New York State Department of Environmental Conservation
Division of Environmental Permits, Region 9
270 Michigan Avenue, Buffalo, New York 14203-2915
Phone: (716) 851-7165 · **Fax:** (716) 851-7168
Website: www.dec.ny.gov

Joe Martens
Commissioner

July 5, 2012

Ms. Dawn Varacchi-Ives
GE Energy – Power & Water
621 Main Street
Fitchburg, Massachusetts 01420

Dear Ms. Varacchi-Ives:

PERMIT RENEWAL
GENERAL ELECTRIC INTERNATIONAL, INC.
BUFFALO SERVICE CENTER
DEC ID 9-1464-00044/00001

Enclosed is your permit which was issued in accordance with applicable provisions of the Environmental Conservation Law. The permit is valid for only that project, activity or operation expressly authorized.

The DEC permit number and Program ID number, if applicable, should be retained for your records and should be referenced on all future correspondence and applications related to the permit. If modifications are desired after permit issuance, you must submit the proposed revisions and receive written approval from the Permit Administrator prior to initiating any change. If the Department determines that the modification represents a material change in the scope of the authorized project, activity, operation or permit conditions, you will be required to submit a new application for permit.

Please note the expiration date of the permit. Applications for permit renewal should be made well in advance of the expiration date (minimum of 30 days) and submitted to the Regional Permit Administrator at the above address. For SPDES, Solid Waste and Hazardous Waste Permits, renewals must be made at least 180 days prior to the expiration date.

PLEASE REVIEW ALL PERMIT CONDITIONS CAREFULLY. IN PARTICULAR, IDENTIFY YOUR INITIAL RESPONSIBILITIES UNDER THIS PERMIT IN ORDER TO ASSURE TIMELY ACTION IF REQUIRED. SINCE FAILURE TO COMPLY PRECISELY WITH PERMIT CONDITIONS MAY BE TREATED AS A VIOLATION OF THE ENVIRONMENTAL CONSERVATION LAW, **YOU ARE REQUESTED TO PROVIDE A COPY OF THE PERMIT TO THE PROJECT CONTRACTOR, FACILITY OPERATOR, AND OTHER PERSONS DIRECTLY RESPONSIBLE FOR PERMIT IMPLEMENTATION (IF ANY).**

If you have any questions, please contact this office at the above address.

Respectfully,
David S. Denk
Regional Permit Administrator

DSD:dcm

Enclosure

ecc: Mr. Dennis Weiss, NYSDEC, R9 Division of Environmental Remediation; Attn: Ms. Kathleen Emery
Ms. Jess LaClair, NYSDEC Division of Environmental Remediation, Albany
Mr. Andrew Park, USEPA, Region 2, RCRA Programs Branch
Mr. Thomas Robinson, General Electric, Buffalo Service Center
Ms. Karen Peppin, URS Corporation

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
GENERAL ELECTRIC INTERNATIONAL INC

4200 WILDWOOD PKWY
ATLANTA, GA 30339

Facility:
GE INTERNATIONAL BUFFALO SERVICE CENTER
175 MILENS RD
TONAWANDA, NY 14150

Facility Location: in TONAWANDA in ERIE COUNTY
Facility Principal Reference Point: NYTM-E: 182.974 NYTM-N: 4767.382
Latitude: 42°59'34.9" Longitude: 78°53'19.8"
Project Location: West of Military Rd, between Ensminger Rd and I- 290.
Authorized Activity: The permit authorizes implementation of the final corrective action remedies and the evaluation of the effectiveness of the corrective action remedies. EPA ID # NYD067539940.

Permit Authorizations

Resource Conservation and Recovery Act - Under Article 27, Title 9
Permit ID 9-1464-00044/00001
Renewal Effective Date: 7/5/2012 Expiration Date: 7/4/2022

NYSDEC Approval

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

Permit Administrator: DOUGLAS E BORSCHEL, Deputy Regional Permit Administrator
Address: NYSDEC REGION 9 HEADQUARTERS
270 MICHIGAN AVE
BUFFALO, NY 14203 -2915

Authorized Signature: Douglas E. Borschel Date 7/5/2012

Distribution List

NYSDEC Division of Environmental Remediation, Buffalo
NYSDEC Division of Environmental Remediation, Albany
USEPA Region 2
General Electric Buffalo Service Center
URS Corporation

Permit Components

RESOURCE CONSERVATION AND RECOVERY ACT PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Permit Attachments

Facility Location Map
Site Plan

RESOURCE CONSERVATION AND RECOVERY ACT PERMIT CONDITIONS

1. **Conformance with Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or his agent as part of the permit application.

2. **Facility Operation** The permittee must operate the facility in strict accordance with the modules, attachments and appendices to this permit as specified below:

Module I - General Provisions
Module II - Corrective Action Requirements
Appendix II-A - Components Required for RCRA Analytical Data
Appendix II-B - Scope of Work for a RCRA Facility Investigation
Appendix II-C - Corrective Measure Study and Selection
Appendix II-D - Compliance Schedule
Appendix II-E - Groundwater Monitoring Plan
Appendix II-F - Groundwater Monitoring System Inspection Plan
Facility Location Map Attachment
Site Plan Attachment

3. **Permit Application Information** This permit is based on the information submitted in the permit application submitted by General Electric International, Inc. (GE) on December 2, 2005 and subsequent investigations, reports and work plans. The permit is based on the assumption that the information submitted by GE in the above documents are complete and accurate and the corrective action obligations will be operated as specified in the above-noted application. Any inaccuracies or incompleteness found in the information may be grounds for the termination or modification of this permit and potential enforcement action.

4. **Compliance with Regulations and Permit Conditions** The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any attachments) and the applicable regulations contained in 6 NYCRR Parts 370 through Part 373-2, Part 376, Part 621 and Part 624. The permittee must inform this Department of any deviation from or changes in the information in the application which would affect the permittee's ability to comply with the applicable regulations or permit conditions.

5. **Quality Assurance/Quality Control** The permittee is responsible for verifying that the Quality Assurance/Quality Control Program (QA/QC) followed by laboratories used by the permittee to carry out analysis of the waste streams conform to the QA/QC procedures approved in the permit and thus ensure the validity of the analytical data provided by the laboratories.

6. **Laboratory Certification** As required by ECL 03-0119, any laboratory (permittee or contract) used by the permittee to perform analysis pursuant to this permit must be certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) in the appropriate categories of analysis, if ELAP issues certifications in such categories. If the permittee uses a contract laboratory to perform analysis required by this permit, then the permittee shall inform the laboratory in writing that is must operate under the waste analysis and quality assurance provisions of this permit.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

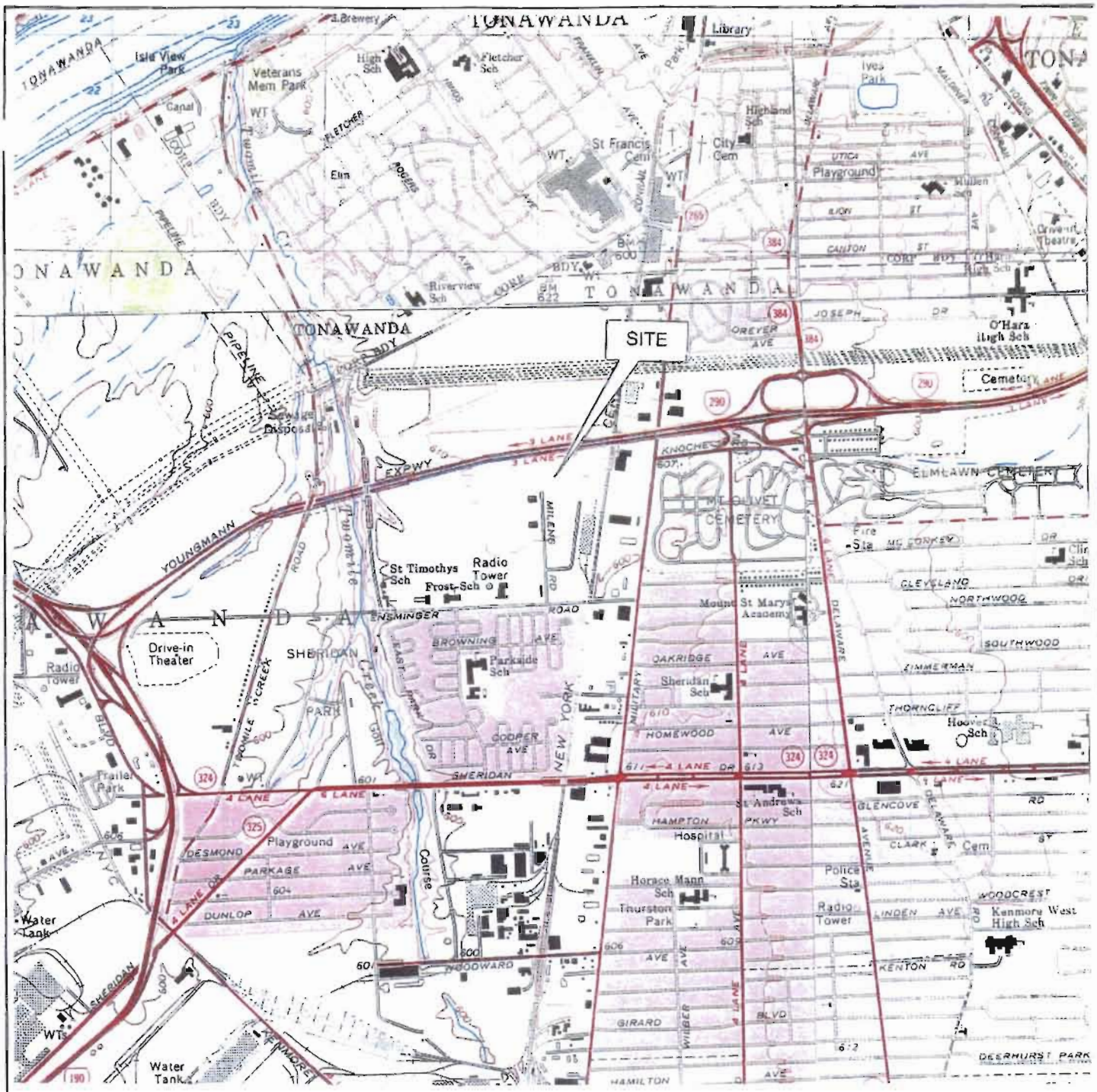
NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

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

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

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

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



CONTOUR INTERVAL = 10 FEET

REFERENCE
USGS 7.5 MINUTE TOPOGRAPHIC MAPS:
BUFFALO NORTHWEST QUADRANGLE 1965
BUFFALO NORTHEAST QUADRANGLE 1965
TONAWANDA WEST QUADRANGLE 1980
TONAWANDA EAST QUADRANGLE 1980

QUADRANGLE LOCATION

SCALE: 1" = 2000'

