14 – RESIDUALS MANAGEMENT UNIT NO. 1 (RMU-1) (D80)

PHOTO 15 – RESIDUALS MANAGEMENT UNIT NO. 1 (RMU-1) (D80)

PHOTO 16 – LOCATION OF PROPOSED RESIDUALS MANAGEMENT UNIT NO. 2 (D80)

PHOTO 17 – LOCATION OF PROPOSED RESIDUALS MANAGEMENT UNIT NO. 2 (D80)

PHOTO 18 – LOCATION OF PROPOSED RESIDUALS MANAGEMENT UNIT NO. 2 (D80)

PHOTO 19 – LOCATION OF PROPOSED RESIDUALS MANAGEMENT UNIT NO. 2 (D80)

PHOTO 20 – LOCATION OF PROPOSED FACULTATIVE (FAC) POND #5 (S04)

PHOTO 21 – LOCATION OF PROPOSED NEW DRUM MANAGEMENT BUILDING (S01)

PHOTO 22 – LOCATION OF PROPOSED NEW STABILIZATION TRAILER PARKING AREA (S01)

PHOTO 23 – LOCATION OF PROPOSED NEW FULL TRAILER PARKING AREA (S01)

PHOTO 24 – LOCATION OF PROPOSED NEW SLF-10 HOLD TANK BUILDING LEACHATE TRANSFER RAMP (S01)

PHOTO 25 – LOCATION OF PROPOSED NEW SLF 1-11 OIL/WATER SEPARATOR BUILDING LEACHATE TRANSFER RAMP (S01)

Note:
Photographs 1 through 15 taken April 18, 2001
Photographs 16 through 21 taken June 16, 2012
Photographs 22 through 25 taken October 3, 2013

ATTACHMENT B

No Modifications Proposed

ATTACHMENT C

No Modifications Proposed

WASTE CHARACTERISTICS

AND

ANALYSIS PLAN

FOR

CWM CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NEW YORK 14107
EPA ID #NYD049836679

July 2013

WASTE ANALYSIS PLAN

TABLE OF CONTENTS

SECTION C WASTE CHARACTERISTICS C-1
C-1 Chemical and Physical Characteristics C-1

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION) C-4

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT
MODEL CITY FACILITY C-28

FOOTNOTES C-63

C-2 Waste Analysis Plan C-64
C-2a Introduction C-64
Analytical Parameters, Techniques and Rationale C-64
Sampling Methodology C-64
Pre-Acceptance Procedures C-64
Incoming Load Procedures C-64
Process Operations Procedures C-64
Quality Control Policy C-64

C-2b Analytical Rationale C-65
Mandatory Analyses C-65
Supplemental Analyses C-65
C-2b(1) Mandatory Analyses C-66
Physical Description C-66
pH Screening C-66
Water Mix Screening C-66
Flammability Potential Screening C-67

TABLE C-3

Usage of "Mandatory Analyses" C-68
Cyanides Screening C-69
Sulfides Screening C-69
Radioactivity Screening C-69
PCBs C-69
Suitability for landfill C-69
C-2b(2) Supplemental Analyses C-70
Ash C-71
Chromate C-71
Compaction Testing C-71
Compressive Strength C-71
Conductivity C-71
Density C-71
Leaching Procedure C-71
Flash Point C-71

Fluoride C-71
Ferrous C-71
Free Cyanide C-72
Free Sulfide C-72
Heating Value C-72
Liquid Waste Compatibility C-72
AWT Metals (e.g., Cu, Cr, Cd, Fe, Mn, Ni, Zn, Pb) C-72
Other Metals C-72
Microwave Digestion for Metals Analysis C-72
Organic Priority Pollutants C-72
Organics Screening C-72
Oxidizer Screening C-72
Liquid Determination C-72
PCB Screening C-72
Percent Halogen/Sulfur C-72
% Solubility C-73
pH C-73
Phosphate C-73
Phenols C-73
Pour Point C-73
Settleable Solids C-73
TOC C-73
Total Cyanides (Distillation with Magnesium Chloride) C-73
Total Sulfides C-73
2% Organic Limit Analyses C-73
Water Content C-73
C-2c Sampling Methodology C-73
C-2c(1) General Methods and Equipment C-74
C-2c(2) Specific Methods and Equipment C-75

TABLE C-4

SAMPLING METHODS AND EQUIPMENT C-75
C-2c(2)(a) Containers C-76
C-2c(2)(b) Process In-Line Sampling C-77
C-2c(2)(c) Waste Piles C-77
C-2c(2)(d) Impoundments C-77
C-2c(2)(e) LDR "Grab" Sampling C-78
C-2d Pre-acceptance Procedure C-78
Generator-supplied information C-78
Initial review and/or analysis C-78
Disposal decision process C-78
Re-evaluation C-78

C-2d(1) Generator-Supplied Information C-78
Waste Profile C-79
A representative sample C-79
Land Disposal Restriction C-79
C-2d(1)(a) Exceptions C-79
Chemical waste from a laboratory C-79
Articles, equipment, and clothing containing or contaminated with polychlorinated biphenyls (PCBs) C-79
PCB draining and flushing fluids C-85
"Empty" containers of waste materials, commercial products, or chemicals C-79
Asbestos-containing waste from building demolition or cleaning C-79

Discarded, unused, off-specification, or outdated commercial products....C-80
Residues and debris....C-80
Chemical-containing devices removed from service....C-80
Demolition wastes....C-80
Cartridge filters....C-80
Activated carbon, Ion exchange resin, molecular sieves (as adsorbed constituents cannot be readily desorbed....C-80
Contaminated debris....C-80
Waste from a remedial project....C-80
Debris as defined at 40 CFR 268.2. ....C-80
Controlled substances regulated by the Federal Government....C-80
C-2d(1)(b) Standard Profiles....C-81
C-2d(2) Initial Review and Analysis....C-81
C-2d(3) Disposal Decision Process....C-82
C-2d(4) Re-evaluation Process....C-82
C-2e Incoming Load Procedure....C-83
Manifest Review....C-83
Inspection and sampling....C-83
Analysis....C-83
Decision evaluation logic....C-83
C-2e(1) Manifest Review....C-84
C-2e(2) Inspection and Sampling....C-85
C-2e(3) Analysis....C-86
C-2e(4) Decision Evaluation Logic....C-86
C-2f Process Operations Procedure....C-89
C-2f(1) Storage....C-89
C-2f(1)(a) Waste in Containers (Drums)....C-90
TABLE C-5
Incompatible Hazard Classes....C-91
C-2f(1)(b) Waste in Tanks....C-92
C-2f(2) Treatment Operations....C-92
C-2f(2)(b) Aqueous Waste Treatment....C-93
C-2f(2)(c) Fuels Blending/Incinerables....C-96
C-2f(2)(d) Transformer Decommissioning....C-97
C-2f(5) Landfill Disposal....C-97
C-2f(6) Stabilization....C-100
C-2g Quality Assurance/Quality Control....C-102
C-2g(1) Introduction....C-102
C-2g(2) Sampling Program....C-102
C-2g(3) Analytical Program....C-106
C-2g(4) Reserved....C-106
C-2g(5) Contract Laboratories....C-106
C-2g(6) Conclusion....C-106
C-2h Analytical Procedures....C-106
C-2h(1) Unique Analytical Procedures....C-107
Ash....C-107
Percent Acidity (Free & Equivalent Acid)....C-107
Percent Alkalinity (Free & Equivalent Base)....C-107
Bench-Scale Treatment Evaluation....C-107
Dissolved Sulfides....C-107
Free Cyanide Screen/Quantification (Aqueous Waste)....C-107
Free Soluble Sulfide Screen/Quantification (Aqueous Waste)....C-108
Heating Value....C-108
Load Bearing Strength by Pocket Penetrometer....C-108
Microwave-aided Digestion....C-108
Peroxide Screen....C-108

Phosphate screen C-108
Chromate screen C-108
Ferrous screen C-108
Phenol screen C-108
Quick Leach Extraction C-108
Radioactivity Screen C-108
Reagent Compatibility Screen C-109
Percent Solubility C-109
Solvent Screen C-109
Stabilization Evaluation C-109
C-2h(2) Standard Analytical Procedures C-109
C-2i Figures C-110
Figure C-1 Waste Profile
Figure C-2 Overview of the Pre-acceptance Process
Figure C-3 Overview of the Incoming Load Process
Figure C-4 Aqueous Waste Treatment
Figure C-5 Landfill and Stabilization

Appendix A – Standard Analytical Procedures

SECTION C
WASTE CHARACTERISTICS

This section describes the chemical and physical nature of the hazardous wastes received and managed at the facility and provides the facility's Waste Analysis Plan. This information is provided in accordance with 6 NYCRR Subpart 373-2.2(e).

C-1 Chemical and Physical Characteristics

The facility receives and manages virtually every type of hazardous waste identified in 6 NYCRR Subpart 371. The waste received in bulk, drums, or other containers generally fall within the following categories of materials:

- Wastewaters - acidic, basic, or neutral solutions generally containing heavy metals and/or low levels of soluble organics. These materials are usually treated in the aqueous treatment facility, qualified in a facultative pond and then discharged to the Niagara River via the facility SPDES permit.

- Inorganic solids and sludges - frequently contain or are contaminated with heavy metals. They are managed in the secure landfill.

- Solids with organic contamination - generally consists of dirt or debris with organic contamination, suitable for landfill disposal.

- Organic solids and sludges not suitable for landfill disposal in NYS are generally managed off-site.

- Organic liquids such as halogenated and nonhalogenated solvents are generally blended and shipped to incineration facilities. PCB containing liquids are managed separately.

Each hazardous waste received by the facility has been characterized and classified with the proper EPA hazard code(s) by the generator (see Tables C-1 and C-2). A list of the EPA hazard codes, along with an indication of their hazardous characteristics and the basis for listing is presented in Table C-1. Also included in this table is a listing of the typical treatment/disposal options that may be used to process each listed waste. The actual treatment/disposal technique would depend on items such as the concentrations and quantity of the listed compound, its other waste components, physical state and the matrix (water, soil, debris, etc.). Landfill disposal limits, as outlined in the facility's landfill operating permit, includes the following restrictions:

1. The flash point must be greater than 140°F.
2. The pour point must be greater than 75°F.

3. Only Package Lab Chemicals containing non-hazardous wastes or materials that meet the LDR standards will be disposed of in the landfill. "Packaged Lab Chemicals (PLC's) containing hazardous wastes requiring treatment will be processed by decanting for WWT or fuels blending, stabilization or other treatment or they will be stored and transferred off-site for alternate disposal such as incineration. Hazardous waste PLCs with free liquids will be disposed of in the landfill in accordance with 6NYCRR 373-2.14(j) and (l). Non-hazardous PLCs will be managed in general accordance with 6NYCRR 373-2.14(j) and (l) except that the outside container will be DOT-specification in accordance with 49CFR 173.12(b).
4. No wastes containing explosives, shock sensitive, or pyrophoric substances may be disposed of in the landfill[1]. In addition, no compressed gases, compressed liquids or infectious agents may be disposed of in the landfill.
5. Wastes may not contain greater than 2% "Organic Limit", unless otherwise authorized by the Department as prescribed in condition E.1.c.i in Exhibit F of Schedule 1 of Module I of the Sitewide Part 373 Permit. Wastes containing greater than 2% of non-target organic compounds will be submitted on a case-by-case basis to the NYSDEC for land disposal approval.
6. Any wastes containing trace levels of radioactive material that reads slightly above background may not be land disposed without NYSDEC approval. Wastes with higher levels of radioactivity are prohibited from land disposal.
7. Containers containing common contaminant compounds that have a solubility in water at 25°C in excess of 10% by weight of the waste, shall be surrounded by containers with insoluble contents when placed in the landfill. Bulk loads containing >10% solubles shall be spread thin.
8. Cyanide and sulfide containing wastes characterized as reactive (D003) will not be landfilled. Wastes that yield a positive cyanide or sulfide test result, using the screening procedures in Section C-2h(1) will be tested using SW-846 method 9010 or 9030. Wastes that are found to yield values of a 1,000 ppm or greater for either "Cyanide Amenable to Chlorination", or "Total Sulfide" may not be disposed of in the landfill. Total cyanide test results of <1000 ppm may be used to approve waste streams for landfill disposal, as amenable cyanide is a subset of total cyanide.

9. All PCB wastes will be managed in accordance with 40 CFR Part 761 and 6NYCRR 371.4(e).

[1] Explosive, shock sensitive and pyrophoric substances, as defined by the following references:

- o Hawley's Condensed Chemical Dictionary, eleventh edition (or most recent), Sax, N. Irving and Lewis, Richard J., Van Nostrand Reinhold Co., NY, NY, 1987.
- o Dangerous Properties of Industrial Materials, sixth edition (or most recent), Sax, N. Irving, Van Nostrand Reinhold Co., NY, NY, 1984.
- o Fire Protection Guide on Hazardous Materials, eighth edition (or most recent), National Fire Protection Association, Quincy, MA, 1984.
- o Chemistry of Hazardous Materials, Eugene Meyer, Prentice-Hall, Inc., Englewood Cliffs, NY, 1977 (or most recent version).
- o Code of Federal Regulations, 49 CFR Part 172.

10. Spent solvents and dioxins: No current production wastes or outdated products with the codes F020-F023, F026-F027 wastes shall be disposed of in the landfill. Only wastes that are derived from these codes such as a water treatment sludge from the treatment of leachate may be land disposed.

11. "All RCRA hazardous solids for which LDR Standard exist, will be managed in compliance with these treatment standards as listed in NYCRR, Part 376 and 40 CFR 268."

12. Suitability for landfill disposal will be dependent upon any future hazardous waste regulations.

13. All wastes for land disposal will be approved by the NYSDEC.

14. No material that is organic/combustible (e.g., grease) shall be designated for disposal in the acid generating/oxidizer area of the landfill. Combustibles that are part of the actual acid generating or oxidizer waste stream or its packaging (e.g., persulfate contaminated paper bags) may be designated for disposal in the acid generating/oxidizer area of the landfill, if approved by NYSDEC.

15. No electronic waste (e-waste) as defined under ECL § 27-2601 shall be disposed of in the landfill pursuant to the ban under ECL § 27-2611.

In general, for treatment, storage or disposal, the facility will not accept (except for trace levels slightly above background, approved by the NYSDEC) radioactive, shock sensitive, pyrophoric or etiologic wastes. The facility also receives and manages industrial waste which are not a hazardous waste as defined in 6 NYCRR 371.2. These waste also generally fall within one of the above-listed categories of materials and are managed in accordance with the procedures outlined in this WAP. Landfill candidate nonhazardous wastes are subject to the same landfill disposal restrictions as are hazardous waste. Analytical procedures for non-hazardous wastes may be modified on a case by case basis with the approval of the profile approval request by the NYSDEC on-site monitor.

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)[**]

NYS Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
B001	PCB Oil (concentrated)	Toxic	B
B002	Petroleum Oil or other liquids (50 to 500 ppm)	Toxic	B
B003	Petroleum Oil or other liquids (greater than 500 ppm)	Toxic	B
B004	PCB Articles (50 to 500 ppm)	Toxic	B,L
B005	PCB Articles (greater than 500 ppm)	Toxic	B,L
B006	PCB Transformers	Toxic	B,L
B007	Other PCB Wastes	Toxic	B,L

[**]All footnotes may be referenced at the end of Table C-2 of the Waste Analysis Plan.

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY (B, D, F AND K DESIGNATION)**

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
D001	Ignitable waste	Ignitable	L,B,AT
D002	Corrosive waste	Corrosive	L,B,AT
D003	Reactive waste	Reactive	L,T
D004	Arsenic	Toxicity Characteristic	L,AT,B
D005	Barium	Toxicity Characteristic	L,AT,B
D006	Cadmium	Toxicity Characteristic	L,AT,B
D007	Chromium	Toxicity Characteristic	L,AT,B
D008	Lead	Toxicity Characteristic	L,AT,B
D009	Mercury	Toxicity Characteristic	L,AT,B
D010	Selenium	Toxicity Characteristic	L,AT,B
D011	Silver	Toxicity Characteristic	L,AT,B
D012	Endrin	Toxicity Characteristic	T,B,L
D013	Lindane	Toxicity Characteristic	T,B,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY (B, D, F AND K DESIGNATION)**

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
D014	Methoxychlor	Toxicity Characteristic	T,B,L
D015	Toxaphene	Toxicity Characteristic	T,B,L
D016	2,4-D	Toxicity Characteristic	T,B,L
D017	2,4,5-TP Silvex	Toxicity Characteristic	T,B,L
D018	Benzene	Toxicity Characteristic	B,T,L,AT
D019	Carbon Tetrachloride	Toxicity Characteristic	B,T,L,AT
D020	Chlordane	Toxicity Characteristic	B,T,L,AT
D021	Chlorobenzene	Toxicity Characteristic	B,T,L,AT
D022	Chloroform	Toxicity Characteristic	B,T,L,AT
D023	o-cresol	Toxicity Characteristic	B,T,L,AT
D024	m-cresol	Toxicity Characteristic	B,T,L,AT
D025	p-cresol	Toxicity Characteristic	B,T,L,AT
D026	Cresol	Toxicity Characteristic	B,T,L,AT

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY (B, D, F AND K DESIGNATION)[**]

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
D027	1,4-Dichlorobenzene	Toxicity Characteristic	B,T,L,AT
D028	1,2-Dichloroethylene	Toxicity Characteristic	B,T,L,AT
D029	1,1-Dichloroethylene	Toxicity Characteristic	B,T,L,AT
D030	2,4-Dinitrotoluene	Toxicity Characteristic	B,T,L,AT
D031	Heptachlor	Toxicity Characteristic	B,T,L,AT
D032	Hexachlorobenzene	Toxicity Characteristic	B,T,L,AT
D033	Hexachloro-1,3-butadiene	Toxicity Characteristic	B,T,L,AT
D034	Hexachloroethane	Toxicity Characteristic	B,T,L,AT
D035	Methyl Ethyl Ketone	Toxicity Characteristic	B,T,L,AT
D036	Nitrobenzene	Toxicity Characteristic	B,T,L,AT
D037	Pentachlorophenol	Toxicity Characteristic	B,T,L,AT
D038	Pyridine	Toxicity Characteristic	B,T,L,AT
D039	Tetrachloroethylene	Toxicity Characteristic	B,T,L,AT

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY (B, D, F AND K DESIGNATION)**

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
D040	Trichloroethylene	Toxicity Characteristic	B,T,L,AT
D041	2,4,5-Trichlorophenol	Toxicity Characteristic	B,T,L,AT
D042	2,4,6-Trichlorophenol	Toxicity Characteristic	B,T,L,AT
D043	Vinyl Chloride	Toxicity Characteristic	B,T,L,AT

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
F001	Spent Halogenated Solvents	Toxic	B,T,L,AT
F002	Spent Halogenated	Toxic	B,T,L,AT
F003	Spent non-halogenated solvents	Ignitable	B,T,L,AT
F004	Spent non-halogenated solvents	Toxic	B,T,L,AT
F005	Spent non-halogenated solvents	Ignitable, Toxic	B,T,L,AT
F006	Wastewater treatment sludges from electroplating	Toxic	L,AT
F007	Spent cyanide plating bath; solutions from electroplating	Reactive, Toxic	AT,L
F008	Plating bath sludges	Reactive, Toxic	AT,L
F009	Spent stripping and and cleaning bath solutions from electroplating	Reactive, Toxic	AT,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
F010	Quenching bath sludges from oil baths from metal heat treating	Reactive, Toxic	T,L
F011	Spent cyanide solutions from salt bath cleaning from metal heat treating	Reactive, Toxic	AT,L
F012	Quenching wastewater treatment sludges from metal heat treating	Toxic	L,AT
F019	Wastewater treatment sludges	Toxic	L,AT
F020(4)	Wastes from the production or use of tri- or tetrachlorophenol	Acute Hazardous	AT,L,T
F021(4)	Wastes from the production or use of pentachlorophenol	Acute Hazardous	AT,L,T
F022(4)	Wastes from the manufacturing of tetra-, penta-, or hexachlorobenzenes	Acute Hazardous	AT,L,T

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
F023(4)	Wastes from the production of materials or equipment previously used for the production of use of tri- and tetrachlorophenols	Acute Hazardous	AT,L,T
F024	Wastes, including but not limited to distillation residues, heavy ends, tars, and reactor cleanout wastes	Toxic	B,L,T
F025	Condensed light ends and other wastes from the production of certain chlorinated aliphatic hydrocarbons	Toxic	B,L,T
F026(4)	Wastes from the production of materials on equipment previously used for the use of tetra-, penta-, or hexachlorobenzene	Acute Hazardous	AT,L,T
F027(4)	Discarded unused formulations containing tri, tetra-, or pentachlorophenol	Acute Hazardous	AT,L,T

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
F028(4)	Residues from the incineration or thermal treatment of soil with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	Toxic	AT,L,T
F032	Wastewaters, process residuals, drippage &spent formulations from wood preserving using chlorophenolic formulations	Toxic	B, T, L
F034	Same as above, substitute creosote for chlorophenolic	Toxic	B, T, L
F035	Same as above, substitute preservatives containing arsenic or chromium	Toxic	B, T, L
F037	Petroleum refinery oil/water/ solids separation sludge	Toxic	B, T, L
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge	Toxic	B, T, L
F039	Multisource Leachate	Toxic	AT,B,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K001	Bottom sediment sludge	Toxic	T,L
K002	Wastewater treatment sludge	Toxic	L,AT
K003	Wastewater treatment sludge	Toxic	L,AT
K004	Wastewater treatment sludge	Toxic	L,AT
K005	Wastewater treatment sludge	Toxic	L,AT
K006	Wastewater treatment sludge	Toxic	L,AT
K007	Wastewater treatment sludge	Toxic	L,AT
K008	Oven Residue	Toxic	L,AT
K009	Distillation bottoms	Toxic	B,T,L
K010	Distillation side cuts	Toxic	B,T,L
K011	Bottom stream from wastewater stripper	Reactive, Toxic	T,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K013	Bottom stream from acetonitrile column	Reactive, Toxic	B,T,L
K014	Bottoms from acetonitrile purification	Toxic	B,T,L
K015	Still bottoms from distillation	Toxic	B,T,L
K016	Heavy ends or distillation residue	Toxic	B,T,L
K017	Heavy ends (still bottoms)	Toxic	B,T,L
K018	Heavy ends	Toxic	B,T,L
K019	Heavy ends	Toxic	B,T,L
K020	Heavy ends	Toxic	B,T,L
K021	Aqueous spent antimony catalyst	Toxic	L,T
K022	Distillation bottom tars	Toxic	B,T,L
K023	Distillation light ends	Toxic	B,T,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K024	Distillation bottoms	Toxic	B,T,L
K025	Distillation bottoms	Toxic	B,T,L
K026	Stripping still tails	Toxic	B,T,L
K027	Centrifuge and distillation residues from TDI	Reactive, Toxic	T,L
K028	Spent catalyst	Toxic	T,L
K029	Product steam stripper	Toxic	B,T,L
K030	Column bottoms or heavy ends	Toxic	B,T,L
K031	By-product salts	Toxic	T,L
K032	Wastewater treatment sludge	Toxic	AT,T,L
K033	Wastewater and scrub water	Toxic	AT,B,T,L
K034	Filter solids	Toxic	T,L
K035	Wastewater treatment sludges	Toxic	T,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K036	Still bottoms	Toxic	B,T,L
K037	Wastewater treatment washing and stripping	Toxic	L,T
K038	Wastewater from washing and stripping	Toxic	AT,B,T,L
K038	Distillation bottoms	Toxic	B,T,L
K039	Filter cake	Toxic	L,T
K040	Wastewater treatment sludge	Toxic	L,T
K041	Wastewater treatment sludge	Toxic	L,T
K042	Heavy ends or distillation residues	Toxic	B,T,L
K043	2,6 dichlorophenol waste	Toxic	B,T,L
K044	Wastewater treatment sludges	Reactive	L (if non-reactive)