85030-44 03/29/00

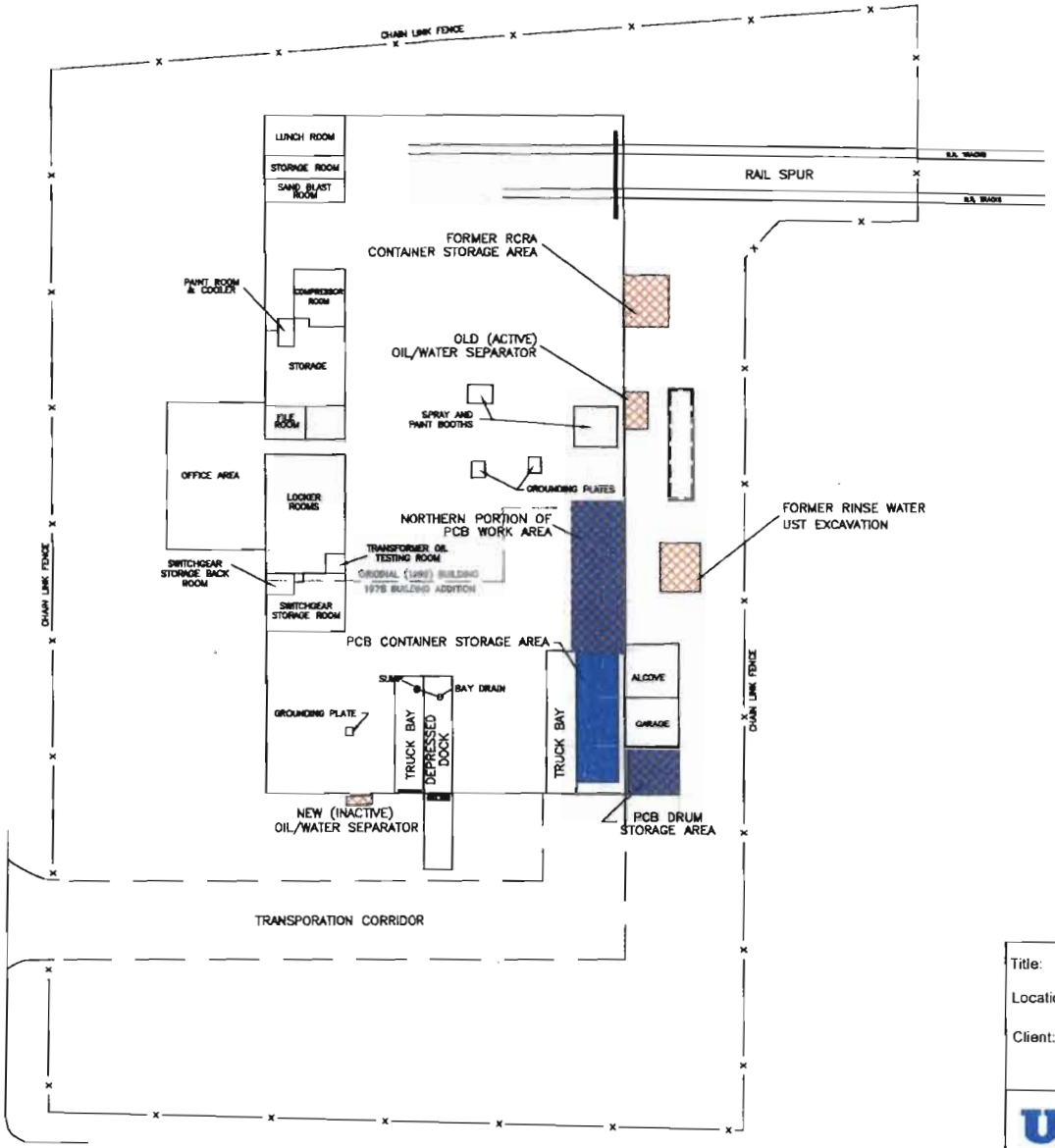
FIGURE 1

SITE LOCATION

175 MILENS ROAD
TONAWANDA, NEW YORK

URS

646 PLANK ROAD, SUITE 202
CLIFTON PARK, NEW YORK 12065



EXPLANATION

- SWMU/AOC
- PCB AREA DEACTIVATED 1994
- PCB AREA ACTIVE THROUGH JULY 2000
- TRENCH DRAIN
- COLUMN LINES

0 30 60

GRAPHIC SCALE IN FEET

NOTE: LOCATIONS ARE APPROXIMATE

SOURCES:
1. "MAP OF GENERAL ELECTRIC SERVICE CENTER PROPERTY, PART OF LOT 45, TOWNSHIP 12, RANGE 8, TOWN OF TONAWANDA, ERIE COUNTY, NEW YORK" KRIEBEL ASSOCIATES, JULY 29, 1998.
2. "1/8" PART FLOOR PLAN AND DETAILS," CANNON DESIGN INC., AS-BUILT 4-19-78.

Title:	SITE PLAN
Location:	175 MILENS ROAD TONAWANDA, NEW YORK
Client:	GE ENERGY

URS

URS Corporation
28 Corporate Drive, Suite 200
Clifton Park, New York 12065

Drafter: KP	Date: March 2006
Drg. Size: 11 X 17	Job No.: 38394429.00000

FIGURE 2

6 NYCRR PART 373 HAZARDOUS WASTE MANAGEMENT PERMIT

General Electric
Buffalo Service Shop
NYD067539940

Tonawanda, New York
Erie County

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MODULE I - GENERAL PROVISIONS

General Electric
Buffalo Service Shop
NYD067539940

If this Permit conflicts with Regulations which are in effect on the date of final issuance of this Permit, the more stringent requirement applies.

A. EFFECT OF PART 373 PERMIT

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of: the conditions contained herein, the attachments to this Permit, sections of the Permit Application referenced herein, any subsequent Department approved changes to the attachments and referenced sections of that Application, and the applicable regulations contained in 6NYCRR Parts 370 through 374, 376, 621 and 624 that are referenced herein. The applicable regulations or requirements are those which are in effect on the date of final issuance of this Permit, except for those requirements not included in the permit which:

1. Become effective by statute, including amendments thereto;
2. Are promulgated under 6NYCRR Part 376, as modified (Land Disposal Restrictions);
3. Are promulgated under 6NYCRR 373-3.27, 373-3.28, and 373-3.29, as modified (air emission standards); and
4. Are other requirements promulgated under 6NYCRR 373-1.6(e).

The Permittee is required to conduct corrective action in accordance with the conditions of this Permit. Any storage, treatment, or disposal of hazardous waste not authorized in this Permit is prohibited unless exempt from 6NYCRR Part 373. Issuance of this Permit does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal, State or local laws or regulations.

This Permit authorizes the implementation of the final corrective action remedies selected through the Statement of Basis process and to evaluate the effectiveness of the corrective action remedies.

All plans, specifications and schedules required by the terms of this Permit and all subsequent amendments to those documents are incorporated by reference into this Permit, upon approval, when required, or acceptance by the Department, unless the Department specifically specifies otherwise in writing. Upon incorporation, the provisions of each such document will be binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

B. PERMIT APPLICATION

The Permit Application documents listed below are also incorporated by reference into this Permit. These documents are made part of this Permit, are binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

DOCUMENTS INCORPORATED BY REFERENCE
The Response to Comment dated March 2012
Statement of Basis dated November 2011
Focused Corrective Measure Study dated July 13, 2011
Revised Corrective Measure Study Final Report dated July 31, 2001

Future modifications to this Permit, including modifications to the Permit Application documents incorporated into this Permit, shall be addressed according to 6NYCRR 373-1.7. The Permittee must submit copies to the Regional Permit Administrator and as required in Section H of this Module, of the replacement: pages, sections, and/or attachments to the permit application along with the application request for a permit modification. The Permittee shall place a revision date on all pages submitted as part of the proposed permit modification application.

The Permittee must provide and maintain a log of all modifications made to this Permit, including modifications made to the Permit Application documents that are made part of this Permit. The log shall contain at a minimum the following information regarding an approved modification: (1) the name of the specific documents being modified (e.g., contingency plan, security requirements, hazardous waste unit operations, etc.); (2) the pertinent page, section, and/or attachment of this Permit and Permit Application documents subject to modification; (3) the revision date of the modifications; (4) a brief statement regarding the nature of the modifications; and (5) the effective date of the modification to this Permit. The Permittee shall place the log at the beginning of this Permit along with a copy of the Department's approval letter(s), when applicable.

Upon receipt of a permit modification issued by the Department, the Permittee must update the log and replace the pages, sections, and/or attachments in the Permit and Permit Application with the modified pages, sections, and/or attachments in the permit copy maintained by the Permittee.

C. GENERAL REQUIREMENTS FOR THIS PART 373 PERMIT

The Permittee must comply with 6NYCRR Subpart 373-1 as follows:

1. General 6NYCRR 373-1.1.

   (a) 6NYCRR 373-1.1(b) - Applicability;

(b) 6NYCRR 373-1.1(c) - Safeguarding Information;
(c) 6NYCRR 373-1.1(f) - Uniform Procedures;
(d) 6NYCRR 373-1.1(g) - Enforcement;
(e) 6NYCRR 373-1.1(h) - Severability; and
(f) 6NYCRR 373-1.1(i) - Terms Used.

2. Requirement for Permit 6NYCRR 373-1.2. 6NYCRR 373-1.2(d) requires owners and operators of hazardous waste management facilities to have a Part 373 permit during the active life of a unit(s), including the closure period and during the post-closure care period, with few exceptions.

3. Signatories to Permit Applications and Reports 6NYCRR 373-1.4(a)(5).

(a) 6NYCRR 373-1.4(a)(5)(i) - Applications;
(b) 6NYCRR 373-1.4(a)(5)(ii) - Reports;
(c) 6NYCRR 373-1.4(a)(5)(iii) - Changes to authorization; and
(d) 6NYCRR 373-1.4(a)(5)(iv) - Certification.

4. Recordkeeping 6NYCRR 373-1.4(g).

5. Permit Conditions 6NYCRR 373-1.6.

(a) 6NYCRR 373-1.6(a) - Conditions applicable to all permits;
(b) 6NYCRR 373-1.6(a)(1) - Duty to Comply;
(c) 6NYCRR 373-1.6(a)(2) - Duty to reapply;
(d) 6NYCRR 373-1.6(a)(3) - Need to halt or reduce activity not a defense;
(e) 6NYCRR 373-1.6(a)(4) - Duty to mitigate;
(f) 6NYCRR 373-1.6(a)(5) - Proper operation and maintenance;
(g) 6NYCRR 373-1.6(a)(6) - Permit actions;
(h) 6NYCRR 373-1.6(a)(7) - Property rights;
(i) 6NYCRR 373-1.6(a)(8) - Duty to provide information;
(j) 6NYCRR 373-1.6(a)(9)(i) through (iv) - Inspection and entry;
(k) 6NYCRR 373-1.6(a)(10)(i) through (iii) - Monitoring and records;
(l) 6NYCRR 373-1.6(a)(11) - Signatory Requirements;
(m) 6NYCRR 373-1.6(a)(12)(i) through (xi) - Reporting requirements;
(n) 6NYCRR 373-1.6(c) - Establishing Permit conditions:
(o) 6NYCRR 373-1.6(d)(1)(i) through (iii) - Schedules of compliance. The Permittee must comply with the compliance schedules listed in Module II - Corrective Action Requirements;
(p) 6NYCRR 373-1.6(d)(2)(i) through (iv) - Alternative schedules of compliance.

6. Requirements for recording and reporting of monitoring results 6NYCRR 373-1.6(b). The Permittee must comply with the recording, reporting and monitoring requirements listed in this permit. The Permittee must use, maintain and install monitoring equipment and methods and report monitoring results as specified in this Permit (including the permit application) and 6NYCRR Subpart 373-2. The Permittee must conduct required

monitoring with the type, intervals and frequency sufficient to yield data which are representative of the monitoring activity including, when appropriate, continuous monitoring.

7. Permit Modifications 6NYCRR 373-1.7.

   (a) 6NYCRR 373-1.7(a) - Transfer of Permits;
   (b) 6NYCRR 373-1.7(b) - Modification of permits;
   (c) 6NYCRR 373-1.7(c) - Minor Modifications of RCRA delegated permits;
   (d) 6NYCRR 373-1.7(d) - Major Modifications;
   (e) 6NYCRR 373-1.7(e) - Announcement of Determinations;
   (f) 6NYCRR 373-1.7(f) - Temporary Authorizations; and
   (g) 6NYCRR 373-1.7(g) - Newly Regulated Wastes and Units.

8. Expiration and Continuation of Permits 6NYCRR 373-1.8. This permit shall be in effect for a fixed term not to exceed ten years.

   Complete applications for permit renewal must be submitted at least 180 days before the expiration date of this Permit pursuant to 6NYCRR 373-1.8(b) to the addresses in Section H of this Permit module below. Renewal applications with a significant change (as defined in paragraph 373-1.10(a)(1) of this Subpart) are subject to the requirements of Section 373-1.10 of this Subpart.

   Prior to processing the renewal application the Department will determine whether the application is complete. In order for the renewal application to be complete the Permittee must:

   (a) Satisfy the general requirements for complete application contained in 6 NYCRR Part 621 (Uniform Procedure Regulations); and

   (b) Include all information required, both general and specific to the type of the facility in accordance with the laws, regulations and analytical requirements in effect at the time.

   At any time during the review of the renewal application the Department may request in writing any additional information which is necessary for determining the completeness of the application. Failure to provide such information by the date specified in the request may be grounds for denial of the application and the extension allowed pursuant to § 401.2 of the State Administrative Procedures Act.

   The Permittee shall submit a renewal application pursuant to 6NYCRR Subpart 373-1.8(b) prior to this Permit's expiration unless and until all the Permittee's corrective action obligations have been completed. In the alternative, the Permittee may execute an order on consent for corrective action pursuant to Environmental Conservation Law (ECL) Section 71-2727(3) with the Commissioner at least 180 days prior to the expiration date of this Permit.

D. FINAL STATUS STANDARDS FOR THIS PART 373 PERMIT

The Permittee must comply with all applicable sections of 6NYCRR Subpart 373-2, and the referenced sections of the Permit Application, as follows:

1. General 6NYCRR 373-2.1.

   (a) 6NYCRR 373-2.1(a) - Purpose, Scope and Applicability; and
   (b) 6NYCRR 373-2.1(c) - Imminent Hazard Action.

2. General Facility Standards 6NYCRR 373-2.2.

   (a) 6NYCRR 373-2.2(a) - Applicability;
   (b) 6NYCRR 373-2.2(b) - Facility ownership transfer;
   (c) 6NYCRR 373-2.2(d) – Required Notices;
   (d) 6NYCRR 373-2.2(e) - General Waste Analysis;
   (e) 6NYCRR 373-2.2(f) - Security;
   (f) 6NYCRR 373-2.2(g) - General inspection requirements;
   (g) 6NYCRR 373-2.2(h) - Personnel training;
   (h) 6NYCRR 373-2.2(j) - Location standards; and

3. Preparedness and Prevention 6NYCRR 373-2.3.

   (a) 6NYCRR 373-2.3(a) - Applicability;
   (b) 6NYCRR 373-2.3(b) - Design and operation of facility;
   (c) 6NYCRR 373-2.3(c) - Required equipment;
   (d) 6NYCRR 373-2.3(d) - Testing and maintenance of equipment;
   (e) 6NYCRR 373-2.3(e) - Access to communications or alarm system;
   (f) 6NYCRR 373-2.3(f) - Required aisle space; and
   (g) 6NYCRR 373-2.3(g) - Arrangements with local authorities.

4. Contingency Plan and Emergency Procedures 6NYCRR 373-2.4.

   (a) 6NYCRR 373-2.4(a) - Applicability;
   (b) 6NYCRR 373-2.4(b) - Purpose and implementation of contingency plan;
   (c) 6NYCRR 373-2.4(c) - Content of contingency plan;
   (d) 6NYCRR 373-2.4(d) - Copies of contingency plan;
   (e) 6NYCRR 373-2.4(e) - Amendment of contingency plan;
   (f) 6NYCRR 373-2.4(f) - Emergency coordinator; and
   (g) 6NYCRR 373-2.4(g) - Emergency Procedures.

5. Manifest System, Recordkeeping and Reporting 6NYCRR 373-2.5.

   (a) 6NYCRR 373-2.5(a) - Applicability;
   (b) 6NYCRR 373-2.5(b) - Manifest requirements;
   (c) 6NYCRR 373-2.5(c) - Operating record;

(d) 6NYCRR 373-2.5(d) - Availability, retention, and disposition of records;
(e) 6NYCRR 373-2.5(e) - Annual report;
(f) 6NYCRR 373-2.5(f) - Unmanifested waste report; and
(g) 6NYCRR 373-2.5(g) - Additional reports.

The Permittee must retain for inspection by the Department the permit modification log required by Section B, the operating record, documentation to demonstrate compliance with the financial requirements of this Permit, the referenced sections of the Permit Application that are made part of this Permit, and any subsequent Department approved changes to the contents of that Application.

These documents include, but are not limited to, the most recent Department approved: groundwater monitoring plan(s); security, inspection, and personnel training requirements; and final engineering documents for all ongoing corrective action remedies pertinent to solid waste management units and areas of concern either remediated or being remediated pursuant to this Permit.

6. Releases from Solid Waste Management Units 6NYCRR 373-2.6. The Permittee must comply with the conditions stipulated in Module II - Corrective Action Requirements for Solid Waste Management Units and Areas of Concern; and comply with the groundwater monitoring plan approved by the Department, including all subsequent revisions approved by the Department that address the means to implement and achieve compliance with the aforementioned conditions for site-wide contaminated groundwater.

7. Closure and Post-Closure 6NYCRR 373-2.7. Not Applicable.

8. Financial Requirements 6NYCRR 373-2.8. The Permittee must comply with 6NYCRR Subpart 373-2.8 for meeting the financial requirements for corrective action when required, as follows:

   (a) 6NYCRR 373-2.8(a) - Applicability;
   (b) 6NYCRR 373-2.8(b) - Definition of terms as used in this section; and
   (c) 6NYCRR 373-2.8(c) - Cost estimates for closure.
   The Permittee must update closure cost estimates annually, update financial assurance for same, record the changes in the operating record and submit to the Department to the addresses listed in Section H of this Permit Module a written summary of the changes on or before the anniversary date of this Permit or per the required actions of Part 373-2.8(c)(2), which reads in part, "... the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with subdivision (d) of this section. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the commissioner as specified in section 373-2.8(d)(5)(iii) of this Part."

   (d) 6NYCRR 373-2.8(d) - Financial assurance for closure;

(e) 6NYCRR 373-2.8(g) - Use of a mechanism for financial assurance of both closure and post-closure care;
(f) 6NYCRR 373-2.8(h) - Liability requirements;
(g) 6NYCRR 373-2.8(i) - Incapacity of owners or operators, guarantors, or financial institutions;
(h) 6NYCRR 373-2.8(j) - Wording of the instruments;
The Permittee must obtain approval in writing from the Department prior to the change, for any changes to the instrument(s) and/or mechanism(s); e.g., type of instrument(s) and/or mechanism(s), the issuing company/institution(s) and/or a reduction in the dollar amount(s).

For commercial facilities, the Permittee must submit to the Department annually to the addresses listed in Section H of this Permit module, the dollar amount and inflation adjustment calculations for closure cost estimate within 30 days of the anniversary date of the establishment of the financial instrument used for providing financial assurance for closure cost estimate.

Whenever the closure cost estimate increases the Permittee must obtain financial assurance to cover the increase.

(i) 6NYCRR 373-2.6(l) - Corrective action for solid waste management units;

9. Air Emission Standards 6NYCRR 373-2.27, 373-2.28 and 373-2.29. The Permittee may not manage hazardous waste that would subject the facility to 6NYCRR 373-2.27, and/or 373-2.28 and/or 373-2.29.

E. LAND DISPOSAL RESTRICTIONS

The Permittee must comply with all applicable provisions in the current 6NYCRR Part 376 for the land disposal of hazardous waste except for hazardous waste generated by remediation or corrective action activities for placement in a corrective action management unit (CAMU) approved by the Commissioner.

F. WASTE ANALYSIS AND QUALITY ASSURANCE

The Permittee must obtain representative samples of wastes and other materials to be analyzed pursuant to this Permit. The Permittee must perform the sampling and analysis required by this Permit in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 (Third Edition (November 1986), as amended by Updates: I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), and IIIA (April 1998), and later approved revisions), hereinafter referred to as "SW-846"; Appendix 19 of 6NYCRR Part 371; or an equivalent method approved by the Department.

The Permittee shall conduct a quality assurance program to ensure that the sampling, analysis and monitoring data are technically accurate and statistically valid. The quality assurance program must be in accordance with Chapter One and the requirements of applicable method(s) of SW-846, or an equivalent method approved by the Department.

As required by ECL 03-0119, any laboratory (Permittee or contract) used by the Permittee to perform analysis pursuant to this Permit must be certified by the New York State Department of Health (NYSDOH) in accordance with 6NYCRR Subpart 370.1(f), in the appropriate categories of analysis, if ELAP issues certifications in such categories. If the Permittee uses a contract laboratory to perform analysis required by this Permit, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis and quality assurance provisions of this Permit.

G. ORAL REPORTS

The oral reports required by 6NYCRR 373-1.6(a)(12)(vi) and 373-2.4(g)(4)(ii) must be made to both the Department using the New York State 24-hour oil and hazardous material spill notification number (800) 457-7362 and the National Response Center using its 24-hour number (800) 424-8802, or any designated telephone numbers which may subsequently replace those listed above.

Note: Any spill that contains the "Reportable Quantity," (RQ) for any of the hazardous substances listed in 6NYCRR Part 597.2 must be reported to the Department within 24 hours of discovery per 6NYCRR Part 595.3. If a release has been reported pursuant to 6NYCRR Part 595.3, that would satisfy the above requirement for an oral report to the Department.