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K045	Spent Carbon	Reactive	T,L (if non-reactive)
K046	Wastewater treatment sludges	Toxic	L
K047	Pink/redwater	Reactive	AT,B,L (if non-reactive)
K048	DAF/float	Toxic	B,AT,T,L
K049	Slop oil emulsion solids	Toxic	B,AT,T,L
K050	Heat exchanger bundle cleaning sludge	Toxic	B,AT,T,L
K051	API separator sludge	Toxic	B,AT,T,L
K052	Tank bottoms	Toxic	B,AT,T,L
K060	Ammonia still lime sludge	Toxic	L
K061	Emission control dust/sludge	Toxic	L
K062	Spent pickle liquor	Corrosive, toxic	AT,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K064	Copper Production - Acid Plant blowdown sludge from thickening	Toxic	L,T
K065	Lead Smelting - surface impoundment solids and sludges	Toxic	L,T
K066	Zinc Production - Sludge from treatment of wastewater, acid plant waste	Toxic	L,T
K069	Emission control dust/sludge	Toxic	L
K071	Brine purification muds	Toxic	L,AT
K073	Chlorinated hydro-carbon wastes	Toxic	B,T,L
K083	Aniline wastes	Toxic	B,T,L
K084	Wastewater treatment sludges	Toxic	L,T
K085	Distillation or fraction-ation column bottoms	Toxic	B,T,L
K086	Solvent washes and sludges	Toxic	B,AT,L,T

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K087	Decanter tank tar sludge	Toxic	B,T,L
K088	Spent Potliner	Toxic	L,T
K088	Aluminum Reduction - spent potliners from primary aluminum reduction	Toxic	L,T
K090	Ferro-Chromium Silicon Production - emission control dust or sludge	Toxic	L,T
K091	Ferro-Chromium Production-emission control dust or sludge	Toxic	L,T
K093	Distillation light ends	Toxic	B,T,L
K094	Distillation bottoms	Toxic	B,T,L
K095	Distillation bottoms	Toxic	B,T,L
K096	Heavy ends	Toxic	B,T,L
K097	Vacuum stripper discharger	Toxic	B,T,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K098	Untreated process wastewater	Toxic	AT,B,T,L
K099	Untreated wastewater	Toxic	AT,B,T,L
K100	Waste leaching solution	Toxic	AT,L
K101	Distillation tar residues	Toxic	B,T,L
K102	Residue from activated carbon	Toxic	L,T
K103	Process residues	Toxic	B,T,L
K104	Combined wastewater	Toxic	B,T,AT,L
K105	Separated aqueous stream from product washing step of chlorobenzenes	Toxic	B,T,L
K105	Separated aqueous stream	Toxic	B,T,AT,L
K106	Wastewater treatment sludge	Toxic	L,AT

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K107(5)	Column bottoms from 1,1-dimethyl-hydrazine production	Corrosive, Toxic	B,T,AT,L
K108(5)	Condensed column overheads from 1,1-dimethyl-hydrazine production	Ignitable, Toxic	B,T,AT,L
K109(5)	Spent filter cartridges from 1,1-dimethyl-hydrazine production	Toxic	B,T,L
K110(5)	Condensed column overheads from intermediate separation from 1,1-dimethyl-hydrazine production	Toxic	B,T,L
K111	Product washwaters of dinitrotoluene	Toxic	B,T,L
K112	Reaction by-product water of toluenediamine	Toxic	B,T,L
K113	Condensed liquid light ends of toluenediamine	Toxic	B,T,L
K114	Vicinals of toluenediamine	Toxic	B,T,L
K115	Heavy ends of toluenediamine	Toxic	B,T,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K116	Organic condensate of TDI	Toxic	B,T,L
K117	Wastewater of ethylene dibromide	Toxic	B,T,L
K118	Spent absorbent solids of ethylene dibromide	Toxic	B,T,L
K123(5)	Process wastewater from the production of Ethylene bisdi-thiocarbamic acid	Toxic	L,T
K124(5)	Reactor Vent Scrubber from ethylenebis-di-thiocarbamic acid	Toxic	L,T
K125(5)	Filter, Evaporation & Centrifuge Solids ethylenebis-dithio-carbamic acid	Toxic	L,T
K126(5)	Baghouse dust and floor sweepings from ethylenebis-dithio-carbamic acid	Toxic	L,T
K131(5)	Wastewater from methyl bromide production	Toxic	L,T

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION)**
(Continued)

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K132(5)	Spent absorbent and wastewater separator solids from methyl bromide production	Toxic	L,T
K136	Still bottoms of ethylene dibromide	Toxic	B,T,L
K140	Floor sweepings, off-specification product and spent filter media from the production of 2,4,6-Tribromophenol	Toxic	B,T,L,AT
K141	Process residues from the recovery of coal tar	Toxic	L, T
K142	Tar storage tank residues from production of coke	Toxic	L,T
K143	Process residues from recovery of light oil	Toxic	L,T
K144	Wastewater sump residues from light oil refining	Toxic	L,T
K145	Residues from naphthalene collection and recovery operations	Toxic	L,T
K147	Tar storage tank residues from coal tar refining	Toxic	L,T

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION) ** **(Continued)**

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K148	Residues from coal tar distillation	Toxic	L,T
K149	Distillation or fractionation bottoms from alpha or methyl chlorinated toluene, ringed chlorinated toluene, benzoyl chloride	Toxic	B,T,L
K150	Residuals from production of alpha-chlorinated toluenes	Toxic	B,T,L
K151	Wastewater treatment sludges from production of alpha-chlorinated toluenes	Toxic	B,T,L
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes	Toxic	B,T,AT,L
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes	Toxic	B,T,AT,L
K158	Bag house dust, and filter/ separation solids from the production of carbamates and carbamoyl oximes	Toxic	B,T,L
K159	Organics from the treatment of thiocarbamate wastes	Toxic	B,T,AT,L

TABLE C-1

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY
(B, D, F, AND K DESIGNATION) (Continued)**

EPA Hazardous Waste No.	Waste Common Name	Basis for Listing Hazardous Waste	TSD(1)(2) Option
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts (This does not include K125 or K126)	Toxic	B,T,L
K169	Crude oil storage tank sediment from petroleum refining operations	Toxic	B,T,L
K170	Clarified slurry oil storage tank sediment and/or in-line filter/separation solids from petroleum refining operations	Toxic	B,T,L
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic units	Toxic	B,T,L
K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic units	Toxic	B,T,L
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer unless the sludges are landfilled in a Subtitle C or non-haz landfill permitted by federal or state government	Toxic	B,T,L
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	Toxic	B,T,L
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)	Toxic	B,T,L
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from production of intermediates (e.g., antimony metal or crude antimony oxide)	Toxic	B,T,L
K178	Solids from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	Toxic	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]

The following list of materials are identified as acute hazardous wastes. The primary hazard has been identified by the following letters: R = reactive; I = ignitable, C = corrosive; T = toxic. If no letter is shown, the compound should be considered as acute hazardous waste for waste numbers beginning with a P.

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P001	Warfarin	T,B,L
P001	3-(alpha-acetonylbenzyl)-4-hydroxycoumarin and salts	T,B,L
P002	Acetamide, N-(aminothioxomethyl)-	T,B,L
P002	1-Acetyl-2-thiourea	T,B,L
P003	2-Propenal	T,B,L
P003	Acrolein	T,B,L
P004	Isocyanic acid, methyl ester	T,L
P004	Aldrin	T,B,L
P004	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, exo-dimethanonaphthalene	T,B,L
P005	Allyl alcohol	T,B,L
P005	2-Propen-1-ol	T,B,L
P006	Aluminumphosphide	T,L (if non-reactive)
P007	3(2H)-Isoxazolone, 5-(aminomethyl)	T,B,L
P007	5-(Aminomethyl)-3-isoxazolol	T,B,L
P008	4-Pyridinamine	T,B,L
P008	4-alpha-Aminopyridine	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P009	Ammoniumpicrate (R)	L,(not handled if shock sensitive)
P009	Phenol, 2,4,6-trinitro-, ammonium salt (R)	L,(not handled if shock sensitive)
P010	Arsenic acid	L
P011	Pyrophosphoric acid, tetraethyl ester	T,B,L
P011	Arsenic (V) oxide	L
P011	Arsenic pentoxide	L
P012	Arsenic (III) oxide	L
P012	Arsenic trioxide	L
P013	Barium cyanide	L
P014	Benzenethiol	T,B,L
P014	Thiophenol	T,L
P015	Beryllium dust	L
P016	Bis(chloromethyl)ether	T,B,L
P016	Methane, oxybis(chloro-	T,B,L
P017	2-Propanone, 1-bromo-	T,B,L
P018	Brucine	T,B,L
P018	Strychnidin-10-one, 2, 3-dimethoxy-	T,B,L
P020	Phenol, 2,4-dinitro-6(1-methylpropyl)-	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P020	Dinoseb	T,B,L
P021	Calcium cyanide	T,L
P022	Carbon disulfide	T,L
P022	Carbon bisulfide	T,L
P023	Chloroacetaldehyde	T,B,L
P023	Acetaldehyde, chloro-	B,T,L
P024	p-Chloroaniline	T,B,L
P024	Benzenamine, 4-chloro-	T,B,L
P026	Thiourea, (2-chlorophenyl)-	T,B,L
P026	1-(o-Chlorophenyl)thiourea	T,B,L
P027	Propanenitrile, 3-chloro-	T,B,L
P027	3-Chloropropionitrile	T,B,L
P028	Benzene, (chlormethyl)-	T,B,L
P028	Benzyl chloride	T,B,L
P029	Copper cyanides	L
P030	Cyanides (soluble cyanide salts), not elsewhere specified	L,T
P031 (5)	Cyanogen	L
P033(5)	Chlorine cyanide	L
P034	4,6-Dinitro-o-cyclohexylphenol	T,B,L
P034	Phenol, 2-cyclohexyl-4,6-dinitro-	T,B,L

[**]All footnotes may be referenced at the end of Table C-2 of the Waste Analysis Plan.

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P036	Dichlorophenylarsine	T,B,L
P036	Phenyl dichloroarsine	T,B,L
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, exo-1,4:5,8-dimethanonaphthalene	T,B,L
P037	Dieldrin	T,B,L
P038	Diethylarsine	T,B,L
P038	Arsine, diethyl-	T,B,L
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphorodithioate	T,B,L
P039	Disulfoton	T,B,L
P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	T,B,L
P040	O,O-Diethyl O-pyrazinyl phosphorothioate	T,B,L
P041	Diethyl-p-nitrophenyl phosphate	T,B,L
P041	Phosphoric acid, diethyl p-nitrophenyl ester	T,B,L
P042	1,2-Benzenediol,4-[1-hydroxy-(methylamino) ethyl]	T,B,L
P042	Epinephrine	T,B,L
P043	Diisopropyl fluorophosphate	T,B,L
P043	Phosphorofluoric acid, bis (1-methlyethyl)-ester	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methlyamino) -2-oxoethyl]ester	T,B,L
P044	Dimethoate	T,B,L
P045	Thiofanox	T,B,L
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[methylamino)carbonyl]oxime	T,B,L
P046	alpha, alpha-Dimethylphenethylamine	T,B,L
P046	Ethanamine, 1,1-dimethyl-2-phenyl-	T,B,L
P047	Phenol, 2,4-dinitro-6-methyl-	T,B,L
P047	4,6-Dinitro-o-cresol and salts	T,B,L
P048	Phenol, 2,4-dinitro-	T,B,L
P048	2,4-Dinitrophenol	T,B,L
P049	Thiomidodicarbonic diamide	T,B,L
P049	2,4-Dithiobiuret	T,B,L
P050	Endosulfan	T,B,L
P050	5-Norbornane-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite	T,B,L
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, endo-1,4:5,8-dimethanonaphthalene	T,B,L
P051	Endrin	T,B,L
P054	Ethylenamine	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P054	Aziridine	T,B,L
P056(5)	Fluorine	L
P057	Fluoroacetamide	T,B,L
P057	Acetamide, 2-fluoro-	T,B,L
P058	Acetic acid, fluoro-, sodium salt	T,B,L
P058	Fluoroacetic acid, sodium salt	T,B,L
P059	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hep-tachloro-3a, 4,7,7a-tetrahydro	T,B,L
P059	Heptachlor	T,B,L
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,8,8a-hexahydro-1,4:5,8-endo,endo-dimethan-onophthalene	T,B,L
P060	Hexachlorohexahydro-exo, exo-dimethanonaphthalene	T,B,L
P062	Hexaethyl tetraphosphate	T,B,L
P062	Tetraphosphoric acid, hexaethyl ester	T,B,L
P063(5)	Hydrogen Cyanide	L
P064	Methyl isocyanate	T,L
P065(5)	Fulmic Acid, Mercury Salt	L
P066	Acetimidic acid, N-[(methyl-carbamoyl)oxy]thio-, methyl ester	T,B,L
P066	Methomyl	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P067	1,2-Propylenimine	T,B,L
P067	2-Methylaziridine	T,B,L
P068	Methyl hydrazine	T,B,L
P068	Hydrazine, methyl-	T,B,L
P069	2-Methyllactonitrile	T,B,L
P069	Propanenitrile, 2-hydroxy-2-methyl-	T,B,L
P070	Propanal, 2-methyl-2-(methlythio)-,O-[(methlyamino) carbonyl]oxime	T,B,L
P070	Aldicarb	T,B,L
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate	T,B,L
P071	Methyl parathion	T,B,L
P072	Thiourea, 1-napthalenyl-	T,B,L
P072	alpha-Naphthylthiourea	T,B,L
P073	Nickel tetracarbonyl	L,T
P073	Nickel carbonyl	L,T
P074	Nickel(II) cyanide	L,T
P074	Nickel cyanide	L,T
P075	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl-, and salts	T,B,L
P075	Nicotine and sal	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P076	Nitric oxide	L,T
P077	p-Nitroaniline	T,B,L
P077	Benzenamine, 4-nitro-	T,B,L
P078(5)	Nitrogen Dioxide	L
P081(5)	Nitroglycerine	L
P082	N-Nitrosodimethylamine	T,B,L
P082	Dimethylnitrosamine	T,B,L
P084	Ethenamine, N-methyl-N-nitroso-	T,B,L
P084	N-Nitrosomethylvinylamine	T,B,L
P085	Octamethylpyrophosphoramide	T,B,L
P085	Diphosphoramide, octamethyl-	T,B,L
P087	Osmium tetroxide	L
P087	Osmium oxide	L
P088	7-Oxabicyclo[2.2.1]heptane-2, 3dicarboxylic acid	T,B,L
P088	Endothall	T,B,L
P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenol)ester	T,B,L
P089	Parathion	T,B,L
P092	Mercury, (acetato-O)phenyl-	T,B,L
P092	Phenylmercuric acetate	T,B,L
P093	Thiourea, phenyl-	T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P093	N-Phenylthiourea	T,B,L
P094	Phorate	T,B,L
P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio) methyl ester	T,B,L
P095 (5)	Phosgene	L
P096 (5)	Hydrogen Phosphide	L
P097	Famphur	T,B,L
P097	Phosphorothioic acid, O,O-dimethyl O-[p-dimethylamino)-sulfonyl) phenyl]ester	T,B,L
P098	Potassium cyanide	T,L
P099	Potassium silver cyanide	L
P101	Ethyl cyanide	T,B,L
P101	Propanenitrile	T,B,L
P102	2-Propyn-1-01	T,B,L
P102	Propargyl alcohol	T,B,L
P103	Carbamimidoselenoic acid	T,B,L
P103	Selenourea	T,B,L
P104	Silver cyanide	L
P105	Sodium azide	L,(not handled if shock sensitive)

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P106	Sodium cyanide	T,L
P108	Strychnidin-10-one, and salts	T,B,L
P108	Strychnine and salts	T,B,L
P109	Dithiopyrophosphoric acid, tetraethyl ester	T,B,L
P109	Tetraethyldithiopyrophosphate	T,B,L
P110	Plumbane, tetraethyl-	T,B,L
P110	Tetraethyl lead	T,B,L
P111	Tetraethylpyrophosphate	T,B,L
P112	Tetranitromethane (R)	L,T
P112	Methane, tetranitro-(R)	L,T
P113	Thallium(III) oxide	L
P113	Thallic oxide	L
P114	Thallium(I) selenite	L
P115	Sulfuric acid, thallium (I) salt	L
P115	Thallium(I) sulfate	L
P116	Thiosemicarbazide	T,B,L
P116	Hydrazinecarbothioamide	T,B,L
P118	Methanethiol, trichloro-	T,B,L
P118	Trichloromethanethiol	T,L

[**]All footnotes may be referenced at the end of Table C-2 of the Waste Analysis Plan.

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P119	Vanadic acid, ammonium salt	L
P119	Ammonium vanadate	L
P120	Vanadium pentoxide	L
P120	Vanadium(V) oxide	L
P121	Zinc cyanide	L
P122	Zinc Phosphide (R,T) when present at concentration greater than 10%	T,L
P123	Toxaphene	T,B,L
P123	Camphene, octachloro-	T,B,L
P127	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate (Carbofuran)	AT,T,B,L
P128	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester) (Mexacarbate)	AT,T,B,L
P185	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-,o-[(methylamino)carbonyl]oxime (Tirpate)	AT,T,B,L
P188	Benzoic acid, 2-hydroxy, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a, 8-trimethylpyrrolo[2,3-b]indol-5-yl methlycarbamate ester (1:1) (Physostigmine salicylate)	AT,T,B,L
P189	Carbamic acid, [(dibutylamino)this] methyl-,2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester (Carbosulfan)	AT,T,B,L
P190	Carbamic acid, methyl-,3-methylphenyl ester (Metolcarb)	AT,T,B,L
P191	Carbamic acid, dimethyl-,1-[(dimethylamino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester (Dimetilan)	AT,T,B,L
P192	Carbamic acid, dimethyl-,3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester (Isolan)	AT,T,B,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
P194	Ethanimidothioc acide, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-,methyl ester (Oxamyl)	AT,T,B,L
P196	Manganese, bis(dimethylcarbamodithioato-S,S')-, (Manganese dimethyldithiocarbamate)	AT,T,B,L
P197	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl] oxy]penyl]-,(Formparanate)	AT,T,B,L
P198	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride (Formetanate hydrochloride)	AT,T,B,L
P199	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate (Methiocarb)	AT,T,B,L
P201	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate (Promecarb)	AT,T,B,L
P202	Phenol, 3-(1-methylethyl)-, methyl carbamate 3-Isopropylphenyl N-methylcarbamate (m-Cumenyl methylcarbamate)	AT,T,B,L
P203	Propanal, 2-methyl-2-(methysulfonyl)-, o-[(methylamino)carbonyl] oxime (Aldicarb sulfone)	AT,T,B,L
P204	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-,methylcarbamate (ester), 3aS-cis)-(Physostigmine)	AT,T,B,L
P205	Zinc, bis(dimethylcarbamodithioato-S,S')-, (Ziram)	AT,T,B,L

The following list of materials are identified as toxic wastes. The primary hazard has been identified by the following letters: R = reactive; I = ignitable, C = corrosive; T = toxic. If no letter is shown, the compound should be considered as toxic waste for waste numbers beginning with a U.

U001	Acetaldehyde (I)	B,T,L
U001	Ethanal (I)	B,T,L
U002	Acetone (I)	B,T,L
U002	2-Propanone (I)	B,T,L

TABLE C-2
HAZARDOUS MATERIALS MANAGED AT
MODEL CITY FACILITY**
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U003	Ethanenitrile (I,T)	B,T,L
U003	Acetonitrile (I,T)	B,T,L
U004	Acetophenone	B,T,L
U004	Ethanone, 1-phenyl-	B,T,L
U005	Acetamide, N-9H-fluoren-2yl-	B,T,L
U005	2-Acetylaminofluorene	B,T,L
U006	Ethanoyl chloride (C.R.T.)	L,T
U006	Acetyl chloride (C,R,T)	L,T
U007	Acrylamide	B,T,L
U007	Benzene, 1,2,4,5-tetrachloro-	B,T,L
U007	2-Propenamide	B,T,L
U008	Acrylic acid (I)	B,T,L
U008	2-Propenoic acid (I)	B,T,L
U009	Acrylonitrile	B,T,L
U009	2-Propenenitrile	B,T,L
U010	Azirino(w',3':3,4)pyrrolo(1,2-a) indole-4,7-dione, 6-amino-8 [((aminocarbonyl)oxy)methyl]- 1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-	B,T,L
U010	Mitomycin C	B,T,L
U011	Amitrole	B,T,L
U011	1H-1,2,4-Triazol-3-amine	B,T,L
U012	Aniline (I,T)	B,T,L
U012	Benzenamine (I,T)	B,T,L
U014	Auramine	B,T,L
U014	Benzenamine, 4,4'- carbonimidoylbis (N,N-di-methyl-	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U015	Azaserine	B,T,L
U015	L-Serine, diazoacetate (ester)	B,T,L
U016	Benz[c]acridine	B,T,L
U016	3,4-Benzacridine	B,T,L
U017	Benzal chloride	B,T,L
U017	Benzene, (dichloromethyl)-	B,T,L
U018	1,2-Benzanthracene	B,T,L
U018	Benz[a]anthracene	B,T,L
U019	Benzene (I,T)	B,T,L
U020	Benzenesulfonyl chloride (C,R)	L,T
U020	Benzenesulfonic acid chloride (C,R)	L,T
U021	Benzidine	B,T,L
U021	(1,1'-Biphenyl)-4,4'-diamine	B,T,L
U022	Benzo[a]pyrene	B,T,L
U022	3,4-Benzopyrene	B,T,L
U023	Benzotrichloride (C,R,T)	T,L
U023	Benzene, (trichloromethyl)- (C,R,T)	T,L
U024	Ethane, 1,1'-[methylenebis(oxy)] bis[2-choro-	B,T,L
U024	Bis(2-chloroethoxy) methane	B,T,L
U025	Ethane, 1,1'-oxybis [2-chloro-	B,T,L
U025	Dichloroethyl ether	B,T,L
U026	Chlornaphazine	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U026	2-Naphthylamine,N,N'-bis (2-chloromethyl)-	B,T,L
U027	Bis(2-chloroisopropyl) ether	B,T,L
U027	Propane, 2,2'oxybis(2-chloro-	B,T,L
U028	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)]ester	B,T,L
U028	Bis(2-ethylhexyl)phthalate	B,T,L
U029	Methyl bromide	B,T,L
U029	Methane, bromo-	B,T,L
U030	Benzene, 1-bromo-4-phenoxy-	B,T,L
U030	4-Bromophenyl phenyl ether	B,T,L
U031	1-Butanol (I)	B,T,L
U031	n-Butyl alcohol (I)	B,T,L
U032	Calcium chromate	L
U032	Chromic acid, calcium salt	L
U033 (5)	Carbon Oxyfluoride	L
U034	Acetaldehyde, trichloro-	B,T,L
U034	Chloral	B,T,L
U035	Butanoic acid, 4-[Bis(2-chloro-ethyl)amino]benzene-	B,T,L
U035	Chlorambucil	B,T,L
U036	Chlordane, technical	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U036	4,7-Methanoindan, 1,2,4,5,6, 7,8,8-octa-chloro-3a,4,7,7a-tetrahydro-	B,T,L
U037	Benzene, chloro-	B,T,L
U037	Chlorobenzene	B,T,L
U038	Benzenacetic acid, 4-chloro-alpha-(4-chloro-phenyl)-alpha-hydroxy,ethyl ester	B,T,L
U038	Ethyl 4,4'-dichlorobenzilate	B,T,L
U039	4-Chloro-m-cresol	B,T,L
U039	Phenol, 4-chloro-3-methyl-	B,T,L
U041	1-Chloro-2,3-epoxypropane	B,T,L
U041	Oxirane, 2-(chloromethyl)-	B,T,L
U042	Ethene, 2-chloroethoxy-	B,T,L
U042	2-Cloroethyl vinyl ether	B,T,L
U043(5)	Vinyl Chloride	B,T,L
U044	Chloroform	B,T,L
U044	Methane, trichloro-	B,T,L
U045	Methane, chloro- (I,T)	B,T,L
U046	Chloromethyl methyl ether	B,T,L
U046	Methane, chloromethoxy-	B,T,L
U047	beta-Chloronaphthalene	B,T,L
U047	Naphthalene, 2-chloro-	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U048	o-Chlorophenol	B,T,L
U048	Phenol, 2-chloro-	B,T,L
U049	Benzenamine, 4-chloro-2-methyl-	B,T,L
U049	4-Chloro-o-toluidine, hydrochloride	B,T,L
U050	1,2-Benzophenanthrene	B,T,L
U050	Chrysene	B,T,L
U051	Creosote	B,T,L
U052	Cresols	B,T,L
U052	Cresylic acid	B,T,L
U053	2-Butenal	B,T,L
U053	Crotonaldehyde	B,T,L
U055	Benzene, (1-methylethyl)-(I)	B,T,L
U055	Cumene (I)	B,T,L
U056	Benzene, hexahydro-(I)	B,T,L
U056	Cyclohexane (I)	B,T,L
U057	Cyclohexanone (I)	B,T,L
U058	Cyclophosphamide	B,T,L
U058	2H-1,3,2-Oxazaphosphorine, [bis(2-chloro-ethyl)amino] tetrahydro-, oxide 2-	B,T,L
U059	Daunomycin	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U059	5,12-Naphthacenedione, (8S-cis) -8-acetyl-10[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl) oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy	B,T,L
U060	Dichloro diphenyl dichloroethane	B,T,L
U060	DDD	B,T,L
U061	DDT	B,T,L
U061	Dichloro diphenyl trichloroethane	B,T,L
U062	S-(2,3-Dichloroallyl) diisopropyl-thiocarbamate	B,T,L
U062	Diallate	B,T,L
U063	Dibenz[a,h]anthracene	B,T,L
U063	1,2:5,6-Dibenzanthracene	B,T,L
U064	Dibenz[a,i]pyrene	B,T,L
U064	1,2:7,8-Dibenzopyrene	B,T,L
U066	1,2-Dibromo-3-chloropropane	B,T,L
U066	Propane, 1,2-dibromo-3-chloro-	B,T,L
U067	Ethane, 1,2-dibromo-	B,T,L
U067	Ethylene dibromide	B,T,L
U068	Methane, dibromo-	B,T,L
U068	Methylene bromide	B,T,L
U069	Dibutyl phthalate	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U069	1,2-Benzenedicarboxylic acid, dibutyl ester	B,T,L
U070	Benzene, 1,2-dichloro-	B,T,L
U070	o-Dichlorobenzene	B,T,L
U071	Benzene, 1,3-dichloro-	B,T,L
U071	m-Dichlorobenzene	B,T,L
U072	p-Dichlorobenzene	B,T,L
U072	Benzene, 1,4-dichloro-	B,T,L
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'dichloro-	B,T,L
U073	3,3'-Dichlorobenzidine	B,T,L
U074	1,4-Dichloro-2-butene (I,T)	B,T,L
U074	2-Butene, 1,4-dichloro-(I,T)	B,T,L
U075	Dichlorodifluoromethane	B,T,L
U075	Methane, dichlorodifluoro-	B,T,L
U076	Ethane, 1,1-dichloro-	B,T,L
U076	Ethylidene dichloride	B,T,L
U077	Ethane, 1,2-dichloro-	B,T,L
U077	Ethylene dichloride	B,T,L
U078	Ethene, 1,1-dichloro-	B,T,L
U078	1,1-Dichloroethylene	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U079	1,2-Dichloroethylene	B,T,L
U079	Ethene, trans-1,2-dichloro-	B,T,L
U080	Methylene chloride	B,T,L
U080	Methane, dichloro-	B,T,L
U081	1,4-Dichlorophenol	B,T,L
U081	Phenol, 2,4-dichloro-	B,T,L
U082	2,6-Dichlorophenol	B,T,L
U082	Phenol, 2,6-dichloro-	B,T,L
U083	1,2-Dichloropropane	B,T,L
U083	Propylene dichloride	B,T,L
U084	1,3-Dichloropropene	B,T,L
U084	Propene, 1,3-dichloro-	B,T,L
U085	2,2'-Bioxirane (I,T)	B,T,L
U085	1,2:3,4-Diepoxybutane (I,T)	B,T,L
U086	N,N-Diethylhydrazine	B,T,L
U086	Hydrazine, 1,2-diethyl-	B,T,L
U087	O,O-Diethyl-S-methyl-dithiophosphate	B,T,L
U087	Phosphorodithioic acid, O, O-diethyl-S-methylester	B,T,L
U088	1,2-Benzenedicarboxylic acid, diethyl ester	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U088	Diethyl phthalate	B,T,L
U089	Diethylstilbestrol	B,T,L
U089	4,4'-Stilbenediol, alpha,alpha' -diethyl-	B,T,L
U090	Benzene, 1,2-methylenedioxy- 4-propyl-	B,T,L
U090	Dihydrosafrole	B,T,L
U091	(1,1'-Biphenyl)-4,4'diamine, 3,3'-dimethyl-	B,T,L
U091	3,3'-Dimethoxybenzidine	B,T,L
U092	Dimethylamine (I)	B,T,L
U092	Methanamine, N-methyl- (I)	B,T,L
U093	Benzenamine, N,N'-dimethyl- 4-phenylazo-	B,T,L
U093	Dimethylaminoazobenzene	B,T,L
U094	7,12-Dimethylbenz[a]anthracene	B,T,L
U094	1,2-Benzanthracene 7,12-dimethyl-	B,T,L
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	B,T,L
U095	3,3'-Dimethylbenzidine	B,T,L
U096	alpha,alpha-Dimethylbenzyl- hydroperoxide (R)	L,T
U096	Hydroperoxide, 1-methyl-1- phenylethyl- (R)	L,T

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U097	Dimethylcarbamoyl chloride	T,L
U097	Carbamoyl chloride, dimethyl-	T,L
U098	1,1-Dimethylhydrazine	B,T,L
U098	Hydrazine, 1,1-dimethyl-	B,T,L
U099	1,2-Dimethylhydrazine	B,T,L
U099	Hydrazine, 1,2-dimethyl-	B,T,L
U101	2,4-Dimethylphenol	B,T,L
U101	Phenol,2,4-dimethyl-	B,T,L
U102	1,2-Benzenedicarboxylic acid, dimethyl ester	B,T,L
U102	Dimethyl phthalate	B,T,L
U103	Dimethyl sulfate	B,T,L
U103	Sulfuric acid, dimethyl ester	B,T,L
U105	Benzene, 1-methyl-1-2,4-dinitro-	T,L (not handled if explosive)
U105	2,4-Dinitrotoluene	B,T,L
U106	2,6-Dinitrotoluene	B,T,L
U106	Benzene, 1-methyl-2,6-dinitro-	B,T,L
U107	1,2-Benezenedicarboxylic acid, di-n-octyl ester	B,T,L
U107	Di-n-octylphthalate	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U108	1,4-Dioxane	B,T,L
U108	1,4-Diethylene dioxide	B,T,L
U109	1,2-Diphenylhydrazine	B,T,L
U109	Hydrazine, 1,2-diphenyl-	B,T,L
U110	Dipropylamine (I)	B,T,L
U110	1-Propanamine, N-propyl- (I)	B,T,L
U111	Di-N-propylnitrosamine	B,T,L
U111	N-Nitroso-N-propylamine	B,T,L
U112	Ethyl acetate (I)	B,T,L
U112	Acetic acid, ethyl ester (I)	B,T,L
U113	Ethyl acrylate (I)	B,T,L
U113	2-Propenoic acid, ethyl ester (I)	B,T,L
U114	Ethylenebis(dithiocarbamic acid)	B,T,L
U114	1,2-Ethanediylbiscarbamodithioic acid	B,T,L
U115	Ethylene oxide (I,T)	B,T,L
U115	Oxirane (I,T)	B,T,L
U116	Ethylene thiourea	B,T,L
U116	2-Imidazolidinethione	B,T,L
U117	Ethyl ether (I)	B,T,L
U117	Ethane, 1,1'-oxybis- (I)	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U118	Ethylmethacrylate	B,T,L
U118	2-Propenoic acid, 2-methyl-, ethyl ester	B,T,L
U119	Ethyl methanesulfonate	B,T,L
U119	Methanesulforic acid, ethyl ester	B,T,L
U120	Benzo[j,k]fluorene	B,T,L
U120	Fluoranthene	B,T,L
U121	Methane, trichlorofluoro-	B,T,L
U121	Methane, trichlorofluoro-	B,T,L
U121	Trichloromonofluoromethane	B,T,L
U122	Formaldehyde	B,T,L
U122	Methylene oxide	B,T,L
U123	Formic acid (C,T)	T,L,AT
U123	Methanoic acid (C,T)	B,T,L
U124	Furan (I)	B,T,L
U124	Furfuran (I)	B,T,L
U125	2-Furancarboxaldehyde (I)	B,T,L
U125	Furfural (I)	B,T,L
U126	Glycidyladehyde	B,T,L
U126	1-Propanol, 2,3-epoxy-	B,T,L
U127	Benezene, hexachloro-	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U127	Hexachlorobenzene	B,T,L
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	B,T,L
U128	Hexachlorobutadiene	B,T,L
U129	Hexachlorocyclohexane (gamma isomer)	B,T,L
U129	Lindane	B,T,L
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	B,T,L
U130	Hexachlorocyclopentadiene	B,T,L
U131	Ethane 1,1,1,2,2,2-hexachloro-	B,T,L
U131	Hexachloroethane	B,T,L
U132	Hexachlorophene	B,T,L
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)	B,T,L
U133	Diamine (R,T)	T,L
U133	Hydrazine (R,T)	T,L
U134	Hydrofluoric acid (C,T)	T,L
U134	Hydrogen fluoride (C,T)	T,L
U135(5)	Hydrogen Sulfide	T,L
U136	Cacodylic acid	B,T,L
U136	Hydroxydimethylarsine oxide	B,T,L

[**]All footnotes may be referenced at the end of Table C-2 of the Waste Analysis Plan.

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U137	Inden[1,2,3-cd]pyrene	B,T,L
U137	1,10-(1,2-phenylene)pyrene	B,T,L
U138	Methyl iodide	B,T,L
U138	Methane, iodo-	B,T,L
U140	Isobutyl alcohol (I,T)	B,T,L
U140	1-Propanol, 2-methyl-	B,T,L
U141	Benzene, 1,2-methylenedioxy-4-propenyl-	B,T,L
U141	Isosafrole	B,T,L
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one	B,T,L
U142	Kepone	B,T,L
U143	Lasiocarpine	B,T,L
U144	Acetic acid, lead salt	L
U144	Lead acetate	L
U145	Lead phosphate	L
U145	Phosphoric acid, Lead salt	L
U146	Lead subacetate	L
U147	Maleic anhydride	T,B,L

[**]All footnotes may be referenced at the end of Table C-2 of the Waste Analysis Plan.

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U147	2,5-Furandione	T,B,L
U148	1,2-Dihydor-3,6-pyradizinedione	T,B,L
U148	Maleic hydrazide	T,B,L
U149	Propanedinitrile	B,T,L
U149	Malononitrile	B,T,L
U150	Alanine, 3-[p-bis(2-chlorethyl)amino] phenyl-,L-	B,T,L
U150	Melphalan	B,T,L
U151	Mercury	T,L,
U152	2-Propenenitrile, 2-methyl- (I,T)	B,T,L
U152	Methacrylonitrile (I,T)	B,T,L
U153 (5)	Methanethiol	L
U154	Methanol (I)	B,T,AT,L
U154	Methyl alcohol (I)	B,T,AT,L
U155	Pyridine, 2-[(2-dimethylamino)-2-thenylamino]-	B,T,L
U155	Methapyrilene	B,T,L
U156	Carbonochloridic acid, methyl ester (I,T)	B,T,L
U156	Methyl chlorocarbonate (I,T)	B,T,L
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-,	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U157	3-Methylcholanthrene	B,T,L
U158	Benzenamine, 4,4'-methylenebis (2-chlora	B,T,L
U158	4,4'-Methylenebis (2-chloroaniline)	B,T,L
U159	2-Butanone (I,T)	B,T,L
U159	Methyl ethyl ketone (I,T)	B,T,L
U160	2-Butanone peroxide (R,T)	T,L
U160	Methyl ethyl ketone peroxide (R,T)	T,L
U161	Methyl isobutyl ketone (I)	B,T,L
U161	4-Methyl-2-pentanone (I)	B,T,L
U162	Methyl methacrylate (I,T)	B,T,L
U162	2-Propenoic acid, 2-methyl-methyl ester (I,T)	B,T,L
U163	Guanidine, N-nitroso-N-methyl-N'nitro-	B,T,L
U163	N-Methyl-N'-nitro-N-nitrosoguanidine	B,T,L
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	B,T,L
U164	Methylthiouracil	B,T,L
U165	Naphthalene	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U166	1,4-Naphthalenedione	B,T,L
U166	1,4,Naphthaquinone	B,T,L
U167	1-Naphthylamine	B,T,L
U167	alpha-Naphthylamine	B,T,L
U168	2-Naphthylamine	B,T,L
U168	beta-Naphthylamine	B,T,L
U169	Benzene, nitro- (I,T)	B,T,L
U169	Nitrobenzene (I,T)	B,T,L
U170	Phenol, 4-nitro-	B,T,L
U170	p-Nitrophenol	B,T,L
U171	2-Nitropropane (I)	B,T,L
U171	Propane, 2-nitro- (I)	B,T,L
U172	1-Butanamine, N-butyl-N-nitroso-	B,T,L
U172	N-Nitrosodi-n-butylamine	B,T,L
U173	Ethanol, 2,2'-(nitrosoimino)bis-	B,T,L
U173	N-Nitrosodiethanolamine	B,T,L
U174	Ethanamine, N-ethyl-N-nitroso-	B,T,L
U174	N-Nitrosodiethylamine	B,T,L
U176	Carbamide, N-ethyl-N-nitroso-	B,T,L
U176	N-Nitroso-N-ethylurea	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U177	Carbamide, N-methyl-N-nitroso-	B,T,L
U177	N-Nitroso-N-methylurea	B,T,L
U178	Carbamic acid, methylnitroso-, ethyl ester	B,T,L
U178	N-Nitroso-N-methylurethane	B,T,L
U179	N-Nitrosopiperidine	B,T,L
U179	Pyridine, hexahydro-N-nitroso-	B,T,L
U180	Pyrrole, tetrahydro-N-nitroso-	B,T,L
U180	N-Nitrosopyrrolidine	B,T,L
U181	Benzemamine, 2-methyl-5-nitro	B,T,L
U181	5-Nitro-o-toluidine	B,T,L
U182	Paraldehyde	B,T,L
U182	1,3,5-Trioxane,2,4,5-trimethyl-	B,T,L
U183	Benzene, pentachloro-	B,T,L
U183	Pentachlorobenzene	B,T,L
U184	Ethane, pentachloro-	B,T,L
U184	Pentachloroethane	B,T,L
U185	Benzene, pentachloro-nitro-	B,T,L
U185	Pentachloronitrobenzene	B,T,L
U186	1-Methylbutadiene (I)	B,T,L
U186	2,3-Pentadiene (I)	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U187	Acetamide, N-(4-ethoxyphenyl)-	B,T,L
U187	Phenacetin	B,T,L
U188	Benzene, hydroxy-	B,T,L
U188	Phenol	B,T,L
U189 (5)	Phosphorous sulfide	L
U190	1,2-Benzenedicarboxylic acid anhydride	B,T,L
U190	Phthalic anhydride	B,T,L
U191	2-Picoline	B,T,L
U191	Pyridine, 2-methyl-	B,T,L
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)benzamide	B,T,L
U192	Pronamide	B,T,L
U193	1,3-Propane sultone	B,T,L
U193	1,2-Oxathiolane, 2,2-dioxide	B,T,L
U194	1-Propanamine (I,T)	B,T,L
U194	N-Propylamine (I,T)	B,T,L
U196	Pyridine	B,T,L
U197	1,4-Cyclohexadienedione	B,T,L
U197	p-Benzoquinone	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[3,4,5-trimethoxy-benzoyl)oxy]-, methyl ester	B,T,L
U200	Reserpine	B,T,L
U201	1,3-Benzenediol	B,T,L
U201	Resorcinol	B,T,L
U202	1,2-Benzisothiazolin-3-0ne, 1,1-dioxide	B,T,L
U202	Saccharin and salts	B,T,L
U203	Benzene, 1,2-methylenedioxy-4-allyl-	B,T,L
U203	Safrole	B,T,L
U204	2,4,4-D,salts and esters	B,T,L
U204	Seleniumdioxide	L
U204	Selenious acid	L
U205	Selenium disulfide (R,T)	T,L
U205	Sulfur selenide (R,T)	T,L
U206	D-Glucopyranose, 2-deoxy-2(3-methyl-3-nitro-soureido)-	B,T,L
U206	Streptozotocin	B,T,L
U207	1,2,4,5-Tetrachlorobenzene	B,T,L
U208	Ethane, 1,1,1,2-tetrachloro-	B,T,L
U208	1,1,1,2-Tetrachloroethane	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U209	Ethane, 1,1,2,2-tetrachloro-	B,T,L
U209	1,1,2,2-Tetracloroethane	B,T,L
U210	Ethene, 1,1,2,2-tetrachloro-	B,T,L
U210	Tetrachloroethylene	B,T,L
U211	Carbon tetrachloride	B,T,L
U211	Methane, tetrachloro-	B,T,L
U213	Furan, tetrahydro- (I)	B,T,L
U213	Tetrachydrofuran (I)	B,T,L
U214	Acetic acid, thallium (I) salt	L
U214	Thallium (I) acetate	L
U215	Carbonic acid, dithallium (I) salt	L
U215	Thallium (I) carbonate	L
U216	Thallium (I) chloride	L
U217	Thallium (I) nitrate	L
U218	Ethanethioamide	B,T,L
U218	Thioacetamide	B,T,L
U219	Carbamide, thio-	B,T,L
U219	Thiourea	B,T,L
U220	Benzene, methyl-	B,T,L
U220	Toluene	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U221	Diaminotoluene	B,T,L
U221	Toluenediamine	B,T,L
U222	Benzenamine, 2-methyl-, hydrochloride	B,T,L
U222	O-Toluidine hydrochloride	B,T,L
U223	Benzene, 1,3-diisocyanatomethyl- (R,T)	T,L
U223	Toluene diisocyanate (R,T)	B,T,L
U225	Bromoform	B,T,L
U225	Methane, tribromo-	B,T,L
U226	1,1,1-Trichloroethane	B,T,L
U226	Methylchloroform	B,T,L
U227	Ethane, 1,1,2-trichloro-	B,T,L
U227	1,1,2-Trichloroetane	B,T,L
U228	Trichloroethene	B,T,L
U228	Trichloroethylene	B,T,L
U234	Benzene, 1,3,5-trinitro- (R,T)	T,L (not handled if shock sensitive)
U234	sym-Trinitrobenzene (R,T)	T,L(not handled if shock sensi-tive)
U235	Tris(2,3-dibromopropyl)phosphate	B,T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	B,T,L
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-di-methyl-(1,1'-biphenyl)-4,4'diyl)]-bis (azo) bis(5-amino-4-hydroxy)-,tetra-sodium salt	B,T,L
U236	Trypan blue	B,T,L
U237	Uracil, 5(bis(2-chloromethyl) amino)-	B,T,L
U237	Uracil mustard	B,T,L
U238	Carbamic acid, ethyl ester	B,T,L
U238	Ethyl carbamate (urethan)	B,T,L
U239	Benzene, dimethyl-(I,T)	B,T,L
U239	Xylene (I)	B,T,L
U240	2,4-Dichlorophenoxyacetic acid, salts and esters	B,T,L
U243	Hexachloropropene	B,T,L
U243	1-Propene, 1,1,2,3,3,3-hexachloro-	B,T,L
U244	Bis(dimethylthiocarbamoyl) disulfide	B,T,L
U244	Thiram	B,T,L
U246	Cyanogen bromide	T,L
U246	Bromine cyanide	T,L

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U247	Ethane, 1,1,1-trichloro-2,2-bis (p-methoxyphenyl)	B,T,L
U247	Methoxychlor	B,T,L
U248	3-(alpha-Acetonylbenzyl)-4-hydroxycovmarin and salts, when present at concentrations of 0.3% or less	T,L
U248	Warfann, when present at concentrations of 0.3% or less	T,L
U249	Zinc phosphide, when present at concentrations of 10% or less	T,L (if non-reactive)
U271	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (Benomyl)	AT,B,L,T
U278	1,3-Benzodioxol-4-ol,2,2-dimethyl-, methyl carbamate (Bendiocarb)	AT,B,L,T
U279	1-Naphthalenol, methylcarbamate (Carbaryl)	AT,B,L,T
U280	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester (Barban)	AT,B,L,T
U328	o-Toluidine	B,T,L,AT
U353	p-Toluidine	B,T,L,AT
U359	2-ethoxyethanol	B,T,L,AT
U364	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, (Bendiocarb phenol)	B,T,L,AT

TABLE C-2

HAZARDOUS MATERIALS MANAGED AT MODEL CITY FACILITY[**]
(continued)

EPA Hazardous Waste No.	Substance	TSD(1)(2)(3)
U367	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, (Carbofuran phenol)	B,T,L,AT
U372	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester (Carbendazim)	B,T,L,AT
U373	Carbamic acid, phenyl-, 1-methylethyl ester (Propham)	B,T,L,AT
U387	Carbamothioic acid, dipropyl-, S-(phenylmethyl)ester (Prosulfocarb)	B,T,L,AT
U389	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester (Triallate)	B,T,L,AT
U394	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester (A2213)	B,T,L,AT
U395	Ethanol, 2,2'-oxybis-, discarbamate (Diethylene glycol, dicarbamate)	B,T,L,AT
U404	Ethanamine, N,N-diethyl-, (Triethylamine)	B,T,L,AT
U408	2,4,6-Tribromophenol	B,T,L,AT
U409	Carbamic acid, [1,2-phenylanabis(iminocarbonothioyl)]bis-, dimethyl ester (Thiophanate-methyl)	B,T,L,AT
U410	Ethanimidothioc acid, N,N'-[thiobis[(methylimimo)carbonyloxy]]bis-, dimethyl ester (Thiodicarb)	B,T,L,AT
U411	Phenol, 2-(1-methylethoxy)-, methylcarbamate (Propoxur)	B,T,L,AT

FOOTNOTES-

(1) The concentration and/or quantity of many of the cited waste constituents which may be accepted for treatment and/or disposal are limited by permit conditions and regulatory framework. The TSD Options selected for the cited materials are an estimate. Actual TSD Options will be driven by current permit conditions and current regulations, both State and Federal. Please refer to the introduction to this table for details (see pages C-1 through C-4).