H. PLANS, REPORTS, SPECIFICATIONS, IMPLEMENTATION, RENEWAL AND MODIFICATION APPLICATIONS, AND OTHER SUBMITTALS

1. All submittals required by the Permit and pertaining to the permitted hazardous waste management units, corrective action documents and groundwater monitoring plans must be submitted to the addresses listed below. The hard copy of all correspondence, work plans, reports and other documents should be submitted double-sided. Electronic data must be submitted in accordance with the requirements set forth on our website http://www.dec.ny.gov/chemical/62440.html or another Department approved format.

   (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, New York 14203-2999

Supervisor, RCRA Permitting Section
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

and

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

(b) One (1) hard copy and one (1) electronic copy of all corrective action documents and groundwater monitoring plans to:

Director, Remedial Bureau D
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7013

(d) One (1) copy of the cover letter to each report submittal to:

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

(e) One (1) hard copy of Applications to renew or modify this Permit must be submitted to the following, in addition to the above addresses:

Regional Permit Administrator
NYS Department of Environmental Conservation
Region 9 Office
270 Michigan Avenue
Buffalo, New York 14203

2. The Permittee shall submit plans, reports, specifications, implementation schedules and any subsequent amendments required by this Permit to the Department for review and comment. If the Department determines that any plan, report, specification, schedule or respective amendment required by this Permit is deficient either in whole or in part, the Permittee shall either promptly respond to the comments or make revisions to the submission consistent with the Department's comments. Within a reasonable time frame

specified by the Department, a final plan, report, specification, schedule or respective amendment shall be submitted to the Department for approval. An extension of the due date for any submittal may be granted by the Department based on the Permittee's documentation that sufficient justification for the extension exists.

I. WASTE REDUCTION REQUIREMENTS

The Permittee shall comply with the requirements of Article 27, Title 9, Section 27-0908 of the New York State Environmental Conservation Law. All reports and submittals required by Section 27-0908 to be submitted to the Commissioner shall be sent to the addresses specified in Section H above. Not Applicable at this time.

J. DEFINITIONS

For the purpose of this Permit, terms used herein shall have the same meaning as those in 6NYCRR 370 through 374 and 376 and the terms defined in this Permit, unless this Permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

1. Action Levels. For purposes of this Permit, action levels are hazardous constituent concentrations for a specific environmental medium which if exceeded indicate a potential threat to human health or the environment. The exceedance of action levels may trigger further investigations, studies, and corrective measures. Where available, action levels are based on appropriate promulgated standards established for a specific environmental medium. When promulgated standards are not available, action levels can be media-specific hazardous constituent concentrations derived from non-promulgated human health risk data or environmental risk data with the latter levels being protective of aquatic life or wildlife. An action level may be set at the background level for a hazardous constituent for which data are inadequate to set a human health or environmental health-based level.

2. Areas of Concern (AOC). Pursuant to the authority granted by 6NYCRR 373-1.6(c)(2), an area of concern has been defined for purposes of this Permit to mean an area at the facility, or an off-site area, which is not at this time known to be a solid waste management unit (SWMU), where hazardous waste and/or hazardous constituents are present, or are suspected to be present, as a result of a release from the facility. The term shall include areas of potential or suspected contamination as well as actual contamination. Such area(s) may require study and a determination of what, if any, corrective action may be necessary. All permit references to and conditions for SWMUs shall apply to areas of concern.

3. Environment. Pursuant to ECL Article 27, Title 9, Section 27-0901, environment means any water, water vapor, any land including land surface or subsurface, air, fish, wildlife, biota and all other natural resources.

4. Release. For purposes of this Permit, release includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment of any hazardous waste, including hazardous constituents, unless expressly authorized under the terms of this Permit or otherwise permitted under law (e.g., SPDES permitted discharges).

5. Solid Waste Management Unit (SWMU). For purposes of this Permit, SWMU includes any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of hazardous or solid wastes. Such units include any area at the facility at which solid wastes have been routinely and systematically released.

PART 373 PERMIT
MAJOR/MINOR MODIFICATION

General Electric
Buffalo Service Shop
NYD067539940

The permit may be modified for causes as allowed under 6NYCRR 373-1.7 and 621.14. Modification shall be requested in writing as required by 6 NYCRR 621.13 and 621.14. Requests for modifications shall be submitted to the Regional Permit Administrator for approval and modification of the permit.

PERMIT MODIFICATION LOG

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised Pages	The nature of the modifications
	Old	New		

MODULE II - CORRECTIVE ACTION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

General Electric Co.
Buffalo Service Shop
NYD067539940

Module II provides requirements for implementing corrective action for releases of hazardous constituents from Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) associated with the facility. The primary corrective action activities to be performed are soil removal and groundwater monitoring. The Permittee will be implementing corrective measures selected through the Statement of Basis process. Sections of this Module are applicable if there is a newly identified SWMU and/or AOC or a newly discovered release at any SWMU and/or AOC.

A. APPLICABILITY

1. Statute and Regulations. Article 27, Title 9 Section 27-0913, and 6NYCRR 373-2.6(1) requires corrective action, including Corrective Action beyond the facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit (SWMU) at a storage, treatment or disposal facility seeking a 6NYCRR Part 373 permit, regardless of the time at which waste was placed in such unit. Pursuant to 6NYCRR 373-1.6(c)(2) the Department may impose permit conditions as the Department determines necessary to protect human health and the environment (e.g., Areas of Concern (AOCs)).

2. Solid Waste Management Units and Areas of Concern. The conditions of this Module apply to :

   (a) All the SWMUs and AOCs listed in this Module individually or in combinations;

   (b) Any additional SWMU(s) and AOC(s) identified during the course of groundwater monitoring, field investigations, environmental audits or other means as described in Module Condition C.;

   (c) SWMU(s) and AOC(s) located on-site and/or off-site are identified in Table II-1;

Table II-1
Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)

Class	SWMU(s)/AOC(s)	Status
Container Storage Area	PCB Work Area	No Further Action
	PCB Storage Area	No Further Action
	RCRA Hazardous Waste Storage Area	No Further Action
	Waste Oil Storage Area	No Further Action
	Waste Accumulation Areas (2)	No Further Action
Storage/Treatment Tank	Former Rinse Water Tank Excavation	Corrective measures to be implemented through this permit
	Old Oil/Water Separator (East)	Corrective measures to be implemented through this permit
	New Oil/Water Separator (South)	No Further Action
Sewers	Floor Drains	Corrective measures to be implemented through this permit
	Sewers	Corrective measures to be implemented through this permit
Areas of Concern	Virgin Oil Tank	No Further Action
	Fuel Oil Tank	No Further Action
	Rail Spur	Corrective measures to be implemented through this permit
	Truck Bay	Corrective measures to be implemented through this permit
	Depressed Dock	Corrective measures to be implemented through this permit
	Transportation Corridor	Corrective measures to be implemented through this permit
	Two Mile Creek	Corrective measures to be implemented through this permit
	Subslab Soils	Inaccessible at this time

The information in Table II-1 is based on the RCRA Facility Assessment Report dated December 1988, RCRA Facility Investigation Report dated April 2, 1999 and subsequent reports.

(d) The Permittee need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Table II-1 as No Further Action provided there is no evidence of the release(s) of hazardous waste(s) or constituent(s) from the SWMU(s) and/or AOC(s) threatening human health or the environment.

(e) A determination of No Further Action shall not preclude the Department from modifying this Permit at a later date to require further investigations, studies, monitoring, or corrective measures, if new information of subsequent analysis indicates the release(s) or the likelihood of release(s) that could pose a threat to human health or the environment.

B. STANDARD CONDITION FOR CORRECTIVE ACTION

1. Work Plans. All work plans submitted pursuant to this Module shall include:

   (a) Quality Assurance/Quality Control protocols to ensure that data generated is valid and supported by documented procedures;

   (b) Other plans, specifications and protocols, as applicable;

   (c) A schedule for starting specific tasks, completing the work and submitting progress and final reports; and

   (d) Plans for the treatment, storage, discharge or disposal of wastes to be generated by activities described therein.

2. Quality Assurance/Quality Control.

   (a) Any laboratory to be used pursuant to such work plans required by this Module must be approved by the Department prior to work plan implementation. Certification by the New York State Department of Health Environmental Laboratory Approval Program in the relevant analytical services is required.

   (b) The minimum Quality Assurance/Quality Control data and information, that shall be delivered with all sample analyses required by this Module, are tabulated in Appendix II-A of this Permit Module.

3. Health/Safety Plans. The Permittee shall develop, according to applicable Federal, State and local requirements, and submit to the Department, health and safety plans that will be implemented to ensure that the health and safety of project personnel, plant personnel and the general public are protected. These plans are not subject to approval by the Department.

4. Guidance Documents. When preparing the submissions described in this Permit Module, the Permittee shall take into account applicable guidance documents issued by the U.S. Environmental Protection Agency and the New York State Department of Environmental Conservation in a manner reflecting reasonable technical considerations.

5. Prior Submission. The Permittee may have already submitted portions of information, plans, or reports required by this Permit Module and its Appendices to the Department pursuant to the terms of previous applications, consent order, or plans. For those items the Permittee contends were submitted to the Department, the Permittee may cite the specific document(s) it believes adequately addresses each of the individual items requested by this Permit Module and its Appendices. The references, by document(s) shall be placed in the appropriate section of the submissions that require the referenced information and data. If the Department determines that the Department does not possess any of the referenced information, plans, or reports that the Permittee claims were previously submitted, the Department will notify the Permittee and the Permittee shall submit the referenced documents within the time frame specified within the notification.

6. Compliance Schedule for Newly Identified Interim Corrective Measures (ICMs).

   (a) If at any time it is determined by the Department that a release or, based on site-specific circumstances, a threatened release of hazardous wastes, including hazardous constituents from a SWMU, an AOC or a combination of SWMU(s) and/or AOC(s) poses a threat to human health or the environment, or that such condition jeopardizes the Permittee's ability to comply with any governmental permit, a focused interim corrective measures study shall be submitted to the Department for approval within thirty (30) calendar days of notice of such a determination. This study shall consider, among other relevant factors, the character, the extent, direction, the rate of release, the proximity to population, the exposure pathways, the effects of delayed action, and the evaluations of appropriate ICM(s) or the selection of a pragmatic and presumptive ICM. Upon approval of the study by the Department, the Permittee shall implement the required ICM as specified by the Department. Should a selected ICM involve an engineered action; then its design, implementation schedule and subsequent construction completion certification shall require approvals by the Department. Nothing herein precludes the Permittee from taking immediate action to address the conditions described herein and promptly notifying the Department.

   (b) In the event the Permittee discovers a release or, based on site-specific circumstances, a threatened release of hazardous waste, including hazardous constituents, from a SWMU, an AOC, or a combination of SWMU(s) and/or AOC(s), that poses a threat to human health or the environment, the Permittee shall identify interim corrective measures to mitigate this threat. The Permittee shall immediately summarize the nature and magnitude of the actual or potential threat and nature of the ICM being considered and notify the Department. Within thirty (30) calendar days of notifying the Department the Permittee shall submit to the Department, for approval, an interim corrective measures work plan for the interim measures. The Permittee shall implement the measures specified by the Department. Nothing herein shall preclude

the Permittee from taking immediate action to address the conditions described herein and promptly notifying the Department.