(2) Disposal and/or Treatment Codes:
T-Transfer. (Transfer is always an option.)
L-Landfill.
B-Blend/Burn.
AT-Aqueous Treatment.

(3) The generator of Non-Bulk and Bulk containers must conform to the packaging requirements of:

49 CFR Subpart B - Table of Hazardous Materials and Special Provisions; specifically Part 172.101(i) Packaging Authorizations.

49 CFR Part 173 - Shippers - General Requirements for Shipments and Packagings.

49 CFR Part 178 - Specifications for Packagings.

Containers that arrive at the facility which do not meet the stated USDOT specifications shall not be shipped out of the facility unless the contents of the container are placed into a container which meets USDOT specifications. Containers that arrive at the facility which appear to have obvious signs of structural damage or deterioration, or which are found to be leaking shall either be repaired so that the containers meet RCRA & USDOT container specifications, overpacked into containers meeting RCRA & USDOT container specifications or shall be emptied and their contents placed into containers meeting RCRA & USDOT container specifications or processed immediately.

(4) These waste codes refer only to waste that may be classified as derived from F020-F023 and F026-F028 (i.e. leachate). No current production waste or out-dated products with these codes will be accepted. See Condition E.1.c.v in Exhibit F of Schedule 1 of Module I for storage and disposal requirements for these wastes.

(5) Due to the hazards posed by concentrated forms of these substances, only treatment residues and contaminated media such as soil, water, debris, etc. will be managed.

* Depends on DOT classification.

C-2 Waste Analysis Plan

In accordance with the regulatory requirements set forth in 6 NYCRR 373-1. CWM Chemical Services, L.L.C. (CWM) has developed this Waste Analysis Plan as an integral part of the 373-2 Permit Application for the Model City treatment, storage and disposal facility located in Niagara County, New York. The procedures set forth in this plan dictate that this facility will be in compliance with all requirements of 6 NYCRR 373-2.2(e). A copy of this plan will be available at the facility at all times.

C-2a Introduction

The purpose of this Waste Analysis Plan (WAP) is to identify and document the necessary sampling methodologies, analytical techniques and overall procedures which are undertaken for all wastes that enter this facility for storage, treatment or disposal. Specifically the plan delineates the following:

- Analytical Parameters, Techniques and Rationale - Section C-2b outlines the parameters and rationale CWM will utilize to determine or identify certain waste properties to ensure proper management of the waste at the site. Section C-2h outlines the analytical techniques.

- Sampling Methodology - Section C-2c outlines the proper sampling method(s) for a given waste type (solid, sludge, liquid) and containment (drum, tank, impoundment pile, etc.). CWM personnel can then obtain waste identification samples to help ensure accurate analytical results when a waste is analyzed.

- Pre-Acceptance Procedures - Section C-2d outlines the procedural steps CWM will take to evaluate the acceptability of a candidate waste stream pursuant to permit conditions and operating capabilities prior to acceptance of the waste for management at the site.

- Incoming Load Procedures - Section C-2e outlines the procedural steps CWM will take to identify the waste shipments delivered to the site.

- Process Operations Procedures - Section C-2f outlines the procedural steps CWM will take in regard to each management unit at the site.

- Quality Control Policy - Section C-2g outlines the quality control policy this site will follow to achieve high quality analytical results.

It is the policy of the Model City facility that all wastes handled by this facility will be subjected to these procedures. This is to help ensure that this facility will be in compliance with applicable permits and regulations.

In addition, the analytical results of incoming waste shipments requiring analysis as part of the incoming waste shipment identification, as well as the analysis and information developed as part of the pre-acceptance procedures, are maintained in the site's operating record.

The forms shown within this WAP are typical forms currently used by the site. These forms may require updating based upon changes in regulations, customer needs, operations or company policy dictate. Any changes in content, rather than format, will be forwarded to the NYSDEC for review.

For the purpose of sampling and testing, "CWM," means any Chemical Waste Management (CWM) laboratory or Approvals Group or CWM subsidiary laboratory or CWM approved contract laboratory.

The Approvals Manager, Laboratory Manager, Technical Manager, General Manager or designee are individually and collectively herein referred to as "site management".

The company strives to maintain, at all times, complete compliance with the hazardous waste regulations. Because new testing requirements, such as those promulgated under the land disposal restrictions, often become effective prior to the time WAP revisions can be formally made and approved by all appropriate agencies, it is impossible to have in place an approved WAP meeting all the conditions of the immediately effective regulatory requirements.

In light of these facts, the facility will have in place a written protocol specifying the new testing and frequency requirements prior to acceptance and/or processing of the regulated waste. The facility may also periodically review the protocol to reflect scientific advances or additional regulatory requirements. A permit modification of the WAP will be submitted as needed after the effective date of a promulgated change to the methods in SW-846. Also, 6NYCRR Part 373-1.7 gives rules to be followed for newly listed or identified wastes.

C-2b Analytical Rationale

A waste characterization is supplied to CWM by the generator (see Section C-2d(1) for discussion regarding the information or data to be supplied by the generator) on a Waste Profile, designed to provide all the information required by 6 NYCRR 373-2-2(e)(1). The analyses performed by CWM ensures that the waste description matches the identity of the waste designated on the accompanying manifest or shipping paper and the Waste Profile. The analysis will also help to ensure that the appropriate treatment, storage, and disposal techniques can be utilized. The parameters utilized by CWM to determine waste identity are classified into two categories:

- Mandatory Analyses - are performed on incoming load samples, except where noted herein, and when necessary on a pre-acceptance sample.

- Supplemental Analyses - are performed when necessary to augment existing information on the waste.

This tiered approach provides CWM with sufficient information to properly manage a given waste stream.

The parameters which constitute the "Mandatory Analyses" and "Supplemental Analyses" are identified below. The analytical methods which may be utilized to determine these parameters are described in Section C-2h. Analyses are identified in Section C2-h as either "unique" (developed by CWM and meet CWM performance standards) or "standard" (recognized by the U.S. EPA, ASTM or other recognized sources e.g., AOAC) analytical techniques. The analytical parameters and techniques given in this text (whether standard or developed by CWM through its operating experience) have been chosen for their ability to provide the information required to properly manage a waste.

A summary of the analytical parameters within each category and the rationale behind their usage is provided herein (also see Section C-2f). Analyses are not necessarily repeated for sequential activities or movement of the same waste within the facility unless required by changes in the waste's identity, as determined by site management. The Laboratory Manager may waive specific Mandatory or

Supplemental Analyses if performing the analysis presents a safety hazard in the laboratory (e.g., PCB extraction on an oxidizing waste).

C-2b(1) Mandatory Analyses

The "Mandatory Analyses" include screening procedures that are performed to provide a general identification of the waste, and are used to ensure that the method of management selected is suitable for that particular waste. The Mandatory Analyses are shown on Table C-3. These analyses are performed on all wastes, except on the occasions when a test is inappropriate as described below. These analyses are based on procedures and protocol formulated by CWM and meet CWM performance standards or are based on ASTM, "Standard Methods", or other sources recognized by EPA. The parameters and associated rationale of the "Mandatory Analyses" are as follows (see Section C2-h for the analytical techniques which may be utilized):

- Physical Description is used to determine the general physical characteristics of the waste. This facilitates subjective comparison of the sampled waste with prior waste descriptions or samples. It is also used to identify the presence or absence of free liquids (includes paint filter test if needed) and notes any dust potential.

- pH Screening is undertaken to indicate the pH range and the general corrosive nature of the waste. pH screening may not apply to certain waste types, e.g., organic waste, or insoluble solid waste.

- Water Mix Screening is used to determine whether the waste has a potential to vigorously react with water to form gases or other products, or whether it generates significant heat. This testing does not apply to wastes that are already in contact with excess water, or for which sufficient analytical data exist that indicate no potential reactivity with water.

- Flammability Potential Screening is used to indicate the fire-producing potential of the waste. This testing can be applied to all waste liquids, semi-solids, but need not be applied if other information (e.g., Waste Profile in conjunction with the results of the other screens, MSDS, etc.) indicates the waste is not ignitable.

TABLE C-3

Usage of "Mandatory Analyses"

(applicability of the parameters to each management option)

Parameters	Pre-Acceptance[1]	Incoming Shipment	Wastewater Treatment (Ag. Liq.)	Fuel Blending (Org. Liq.)	Landfill (Solid Sludge)
Physical Description	X	X	O	O	O
pH Screening	X	X	O	O	O
Water Mix Screening	X	X	O	O	O
Flammability Potential Screening	X	X	O	O	O
Cyanide Screening/ Quantification	X	X	O		O
Sulfide Screening/ Quantification	X	X	O		O
Radioactivity Screening	X	X	O	O	O
PCB Screening/ Quantification	X	X		O	
Suitability for Landfill	X				O

[1] The pre-acceptance sample may not always be necessary, see Section C-2d(1).
X - as outlined in text.
O - test provides waste property information which may be useful for these processes.

- Cyanides Screening is used to determine whether the waste produces hydrogen cyanide upon acidification below pH 2. It is not required if the pH of the aqueous waste is less than 6.0, or if the waste is organic. A positive screen may indicate the need for further quantitative testing to ascertain whether the waste meets the landfill cyanide limit (Section C-1, Item 8).

- Sulfides Screening is used to determine whether the waste produces hydrogen sulfide upon acidification below pH 2. It is not required if the pH of the aqueous waste is less than 6.0 or if the waste is organic. A positive screen may indicate the need for further quantitative testing to ascertain whether the waste meets the landfill sulfide limit (Section C-1, Item 8).

- Radioactivity Screening is performed to screen wastes for radioactivity above background levels.

- PCBs are run on waste targeted for fuels to indicate whether PCBs are present in oil or solvent wastes to be blended and to ascertain their concentration. It is not required on a PCB containing material that will be managed as a PCB waste.

- Suitability for landfill is a testing program that assesses the acceptability of the waste stream pre-acceptance sample, when necessary, for land disposal. Waste streams that are to be land disposed are classified into general categories. The test requirements and rationale for each of these categories is outlined below. The miscellaneous special wastes are exempt.

  1. Inorganic solids and sludges with no RCRA metals (e.g., calcium fluoride, sulfate, and phosphate mixture)
     - Mandatory analyses.

  2. Soil with inorganic contamination, no RCRA metals (e.g., small spill cleanup from a caustic type solution spill)
     - Mandatory analyses.

  3. Inorganic process sludges and solids with metals (e.g., WWT sludges with F and D codes)
     - Mandatory analyses.
     - Leachable metals assessment. If the waste exceeds the LDR limits, a stabilization evaluation may be run.
     - If incomplete organic analysis is provided by the generator, a VOC analysis or other approved organic methods may be performed to confirm LDR for hazardous waste or 2% Organic Limit compliance for non-hazardous waste.

  4. Soil or other inorganic solids with metals (e.g., fly ash with lead, D code materials)
     - Mandatory analyses.
     - Leachable metals assessment as described for in item number 3, bullet two above.

5. Inorganic solids with cyanide, may include metals (e.g., potliner)
   - o Mandatory analyses.
   - o If cyanide screening is positive, analyze for cyanides amenable to chlorination or total cyanide to determine whether the waste qualifies for land disposal.
   - o Leachable metals assessment may be performed as described in item 3, bullet two above.

6. Nonhazardous non-petroleum organic solids or sludges (e.g., latex sludge, PCBTF waste)
   - o Mandatory analyses.
   - o VOC analysis to confirm the 2% Organic Limit may apply on a case-by-case basis.

7. Soil or other solids contaminated with nonhazardous non-petroleum organics (e.g., soil with dioctyl adipate)
   - o Mandatory analyses.
   - o VOC analysis to confirm the 2% Organic Limit may apply on a case-by-case basis.

8. Soil or other solids contaminated with spent solvents (F codes), HOCs (any code) and for any other RCRA hazardous organic substance (K, U, P or D codes).
   - o Mandatory analyses.
   - o These materials are restricted wastes. A certification backed by analytical data must be provided by the waste generator or treater prior to and/or with the first shipment for many of these wastes. It is therefore expected that the generator will provide the necessary organic analytical data. If the analytical data is not provided by the generator, the analysis may be performed by CWM.

9. Soil or other nonhazardous wastes contaminated with oil or other petroleum products (e.g., oil sludge, soil contaminated with petroleum hydrocarbons)
   - o Mandatory analyses.
   - o Wastes not from a virgin single substance spill will be analyzed for PCBs if the generator does not provide data demonstrating PCBs are not present.

10. Waste materials that do not clearly fall into one of the above-defined categories will be designated as the category that most closely matches the Waste Profile description of that waste or the Waste Profile information will be used to designate a series of tests that are most appropriate for that waste.

Based upon the Waste Profile information, other tests may be necessary. The Additional Review Program, which is used to spot check incoming landfill waste shipments, is described in Section C-2f(5), Landfill Disposal.

C-2b(2) Supplemental Analyses

Supplemental Analyses are performed to further identify wastes as appropriate. The results of these analyses provide the site management with another level of confidence concerning the proper means of treatment, storage and disposal.

These analyses are based on procedures and protocol formulated by CWM and meet CWM performance standards or are based on ASTM, "Standard Methods", or other sources recognized by EPA. The parameters and associated rationale of the "Supplemental Analyses" are as follows (see Section C-2h for the analytical techniques which may be utilized):

o Ash - the percent ash is determined on a completed fuel blend if the receiving facility requests it.

o Chromate - by test kit is used to screen for the presence/absence of hexavalent chromium. Waste streams suspected of containing Cr^{+6} may be screened prior to pumping into a tank. A waste batch may be screened to ensure no Cr^{+6} is present prior to alkalization, due to the high solubility of $Cr(OH)_6$.

- Compaction Testing determines liquid loss during compaction of the waste following the structural integrity portion of the EPA toxicity method to ensure that waste meets maximum liquid loss limit of 5% specified in TSCA approval letter for certain PCB wastes.

o Compressive Strength - determines the compressive strength of wastes and treated wastes.

o Conductivity - is performed on site surface waters. It is a technique that quickly assesses general contamination. It is run on request.

o Density - indicates mass per unit volume of waste.

o Leaching Procedure - (currently called "TCLP") determines if a waste leaches any of the characteristic constituents above the specified regulatory thresholds.

o Flash Point further characterizes ignitable wastes to establish proper storage mode and conformance with permit conditions. A closed cup is used for liquids, and solids.

o Fluoride - either soluble (as a screen) or total is used to determine the fluoride concentration of a wastewater stream for species control in WWT plant. Fluoride can also be used to demonstrate compliance with an LDR standard.

o Ferrous - by test kit is used to monitor the presence of ferrous iron and estimate its concentration. Ferrous sulfate is frequently purchased and used as a reducing agent in the WWT plant.

o Free Cyanide - a test is used to determine the cyanide concentration on an aqueous waste which had a positive screen using the cyantesmo paper.

- Free Sulfide - a test is used to determine the sulfide concentration on an aqueous waste which had a positive screen using lead acetate paper.

- Heating Value - the heating value (BTU/lb) is performed to determine the suitability of a material for a fuel blend. BTU analysis (for wastes to be included in a blend that will be used as a fuel in boilers or industrial furnaces [BIF]) will only be run if the BIF does not have a Certificate of Compliance.

- Liquid Waste Compatibility - assesses the compatibility of waste shipments received with those currently stored in tanks or process units. This test is required before any material is added to the tank or unit.

- AWT Metals (e.g., Cu, Cr, Cd, Fe, Mn, Ni, Zn, Pb) is used to determine potential salt precipitation on wastewater treatment streams. When necessary (see Section C-2d(1)), a pre-acceptance wastewater treatment candidate is analyzed for these metals. The efficiency of metals removal (presence of complexing agents) may be further assessed by metals analysis after bench scale lime treatment.

- Other Metals (e.g., As, Se, Hg, Ag, etc.) may be analyzed as needed. For example, Silver is also analyzed on TCLP extracts of stabilized F006 wastes to ensure compliance with treatment standards.

- Microwave Digestion for Metals Analysis - is used to obtain a rapid sample preparation for metals analysis.

- Organic Priority Pollutants - analysis identifies and quantifies organic priority pollutants and other constituents present in a waste.

- Organics Screening - is performed in order to determine whether or not a waste contains various specific organic compounds (e.g., pesticides, herbicides, PCP, TPH, etc.).

- Oxidizer Screening - is used to indicate the presence of strong oxidizers. It may be used any time a waste is suspected of being an oxidizer.

- Liquid Determination is used to indicate if free liquid is present in a solid or semi-solid material if this is not apparent by inspection.

- PCB Screening is performed in order to determine whether or not PCBs are present in a waste.

- Percent Halogen/Sulfur - an analyses is used to determine the concentration of fluoride, chloride, bromide, and sulfur on a combusted fuel sample. These anions, as well as nitrate, nitrite, and phosphate may also be determined directly on an aqueous material using the ion chromatograph. Direct injection may be employed whenever the identity of an inorganic salt or acid needs to be confirmed.

- % Solubility - is determined gravimetrically if a solid waste destined for land disposal is suspected to be greater than 10% water soluble. This test is applied if solubility is not readily apparent from the Waste Profile description.

- pH - provides a more precise measurement of pH than pH screening. It is used to monitor various steps of the AWT process.

- Phosphate - by test kit is used to monitor the presence of phosphate in the AWT carbon beds, which is necessary to prevent bridging. It is generally checked daily during operation.

- Phenols - by test kit is used to monitor the phenols level in the influent and effluent of the WWT carbon beds.
- Pour Point - to determine whether a material is "pourable" at a specified temperature.

- Settleable Solids - are determined on the discharge of treated wastewater or on site surface waters in accordance with the facility's SPDES permit.

- TOC - may be used to determine the soluble organics concentration of a wastewater.

- Total Cyanides (Distillation with Magnesium Chloride) - quantifies the concentration of all free and most complexed cyanides. It may be used to determine compliance with an LDR standard.

- Total Sulfides is used to quantify the concentration of total sulfide. It may be used to determine compliance with an LDR standard.

- 2% Organic Limit Analyses - is used to screen wastes for the presence of unexpected organics or ensure compliance with the NYS 2% organic limit on non-hazardous wastes destined for land disposal.

- Water Content is performed to determine the amount of free water.

Other parameters not listed here may be performed as required by regulatory change, policy revision, waste matrix, etc.

C-2c Sampling Methodology

Sampling is performed at the Model City facility by CWM and by (or as directed by) the waste generator at the generator's facility. Specific sampling procedures are dependent on both the nature of the material and the type of containment. SW-846 states that, "a less comprehensive sampling approach may be appropriate if information

regarding the distribution of waste components is known or assumed." This section presents sampling methodologies to be utilized on-site by CWM personnel.

When a waste arrives at the facility for management, a determination has previously been made by the generator that the waste is either:

1. a listed hazardous waste in 6NYCRR Part 371.4, which meets or requires treatment to the LDR standards in 6 NYCRR Part 376;
2. a characteristic waste as defined in 6NYCRR Part 371.3, which meets or requires treatment to the LDR standards in 6 NYCRR Part 376; or
3. a waste material which is not a hazardous waste as defined in 6NYCRR 371.2.

The generator-supplied characterization provides CWM with information concerning both the distribution and nature of the waste components (see Section C-2d(1) for discussion regarding the information or data to be supplied by the generator). The purpose of the inspection, sampling or analysis when a waste material arrives at the site is to ensure that the shipped waste matches the description of the waste designated on the accompanying manifest or shipping paper and Waste Profile.

Therefore, CWM can often use a less comprehensive sampling approach, as described in Sections C-2c(2)(a) through C-2c(2)(d), (e.g., vertical compositing) to yield a waste identification sample (see EPA documents SW-846 "Test Methods for Evaluating Solid Waste", Third Edition, September 1986, Chapter Nine).

C-2c(1) General Methods and Equipment

As practicable, the sampling techniques used for specific types of waste correspond to those referenced in 40 CFR 261, Appendix I (6NYCRR Part 371, Appendix 19) and presented on Table C-4. Because Appendix I sampling methods have not been formally adopted by the EPA Administrator, CWM may use additional methods or may modify the technique as necessary to obtain a representative sample (see 40 CFR 261.20(c) Comment). Any changes made after final permitting will be forwarded to the NYSDEC for review and acceptance. The sampling equipment and procedures described in this WAP represent the facility's recommended sampling protocol for general types of waste material and containment. Specific waste materials or shipments may require different sampling techniques. Therefore, deviations from the recommended protocol do not constitute an excursion from acceptable sampling practices or the conditions of this WAP. All methodologies will be updated and revised as the references are updated and revised.

C-2c(2) Specific Methods and Equipment

In addition to ASTM and EPA sampling procedures, CWM has instituted specific methodologies for taking samples from various containment sources. The type of container may be transportable (e.g., such as drums), portable transport units (e.g., tanks, roll-off boxes, lugger boxes), and tanker or dump trucks; or stationary, such as tanks, in-process sources, waste piles, and containments. The sampling devices are selected depending on the size and type of containment and on the specific material involved. Detailed sampling procedures can be found in CWM's Standard Division Practices (SDPs). The device to be used in each situation is described below.

TABLE C-4

SAMPLING METHODS AND EQUIPMENT

MATERIAL (or waste type)	METHOD	EQUIPMENT
Extremely viscous liquid	ASTM D140[a]	Tubing, thief or Coliwasa
Crushed or powdered material	ASTM D346[a]	Tubing, trier, scoop, or shovel
Soil-like material	ASTM D1452[a]	Tubing, trier, auger, scoop, or shovel
Fly ash-like material	ASTM D2234[a]	Tubing, trier, auger, scoop, or shovel
Containerized liquids	ASTM-D5495	Coliwasa, tubing, weighted bottle, bomb, or tank sampling port
Additional methods:		
Industrial chemicals	ASTM E-300	
Soil & waste for VOCs	ASTM D4547	
Soil	ASTM D4700	
Liquids in pipes	ASTM D5013	
Pond Sampling	ASTM D5358	
Sampling with a trier	ASTM D5451	
Liquid in drums	ASTM D5743	
Volatile organics in soil and waste samples	Method 5035Ab	
Chapter 9	SW-846b	

[a] American Society for Testing Materials. ASTM International West Conshohocken, PA.

[b] Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Third Edition, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, September 1986, as amended by Final Update I, July 1992, or more recent update or edition.

Access to any type of container will influence the location within the container from which samples can be taken. Samples will be taken to address vertical variations in the waste because there is a much greater tendency for wastes to be heterogeneous in a vertical rather than a horizontal direction, and horizontal variations are generally easier to detect. If examination indicates strata in the waste, then each layer may be composited in proportion to its estimated volume or sampled individually.

C-2c(2)(a) Containers

A container is a portable or stationary device in which a material is stored, transported, treated, disposed of, or otherwise handled. The sampling of small containers (e.g., drums, cartons, and other small units) varies with the physical nature of the waste material. For flowable materials, the sampling device of choice is either a Coliwasa unit or open tube sampler, which is used to draw a full vertical section. Drums of aqueous and organic liquids are sampled with a four foot glass tube. A composite sample may be obtained by mixing equal portions of each container included in the sampling lot. Solids or sludges or other small containers are sampled with a scoop (disposable plastic or using the bottle itself) or a shovel if a heavy digging tool is required. If the material on top appears non-representative (e.g., "speedi-dry, "oil dry", etc.), a subsurface sample will be obtained. The top portion may be transferred to another container in order to obtain a subsurface sample. Alternately, a metal sample thief, trier or tubing (a piece of conduit or small diameter pipe) may be used to obtain a core sample of the drummed solid. An Easy Draw syringe or similar device may be used to obtain a sample of a solid waste for VOC analysis.

Large containers and tanks for flowable materials may be either stationary or mobile. The sampling device of choice for a bulk aqueous or organic liquid in a tank truck is either a Coliwasa or an open tube sampler. A tank truck is sampled with a coliwasa sampler. If a separate top sample is also desired (e.g., to obtain a sample of a thin oil skim), a sample bottle attached to a string or dipper may be employed.

Tanks containing liquids are generally not amenable to sampling via a tubing or Coliwasa sampler due to their size. If the tank has circulation capability, the contents of the tank are circulated to ensure thorough mixing, and a sample may be obtained in a container either at the pump discharge (an autosampler may be employed) or from the tank sampling port(s), or through a hatch. Tanks without circulation capability are sampled at various levels using a weighted bottle or bomb type sampler if stratification is suspected. In addition, samples may be taken from the tank sampling ports. If a top sample is desired and no sampling port is available, the top hatch is opened and a sample is obtained using a glass sample bottle attached to a dipper. Generally, top, middle, and bottom samples are obtained using a weighted bottle or bomb-type sampler. If layers are present, they may be run separately or composited depending on the information and/or analysis required (e.g., sampling may have taken place solely to identify the location and quantity of a water phase in a full tank).

Bottom sediment samples may be obtained via the bottom discharge valve on the tank.

A bulk solid or sludge in a dump truck is generally sampled using a disposable plastic scoop attached to a scoop extender rod according to the site SDP on sampling bulk solids. For inbound waste loads, a multi-point composite is taken. If a bulk load is to be sampled for VOCs to confirm compliance with the "2% Organic Limit" as part of the Additional Review Program, precaution should be taken to limit the loss of volatiles. If some horizontal stratification is suspected and is of concern (as indicated by the Waste Profile), a larger sampling tool such as a shovel may be used to dig into the waste or a core sample may be taken using a metal thief, trier or tube. If the material is fine and dusty and packaged in a large plastic envelope, a thief (grain sampler) may be used to puncture the envelope and obtain a sample. Landfill personnel are required to report to the laboratory any gross physical discrepancies in waste appearance, when a dump truck type shipment is unloaded in the landfill.

C-2c(2)(b) Process In-Line Sampling

The variability of the waste stream at any point in a treatment process is first determined from knowledge of the process producing the stream, or from the results of a preliminary investigation of the waste stream. Sampling frequency is based upon the waste stream's variability.

Process line samples are obtained via sample taps in the line. An individual sample may be obtained by flushing the tap and directly filling a sample bottle. If desired, a timed (automatic) composite sampler may be used to take samples.

C-2c(2)(c) Waste Piles

Waste accessibility, frequently a function of pile size, is a key factor in the sampling strategy for a waste pile. Piles are sampled by multiple vertical sections using triers, tubing, shovels, or similar devices. Large piles may be sampled with heavy tubing, soil augers, or through the use of excavation equipment such as a backhoe.

In cases where size impedes access to the center or bottom of a waste pile, a set of samples that is generally representative of the entire pile can be obtained by scheduling sampling to coincide with pile emplacement or removal.

C-2c(2)(d) Impoundments

The representativeness of the samples of the waste in a surface impoundment is dependent on the number of samples collected over the volume of the waste. A single sample may be collected for small surface area impoundments. Additionally, for large surface area horizontally displaced sampling may provide additional information. A weighted bottle, bomb sampler or peristaltic pump is generally used for sampling. Samples are composited if necessary. A multi-point composite is used for pond qualification for discharge.

C-2c(2)(e) LDR "Grab" Sampling

The current EPA guidance for RCRA sampling is SW-846, see 40 CFR 260.11, which specifies representative and composite sampling for waste characterization. This type of sampling provides averaged concentration values or properties. The Land Disposal Restrictions, 40 CFR 268, have specified the use of "grab" sampling for most of the compliance demonstrations to the Land Disposal Restrictions treatment standards. For a large container, more than one grab sample may be collected. For LDR compliance, none of the samples may exceed the applicable LDR standard(s).

C-2d Pre-acceptance Procedure

CWM has developed a series of control procedures to determine the acceptability of specific wastes for management at the site, referred to as the "Pre-acceptance Procedures." This acceptability decision is based on the conditions or limitations of existing permits and regulations, and capability to safely manage the waste at the site. The pre-acceptance procedures for this facility may be carried out at this facility, another CWM facility, or upon receipt of the load prior to its acceptance.

The pre-acceptance procedures include the following steps:

- Generator-supplied information is what a customer must provide to enable CWM to make a decision regarding the possible management of a candidate waste stream (see Section C-2d(1) for discussion regarding the information or data to be supplied by the generator).

- Initial review and/or analysis of the generator-supplied material allows CWM to conduct an initial evaluation for management capabilities at the facility.

- Disposal decision process is the process of reviewing all the documentation supplied by the generator and/or CWM and documenting the acceptance or rejection of the candidate waste stream.

- Re-evaluation process determines the frequency a waste stream will be re-evaluated once it has been accepted.

CWM maintains as part of it its pre-acceptance information generator supplied and CWM developed information. This information may be accessed electronically or via hard copy.

C-2d(1) Generator-Supplied Information

The waste generator will supply CWM with the following information and materials for each new candidate waste stream, except where noted herein.

- Waste Profile, (typical form shown as Figure C-1 in Section C), which will contain pertinent chemical and physical data. At a minimum, the generator supplies all the information required by 6 NYCRR 373-2.2(e)(1) needed to characterize the waste for proper treatment, storage, or disposal.

- A representative sample may not be required if CWM and NYSDEC determine that the pre-acceptance documentation supplied by the generator gives sufficient information to maintain compliance with the permit and operational constraints and that submittal of a sample would not aid in the disposal decision process (e.g. soil with a limited number of organic contaminates for which the generator has supplied chemical analysis). In addition, a sample may be waived if handling or obtaining a sample poses an unnecessary hazard of acute or chronic exposure of CWM employees to carcinogenic (e.g., asbestos). Also see Sections C-2d(1)(a) and C-2d(1)(b).

- Land Disposal Restriction Information and/or Data (6NYCRR 376 and 40 CFR Part 268).

- Other supporting documentation such as additional analytical results or a material safety data sheet (MSDS), as necessary to provide additional waste characterization.

C-2d(1)(a) Exceptions

No representative sample is required for the following:

- Chemical waste from a laboratory. This is limited to discarded containers of laboratory chemicals (lab packs), lab equipment, lab clothing, debris from lab spills or cleanup, and floor sweepings. Lab pack chemicals are managed in accordance with all applicable NYSDEC regulations.

- Articles, equipment, and clothing containing or contaminated with polychlorinated biphenyls (PCBs) (e.g., PCB solids, capacitors, transformers, gloves, aprons, etc.).

- PCB draining and flushing fluids (e.g., PCB articles are flushed with a substance not a hazardous waste and placed directly into transport container).

- "Empty" containers of waste materials, commercial products, or chemicals. This applies to a portable container which has been emptied, but which may hold residues of the product or chemical (e.g., portable tanks, drums, barrels, cans, bags, liners, etc.). A container shall be determined RCRA "empty" according to the criteria specified in 40 CFR Part 261.7 and 6NYCRR 371.1(f)(2).

- Asbestos-containing waste from building demolition or cleaning. This applies to asbestos bearing waste insulation material (e.g., wall board, pipe insulation, etc.).

- Discarded, unused, off-specification, or outdated commercial products (e.g., unused commercial product which has passed its allowed holding time). MSDS to be supplied or made available upon request.

- Non-hazardous soil where appropriate analytical data has been furnished.

- RCRA or RCRA/TSCA contaminated soil where analytical data that adequately characterizes the waste has been furnished.

- Residues and debris. This consists of residue and debris from cleanup of spills or releases of a single chemical substance or commercial product or a single waste which would otherwise qualify as a "miscellaneous special waste" or one or more known substances.

- Chemical-containing devices removed from service. Examples include cathode ray tubes, batteries, fluorescent light tubes, etc.

- Demolition wastes. This consists of waste produced from the demolition or dismantling of industrial process equipment or facilities contaminated with chemical from the process. (This does not include wastes drained from such equipment).

- Cartridge filters.

- Activated carbon, Ion exchange resin, molecular sieves (as adsorbed constituents cannot be readily desorbed to provide meaningful analysis).

- Contaminated debris (e.g., wood, building rubble, asphalt, concrete, tools, scrap metal, crushed glass, and plastic. This includes the last three items impregnated or coated with chemical substances).

- Waste from a remedial project whose sampling and analysis plan was approved by Federal or State agency (e.g., CERCLA, Superfund, or Potentially Responsible Party (PRP) type project).

- Debris as defined at 40 CFR 268.2 and 6 NYCRR 376.1(b)(1)(vii). These materials will be visually inspected prior to acceptance (see Section C-2e(2)) in order to ensure that the waste meets the definition of debris.

- Controlled substances regulated by the Federal Government including drugs and/or materials from clandestine labs.

Requests for approvals of wastes defined as "miscellaneous special waste" are to be based only on the waste generator's written description of the waste. A sample is not required. The generator still must supply all the information required by 40 CFR 264.13(a) and 6 NYCRR 373-2.2(e)(1) and necessary to characterize, treat, store, or dispose of the waste. When any of these "miscellaneous special wastes", other than labpacks, are received at the facility for storage or treatment, they will, at a minimum, be visually inspected. In lieu of sampling and analysis, color, texture, or other applicable physical description will be documented. The presence of free liquid or any other physical differences from the profile will be documented. Any incidental odor will also be documented.

The request for approval of a miscellaneous special waste will be initiated by a Waste Profile (typical figure shown in Figure C-1 and/or Figure C-1a). Except for the analysis of a sample, the approval process will proceed as described in Section C-2d.

C-2d(1)(b) Standard Profiles

Standard Profiles may be used for waste streams which are similar in physical and chemical characteristics, generated by a specific industry or process, consistent with the USEPA approach of assigning a listed waste code to process wastes.

An analytical data base will be developed for a specific Standard Profile based on analytical data from waste streams that are representative of wastes from the specific industry, the process or historical data. CWM will review the data base and determine whether the individual waste streams are sufficiently similar in physical and chemical characteristics to an established Standard Profile.

Specific candidate waste streams which upon review are identified as conforming to an existing approved Standard Profile will be managed under the existing disposal decision, specific for that Standard Profile.

C-2d(2) Initial Review and Analysis

Once CWM receives the generator-supplied information, and it is received and reviewed, a determination will be made if further analyses by the generator or CWM are required. All waste samples, when necessary for the pre-acceptance evaluation, will be subjected to the "Mandatory Analyses" (Section C-2b(1) as appropriate. "Supplemental Analyses" (Section C-2b(2) are performed at the direction of the waste approvals personnel. Additional testing may also be requested by the Department pursuant to the waste stream approval condition for land disposal.

If, during the pre-acceptance procedure, CWM determines that the waste information indicated by the "Mandatory Analyses" does not generally conform to the information on the Waste Profile, the generator is notified of the apparent inconsistency. If the inconsistency is resolved, the pre-acceptance procedure continues. The waste may be rejected or accepted during this phase of the procedure.

CWM will not accept, for treatment or disposal, any current production waste or outdated products which are listed as hazardous waste by EPA because it contains, as a hazardous constituent (see 40 CFR Part 261, Appendix VII), a form of polychlorinated-dibenzo-dioxin (PCDD) or polychlorinated-dibenzo-furan (PCDF) (e.g., F020, F021, F022, F023, F026, F027, etc.). Only those waste materials that are classified as derived from F020 to F023 and F026 to F028 (e.g., leachate, filter cake from treatment of leachate, incinerator ash etc.) or media or debris contaminated with these wastes will be accepted at Model City. See Condition E.1.c.v in Exhibit F of Schedule 1 of Module I. Any pre-acceptance screening carefully reviews the Waste Profile for processes generating these wastes, waste names, and those hazard code identifications.

C-2d(3) Disposal Decision Process

The pre-acceptance procedure is concluded when the review of the generator supplied information and any appropriate mandatory analyses is complete. Figure C-2 (see Section C) presents an overview of the pre-acceptance process. At this time, CWM makes a "disposal decision" on the candidate waste.
Disposal decisions are based on:

- Management methods available.
- Conditions or limitations of existing permits and regulations.
- Capability to safely manage the waste.
- Waste Profile description of the process generating the waste.
- Knowledge of the waste generating process.
- Waste Profile description of the chemical and physical properties of the waste.
- Any additional documentation supplied by the generator.
- Results of any "Mandatory Analyses."
- Results of "Supplemental Analyses" as appropriate.
- Results of any treatability analyses
- Management's technical experience and judgement.

C-2d(4) Re-evaluation Process

In accordance with NYCRR 373-2.2(e), a waste profile re-evaluation will be conducted when one of the following occurs:

- A generator notifies CWM that the process generating the waste has changed;

- The results of inspection or analysis indicate that the waste received at the facility does not match the identity of the waste designated on the accompanying manifest (or shipping paper) or pre-acceptance documentation (See Section C-2e); or

- Every two years for wastes that are treated and/or disposed of at the site. CWM feels that a biennial waste recharacterization (or recertification by the generator), along with a vigilant incoming load screening program is sufficient to ensure that wastes are managed safely at the site and to ensure the information is accurate and up-to-date; or

- Every two years. A biennial waste profile re-evaluation along with a vigilant incoming load screening program is sufficient to ensure that wastes that are to be transferred through Model City for disposal at another CWM facility continue to be properly managed.

For bullet items one, three and four above, this re-evaluation process consists of a review of the paperwork to ascertain that the analytical data is accurate and current and that it is sufficient to properly manage the waste as intended. The procedure typically involves comparing the current waste profile to the available results of routine inspection, sampling, and analysis obtained upon receipt of an incoming load of the waste stream. To augment this review, if existing analytical is not sufficient, the generator may be asked to review the current waste profile, to supply a Profile Recertification form, to supply a new profile, and/or to submit a sample for analysis, or CWM may obtain a sample from a shipment of the waste.

C-2e Incoming Load Procedure

The incoming load procedures allow CWM to identify that a waste shipment delivered to the site matches the description on the Waste Profile referenced on the accompanying manifest and secondarily, to ensure the proper management method. This is accomplished through the following procedural steps:

- Manifest Review outlines the weight and piece count verification, manifest review, and discrepancy resolution.

- Inspection and sampling outlines the inspection and sampling of incoming waste shipments.

- Analysis outlines the analyses CWM will perform on each sample.

- Decision evaluation logic outlines the general logic utilized by CWM personnel in deciding whether to accept or reject a particular waste shipment.

Waste shipments that have arrived at the facility are considered to be in the receiving process until such time that the receiving personnel makes a final decision regarding waste acceptability; at such time the wastes are considered accepted.

In addition, the first shipment of wastes that are subject to the Land Disposal Restrictions (6NYCRR Part 376 & 40 CFR Part 268) and have been treated, exempted, varianced, or meet the appropriate treatment standard or prohibitions without treatment must be accompanied by a form from the treater or generator certifying that the treated, exempted, or varianced waste meets the appropriate treatment standard, prohibition, exemption, or variance (or that the waste naturally meets the appropriate treatment standard prohibition) and includes any applicable analytical data or reference to such data (see Section C-2d(1) third bullet) in accordance with 6NYCRR Part 376 & 40 CFR Part 268. Generators of landfill candidate wastes must be informed that a new LDR form is required if the EPA waste codes for a waste changes.

Furthermore, wastes which are subject to the Land Disposal Restrictions and require treatment must be accompanied by a form from the generator notifying the treater that the waste requires treatment and all applicable prohibitions which must be met and includes any applicable analytical data or reference to such data in accordance with 6NYCRR Part 376 & 40 CFR Part 268. For generators who ship multiple loads of the same LDR waste to the Permittee's facility, providing a notification form with the first load and annually thereafter, is sufficient.

Federal and NYS regulation states that, for containerized waste intended for landfilling where the generator (or treater) has previously identified (see Section C-2d(1)) that sorbents have been added to the waste to sorb free liquids, a determination will be made, prior to disposal that no biodegradable sorbents (as described in 40 CFR Part 264.314(e) and 6 NYCRR 373-2.14(j)) are included in the waste. For landfill candidate wastes, such certification may be provided by the generator's signature on the Waste Profile.

C-2e(1) Manifest Review

Upon arrival at a CWM facility, bulk loads normally will be weighed (gross weight) as a first step to confirm manifest quantity. The empty vehicle will be weighted (tare weight) when exiting the facility. Off-site certified weighing will be accepted. Waste shipments received in drums will be subjected to a piece count during the receiving process.

The manifest is reviewed for completeness and obvious errors (eg. DOT shipping name of "Waste Bricks, NOS"). Any incomplete items discovered or corrections made are noted on the discrepancy section of the manifest.

The generator or transporter (as appropriate) will be contacted concerning any significant manifest discrepancies (defined by 6NYCRR 373-2.5 as a variation of >10% weight for bulk loads or any variation in piece count; discrepancies of waste type are generally discovered later during the acceptance process) and CWM will attempt to resolve the issue. Any significant manifest discrepancy will be noted in the discrepancy identification section on the

manifest or will be reported to the DEC via a manifest discrepancy notification letter. If a significant discrepancy can not be resolved, the proper agency notification will be made as required by regulation.

C-2e(2) Inspection and Sampling

Each waste shipment will be inspected at a CWM site and all sampling will be done in accordance with Section C-2c. (Wastes exempted from sampling are noted in Sections C-2d(1)(a) and the last paragraph of this section.) All non-miscellaneous bulk solids will be sampled according to site SDP, unless a reduced frequency for a given profile has been approved by the DEC.

This procedure may be varied, under certain circumstances, for example, to allow CWM personnel to perform generator site inspection/sampling of large remedial actions, lagoons, impoundments, and waste piles, debris or under other circumstances as approved by NYSDEC. This variance will be on a job-specific basis or process specific basis and documentation of the sampling and analysis plan will be detailed and filed with the waste profile.

In the case of drums or portable tanks, all containers will be inspected with at least 10% of each profile solid waste containers randomly selected for sampling. For containerized liquid waste, 100% of the containers will be sampled. Container samples that are related to one generator and one process may be composited prior to analysis, providing the individual samples are similar in physical appearance. Waste stream samples may be further composited for analysis to evaluate suitability for a process or disposal. All containers destined for on-site landfill disposal shall be opened for visual inspection of their contents, with the following exception provided for asbestos containers. Sampling and interior inspection of asbestos containing containers is waived as long as the generator certifies that there is no void space present and the following procedures are performed:

- CWM will tap test all asbestos containers to confirm that there is no void space.
- All containers with debris containing asbestos requiring micro or macro encapsulation and with asbestos waste requiring stabilization, will have their contents inspected in the Mixing Pit Tanks as the material is prepared for processing.
- At least one (1) asbestos container from each generator's shipment which is destined for direct on-site landfill disposal shall be randomly selected and opened for visual inspection of its contents by asbestos qualified personnel under controlled conditions. In addition, for generator shipments greater than eighty (80) containers, one (1) out of every eighty (80) containers shall be opened for visual inspection. If wastes/materials other than those specified on the waste profile are observed in the container, the inspector shall note the waste profile identification, and arrangements shall be made to open and inspect any other asbestos containers associated with that particular waste profile shipment.