(c) The following factors may be considered by the Department or the Permittee in determining the need for interim corrective measures:

(i) Time required to develop and implement a final corrective measure;

(ii) Actual and potential exposure of human and environmental receptors;

(iii)Actual and potential contamination of groundwater and sensitive ecosystems;

(iv)Presence and concentration of hazardous waste, including hazardous constituents, in soils that have the potential to migrate to the air, groundwater or surface water;

(v) Other situations that may pose threats to human health and the environment.

7. Determination of No Further Action.

(a) Based on the results of an RFI for a particular SWMU, an AOC, or combination of SWMUs, and/or AOCs, and other relevant information, the Permittee may submit an application to the Department for a permit modification under 6NYCRR 373-1.7(b) to terminate the subsequent corrective action requirements of the Module. This permit modification application must contain information demonstrating no release(s) of hazardous wastes, including hazardous constituents, from the SWMU(s) and/or AOC(s) pose a threat to human health or the environment.

(b) If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and/or other information, including comments received during the forty-five (45) calendar day public comment period required for permit modifications, the Department determines that the release(s) or the suspected release(s) investigated either are non-existent or do not pose a threat to human health or the environment, the Department may grant the requested modification.

(c) A determination of no further action shall not preclude the Department from implementing the following actions:

(i) Modifying this Permit at a later date to require the Permittee to perform such investigations as necessary to comply with the requirements of this Permit Module and its Appendices if new information or subsequent analysis indicates that there are, or are likely to be, release(s) from SWMU(s) and/or AOC(s) that may pose a threat to human health or the environment; and

(ii) Requiring institutional controls (such as deed restrictions) and continual or periodic monitoring of air, soil, groundwater, surface

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

8. Compliance Schedule for Reporting and Submissions.

(a) The Permittee shall submit, to the Department, signed progress reports, as specified in approved work plans pursuant to this Permit, of all activities (i.e., SWMU Assessment, RCRA Facility Investigation, Interim Measures, Corrective Measure Study and Corrective Measures Implementation) conducted pursuant to the provisions of the Corrective Action Compliance Schedules of this Permit Module, beginning no later than thirty (30) calendar days after the Permittee is first required to begin implementation of any requirement herein. These reports shall contain:

(i) A description of the work completed during the reporting periods;

(ii) Summaries of all findings made during the reporting period;

(iii) Summaries of all changes made during the reporting period;

(iv) Summaries of all contacts made with representatives of the local community and public interest groups during the reporting period;

(v) Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;

(vi) Changes in personnel conducting or managing the corrective action activities during the reporting period;

(vii) Projected work for the next reporting period; and

(b) Upon request, copies of other relevant reports and data not identified in Module Condition B.8.(a) shall be made available to the Department.

(c) The Department may require the Permittee to conduct new or more extensive assessments, investigations, or studies, based upon information provided in the progress reports referred to in Module Condition B.8.(a) above, or upon other supporting information.

(d) All work plans, reports, studies, designs and schedules required by the conditions of this Permit Module and Appendix II-D are, upon approval of the Department, incorporated into this Permit by reference and become an enforceable part of the Permit. Any noncompliance with such approved work plans, reports, studies, designs and schedules shall constitute noncompliance with this Permit.

9. Compliance with Governmental Requirements. During investigative activities, interim corrective measures, and final corrective measures, (including, but not limited to, equipment decommissioning, excavation and unit demolition) required under this Module, the Permittee shall ensure that the transportation, treatment, storage, discharge, and disposal of all contaminated materials generated as a result of such activities (including, but not limited to, soils, sediments, liquids, tanks, pipes, pumps, rubble, debris, and structural materials) are performed in an environmentally sound manner pursuant to all applicable Federal, State and local requirements and that is protective of public health and the environment. Nothing in this Module shall be construed to require the Permittee to proceed in a manner which is in violation of any such requirements.

10. Notification.

(a) Notification of groundwater contamination. If at any time the Permittee discovers that hazardous constituents in groundwater that may have been released from a SWMU or AOC at the facility have migrated beyond the facility boundary in concentrations that exceed action levels, the Permittee shall, within fifteen (15) calendar days of discovery, provide written notice to the Department and any person who owns or resides on the land which overlies the contaminated groundwater.

(b) Notification of air contamination. If at any time the Permittee discovers that hazardous constituents in air that may have been released from a SWMU or AOC at the facility have or are migrating to areas beyond the facility boundary in concentrations that pose a threat to human health, and that residences or other places at which continuous, long-term exposure to such constituents might occur are located within such areas, the Permittee shall, within fifteen (15) calendar days of such discovery:

(i) Provide written notification to the Department; and

(ii) Initiate any action that may be necessary to provide notice to all individuals who have or may have been subject to such exposure.

(c) Notification of residual contamination. If hazardous wastes or hazardous constituents in solid waste management units or areas of concern, or which have been released from a SWMU or AOC, will remain in or on the land, including groundwater, after the term of the permit has expired, the Department may require the Permittee to record a notation in the deed to the facility property or in some other instrument which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property of the types, concentrations, and locations of such hazardous wastes or hazardous constituents. The Department may require such notice as part of the corrective measure selection process.

C. COMPLIANCE SCHEDULE FOR ASSESSMENT OF NEWLY IDENTIFIED SWMUS AND AOCS

1. Notification of Assessment. The Permittee shall notify the Department, in writing, of any additional SWMU(s) and/or AOC(s) not listed in this Module, which are identified during the course of groundwater monitoring, field investigations, environmental audits, or other means within fifteen (15) calendar days after discovery.

2. SWMU/AOC Assessment Report. Within thirty (30) calendar days after notifying the Department, the Permittee shall submit a SWMU/AOC Assessment Report. This Report must provide, at a minimum, the following information for each newly identified SWMU/AOC:

   (a) Type and function of unit/area;

   (b) Location of each unit/area on a topographic map of appropriate scale;

   (c) Dimension, capacities, and structural descriptions of the unit/area (supply available engineering drawings);

   (d) Dates that the unit/area was operated;

   (e) Description of the wastes that were placed or spilled at the unit/area;

   (f) Description of any known releases from the unit/area (to include groundwater data, soil analyses, air monitoring data, and/or surface water/sediment date);

   (g) The results of any sampling and analysis required for the purpose of determining whether releases of hazardous wastes, including hazardous constituents, have occurred, are occurring, or are likely to occur from the unit/area; and

   (h) Whether this unit/area, individually or in combination with other units/area described in Module Condition A.2 is a significant source of contaminant release.

3. SWMU/AOC Sampling and Analysis Plan. Within thirty (30) calendar days after submittal of the SWMU/AOC Assessment Report required in Module Condition C.2, the Permittee shall submit to the Department for approval a Plan in accordance with the most recent version of the NYS RCRA Quality Assurance Project Plan Guidance, for any sampling and analysis of groundwater, land surface and subsurface strata, surface water/sediment or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) and/or area(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU/AOC Sampling and Analysis Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste, including hazardous constituents, from the newly-discovered SWMU(s) and/or AOC(s) to the environment.

4. Subsequent Assessment Actions. Following submission of the SWMU/AOC Assessment Sampling and Analysis Plan set forth in Module Condition C.3., subsequent activities for the Plan shall proceed in accordance with the following schedule:

   (a) Meeting between the Permittee, and the New York State Department of Environmental Conservation (Department) to discuss Plan comments, as appropriate;

   (b) Submission of a revised Plan to the Department for approval within thirty (30) calendar days of the above-described meeting. (If the above referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Department, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Department); and

   (c) Begin implementation of the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days following written approval from the Department for the Plan.

5. SWMU/AOC Sampling and Analysis Report. Within thirty (30) calendar days of receipt by the Permittee of validated analytical data generated under the approved SWMU/AOC Sampling and Analysis Plan, the Permittee shall follow reporting requirements in the approved Plan and submit a SWMU/AOC Sampling and Analysis Report to the Department. The Report shall describe all results obtained from the implementation of the approved Plan.

6. Assessment Conclusions. Based on the results of the SWMU/AOC Sampling and Analysis Report, the Department shall determine the need for further investigations at the specific unit(s) covered in the SWMU/AOC Assessment Report. If the Department determines that such investigations are needed, the Department shall, by written notification, require the Permittee to prepare and submit for approval a RCRA Facility Investigation Work Plan, including an implementation schedule, in accordance with Appendix II-B. Following the implementation of the RFI Work Plan the Permittee shall submit for approval the RFI Report. If the Department after reviewing the RFI Report determines that a Corrective Measures Study (CMS) or an Interim Corrective Measures (ICM) is required the Department shall, by written notification, require the Permittee to prepare and submit for approval the CMS and/or ICM, including implementation schedules. A required CMS shall be prepared in accordance with Appendix II-C. All approved submissions submitted pursuant to this Permit condition shall be made part of this Permit.

D. COMPLIANCE SCHEDULE AND NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMUS AND AOCS

The Permittee shall notify the Department, in writing, of any release(s) of hazardous wastes, including hazardous constituents, discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities no later than fifteen (15) calendar days after discovery. Such newly-discovered release(s) may be from the newly-

identified unit(s)/area(s), from the unit(s)/area(s) for which, based on the findings of the RFA, the Department had previously determined that no further investigation was necessary, or from the unit(s)/area(s) investigated as part of an RFI. Based on the information provided in the notification, the Department shall determine the need for further investigation of the release(s). If the Department determines that such investigations are needed, the Department shall, by written notification, require the Permittee to prepare and submit for approval a RCRA Facility Investigation Work Plan, including an implementation schedule, in accordance with Appendix II-B. Following the implementation of the RFI Work Plan the Permittee shall submit for approval the RFI Report. If the Department after reviewing the RFI Report determines that a Corrective Measures Study (CMS) or an Interim Corrective Measures (ICM) is required the Department shall, by written notification, require the Permittee to prepare and submit for approval the CMS and/or ICM, including implementation schedules. A required CMS shall be prepared in accordance with Appendix II-C. All approved submissions submitted pursuant to this Permit condition shall be made part of this Permit.

E. CORRECTIVE ACTION REQUIREMENTS

1. No Action Requirement.

   (a) On the basis of the RCRA Facility Assessment Report dated December 1988, the RCRA Facility Investigation Report dated April 2, 1999 and subsequent reports the Department has determined that there is no evidence at this time of the release(s) of hazardous waste(s) and/or constituent(s) that threaten human health or the environment from the following SWMU(s) and/or AOC(s) identified in Module Condition A.2.

   (i) PCB Work Area
   (ii) PCB Storage Area
   (iii) RCRA Hazardous Waste Storage Area
   (iv) Waste Oil Storage Area
   (v) Waste Accumulation Areas (2)
   (vi) Virgin Oil Tank
   (vii) Fuel Oil Tank
   (viii) New Oil/Water Separators (South)

   (b) The Permittee need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Module Condition E.1.(a) as long as there is no evidence of the release(s) of hazardous waste(s) or constituent(s) from the SWMU(s) and/or AOC(s) threatening human health or the environment. This permit condition does not apply to any other stipulation specified in other Modules or Conditions of this Permit.

   (c) A determination of no further action shall not preclude the Department from modifying this Permit at a later date to require further investigations, studies, monitoring, or corrective measures, if new information or subsequent analysis indicates the release(s) of likelihood of release(s) from SWMU(s) and/or AOC(s)

identified in Module Condition E.1.(a) that could pose a threat to human health or the environment.

2. Compliance Schedule for RCRA Facility Assessment ("RFA") Sampling Visit Work Plan.

   Not applicable at this time.

3. Compliance Schedule for RFA-SV Work Plan Implementation.

   Not applicable at this time.

4. Compliance Schedule for RFA-Sampling Visit Report.

   Not applicable at this time.

5. Compliance Schedule for RCRA Facility Investigation (RFI) Work Plan at Accessible SWMUs and AOCs.

   Not applicable at this time.

6. Compliance Schedule for RCRA Facility Investigation (RFI) Work Plan at Inaccessible SWMUs and/or AOCs.

   (a) On the basis of the RCRA Facility Assessment Report dated December 1988, the RCRA Facility Investigation Report dated April 2, 1999 and subsequent reports the Department has determined that there is the potential that there has been a release(s) of hazardous waste(s) and/or constituent(s) from the following inaccessible SWMU(s) and/or AOC(s) identified in Module Condition A.2.

      (i) Subslab Soils

   (b) The Permittee shall submit to the Department for approval a schedule for the RCRA Facility Investigation Work Plan that includes a Report on Current Conditions for the inaccessible SWMU(s) and/or AOC(s) identified in Module Condition E.6.(a) no later than ninety (90) calendar days following to the date when the SWMU(s) and/or AOC(s) becomes accessible for such an investigation. Accessibility to the SWMU(s) and/or AOC(s) shall be considered achievable when the impediment to the RFI (e.g. building, utilities) is demolished, operations cease, or will be altered in a manner that would allow access to the SWMU(s) and/or AOC(s).

   (c) Following submission of the RFI Work Plan subsequent activities for the Plan shall proceed in accordance with the following schedule:

      (i) Meeting between the Permittee and the Department to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plan to the Department for approval within thirty (30) calendar days of the above-described meeting. (If the above-referenced meeting is determined not to be necessary, the Permittee shall submit a revised Plan to the Department, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Plan comments from the Department).

7. Compliance Schedule for RCRA Facility Investigation (RFI) Work Plan Implementation, RFI Report and Summary Report Submissions.

(a) No later than thirty (30) calendar days after written notification by the Department approving the RFI Work Plan, the Permittee shall begin implementation of the Plan according to the schedules made part of the approved RFI Work Plan.

(b) Within sixty (60) calendar days of receipt by the Permittee of validated analytical data generated under the approved RFI Work Plan, the Permittee shall submit to the Department for approval the RFI Final Report and Summary Report. The RFI Final Report must contain adequate information to support further corrective action decisions at the facility and/or off site, should such actions be necessary. The RFI Final Report shall describe the procedures, methods, and results of all facility investigations of SWMU(s) and AOC(s) and their releases, including information on the type and extent of contamination at the facility and/or off site, sources and migration pathways, and actual or potential receptors. It shall present all information gathered under the approved RFI Work Plan.

(c) Following submission of the RFI Report and Summary Report set forth in Module Condition E.7.(b), subsequent activities for the Reports shall proceed in accordance with the following schedule:

(i) Meeting between the Permittee and the Department to discuss Report comments, as appropriate; and

(ii) Submission of a revised Report to the Department for approval within forty-five (45) calendar days of the above described meeting. (If the above referenced meeting is determined not to be necessary, the Permittee shall submit revised Reports to the Department, according to a schedule specified by the Department, not to exceed forty-five (45) calendar days after Permittee's receipt of Report comments from the Department).

(d) After the Department approves the RFI Final Report the Permittee shall mail the approved Summary Report to all individuals on the facility mailing list established by the Permittee, within thirty (30) calendar days of receipt of approval.

8. Compliance Schedule for Interim Corrective Measures (ICMs).

(a) The Department has identified the following ICM(s) for the site:

(i) Storm sewers – The sediments were removed from the on-site manhole STMH-3 and the off-site manhole MH-1, where the concentrations were greatest. This removal was already completed and prevented further releases of site related contaminants from being released into the creek from this section of the site storm sewer system.

(ii) Two Mile Creek – The sediments in the creek were removed and the cleanup objective was met. Bank soil samples were below the cleanup objective except for the samples from the western bank at transect T3. The surrounding area has been delineated and soil removal is scheduled for Spring of 2012. Confirmatory sampling of the excavation will be done to confirm that the remaining soils meet the cleanup objective.

Upon conclusion of the ICM for the Two Mile Creek, the Department will determine whether additional remediation and/or monitoring will be necessary and will inform the Permittee. The Permittee shall submit to the Department for approval within thirty (30) calendar days after receipt of written notification, the design and construction implementation schedule for the performance of any additional work specified by the Department.

(b) The Permittee must submit to the Department thirty (30) calendar days after the ICM Design Plan approval, documents establishing financial assurance for conducting the interim measures. The Permittee must continue to demonstrate financial assurance unless otherwise notified by the Department.

9. Requirements for a Corrective Measures Study (CMS).

(a) Should a CMS that evaluates alternative remedies be required, the Department shall notify the Permittee in writing when the CMS will be submitted. The submission time will take into consideration the extent of the remediation that needs to be implemented. This notice shall identify the hazardous constituent(s) which have exceeded target cleanup levels(s) that are considered a threat to human health and the environmental given site specific exposure conditions or due to additive exposure risk. The notification shall specify the target cleanup levels for hazardous constituents detected in each medium of concern, and may also specify corrective measure alternatives to be evaluated by the Permittee during the CMS. The CMS shall:

(i) Summarize the results of the investigations and, if applicable, of any bench-scale or pilot tests conducted;

(ii) Provide a detailed description of the corrective measures evaluated and include an evaluation of how each corrective measure alternative meets the standards set forth in Module Condition E.13.(a); and

(iii)Contain any additional information to support the Department in the corrective measure selection decision-making process, described under Module Condition E.13.

(b) The Permittee will not need to prepare and submit for approval a CMS that evaluates remedial alternatives when the Department and the Permittee agree on a pragmatic and presumptive remedy. The Permittee shall instead submit a focused CMS that includes a conceptual design for this presumptive remedy and explain how it meets the pertinent requirements of Condition E.13., within sixty (60) calendar days following notification by the Department.

10. Compliance Schedule for Corrective Measures Study (CMS).

(a) On the basis of the RFI Report approved by the Department on October 5, 1999 and subsequent reports the Department has determined that a Corrective Measures Study shall be prepared by the Permittee for the following SWMU(s) and/or AOC(s) identified in Module Condition A.2.:

Not applicable at this time.

(b) Permittee shall submit a CMS plan for approval within sixty (60) calendar days after effective date of this permit or within sixty (60) calendar days after the approval by the Department of the RFI.

Not applicable at this time.

(c) Permittee shall begin to implement the CMS plan within thirty (30) calendar days following written approval of the Plan.

Not applicable at this time.

(d) Compliance Schedule for CMS Final Report

(i) Within forty-five (45) calendar days after completion of the CMS the Permittee shall submit for approval a CMS Final Report.

Not applicable at this time.

(ii) Following submission of the CMS Final Report, a meeting shall be held between the Permittee and the Department to discuss the Report comments, as appropriate. Submission of a revised Report to the Department shall be submitted for approval within thirty (30) calendar days of meeting or within forty-five (45) calendar days after Permittee's receipt of Report comments from the Department if no meeting is scheduled.

Not applicable at this time.

11. Compliance Schedule for Corrective Measures Study Implementation(s).

Not applicable at this time.

12. Compliance Schedule for Corrective Measures Study Final Report.

Not applicable at this time.

13. Corrective Measure(s) Selection.

(a) Based on the information presented in the CMS, and any further evaluations of additional corrective measures under this study, the Department shall select the corrective measure(s) that at a minimum will meet the following standards:

(i) Be protective of human health and the environment;

(ii) Attain media target cleanup levels selected by the Department during the corrective measures selection process;

(iii) Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and

(iv) Meet all applicable waste management requirements.

(b) In selecting the corrective measure(s) which meets the standards for corrective measures established under Module Condition E.13.(a), the Department shall consider the following evaluation factors, as appropriate:

(i) Long-term reliability and effectiveness. Any potential corrective measure(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful. Factors that shall be considered in this evaluation include:

(1) Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents:

(2) The type and degree of long-term management required, including monitoring and operation and maintenance;

(3) Potential for exposure of humans and environmental receptors to remaining

hazardous wastes, including hazardous constituents, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment;

(4) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal constituents, and their residuals; and

(5) Potential need for replacement of the corrective measure(s).

(ii) Reduction of toxicity, mobility or volume. A potential corrective measure(s) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes, including hazardous constituents. Factors that shall be considered in such assessments include:

(1) The treatment processes the corrective measure(s) employs and materials it would treat;

(2) The amount of hazardous wastes, including hazardous constituents, that would be destroyed or treated;

(3) The degree to which the treatment is irreversible;

(4) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents; and

(5) All concentration levels of hazardous waste, including hazardous constituents, in each medium that the corrective measure(s) must achieve to be protective of human health and the environment.

(iii)The short-term effectiveness of a potential corrective measure(s) may be assessed considering the following:

(1) Magnitude of reduction of existing risks;

(2) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a corrective measure(s), including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment; and

(3) Time until full protection is achieved.

(iv)Implementability. The ease or difficulty of implementing a potential corrective measure(s) may be assessed by considering the following types of factors:
(1) Degree of difficulty associated with constructing the technology;

(2) Expected operational reliability of the technologies;

(3) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(4) Availability of necessary equipment and specialists;

(5) Available capacity and location of needed treatment, storage and disposal services; and

(6) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s).

(v) Cost. The types of costs that may be assessed include the following:

(1) Capital costs;

(2) Operation and maintenance costs;

(3) Net present value of capital and operation and maintenance costs; and

(4) Potential future corrective measure costs.

14. Corrective Measure(s) Implementation.

The Department has selected the final corrective measure(s) through the Statement of Basis consistent with the applicable statutory and regulatory standards and initiate a Permit renewal, pursuant to 6 NYCRR 373-1.7(b) and 6 NYCRR 621.14 to require implementation of the selected corrective measure(s). The Statement of Basis discussing the proposed final corrective measure(s) was public noticed. A Response to Comments was issued that addresses comments received during the public comment period, identifies the final corrective measures and any changes which are different from those in the Statement of Basis and the reason(s) for the change(s) from the Statement of Basis.

(a) Within ninety (90) calendar days after the effective date of this Permit, the Permittee shall submit to the Department for review and approval Corrective Measures Implementation (CMI) plan(s) for the selected corrective measures.

(b) Within ninety (90) calendar days after the effective date of this Permit, the Permittee shall demonstrate in writing to the Department financial assurance for completing the approved final corrective measure(s).

(c) The Permittee shall begin to implement selected remedies for the final corrective measures within sixty (60) calendar days of receipt of Department approval of the

CMI work plan(s). Modifications proposed by the Permittee to enhance the effectiveness of corrective measures shall upon approval by the Department, be incorporated into the respective CMI work plan. The CMI work plan(s) describe the remedy, remedy implementation and remedy performance evaluation requirements, and are incorporated into this permit by reference.