See Section C-2d(1)(a) for additional sampling exceptions.

Site management may waive the sampling and analysis of an incoming waste shipment that is only for storage at Model City and will be trans-shipped to another facility for management.

The sampling and analysis of "miscellaneous special waste" is not required, unless specifically requested by the site management. These materials are not sampled because they present extraordinary health and safety hazards, (e.g., asbestos), exhibit unusual or impractical sampling and analytical complication (e.g., lab packs) and/or are of such a nature that their contents are known in sufficient and reliable chemical and physical detail that sampling and analysis is not warranted (e.g., outdated commercial products).

C-2e(3) Analysis

Samples will generally be analyzed in accordance with Section C-2b and C-2f of this text. At a minimum, samples will be subjected to the appropriate "Mandatory Analyses" (wastes exempted from Mandatory Analyses are noted in Sections C-2d(1)(a) and C-2e(2)). "Supplemental Analyses" will be performed as directed by site management and as specified in Section C-2f. Other CWM personnel (or a CWM-approved laboratory) can provide the Mandatory and/or Supplemental Analyses required at incoming prior to or concurrent with the arrival of the shipment.

Under the Additional Review Program (ARP), for wastes to be land disposed, the on-site DEC monitor may identify additional testing to be performed on any non-miscellaneous waste destined for the landfill. This program is further defined in Section C-2f(5). Further testing may be required if the results of the mandatory analyses indicate unexpected information with respect to pre-acceptance analytical results, or if site management has reason to suspect that the waste composition has changed. CWM will conform with the quality control policy described in Section C-2g.

C-2e(4) Decision Evaluation Logic

The general logic utilized by site management in deciding whether to accept or reject a particular waste load is depicted in Figure C-3. The specific major decision points are the need for additional analyses, the actual waste identification, an evaluation of whether a waste is found to be in conformance or non-conformance, and an evaluation of whether wastes found to be in non-conformance can be accepted or should be rejected.

o The need for additional analyses. Site management decides whether additional analyses are required for a particular waste based on the following:

  - Results of "Mandatory Analyses"
  - Knowledge of generator and/or waste-generating process
  - Results of pre-acceptance evaluation
  - Knowledge of the limitations of the targeted waste management units
  - Experience of site management determining the need to know more information

Further testing may be required if the results indicate unexpected characteristics with respect to pre-acceptance analytical results, or if site management has reason to suspect that the waste composition has changed.

o The actual waste identification. The effectiveness of the waste identification step is dependent on some or all of the following components:

- Inspections
- Sampling
- Analytical results
- Waste profile
- Waste manifest
- Restricted waste notification and/or certification form, where appropriate
- Pre-acceptance information and/or analytical results
- Site management's judgment

o An evaluation of whether a waste is found to be in conformance or nonconformance. CWM uses four major criteria to determine the existence of an inconsistency among the Waste Profile, the manifest, and the incoming waste load screening analysis. They are:

- For bulk wastes, variations greater than 10% in weight (6NYCRR 373-2.5)
- For batch wastes (e.g., drums, bags, etc.) any variation in piece count (6NYCRR 373-2.5)
- If inspection or analysis of any waste determines obvious differences such as waste solvent substituted for waste acid or toxic constituents not reported on the manifest or shipping paper (6NYCRR 373-2.5)
- If the inconsistency changes the originally approved method of management.

(Note: The first 3 items are considered to be significant manifest discrepancies as per 6NYCRR Part 373-2.5.)
Non-conformance that do not fall within these criteria are considered to be "minor" and are not subject to a recharacterization review unless CWM has reason to believe that the variation is a continuing deviation and that a particular waste stream indeed is different from its documented values. Significant inconsistencies in waste type, as defined by the last two criteria above, result in recharacterization only if the inconsistency cannot be reconciled with the generator or CWM has reason to believe that the waste composition has changed.

o An evaluation of whether there is a discrepancy of waste type

The results of waste inspection or analysis or a comparison of the information on the Waste Profile with that on the manifest may identify a significant manifest discrepancy of waste type (eg. a waste solvent has been substituted for a waste acid). These types of discrepancies must be handled the same as the other types of significant manifest discrepancies (piece count or weight variation) as described in section C-2e(1).

The results of the inspection/analysis or comparison of the manifest to the Waste Profile may also identify a profile discrepancy in that the waste received does not appear to match the profile and may not be suitable for the intended treatment/disposal method. This type of discrepancy may or may not also be a significant manifest discrepancy. For example, a bulk load of lead contaminated soil is received under a Waste Profile for lead contaminated debris. The manifest information for this waste (eg. DOT shipping name, EPA code, etc.) may be the same for these two wastes,

however two different treatment techniques may be required for these LDR restricted wastes. The generator or other appropriate contact is contacted for assistance in the resolution of these types of significant profile discrepancies. Recharacterization of the wastestream may be initiated if the waste appears to be substantially different than represented on the Waste Profile.

The detection of a waste constituent that was not recorded on the Waste Profile or manifest would not necessarily trigger a recharacterization of the waste stream if the inconsistency could be justified by the generator, and was not a continuing variation.

o Acceptance of waste. If no significant discrepancies of waste type are identified, the waste is accepted.

o An evaluation of whether discrepant wastes can or should be accepted or rejected. Wastes found to be discrepant as defined above may be rejected; or they may be re-evaluated for possible acceptance at the site despite the discrepancy. A profile modification may be requested from the generator. This procedure is intended to prevent the unnecessary movement of a waste material back and forth between the facility and the generator in cases where the material can be readily handled by the facility. By eliminating this unnecessary movement, CWM is attempting to reduce further possible exposure of this waste to human health or the environment. The re-evaluation procedures are designed to determine whether a waste material, in its form as identified by CWM (i.e., inconsistent with Waste Profile and/or manifest data), can be handled by the facility, and whether the generator concurs with the site's identification. The re-evaluation will be based on the following criteria:

- Permit authorization
- Discussions with the generator (as per 6NYCRR 373-2.5)
- Availability of appropriate treatment/disposal technology
- Site Management's judgment

If all of the above criteria and results of the "Supplemental Analyses," if any, indicate the waste can be accepted and the generator concurs, the waste disposal decision form is modified by CWM if the discrepancy will be a continuing variation and changes the originally approved method of management. Pursuant to 6NYCRR 373-2.5, CWM will discuss and attempt to resolve with the generator any discrepancy between the received waste and that shown in the manifest. If a discrepancy cannot be resolved within 15 days of shipment receipt, the appropriate regulatory agency will be notified, in writing, of the discrepancy and the attempts to reconcile it, including a copy of the involved manifest.

The final decision to reject all or part of a waste shipment is made by site management. Decisions are made as soon as the facility has considered all of the applicable information listed above. The facility strives to complete these decisions as early as practicable, but circumstances which prevent sampling (e.g.,frozen drums) can cause delays in obtaining the information necessary to make an informed decision on the acceptability of the waste.

Under such circumstances, the facility will take appropriate action to facilitate the decision process. During this time proper staging locations within permitted storage areas will be determined using the information provided by the generator. This information (e.g., Waste Profile, MSDSs, etc.) will provide sufficient information to ensure staging with compatible materials.

A waste may be rejected for one of the following reasons:

- The generator's/transporter's paperwork is not in order.
- A manifest discrepancy or other non-conformance cannot be resolved to the generator's and CWM's satisfaction.
- A bulk liquid shipment is incompatible (fails the liquid waste compatibility test) with wastes stored in bulk liquid storage tanks and no other management method is available.
- Adequate segregated space is not available at the container storage areas for containerized wastes and special handling cannot be used to correct the deficiency.
- No management method for the particular waste is available.

C-2f Process Operations Procedure

Each movement of a waste within the facility, during which any change in its characteristics may occur, may make it subject to additional inspection, sampling and analysis to determine appropriate handling and management of the waste. Many of the analyses needed for the storage, treatment, and disposal functions are performed during incoming load identification. These are not repeated unless it is known or believed that the waste characteristics may have changed during storage or processing and monitoring of the changes is necessary. Existing and anticipated process operations at the facility, for which current and periodic sampling and analyses is important, include the following:

o Storage;
o Treatment: consisting of aqueous waste treatment, fuels blending, stabilization, microencapsulation, macroencapsulation and
o Landfill disposal.

The analytical procedures for each of these processes is described separately below.

C-2f(1) Storage

Stored containerized liquid and solid wastes are segregated with respect to ignitability, reactivity, corrosivity, and compatibility. Liquid wastes which are transferred from drums, portable tanks or tank trucks may be bulked and placed in bulk storage prior to further treatment.

Before any wastes are placed in any storage unit, the site management will determine the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein. This judgement is based upon vendor/engineering handbook data and a knowledge of the waste and its characteristics from the profile. If such data are not available, compatibility testing will be performed.

C-2f(1)(a) Waste in Containers (Drums)

Stored containerized wastes are segregated with respect to ignitability, corrosivity, reactivity, and compatibility. The U.S. DOT Hazardous Precedence List (49 CFR Part 173.2) and the Segregation and Separation Chart of Hazardous Materials (49 CFR Part 177.848) shall be employed for the initial determination of compatibility. The following table lists hazard classes with incompatible hazard classes for wastes in drum storage areas.

TABLE C-5

Incompatible Hazard Classes

Hazard Class	Incompatible Hazard Classes
Flammable Liquid	Oxidizer, Organic Peroxide
Flammable Solid	Corrosive, Oxidizers
Oxidizer or Organic Peroxide	Corrosive, Flammable Liquid, Flammable Solids
Corrosive	Oxidizer, Organic Peroxide Flammable Solids

Based on the initial hazard determination and final identification of the waste, the drummed waste is organized into segregated storage areas. Flammable, corrosive and oxidizing waste materials are kept separate from incompatible materials by storage in separated areas within the drum storage unit.

C-2f(1)(b) Waste in Tanks

All liquid wastes targeted for storage in tanks will undergo the mandatory analyses and the liquid waste compatibility test (density and flash point are performed, if required). Additional testing is based on the targeted treatment or disposal options.

Liquid wastes delivered in bulk form by tank trucks or decanted from drums or portable tanks are placed in bulk storage tanks or directly into reactors prior to further treatment. Prior to transferring any different waste(s) into a storage tank, the compatibility of the waste with the material already in the tank will be determined by the liquid waste compatibility test. Following routine preliminary screening using a chemical compatibility test, specific storage and process compatibility will be determined. The parameters that will be used to determine compatibility are as follows:

Stratification - The general miscibility of the materials will be examined. If stratification would appear to create a problem, the materials will not be combined.

Heat Generation - Materials that upon mixing would generate sufficient amounts of heat or undergo exothermic reactions strong enough to exceed the design capability of the storage unit shall not be combined.

Gas Evolution - Materials that upon mixing liberate flammable, explosive or toxic vapors, fumes or mists in quantities of concern, shall not be combined unless the storage unit is designed with appropriate engineering controls.

Undesirable Reactions - Materials that upon mixing result in the formation of a large amount of precipitate or in the solidification or gelling of the mixture shall not be combined.

C-2f(2) Treatment Operations

The proper and complete treatment of a particular waste depends upon appropriate sampling and analysis during selected phases of operation. The results of this analytical program serve to determine safety constraints, confirm treatment method selections, and identify the process parameters. The treatment sampling/analysis program may be divided into three segments, each with a specific purpose:

- Pre-treatment analysis confirm that the waste falls within the selected process design parameters and allow the fine tuning of the process operational conditions for optimum treatment. These analyses

include pre-acceptance, incoming load and any other supplemental analyses as described for each treatment operation;

- o In-process analyses are performed to control the process and to monitor progress; and

- o Post-treatment analyses confirm that treatment was successful and that the characteristics of the process effluent are such that it can be sent to the next step (discharge, disposal, or further treatment) based upon permit or process constraints. Wastes or residue(s) resulting from the treatment of land disposal restricted wastes will be analyzed and/or evaluated, as specified in the following sections against the appropriate treatment standards listed in 6 NYCRR 376.4(j). Wastes or the residues from the treatment of land disposal restricted wastes that are sent off-site for further treatment or disposal will have any appropriate notification or certification form(s).

These segments are discussed below for each of the treatment processes.

C-2f(2)(b) Aqueous Waste Treatment

Wastewater treatment operation consists of a series of modular operations: phase separation (optional), oxidation (optional), reduction (optional), alkalization, filtration for the removal of precipitated sludges, neutralization, aggressive biological treatment, clarification, sand filtration, and activated carbon adsorption. Further biological treatment may occur in the facultative ponds. Effluent is discharged via pipeline to the Niagara River in accordance with the facility's SPDES permit conditions.

The incoming waste shipment is subjected to the applicable mandatory analyses consisting of physical description, pH screen, water mix, cyanide screen and sulfide screen (for alkaline waste), and radiation screen. Compatibility of the incoming waste stream shipment with the intended receiving tank and batch blend is assessed prior to pumping the drums/tanker. Supplemental analyses may include density, pH (meter), WWT metals, hexavalent chromium (Cr^{+6}) screen, oxidizer screen, and metals removal efficiency. Any of the other parameters listed as supplemental may be performed on incoming material if the profile, sample or test results indicate these could be items of concern (i.e., off spec shipments).

In general, greater than 90 percent of the waste water processed in the Aqueous Treatment Plant is on-site generated leachate from the landfills and process areas. The untreated leachate (FO39) was sampled and analyzed for all the constituents on the F039 LDR list. This constituted the initial characterization. The untreated leachate will be sampled and analyzed for the full LDR list of constituents every four (4) years to further ensure that no changes effecting the leachate have occurred. CWM will provide a copy of the results of the characterization to the Department, along with the results of the monthly effluent sampling and analysis. Based on review of the raw leachate characterization and the

results for the parameters being routinely monitored, if CWM or NYSDEC has a concern that additional constituents should be tested for on a routine basis, CWM or NYSDEC may initiate a permit modification.

In process analysis for gate receipts includes assessing the receiving tanks for pH, percent acidity (if any excess is suspected based on density), and the presence of Cr^{+6} ,if suspected, (requires reduction). The batches containing gate receipts are sampled and checked for pH/acidity and screened for Cr^{+6} ,if suspected. The pH of the lime slurry tank is monitored to ensure that sufficient lime is being added. The filtrate from the filter press is monitored for pH. In addition, when gate receipts containing high metals concentrations are processed, the metals concentrations may be tested at this intermediate point. The specific metals to be tested would depend on the EPA codes of the materials being processed. For gate receipts, the metals generally analyzed for include those frequently found in industrial waste waters from metal finishing; cadmium, chromium, copper, iron, lead, manganese, nickel, and zinc.

In order to monitor the performance of the organic constituent removal portion of the system, COD, phosphate (by test kit) and pH will be run on a daily basis on the influent and effluent of biotower to evaluate the operating condition of the biotower and the organic removal efficiency. Volatiles, including acetone will be tested on the effluent of the carbon beds to monitor the organic removal by carbon adsorption and to determine when the bed is spent. Acetone has a low affinity for carbon at a part-per-billion concentration. It will break through the carbon bed long before the carbon adsorption capacity is spent. If any of the F039 constituents approaches or exceeds the LDR limits, corrective measures will be employed to ensure that the discharge from the holding tank to the Facultative Pond is in compliance with the LDR restrictions. Such measures will include increased monitoring of the volatiles in the carbon bed effluent and, if necessary, a change from continuous to batch discharge from the holding tank.

In order to demonstrate compliance with the F039 wastewater standards, a composite sample of effluent will be analyzed for the following key control constituents: full volatile scan by GC/MS, metals including chromium, lead and nickel, and total cyanide. As the AWT system can operate in two modes, batch and continuous with up to two effluent qualification tanks, samples may be collected at several different locations. Concentration standards for F039 wastewaters (WW) are based on the analysis of composite samples. The Clean Water Act (CWA) regulations specify that grab samples must be used for pH, cyanide and VOC analysis. A grab sample from the holding tank after the batch is completed and has been mixed/recirculated will satisfy both of these requirements. The following logic will be employed:

<u>Batch qualification and discharge</u>

- A sample representing a composite of the treated effluent in a batch will be obtained from the holding tanks (T-125 and T-58) after completion of the batch and recirculation of the tank contents. As long as the results show that the effluent meets the LDR standards, the water will be discharged.

- If the results are questionable a sample may be taken from the recirculation line on the tank for comparison.

- If a subsequent composite sample must then be taken for confirmation and compliance with LDR standards, an automated sampler or a manual sample on the recirculation line may be used.

- An autosampler will remain available on the discharge side of the effluent tanks in order to provide a split sample when requested by DEC.

Continuous operation

- If two holding tanks are not available to operate in the fill, test and discharge mode, continuous operations (adding and discharging at the same time) may be employed if additional sampling and analysis controls are employed.

- A daily sample of the effluent from the carbon beds is analyzed for volatiles to ensure that the water entering the tank meets the LDR standards for organics monitored and that break through has not occurred.

- A daily sample is obtained from the holding tank and analyzed for volatiles, metals and cyanide to insure that the tank meets LDR standards.

- Compliance with LDR standards will be certified based on the analysis of a daily sample of the effluent as it is discharged from the holding tank. Monitoring the influent and the tank ensures that the discharge composite will also meet the LDR standards.

- An autosampler will remain available on the discharge side of the effluent tanks in order to provide a split sample when requested by DEC.

In addition, if sufficient quantities of gate receipts containing F039 constituents not on the site indicator parameter list for F039 are managed and could cause an exceedance of the standard, these constituents will also be tested to show compliance. Once per month, a sample representing a composite of the treated effluent will also be tested for semi-volatiles, PCBs, additional metals (arsenic, barium, cadmium, mercury and selenium), and sulfide. In order to demonstrate quality assurance of the analytical data being produced, DEC may request on a semi-annual basis that split samples be taken for one or two suites of tests (VOAs, semi-vols, or metals) and sent to an outside DEC and CWM approved laboratory. DEC will select sampling date and time and has the option to be present to witness sampling and transport of samples to the laboratory.

The treated water in the effluent tanks and facultative pond is transferred as volume dictates to one of the other fac ponds.

When a pond contains sufficient liquid to justify a discharge, the pond is sampled, and then analyzed by a wastewater certified laboratory to qualify it for discharge under the CWM Chemical Services Inc. SPDEs permit. No treated wastewater is discharged from the facility unless it meets all the limits specified on the permit and the pond discharge is approved by the NYSDEC. A general flow schematic and list of analytical procedures is shown in Figure C-4.

C-2f(2)(c) Fuels Blending/Incinerables

This operation utilizes tank trucks and pumping systems to produce a fuel product which can be used as a feedstock for thermal units. Carefully controlled decant and mixing of compatible waste streams such as solvent, waste oils, emulsions, and lean water is carried out to produce a product with limited concentrations of specific constituents. Any liquids containing 50 ppm PCB or greater are handled in a dedicated unit and are not blended into a fuel product with non-PCB fuels. PCB feedstocks are transferred to an approved incinerator for destruction.

The incoming waste shipment is subjected to the applicable mandatory analyses consisting of physical description, water mix, flammability potential screen, and radiation screen. BTU analysis will be performed for wastes to be included in a blend that will be used as a fuel in boilers or industrial furnaces [BIF], if it is suspected that the BTUs are <5000 BTU/lb. The waste solvents and oils are analyzed for PCBs. If a large unexpected peak appears in the PCB-ECD Scan for any fuels sample, chlorinated pesticides will be investigated. Incoming shipment analyses also include a mandatory compatibility check with the intended receiving blend. Supplemental analyses may include density, flash point, percent halogens, percent sulfur, and percent ash. A flash point may be run if flammability potential screening indicates the DOT information on the manifest is incorrect. As long as the material is on specification and is compatible, the waste stream may be blended as described on the disposal decision.

If a variance is found in the testing parameters, additional tests may be requested by site management in order to determine the appropriate fuel blend. In-process and post-treatment analyses must verify that the resultant fuel product going to a BIF has a minimum heating value of 5000 BTU/lb and is within the limits specified by the BIF. These parameters will include heating value and may include PCBs, % halogens, heating value, % sulfur, % ash, lead and other heavy metals. Other parameters will be run as needed to meet the receiving facility's specification. Specific parameters and concentrations are identified by the user of the blended fuel and thus, in-process and post-treatment analyses will vary accordingly. Individual feedstocks with pre-treatment or in-process analyses exceeding the specified product limits may be blended with other feedstocks to produce a specification product.

C-2f(2)(d) Transformer Decommissioning

This process drains, and when required, flushes transformers which contain PCBs. The drained liquid and spent flush solvent are incinerated at an approved incinerator. The empty transformer bodies from transformers that contained greater than or equal to 500 ppm PCB oil are disposed in a TSCA approved landfill cell as a state hazardous B006 waste. Empty transformer bodies from units that contained less than 500 ppm PCB oil may be placed in any cell. Empty transformers that are received from a generator will be inspected to ensure that they are "empty".

Incoming and pre-treatment mandatory testing only includes physical description. In process supplemental testing involves analysis of the blended mixture as required by the incineration facility. Post-treatment analyses consist of physical inspection of the emptied transformer body.

C-2f(5) Landfill Disposal

A Sampling/Analysis program is an integral part of this phase of operation. The results of this program serve to evaluate compliance with site permit constraints, confirm disposal method selection, and determine safety constraints. During incoming analyses, wastes to be landfilled will be subject to the mandatory analyses of physical description, water mix, pH screen, cyanide screen, sulfide screen, flammability potential screen and radiation screen (see Figure C-5). In addition, the "suitability for landfill" testing is performed as part of the pre-acceptance process when necessary (see Section C-2b(1)). If a positive screen is obtained on an incoming waste where no cyanide was expected, another cyanide screening method may be run. If it is positive, the off spec waste will be quantitatively analyzed for total and/or amenable cyanide or the waste will be handled as a discrepancy. A similar sequence will be performed for sulfide, first screening the waste, using a second screening method if needed and performing total sulfide analysis if both screens are positive. Supplemental Analyses on incoming shipments include flash point if a positive flammability potential is determined.