(d) Within one hundred and twenty (120) calendar days of receipt by the Permittee of validated analytical data generated under the approved Corrective Measures Implementation Work Plan, the Permittee shall submit for approval the Corrective Measures Completion Final Report.

15. Modification of the Compliance Schedules.

(a) If at any time the Permittee determines that modification of any Compliance Schedule of this Permit Module, including Attachment II-D, is necessary because such schedules cannot be met, the Permittee must:

(i) Notify the Department in writing within fifteen (15) calendar days of such determination; and

(ii) Provide an explanation as to why the current schedule cannot be met.

(b) The Department shall notify the Permittee in writing of the final decision regarding the Permittee's proposed modification to the Compliance Schedule.

(c) Modifications to the Compliance Schedule for non-specific final compliance dates pursuant to this procedure do not constitute a re-issuance of this Permit.

(d) All other modifications to this Permit Module must be made in accordance with Module I of this Permit.

F. COMPLIANCE SCHEDULE FOR CORRECTIVE ACTION ACTIVITIES

The compliance schedule shall be that which is derived during the execution of Sections B, C, D, and E contained herein, as applicable.

G. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

Within ninety (90) days from the effective date of this Permit, the Permittee shall submit to the Department an updated corrective action cost estimate. The estimate, in current dollars, must address the costs of all groundwater monitoring and treatment and planned maintenance activities associated with the corrective action program pursuant to 6NYCRR 373-2.6(1) and 373-2.8. Each year the Permittee must submit an updated estimate and an appropriately adjusted financial assurance instrument pursuant to 6NYCRR 373-2.8(f). The financial assurance must be in current dollars and for an amount not less than the latest corrective

action cost estimate. Adjustments to the annual cost estimate must include inflation and capital replacement costs.

H. GROUNDWATER MONITORING PROGRAM

1. Groundwater Monitoring Program.
The Permittee shall submit to the Department for review and approval a Groundwater Monitoring Plan, as part of the Site Management Plan, within one hundred and twenty (120) calendar days of receipt by the Permittee of validated analytical data generated under the approved Corrective Measures Implementation Work Plan. The Plan shall be prepared in conformance with the *RCRA Quality Assurance Project Plan Guidance*, the *RCRA Groundwater Monitoring Technical Enforcement Guidance Document* (EPA, September 1986), and *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (EPA publication SW-846, Third Edition, First Update) or subsequent revisions to these documents.

The Groundwater Monitoring Plan, at a minimum, shall contain and address the following:

(a) Sampling and Analysis Plan in accordance with Appendix II-E of this Module

(b) The background information for those wells in the Plan in accordance with Appendix II-E of this Module. All data presentation formats (boring logs, well specifications, tables, geologic cross-sections, and maps) shall be cross-checked for accuracy. Any necessary modifications shall be submitted along with (and where appropriate, as part of) the Groundwater Monitoring Plan; and

(c) A detailed groundwater program description in accordance with this Module.

The Plan must include a list of the wells and sampling parameters that shall be used for monitoring and a corresponding schedule which indicates the sampling frequency at each well. The selected wells, parameters, and frequencies must be capable of accurately characterizing the groundwater and performing all evaluations required under this Permit. If at any time it is determined that the groundwater monitoring network is not capable of such characterization, the network must be upgraded until such characterization is complete.

If the Permittee can demonstrate that all monitoring objectives are being met and that certain wells are providing information that is redundant or information that does not add to the technical understanding of the site characterization, the Permittee may submit a proposal for a reduction in the number of monitoring wells, or a reduction of monitoring requirements at certain wells. The Commissioner shall review the proposal and shall determine modifications to be made to the monitoring program. The Permittee shall be notified of the Commissioner's determination.

The Groundwater Monitoring Plan must be kept at the facility and at the offices of the Permittee's consultant(s) and any other party involved in the collection of groundwater samples at this site. The Permittee shall ensure that all appropriate personnel, including outside contractors, have been properly trained in the application of the Groundwater

Monitoring Plan and that the Plan is followed whenever groundwater samples are obtained at the site. The Plan shall not be modified without prior approval by the Department.

The Permittee must follow an approved Sampling and Analysis Plan whenever samples are collected.

2. Reporting Requirements.

   (a) The Permittee shall report to the Commissioner annually (March 1) the results of all groundwater monitoring and all required evaluations in accordance with required programs in this Permit and as specified below:

      (i) Annual Reporting. The Permittee shall submit a summary report of all monitoring results obtained during the preceding year. The permittee shall submit all laboraroty analytical results and field measurements (pH, specific conductance, temperature, and groundwater elevations) which were obtained from groundwater monitoring during the preceding year. The groundwater data shall be submitted in the DEC-approved Electronic Data Deliverable (EDD). In addition, the following information shall be contained in the Annual Report:

         (1) Proposal for any changes to the Groundwater Monitoring Plan.

         (2) Any additional monitoring data collected for the purpose of characterizing conditions related to releases from the site.

         (3) An evaluation of the contaminant levels with respect to New York State Groundwater Standards.

      The minimum QA/QC data and information to be delivered with the sample analyses reports are stipulated in Appendix II-A of Permit Module II.

3. Inability to Obtain Representative Samples.

   (a) Well Damage or Other Problems. If the Permittee determines that a well may not provide representative samples or accurate groundwater elevation values, or may be damaged, the Permittee shall, within fourteen (14) days of such knowledge, notify the Department in writing and propose a remedy. Within thirty (30) days of such knowledge the Permittee shall, through written notice to the Department, provide information which describes the nature of the problem. In addition, the notification shall contain:

      (i) A description of how the problem with the well has been rectified.

      (ii) A schedule for the rehabilitation or replacement of the well.

      If a problem with a well prevented the Permittee from obtaining a scheduled sample, a sample shall be obtained within thirty (30) days after the rehabilitation or replacement of the well.

(b) Resampling. If the Permittee knows that an error in either sampling or analytical methods has occurred, that affected well shall be resampled within fourteen (14) days of such knowledge unless this requirement is waived by the Department.

(c) Inaccessible Wells. If wells in two or more pairs or clusters in one specific area are inaccessible during any sampling event (due to snow, flooding, or other obstruction), or if any one well is inaccessible for two consecutive sampling periods, the Permittee will notify the Department of the problem in writing within fourteen (14) days of such knowledge. The written notification and subsequent actions will comply with the requirements described in Module H.3(a) for wells determined to be damaged.

(d) Dry Wells. If a well does not contain sufficient water for sampling, the well may go unsampled for one sampling period. Prior to the next scheduled sampling of the well, a water level measurement will be collected to determine if the well contains sufficient water for sampling. If the measurement indicates that the well is not likely to contain a sufficient quantity of water for collection of a representative sample, the Permittee will, prior to the start of the next sampling round, submit a proposal to the Department to eliminate or replace the well, or substitute with an existing well. The exception to this would be if the well is known to be seasonally dry during the following scheduled sampling event, in which case a proposal would not need to be submitted for one additional sampling period.

4. Well Maintenance and Inspection

The groundwater monitoring system shall be maintained to ensure that all monitoring points yield representative samples of high integrity. All Groundwater Sampling Wells, as presented in the approved Groundwater Monitoring Plan, shall be inspected for integrity each time samples are collected. All other network monitoring wells and piezometers shall be inspected at least annually. All wells shall be inspected in accordance with the Groundwater Monitoring System Inspection Plan in Appendix II-F of this Permit Module. Should a well or piezometer be found to be damaged beyond usability, blocked or broken, or fail to recharge properly, it shall be repaired or abandoned and replaced if necessary. Should any significant cracking or frost-heaving of the grout be observed, repairs shall be made and the measuring point resurveyed to ensure accurate computation of groundwater elevation. All necessary repairs or replacements shall be completed as soon as possible, but not to exceed 120 days after identification of the problem.

The number for each well and piezometer shall be permanently affixed to or engraved into the well casing or cap and maintained as necessary to prevent corrosion. Monitoring wells which may be obscured by vegetation during the summer shall be flagged and the flagging maintained or replaced as necessary so that the wells may be readily located.

5. Collection of Groundwater Samples by NYSDEC

At the request of the Department the Permittee and the Owner shall allow the Department 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 or the Owner the Department shall allow the Permittee or the owner or either's authorized representatives to take splits or duplicates of any samples collected by the

Department. The Department agrees to provide the Permittee adequate notice before any sampling activities to allow the Permittee to coordinate such activities. The Permittee shall provide for adequate disposal of purge water whenever samples are collected by the Department.

6. Well Construction

All groundwater monitoring wells and piezometers installed after the effective date of this Permit, and pursuant to the requirements of this Permit, shall be constructed in accordance with the most recent RCRA requirements and guidelines and shall be subject to the Department's approval. Work plans which include proposed well installations shall include a description of installation procedures and materials to be used.

7. Well Decommissioning

Should it become necessary or desirable to decommission any wells or piezometers in the monitoring network, the Permittee shall submit a specific well decommissioning plan to and obtain approval from the Department prior to removal of any wells.

APPENDIX II-A

Components Required For RCRA Analytical Data Submitted to New York State Department of Environmental Conservation

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A data deliverables package is to be supplied with all analytical data, as specified in the approved Quality Assurance Project Plan (QAPP) or work plan. Category B or CLP data deliverables, as specified in the latest version of the NYSDEC Analytical Services Protocol (ASP), are required unless otherwise specified in an approved QAPP or work plan. The Category B and CLP data deliverables packages are specified in Exhibit B of the NYSDEC ASP. Copies of the ASP, on CD, are available from the Water Quality Standards and Analytical Support Section in the Bureau of Water Assessment and Management in the Division of Water, http://www.dec.ny.gov/chemical/23842.html. The data package must be submitted to the Department in accordance with the requirements set forth on the Department website http://www.dec.ny.gov/chemical/62440.html or another Department approved format. In addition, the laboratory must be certified by NYSDOH ELAP for the category and parameters of interest as per 6 NYCRR 370.1(f). A list of commercial laboratories can be found at http://www.wadsworth.org/labcert/elap/comm.html.

Category B or CLP data deliverables are generally expected for corrective action sampling, characterization groundwater monitoring and closures. For long term groundwater monitoring, an abbreviated data package may suffice, with prior Department quality assurance approval, since the variability of the data with time can be used as a quality control check. A facility may request a change to the data deliverables package, and may propose modifications to the QAPP accordingly. Modifications to the data deliverables criteria must be approved by the Department prior to implementation.

APPENDIX II-B

Scope of Work for a RCRA Facility Investigation

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This appendix is also applicable for a newly identified SWMU and/or AOC or a newly discovered release at any SWMU and/or AOC.

I. INTRODUCTION

The Permittee shall undertake a RCRA Facility Investigation ("RFI") that should include the development of several component plans and supporting reports relevant to the specific investigations to be undertaken pursuant to this Permit. Component plans and reports must be prepared and submitted in accordance with the Compliance Schedules in Module II Conditions B-E and Appendix II-D of this Permit Module.