For any bulk (non-soil) waste load where a sample is undergoing testing 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:

- 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.
- If the completed strength testing indicates compliance with minimum strength requirements, the waste may be disposed of in the landfill. If the results indicate that strength requirements have not been met, the waste will be removed from the landfill for further stabilization or other appropriate management.

An Additional Review Program (ARP) is used to further monitor incoming waste shipments destined for the Model City landfill. Up to 10 non-miscellaneous shipments per month will be selected by the on-site DEC monitor as requiring additional review. In addition the DEC monitors may request additional review using the sampling and analytical protocols from the ARP listed in section C-2f(5) of this permit. Any additional request will be justified by the DEC in writing. For the bulk solids, a composite will be taken as described in Section C-2c(2)(a). The sample will be of sufficient volume to allow a split sample to be supplied to the DEC. If a shipment of containers is selected, a 10% composite of each non-miscellaneous profile destined for the Model City landfill on the load may be identified for additonal review. Further compositing of similar waste streams may be allowed with DEC approval. NOTE: miscellaneous wastes, including single source PCB soils/spill clean ups, as listed in Section C-2d(1)(a) are exempt from this program.

The Additional Review Program (ARP) samples are analyzed as follows:

RCRA HAZARDOUS WASTES WITH NUMERICAL LDR STANDARDS

- Sample will be analyzed for constituents listed for each EPA code associated with the shipment for which numerical LDR standards have been promulgated. Additional analyses may be requested by site management or NYS DEC, if justified, to address areas of concern. Examples of these analyses include:

  * TCLP metals
  * PCB
  * Volatiles
  * Semivolatiles

- Wastes that are to be stabilized on-site will have their compliance with LDR standards verified according to the frequency specified in the CWM procedure on demonstrating that stabilized residuals meet land ban standards. The post-treatment analysis procedure specifically addresses processes, frequency of analyses and corrective action, and are therefore, exempt from the ARP.

- Residues including ash from a commercial hazardous waste incinerator will be subject to reduced analytical testing. Loads destined for stabilization will be managed under site SDP for testing stabilized residuals. Loads not requiring stabilization will be tested for LDR TCLP metals and volatiles (e.g., Method 8240) with routine site detection limits. Other organics of concern will be analyzed for if requested by NYSDEC.

- Due to the extensive listing of constituents, F039 ARP samples will be tested for routine volatiles, semivolatiles and the characteristic TCLP Metals.

NON-HAZARDOUS WASTE AND WASTE WITHOUT LDR STANDARDS

- TCLP metals: lead, cadmium and chromium - these are very frequently found industrial metals and a broad random screen is justified. The other five regulated TCLP metals may be requested by site management or NYSDEC if there is a concern about their presence based on information on the waste profile.

- PCBs - will be tested on oil bearing waste as determined by a review of the waste profile.

- 2% Organic Limit (OL) – a VOC analysis using EPA SW-846 Method 8260 or other Department approved organic analysis methods, shall be used to determine the concentration of the organic constituents and confirm compliance with the 2% Organic Limit. Organic analysis to verify < 2 % is not required if DEC has authorized a higher percentage on a case-by-case basis as prescribed in condition E.1.c.i in Exhibit F of Schedule 1 of Module I of the Sitewide Part 373 Permit.

If unexpected results are obtained during the ARP testing, the generator will be contacted and we will attempt to resolve the issues. Questions will be raised as to the appropriate hazard code classification and application of LDR standards. An update of the profile and the disposal decision may be considered. If the analysis indicates that LDR standards have been exceeded for wastes that are either stabilized off-site or certified as naturally meeting the treatment standards, it shall be reported to the NYSDEC.

C-2f(6) Stabilization

a. Stabilization of Land Disposal Restricted Waste

In this process, certain Land Disposal Restricted (LDR) waste are treated to meet the appropriate LDR treatment standard or prohibition. For the purpose of this discussion, treatment will include, at a minimum, stabilization of waste, and in some instances, will include a pre-treatment step prior to stabilization. The pre-treatment may include using other reagents such as oxidizing or reducing agents to chemically convert constituents into a form more suitable for stabilization.

The pre-treatment analyses for LDR waste to be treated to meet a particular treatment standard or prohibition consists of the "Mandatory Analyses" for landfill (see Section C-2f(5)) and a bench scale development of a recipe suitable for achievement of these standards. This recipe will be analyzed using the appropriate test method (e.g. TCLP., etc.) to demonstrate that the LDR waste can be treated to meet the appropriate standard of prohibition and to establish the treatment guideline to be used on the waste. In addition, compression strength testing may be performed to demonstrate the strength of the treated waste. The treatment guidelines, established during the procedure, demonstrated to achieve the appropriate treatment standard, will be used to treat that LDR waste. In lieu of bench scale recipe

development a previously developed and established recipe may be identified for use (e.g., recipe utilized on a similar waste).

A post-treatment analysis, which includes TCLP, is conducted to assure that the process continues to be effective in meeting the treatment standards. The analysis will be performed on retained material in interim storage in containers such as roll-off boxes (see Condition E.1.f in Exhibit F of Schedule 1 of Module I). The test frequency will be that specified in the CWM procedure on demonstrating that stabilized residuals meet land ban standards. The post-treatment analysis procedure specifically addresses processes, frequency of analyses and corrective action.

Additional "Supplemental Analyses" may be requested by the Laboratory Manager to further identify a waste or confirm that the treatment standards have been met in treated waste.

Stabilization operations may involve combining multiple waste streams or shipments, i.e., to optimize treatment volume. Wastes to be combined will be selected based on their chemical matrices, EPA codes and recipe requirements. For waste tracking purposes, the treatment residue will carry all waste stream identities (profile numbers and shipment identities, i.e., work order number, manifest number, etc.). For batches with multiple EPA codes, the combined most restrictive standards will apply to the treated residue.

b. Stabilization of Other Wastes

In this operation, portland cement and/or other stabilization reagents are mixed with Non-Land Disposal Restricted waste to treat the free liquids and/or increase compression strength of the waste.

The pre-treatment analyses for these wastes include the "Mandatory Analyses" for landfill (see Section C-2f(5) and the development of a suitable recipe for increasing the compression strength. Compression strength testing may be used in order to demonstrate that the recipe works. The recipe established during this procedure will be used to treat that waste. In lieu of bench scale recipe development a previously developed and established recipe may be identified for use (e.g., recipe utilized on a similar waste).

A post-treatment evaluation ensures that the material appears well mixed, that no free liquids are present.

On occasion a non-LDR waste shipment of an ordinarily solid material may arrive containing a minimal amount of free liquids. These types of "off-spec" solid waste shipments may be stabilized or they may be rejected. If the "off-spec" shipment is to be stabilized, the stabilization reagent will be blended into the waste material until a homogeneous mixture is observed.

C-2g Quality Assurance/Quality Control

C-2g(1) Introduction

The following Quality Assurance/Quality Control (QA/QC) information for the CWM Model City Facility is being provided as required by 40 CFR 270.30(e) and 6NYCRR371, Appendix 19, 20 and 21 and in accordance with the following EPA guidance documents.

o Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Section 10, SW-846, Third Edition, November 1986, (or most recent EPA promulgated and approved edition). Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, currently approved version.

QA/QC procedures are applicable to both sampling procedures and analytical techniques. QA/QC information for these two elements of the waste analysis program has been included in this Waste Analysis Plan (WAP) as recommended in the waste analysis plan guide manual.

This section does not provide specific performance standards or quality control procedures for individual sampling and analysis techniques. Such specifics are defined on a corporate-wide basis for all Chemical Waste Management, Inc. (CWM) facilities. The specific performance standards are dynamic and are revised as warranted to reflect technological advances in sampling and analytical techniques. CWM QA/QC policies are found in the corporate Quality Assurance and Control Policies, portions of which have been extracted and included in the following sections. The performance standards will be available for review at the facility.

C-2g(2) Sampling Program

Sampling procedures for specific facility operations are described in Section C-2c of the WAP. The selection of the sample collection device depends on the type of sample, the sample container, and the sampling location. In general, the methodologies used for specific materials correspond to those referenced in 6NYCRR Part 371, Appendix 19. The selection and use of the sampling device is supervised by a person thoroughly familiar with both the sampling and analytical requirements. The type of device to be used in the various sampling situations is specified in Section C-2c(2), Specific Methods and Equipment.

Sampling equipment is constructed of non-reactive materials such as glass, PVC plastic, aluminum, or stainless steel. Care is taken in the selection of the sampler to prevent contamination of the sample and to ensure compatibility of materials. For example, non-fluorocarbon plastic bottles are not used to sample organic wastes and glass bottles are not used to collect hydrofluoric acid wastes. The specific material of construction to be used for each sampling activity is specified in Section C-2c(2).

Sampling is performed for each waste stream in a manner that ensures the samples are as representative as possible under the conditions of the sampling event. Full vertical sections are drawn from tanks and containers, where appropriate and where access allows, as described in Section C-2c(2)(a).

With a few exceptions, all bulk and containerized waste loads will be sampled (see Section C-2d(1)(a). Container samples that are related to one generator and one process may be composited prior to analysis, provided that individual samples are similar in physical appearance. Precautions are taken to minimize loss of volatiles.

All samples must be appropriately labelled. The following information must be included on the label:

Generator Profile Receipt # # containers container type	or	Sample Location (process or site samples)
Date: Time: Sampler:		

An example of a suitable label is shown below:

GENERATOR:_____

PROFILE #:_____ W.O. #_____

CONTAINERS:_____ TYPE CONT._____

COMPOSITE SAMPLE: Y OR N LOT #_____

DATE:_____ TIME:_____

SAMPLER:_____

COMMENTS:_____

No field notebook is used in sampling hazardous waste shipments or process samples. Anything unusual noted during sampling would be noted in the comments area of the label. No chain of custody form is employed within the plant. The samples are turned directly into the lab. A chain-of-custody will accompany any sample being sent to a contract lab, see example on following page. Sampling information is entered into the facilities operating record.

Hazardous waste samples are generally not amenable to preservation. For samples collected at CWM for organic analysis, the preservation and holding times will be in accordance with Chapter 4 of SW-846. Samples for VOC analysis to confirm LDR or 2% Organic Limit compliance will be analyzed within 14 days. For treated wastewater samples from the AWT plant, metals aliquots are preserved by the addition of HNO_3 to pH <2 and cyanide aliquot is preserved by the addition of NaOH to pH >12 . After TCLP extraction for leachable metals an aliquot for metals is fixed by adding HNO_3 to pH <2. Other hazardous waste samples (i.e., preacceptance, incoming, and process) are not preserved. Adding a preservative such as acid can drastically change the matrix (e.g., metals may precipitate, gel, fume, etc.).

CWM CHEMICAL SERVICE, INC.
1550 Balmer Road
Model City, New York 14107

TYPICAL CHAIN OF CUSTODY FORM NO._____

SAMPLER
SIGNATURES(S): .._____

SAMPLE POINT I.D. AND DESCRIPTION	DATE SAMPLED TIME	NO. OF BOTTLES	ANALYSIS REQUIRED

RELINQUISHED BY: (SIGNATURE) DATE REC'D BY: (SIGNATURE) DATE

RECEIVED AT LAB BY:_____

METHOD OF
SHIPMENT: ._____

CONDITION OF SAMPLES REC'D:____ OK:____ NOT OK (EXPLAIN) _____

NOTE: APPARENT GAPS OR BREAKS IN THE "INCLUSIVE DATES" SECTION OF THE "CHAIN OF POSSESSION" SECTION ARE COVERED BY THE SITE RECEIVING/SHIPPING LOGS.

C-2g(3) Analytical Program

All analyses performed for determinations under 6NYCRR Parts 370-374 and 376 will be in accordance with 6NYCRR 370.1(f).

C-2g(4) Reserved

C-2g(5) Contract Laboratories

Contract laboratories will only be those which meet the requirements in 6NYCRR 370.1(f).

C-2g(6) Conclusion

The aforementioned sampling and analytical procedures help ensure that the data obtained are precise, accurate, and representative of the waste stream being sampled. The results of these analyses are used by the Site Management to decide whether or not to accept a particular waste and, upon acceptance, to determine the appropriate method of treatment. Proper analytical procedures are particularly important for waste treatment units. They are also important to ensure that restricted wastes are managed properly and that incompatible wastes are not inadvertently combined. For these reasons, the quality of the data and the thoroughness and care with which the sampling and analyses are performed and reported provide an important basis for day-to-day operational decisions.

C-2h Analytical Procedures

The following analytical procedures are designed to identify or screen waste. They are used by CWM, based upon its operating experience, as rapid but effective means for establishing key decision parameters pertinent to proper waste management. Analytical procedures, not listed below, may be added as necessary and will be taken from the references listed at the end of this section or other recognized sources, e.g., Association of Official Analytical Chemists (AOAC), or will be developed by CWM and meet CWM performance standards.

All analytical procedures are subject, at a minimum, to the QA/QC procedures described in Section C-2g.
It should be noted that the information presented in this appendix is generic in character. Therefore, certain test methods are discussed which may pertain to treatment or disposal processes that are excluded from the facility for which the foregoing waste analysis plan is presented.

C-2h(1) Unique Analytical Procedures

The following CWM-developed analytical procedures have been found by CWM to provide important information pertinent to certain processes. They have been developed by CWM, based upon its operating experience, as rapid but effective means for establishing key decision parameters pertinent to proper waste management. In some cases, these tests provide information not available from standard analytical procedures found in Section C-2h(2), which follows. The methods described below are based on ASTM standards or standard procedures recognized by EPA or are based on procedures and protocol formulated by CWM and meet CWM performance standards. These tests provide important operational information.

Ash - The ash content of a sample is determined by placing the sample in a muffle furnace for 2 to 4 hours.

Percent Acidity - One-tenth of the equivalent weight of the acid species to be quantified is weighted out and diluted with DI water. The sample is titrated using a pH meter and NaOH to a pH of 8.3.

Percent Alkalinity - One tenth of the equivalent weight of the basic species to be quantified is weighed out and diluted with DI water. The sample is titrated with HCl and a pH meter to a pH of 4.5.

Bench-Scale Treatment Evaluation - Samples of wastes are combined with samples of other wastes or reagents at predetermined ratios. Further testing may be required in order to confirm that the desired reaction has occurred.

Dissolved Sulfides - An aliquot of waste is mixed with distilled water. The solution/slurry is filtered through filter paper and the resultant filtrate is then analyzed for sulfide. Antimony potassium tartrate and hydrochloric acid are added and the color produced is determined to be a positive screen or is visually compared with standards.

Cyanide Screen by Cyantesmo Paper – A portion of waste is slurried with deionized water and then acidified with sulfuric acid. The sample is capped with the cyantesmo paper just above the solution. The presence of cyanide is indicated by a color change in the cyantesmo paper.

Cyanide Screen by Prussian Blue – A portion of waste is slurried with deionized water. The pH is adjusted to 12-13 with NaOH, then solutions of ferrous sulfate and ferric chloride are added. Sulfuric acid is added and the solution is observed for color. The presence of cyanide is indicated by a blue-green color.

Free Cyanide Screen/Quantification (Aqueous Waste) - NaOH is added to a portion of sampler to bring the pH to about 14. Then p-dimethylaminobenzal-rhodanine indicator solution is added to the sample and the sample is then titrated with a $AgNO_3$ solution to a salmon colored endpoint (as if for a total cyanide determination).

Free Soluble Sulfide Screen/Quantification (Aqueous Waste) - (1) An aliquot of sample is analyzed for free soluble sulfide. The level of sulfide is determined using an iodometric method which includes the addition of a measured portion of a standard iodine solution and back titration with sodium thiosulfate.

Heating Value - The heating value (BTU/lb) is determined in the isoperibol/dynamic mode using an oxygen bomb calorimeter. The combusted sample may then be analyzed for anions.

Load Bearing Strength by Pocket Penetrometer - The load bearing strength of the stabilized waste material is determined by pushing a pocket penetrometer or similar device into the sample. It is grasped by the handle and pushed into the sample at a constant rate up to the calibration mark. The load bearing strength is read from the low side of the indicator ring. This process is repeated two more times and the average of the three results is recorded in tons/square foot.

Microwave-aided Digestion - A portion of sample is weighed into an appropriate microwave digestion vessel and digested using an acid or acid mixture. The vessel is heated in a microwave oven. After cooling, the contents are diluted to volume, filtered and analyzed by appropriate methods.

Peroxide Screen - Peroxide test strips are used to determine the presence of organic peroxides or other oxygen donors (oxidizers) in solvent and aqueous wastes.

Phosphate screen - The phosphate level is monitored to ensure phosphate is present to prevent bridging in the carbon beds.

Chromate screen - the presence of hexavalent chromium (Cr^{+6}) and its concentration may be determined using accepted methods.

Ferrous screen - the presence of ferrous iron (Fe^{+2}) may be determined using a ferrous test kit. Ferrous iron is frequently used as a reducing agent in the aqueous treatment plant.

Phenol screen - the phenol level in the feed and effluent of the carbon beds may be determined using accepted methods.

Quick Leach Extraction - An amount of sample is mixed with the appropriate extraction fluid and stirred for a designated time period. After filtration, the pH and/or metals content are determined using the appropriate methods.

Radioactivity Screen - A sample of the material is passed by a geiger counter or survey meter. Radioactivity levels above background are noted, recorded and investigated.

Reagent Compatibility Screen - Equal portions of stabilization reagent and waste are mixed. The generation of any unacceptable or adverse reactions are evaluated and noted.

Percent Solubility is determined by dissolving a weighed sample aliquot in water, filtering the solution through a tarred filter paper, drying the filtered solids, and then re-weighing the dried sample and filter paper. The percent solubility is determined by subtracting the filter paper weight from the dried sample, then determining the percent sample remaining. Percent solubility equals 100 minus the percent sample remaining.

Solvent Screen - Uses standard analytical procedures tailored to cover a range of organic compound types for quick screening of common industrial organics.

Stabilization Evaluation - The waste to be stabilized is mixed with at least one combination of cement kiln dust and/or other suitable reagent(s). Heat change (as evidence of curing) which occurs is recorded as the waste/reagent(s) mixture is "setting". The occurrence of any violent reactions of reagent(s) to waste sample is noted.

2% organic Limit - VOC analysis using EPA SW-846 Method 8260 for organic priority pollutants and solvent constituents taken from the F001 through F005 solvent listings will be employed as needed.

C-2h(2) Standard Analytical Procedures

See Appendix A for a list of Standard Analytical Procedures.

SECTION C-2i
FIGURES

Figure C-1 Waste Profile

WASTE MANAGEMENT

EZ Profile™

Requested Facility: _____ ❑ Unsure Profile Number: _____

❑ Check if there are multiple generator locations. Attach locations. ❑ Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: _____
2. Site Address: _____
   (City, State, ZIP) _____
3. County: _____
4. Contact Name: _____
5. Email: _____
6. Phone: _____ 7. Fax: _____
8. Generator EPA ID: _____ ❑ N/A
9. State ID: _____ ❑ N/A

B. BILLING INFORMATION ❑ SAME AS GENERATOR

1. Billing Name: _____
2. Billing Address _____
   (City, State, ZIP) _____
3. Contact Name: _____
4. Email: _____
5. Phone: _____ 6. Fax: _____
7. WM Hauled? ❑ Yes ❑ No
8. P.O. Number: _____

C. MATERIAL INFORMATION

1. Common Name: _____
   Describe Process Generating Material: ❑ See Attached

2. Material Composition and Contaminants: ❑ See Attached

1.	
2.	
3.	
4.	
	≥100%

3. State Waste Codes: _____ ❑ N/A
4. Color: _____
5. Physical State at 70°F: ❑ Solid ❑ Liquid ❑ Other: _____
6. Free Liquid Range Percentage: _____ to _____ ❑ N/A (Solid)
7. pH: _____ to _____ ❑ N/A (Solid)
8. Strong Odor: ❑ Yes ❑ No Describe: _____
9. Flash Point: ❑ <140°F ❑ 140°–199°F ❑ ≥200° ❑ N/A (Solid)

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? ❑ Yes* ❑ No
   Code: _____
2. State Hazardous Waste? ❑ Yes ❑ No
   Code: _____
3. Excluded waste under 40 CFR 261.4 (a) or (b)? ❑ Yes* ❑ No
4. Contains Underlying Hazardous Constituents? ❑ Yes* ❑ No
5. Contains benzene **and** subject to Benzene NESHAP? ❑ Yes* ❑ No
6. Facility remediation subject to 40 CFR 63 GGGGG? ❑ Yes* ❑ No
7. CERCLA or State-mandated clean-up? ❑ Yes* ❑ No
8. NRC or State-regulated radioactive or NORM waste? ❑ Yes* ❑ No

***If Yes, see Addendum (page 2) for additional questions and space.**

9. Contains PCBs? → If Yes, answer a, b and c. ❑ Yes ❑ No
   a. Regulated by 40 CFR 761? ❑ Yes ❑ No
   b. Remediation under 40 CFR 761.61 (a)? ❑ Yes ❑ No
   c. Were PCB imported into the US? ❑ Yes ❑ No
10. Regulated and/or Untreated Medical/Infectious Waste? ❑ Yes ❑ No
11. Contains Asbestos? ❑ Yes: Friable ❑ Yes: Non-Friable ❑ No

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached ❑ Yes
   Please identify applicable samples and/or lab reports:
2. Other information attached (such as MSDS)? ❑ Yes

F. SHIPPING AND DOT INFORMATION

1. ❑ One-Time Event ❑ Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: _____
   ❑ Tons ❑ Yards ❑ Drums ❑ Gallons ❑ Other: _____
3. Container Type and Size: _____
4. USDOT Proper Shipping Name: ❑ N/A

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.

Name (Print): _____ Date _____

Title: _____

Company: _____

Certification Signature

WASTE MANAGEMENT

EZ Profile™ Addendum

Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1): If more space is needed, please attach additional pages.

5.	
6.	
7.	
8.	
9.	
10.	
	≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste
   a. Please list all USEPA listed and characteristic waste code numbers:
   b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? ❑ Yes ❑ No
   c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. ❑ Yes ❑ No
   d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083 and 265.1084)? ❑ Yes ❑ No
      → If Yes, please select one of the following:
      ❑ Waste has been determined to be LDR exempt [265.1083(c)(4) and 265.1084(c)(4)] based on the fact that it meets all applicable organic treatment standards (including UHCs for D-coded characteristic wastes) or a Specified Technology has been utilized.
      ❑ Waste does not qualify for a LDR exemption, but the average VOC at the point of origination is <500 ppmw and this determination was based on analytical testing (upload copy of analysis) or generator knowledge.
2. State Hazardous Waste → Please list all state waste codes: _____
3. Excluded Waste → Please select which of the following categories apply to your material:
   ❑ Delisted Hazardous Waste ❑ Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
   ❑ Treated Hazardous Waste Debris ❑ Treated Characteristic Hazardous Waste → If checked, complete question 4.
4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:
5. Benzene NESHAP → Please include benzene concentration and percent water/moisture in chemical composition
   a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue.
   b. What is your facility's current total annual benzene quantity in Megagrams? ❑ <1 Mg ❑ 1–9.99 Mg ❑ ≥10 Mg
   c. Is this waste soil from remediation at a closed facility? ❑ Yes ❑ No
   d. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? ❑ Yes ❑ No
   e. Is material exempt from controls in accordance with 40 CFR 61.342? ❑ Yes ❑ No
      → If yes, specify exemption: _____
   f. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? ❑ Yes ❑ No
6. 40 CFR 63 GGGGG → Does the material contain <500 ppw VOHAPs at the point of determination? ❑ Yes ❑ No
7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation to assist others in the evaluation for proper disposal.
8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____

WASTE MANAGEMENT

Additional Profile Information

Profile Number: _____

C. MATERIAL INFORMATION

Material Composition and Contaminants (Continued from page 2): If more space is needed, please attach additional pages.

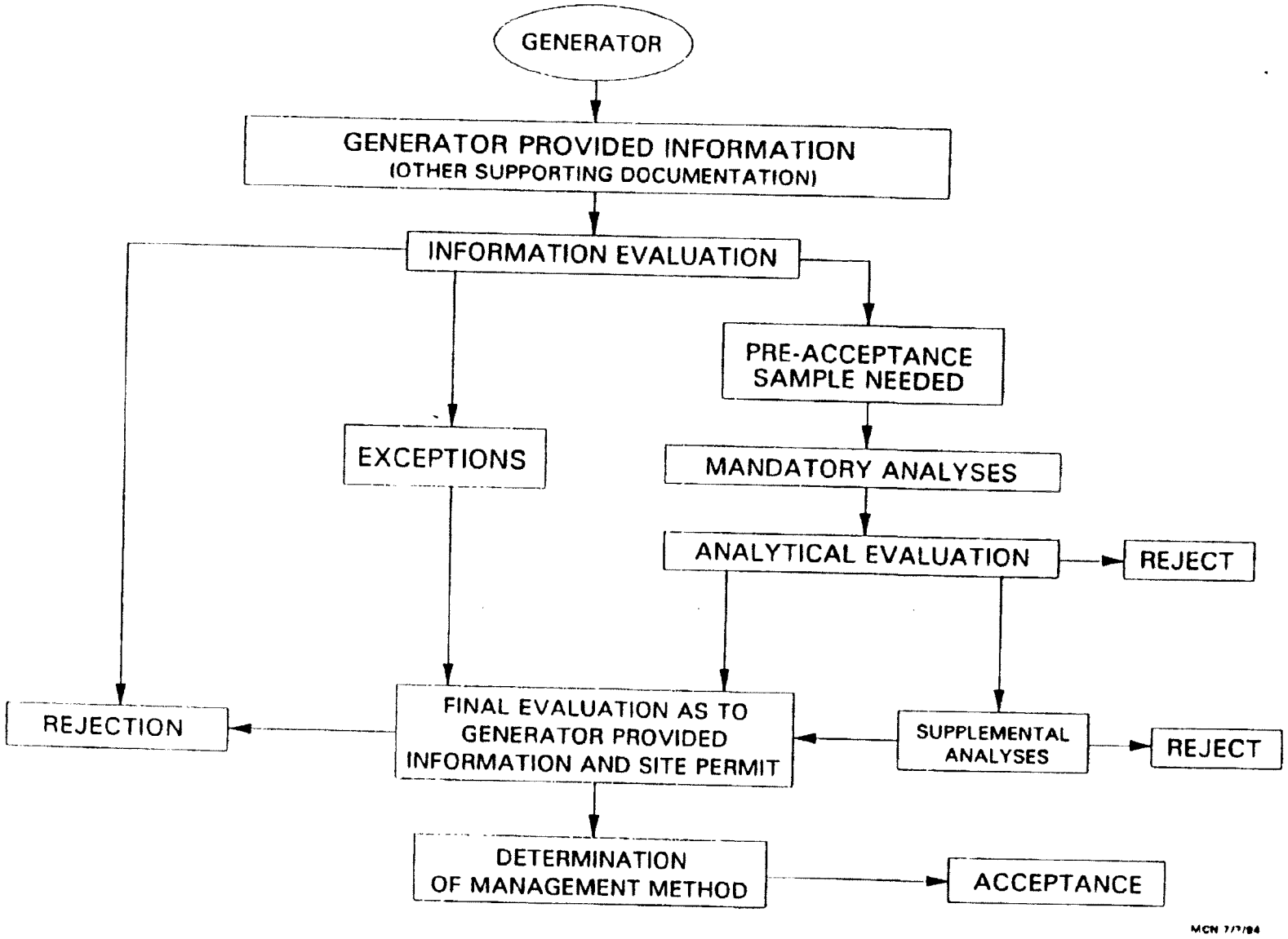
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
	≥100%

D. REGULATORY INFORMATION

1. EPA Hazardous Waste

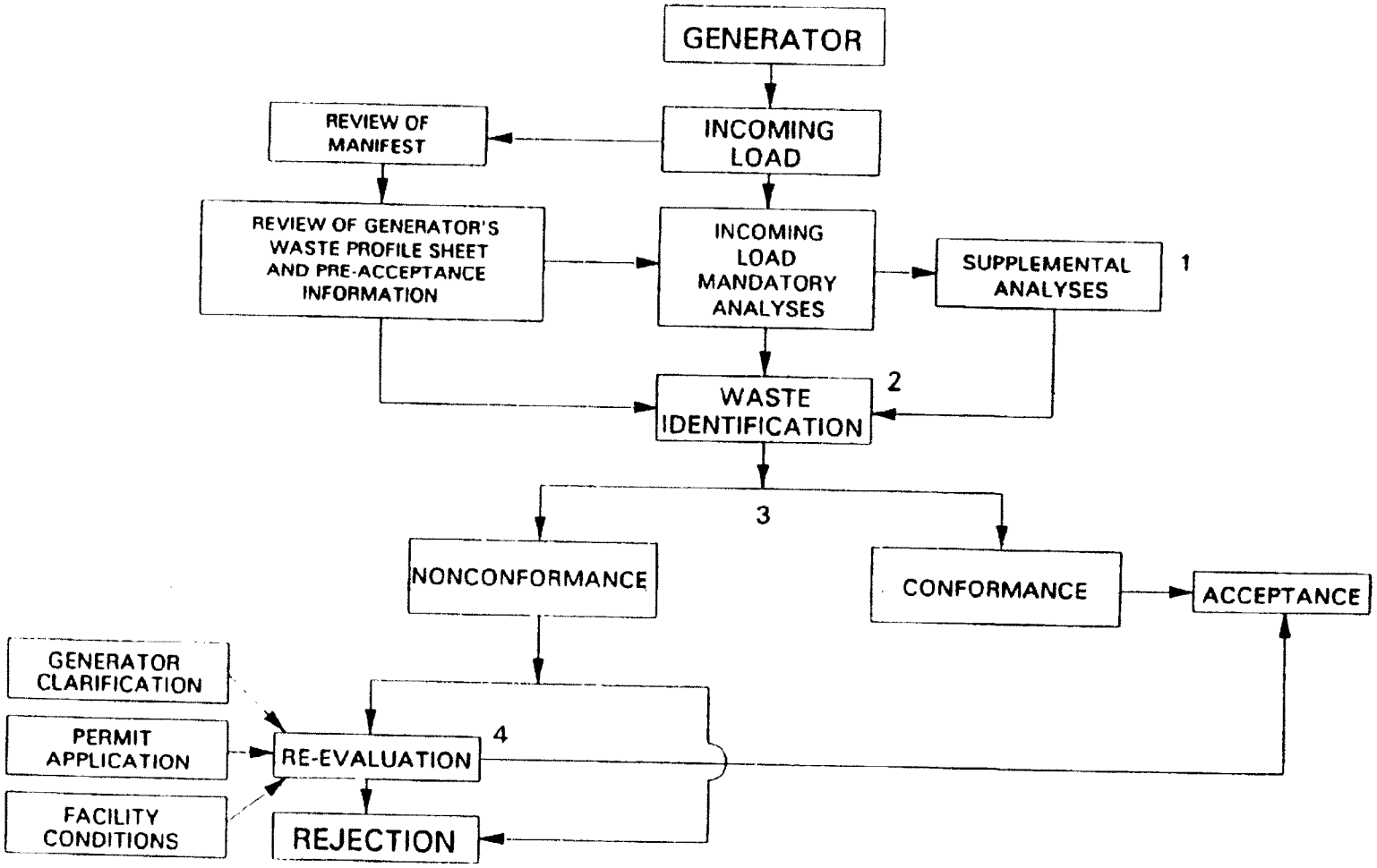
a. Please list all USEPA listed and characteristic waste code numbers (Continued from page 2):

FIGURE C-2
OVERVIEW OF THE PRE-ACCEPTANCE PROCESS



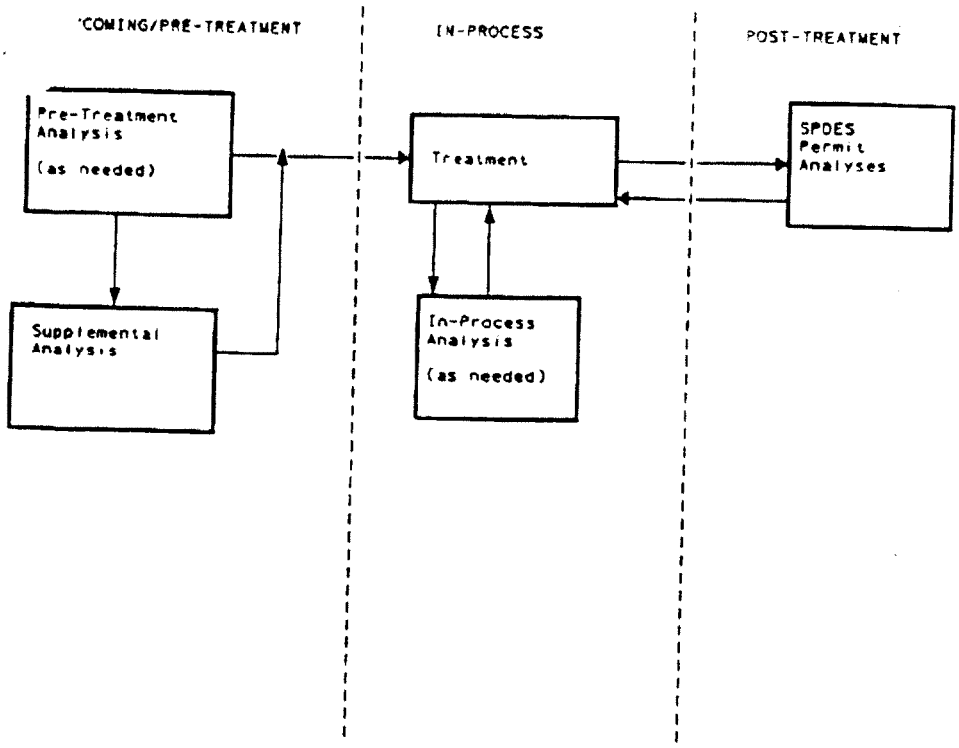
Modified: 6/09

FIGURE C-3
OVERVIEW OF THE INCOMING LOAD IDENTIFICATION PROCESS



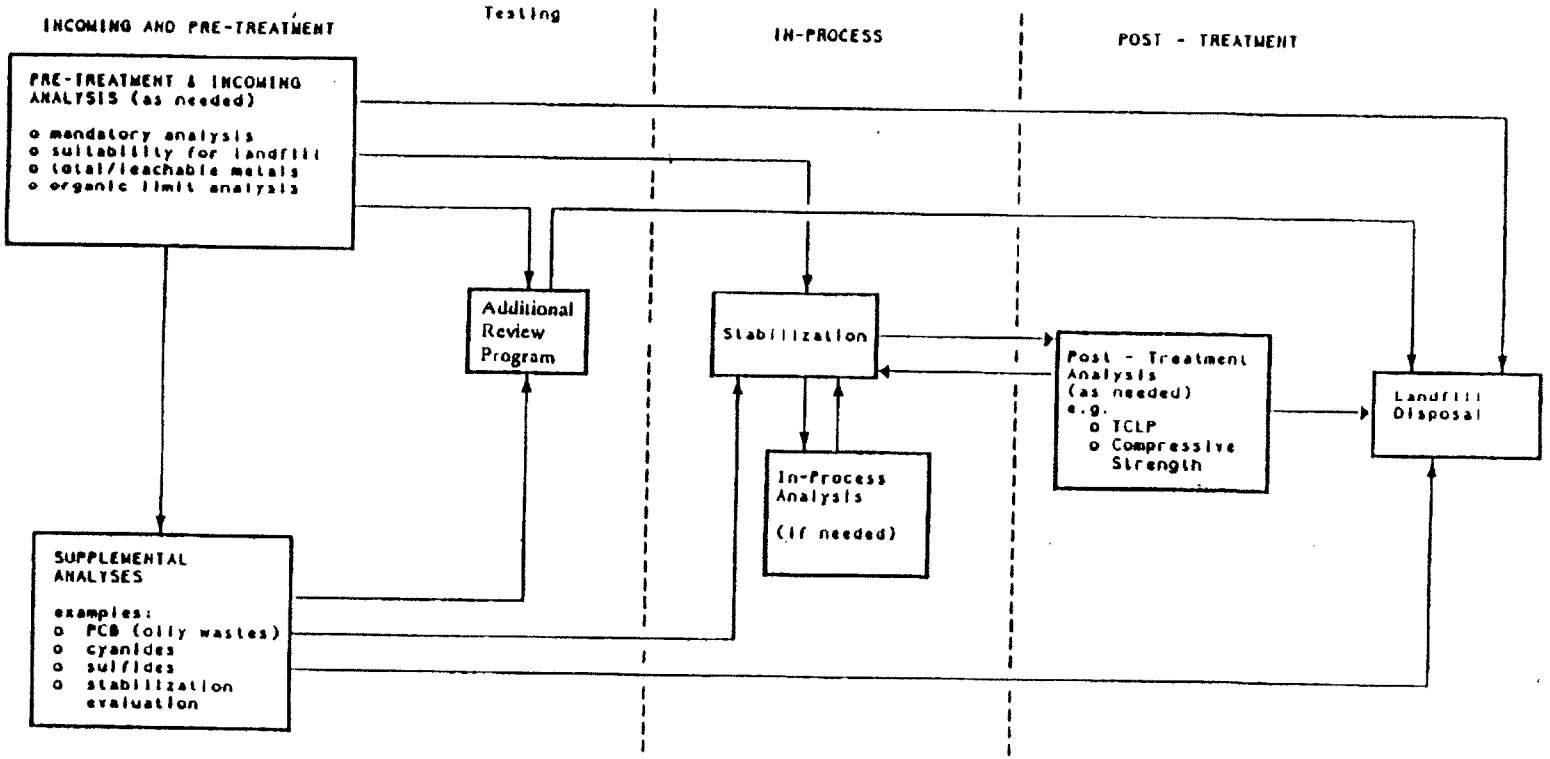
Modified: 6/09

Figure C-4
Aqueous Waste Treatment



Modified: 6/09

Figure C-5
LANDFILL AND STABILIZATION PROCESS



Modified: 6/09

APPENDIX A

STANDARD ANALYTICAL PROCEDURES

Standard Analytical Procedures

PARAMETER/METHOD	SW-846[1]	EPA[2]	Std Meth[3]	ASTM[4]
Method Selection	Chap 2	Table 1B, 1C		
Extraction Procedure (EP) Toxicity Test	1310B			
Toxicity Chracteristic Leaching Procedure (TCLP)	1311			
Sample Digestion Methods:				
Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP	3005A			
Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP	3010A			
Microwave Assisted Digestion of Aqueous Samples and Extracts	3015A			
Acid Digestions of Aqueous Samples and Extracts for Total Metals for Analysis by GFAA	3020A			
Acid Digestion of Oils for Metals Analysis by Atomic Absorption or ICP	3031			
Dissolution Procedure for Oils, Greases or Waxes	3040A			
Acid Digestion of Sediments, Sludges and Soils	3050B			
Microwave Assisted Digestion of Siliceous and Organically Based Matrices	3052			
Determination of Inorganic Analytes:				
Inductively Coupled Plasma-Atomic Emission Spectrometry	6010C	200.7 rev 4.4	3120B	
Flame Atomic Absorption Spectrophotometry	7000B		3111B,C,D,E	
Graphite Furnace Atomic Absorption Spectrophotometry	7010	200.9 rev 2.2	3113B	
Arsenic (Atomic Absorption Gaseous Hydride)	7061A		3114B	
Antimony and Arsenic (Atomic Absorption, Borohydride Reduction)	7062			
Chromium Hexavalent (Coprecipitation)	7195			
Chromium Hexavalent (Colorimetric)	7196A		3500-Cr B,C	
Chromium Hexavalent (Chelation/Extraction)	7197			
Determination of Hexavalent Chromium is Drinking Water, Groundwater and Industrial Wastewater Effluent by Ion Chromatograph	7199	218.6 rev 3.3		
Mercury in Liquid Waste (ManualCold-Vapor Technique)	7470A	245.1 rev 3.0	3112B	
Mercury in Solid Waste (ManualCold-Vapor Technique)	7471B			
Selenium (Atomic Absorption Gaseous Hydride)	7741A		3114B	
Selenium (Atomic Absorption, Borohydride Reduction)	7742			
Organic Extractions and Preparations:				
Organic Extraction and Sample Preparation	3500C			
Separatory Funnel Liquid-Liquid Extraction	3510C			
Soxhlet Extraction	3540C			
Pressurized Fluid Extraction (PFE)	3545A			
Ultrasonic Extraction	3550C			
Waste Dilution	3580A			
Waste Dilution for Volatile Organics	3585			
Sample Preparation for Volatile Organic Compounds	5000			
Volatile Organic Compounds in Soils and Other Solid Matrices Using Equilibrium Headspace Analysis	5021			
Purge-and-trap for Aqueous Samples	5030C			
Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples	5035A			
Cleanup	3600C			
Florisil Cleanup	3620C			
Sulfur Cleanup	3660B			
Sulfuric Acid/Permanganate Cleanup	3665A			

Standard Analytical Procedures

PARAMETER/METHOD	SW-846[1]	EPA[2]	Std Meth[3]	ASTM[4]
Organic Analytical Methods				
Determinative Chromatographic Separations	8000C			
Pesticides	8081B	608	6630B,C	
Polychlorinated Biphenyls	8082A	608	6431B	
Volatile Organic Compounds	8260C	624	6200 B &C	
		1624B		
Semivolatile Organic Compounds	8270D	625	6410B	
		1625B		
Heat of Combustion, Bomb Calorimeter Method				D240
				D2015
Chlorine (Halogen) Content	5050			D808
				D2361
				D4327
Sulfur Content				D129
				D3177
				D4327
Screening Methods				
Bulk Density & Apparent Specific Gravity				D5057
Commingled Waste Compatibility				D5058 Method A
Flammability Potential/Ignitability Screen	1030			D4982
Oxidizer Screen				D4981
Paint Filter Liquids Test	9095B			
Physical Description				D4979
pH Screen	9041A			
Polymerization Potential				D5058 Method B
Sulfide Screen by Lead Acetate Paper				D4978 Method A
Water Compatibility Screen				D5058 Method C
Screening of Waste for Radioactivity				D5928
Miscellaneous Analytical Methods				
Acidity			2310B	D1067
Alkalinity			2320B	D1067
Ammonia		350.3	4500-NH_3	
Ash Content				D482
				D2974
				D3174
Chemical Oxygen Demand (COD)			5220D	
Chlorine	9075			
	9076			
	9077			
Chlorine, Residual			4500-Cl G	
Compaction Test	1310A			
Conductivity/Specific Conductance	9050A	120.1	2510	D1125
Corrosivity Toward Steel	1110A			
Dermal Corrosion	1120			
Total and Amenable Cyanide	9010C	335.1	4500-CN	
	9012B			
	9013			
	9014			
Free Cyanide			4500-CN	
Flash Point, Cleveland Open Cup				D92

Standard Analytical Procedures

PARAMETER/METHOD	SW-846[1]	EPA[2]	Std Meth[3]	ASTM[4]
Miscellaneous Analytical Methods				
Flash Point, Pensky-Martens Closed-Cup	1010A			D93
Flash Point, Setaflash Closed-Cup	1020B			D3278
Flash Point, Tag Closed-Cup				D56
Fluoride			4500-F^-C	
Oil & Grease		1664A	5520B	
Oxidation/Reduction (Redox) Potential (ORP)				D1498
pH Measurement	9040C	150.1	4500H	
	9041A			E70
	9045D			
Pour Point of Petroleum Oils				D97
Radiation	9310			
	9315			
	9320			
Soil Identification				D2487
				D2488
Solids, Fixed and Volatile (500 C)		160.4	2540E,G	
Solids, Total Dissolved Solids (180 C)		160.1	2540C	
Total Solids (103/105 C)		160.3	2540B	D2974
Total Suspended Solids (103/105 C)		160.2	2540D	
Specific Gravity			2710F	D70
				D891
				D1217
				D1429
Sulfide	9030B		4500-S^{-2}	
	9031			
	9034			
	9215			
Unconsolidated, Undrained Compressive (UUC) Strength				D2850
of Cohesive Soils in Triaxial Compression				

References

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Third Edition, U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC September 1986, as amended by Final Updates I, II, III, IIIA, IIIB and IV or most recent edition or revision.
2. Tables 1B, 1C and 1D of EPA Approved Test Procedures listed in 40 CFR 136 (March 12,2007 or most recent). Full text of 600 series methods included in Appendix A. Full text of metals methods in Methods for the Determination of Metals in Environmental Samples, Supplement 1, National Exposure Risk Laboratory-Cincinnati (NERL-CI) EPA/600/R-94/111,May 1994. Full text of inorganic methods in Methods for the Determination of Inorganics in Environmental Samples, National Exposure Risk Laboratory-Cincinnati (NERL-CI) EPA/600/R-93/100,August 1993..
3. Standard Methods for the Examination of Water and Wastewater, 20th Edition (or on-line) Americal Public Health Association (APHA), American Water Works Association, Water Environment Federation, 2000 or more recent.
4. Annual Book of ASTM Standards, American Society for Testing and Materials, 1993 or more recent edition or revision.