The purpose of this RFI is to characterize the nature, extent, direction, rate, movement and concentration of releases of hazardous waste and/or constituents from Solid Waste Management Units and Areas of Concern at the facility including areas off-site impacted by the release(s) from the facility and to gather all necessary data to support the Corrective Measures Study. This Appendix is to serve as guidance for conducting an RFI. Therefore, all of the material addressed in this Appendix may not apply to the units or areas to be investigated by the Permittee. The Permittee should consult with Department representatives before beginning the RFI process regarding which Appendix items need to be addressed during the investigations. The Permittee shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RCRA Facility Investigation.

The RFI Scope of Work includes several tasks:

Task I: A report on the Description of Current Conditions.

Task II: A report on the Pre-Investigation Evaluation of Corrective Measures.

Task III: RFI Management Plans including:

A. The Project Management Plan;
B. The Data Management Plan;
C. The Quality Assurance Project Plan;
D. The Health and Safety Plan; and
E. The Community Relations Plan.

Task IV: The Facility Investigation.

Task V: Investigative Analysis.

Task VI: Laboratory, Bench Scale, and Pilot Studies.

Task VII: Reports.

The report on Description of Current Conditions should comprise of all available and relevant information and data on the facility's background, SWMU(s) and AOC(s) characterization, nature and extent of contamination, potential receptors, and prevailing corrective action implementation. Data and

information gathered during any previous investigations, remediations, or inspections and other relevant data should be included in the submittal. That information and data may then be used to focus subsequent field investigations and development of the respective work plans for the SWMU(s) and AOC(s) to be investigated as part of this Permit. If the Permittee maintains that relevant information and data has been submitted, the Permittee should cite such submittal(s). The Permittee shall refer to Module II Condition B.5 on addressing prior submittals.

The report on Pre-Investigation Evaluation of Corrective Measures will identify potential technologies that may be considered by the Permittee for subsequent implementation. These alternative technologies will focus the RFI to collect the necessary data for their proper evaluation.

The RFI Management Plans shall provide the necessary information that will assure that the following objectives are met:

- Proper management of all aspects of the RFI project including tracking of project milestones. Schedules and tracking methods shall be established for RFI tasks and report submittals (Project Management Plan);

- Satisfactory presentation of data and results developed by the RFI. Data management procedures shall be established to effectively process data such that relevant data descriptions are readily accessible and accurately maintained (Data Management Plan);

- Generation of valid data during the RFI investigation. QA/QC procedures shall be established to describe and document data quality (Quality Assurance Project Plan);

- Implementation of appropriate health and safety measures during the RFI. Health and safety procedures shall be established to ensure the health and safety of the investigative team(s) and the general public during the RFI (Health and Safety Plan); and

- Provision for informing the community of the results of the RFI (Community Relations Plan).

The Facility Investigation shall focus on procedures and techniques that will be utilized during field investigations to characterize the environmental setting and the contaminant release(s) from the SWMU(s) and AOC(s). Characterization of the environmental setting will be necessary to determine monitoring locations and to aid in defining the boundaries of the contaminated unit(s) and area(s). The Permittee shall characterize each environmental media, as deemed necessary by the Department, to provide information that can be used to determine the rate and extent of the contaminant release(s). Characterization of the contaminant release(s) from the SWMU(s) and AOC(s) will be necessary to determine the nature, extent, direction, rate, movement and concentration of the contaminant plume(s).

Since a potentially broad spectrum of situations involving information on a specific release(s) may exist at the beginning of the RFI, a flexible, phased approach for the release investigation may be necessary. The Permittee may begin with an evaluation of existing data and propose the collection of additional data as necessary to characterize the release. The Permittee may consider incorporating appropriate screening techniques, i.e., soil gas, geophysical methods, as the initial phase of field investigation for the RFI.

Based on existing data and/or data collected by appropriate screening techniques, the Permittee may develop a conceptual model of the release. This model may then be used to plan and develop subsequent investigations. The Permittee shall then develop work plans for the subsequent investigative program(s), as deemed necessary by the Department, utilizing conventional monitoring techniques capable of release(s) verification and/or characterization.

An Investigative Analysis shall be carried-out on the data generated by the Facility Investigation. The analysis shall focus on the quality of data generated and on establishing the nature, extent, direction, rate, movement and concentration of contamination.

Laboratory and/or Bench Scale Studies shall be performed to assess corrective measure technologies that may be applicable for remediating the SWMU(s), the AOC(s), and the environmental contamination investigated by the Permittee. The information gathered from such studies will assist the Permittee in selecting the alternative technologies for evaluation during the Corrective Measures Study.

Progress reports on the Facility Investigation and Laboratory Bench Scale Studies shall be submitted quarterly in addition to a final RFI Report and Summary Report.

II. TASK I: DESCRIPTION OF CURRENT CONDITIONS

The Permittee shall submit a report for Task I containing available and relevant information and data on the facility's background, SWMU(s), AOC(s), contamination, receptors, and remediation undertaken pertinent to the specific SWMU(s) and AOC(s) to be investigated as part of this Permit.

A. Facility Background

The Permittee shall summarize the regional location, pertinent boundary features, general facility physiography, geology, hydrogeology, and historical use of the facility for the treatment, storage or disposal of solid and hazardous waste. The information shall include:

1. Map(s) depicting the following:

   (a) General geographic location;

   (b) Property lines, with the owners of all adjacent property clearly indicated;

   (c) Topography and surface drainage depicting all waterways, wetlands, floodplains, water features, drainage patterns, and surface-water containment areas;

   (d) All above and underground tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;

   (e) All known past and present solid or hazardous waste treatment, storage or disposal areas;

   (f) All process sewers;

   (g) Surrounding land uses (residential, commercial, agricultural, recreational); and

   (h) The locations of all production, withdrawal, and groundwater monitoring wells at the facility and within the vicinity of the facility. These wells shall be clearly labeled and ground and top of casing elevations and construction details included (these elevations and details may be included as an attachment).

All maps shall be consistent with the requirements set forth in 6NYCRR Subpart 373-1.5(a)(2)(xix) and be of sufficient detail and accuracy to locate and report all current and future work performed at the site.

2. A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage and disposal activities at the facility.

3. Approximate dates and/or periods with description(s) of past product, raw material, and waste spills; identification of the materials spilled; the amount spilled; the location where spilled; and a description of the response actions conducted (local, state, or federal response units or private parties), including any inspection reports or technical reports generated as a result of the response.

B. SWMU and AOC Characterization

The Permittee shall submit available and relevant information that will characterize the wastes, the SWMU(s) and the AOC(s) where wastes have been placed, collected or removed including: type; quantity; physical state; disposition (containment or nature of deposits); and facility characteristics affecting the release(s) (e.g., facility security, and engineered barriers). The information should include:

1. SWMU and AOC Characteristics:

   (a) Location of unit/area (located on facility map);
   (b) Type of unit/area;
   (c) Design features;
   (d) Operating practices (past and present);
   (e) Period of operation;
   (f) Age of unit/area; and
   (g) General physical conditions.

2. Waste Characteristics:

   (a) Type of waste placed in the unit/area:

      (i) Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing or reducing agent);
      (ii) Quantity; and
      (iii) Chemical composition.

   (b) Physical and chemical characteristics of waste and its constituents:

      (i) Physical state (solid, liquid, gas);
      (ii) Physical description (e.g., powder, oily sludge);
      (iii) Temperature;
      (iv) pH;
      (v) General chemical class (e.g., acid, base, solvent);
      (vi) Molecular weight;
      (vii) Density;
      (viii) Boiling point;
      (ix) Viscosity;
      (x) Solubility in water;
      (xi) Cohesiveness of the waste;
      (xii) Vapor pressure;
      (xiii) Flash point; and
      (xiv) Other relevant properties.

(c) Migration and dispersal characteristics of the waste constituents and procedures used in making the determination:

(i) Sorption;
(ii) Biodegradability, bioconcentration, biotransformation;
(iii) Photodegradation rates;
(iv) Hydrolysis rates;
(v) Chemical transformations; and
(vi) Volatilization rates.

C. Nature, Extent, Direction, Rate, Movement and Concentration of Contamination

The Permittee shall submit available and relevant information on the nature, extent, direction, rate, movement and concentration of the release(s) from the SWMU(s) and the AOC(s). This information and data should include:

1. Summary of available monitoring data and qualitative information on locations and levels of contamination at the facility and within the vicinity of the facility if contamination has migrated off site.

2. Summary of all potential contaminant migration pathways including available information on geology, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality.

D. Potential Receptors

The Permittee shall submit available and relevant information describing the human populations and environmental systems that are susceptible to exposure by the contaminant release(s) from the SWMU(s) and the AOC(s). Data on observable effects or bioassays for ecosystems should accompany this submittal if available. The information shall include:

1. Local uses and possible future uses of groundwater:

(a) Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial);
(b) Location of groundwater users including wells and discharge areas (identify on a map); and
(c) The well(s) pump rate(s) and the well(s) depth(s).

2. Local uses and possible future uses of surface waters draining from the facility:

(a) Domestic and municipal (e.g. potable and lawn/gardening watering);
(b) Recreational (e.g. swimming, fishing);
(c) Agricultural;
(d) Industrial; and
(e) Environmental (e.g. fish and wildlife propagation).

3. Human use of or access to the facility and adjacent lands, including, but not limited to:

(a) Recreation;
(b) Hunting;
(c) Residential;
(d) Commercial;

(e) Zoning; and
(f) Relationship between population locations and prevailing wind direction.

4. A description of the biota in surface water bodies on, adjacent to, or affected by the facility.

5. A description of the ecology overlying and adjacent to the facility.

6. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.

7. A description of any endangered or threatened species near the facility.

E. Corrective Action Implementation

The Permittee shall submit documentation on corrective measures (remedial measures) undertaken on site or off site at the facility. Remedial actions should include any interim corrective measures, RCRA closures, State or Federal Superfund activities. This documentation shall include:

1. Objectives of the remediation and how it is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long term solution at the facility;

2. Design, construction, operation, and maintenance requirements;

3. Schedules for design, construction and monitoring; and

4. Schedule for progress reports.

IIII. TASK II: PRE-INVESTIGATION EVALUATION OF CORRECTIVE MEASURES

The Permittee shall submit a report for Task II that identifies the potential corrective measure technologies that may be used on site or off site for the containment, treatment, remediation, and/or disposal of contamination. This report shall also identify any field data that needs to be collected in the facility investigation to facilitate the evaluation and selection of the final corrective measure or measures (e.g., compatibility of waste and construction materials, information to evaluate effectiveness, treatability of wastes, etc.).

IV. TASK III: RFI MANAGEMENT PLANS

The Permittee shall submit RFI Management Plans as part of the RFI Work Plan. The Plans shall address the methods and procedures necessary to manage the RFI, to describe data developed by the RFI, to gather and ensure valid RFI data, to protect the health and safety of investigators and the general public, and to keep the community informed about the RFI.

A. Project Management Plan

The Permittee shall prepare a Project Management Plan that shall include a discussion of the management approach, schedules, and personnel utilized during the RFI. That Plan shall include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This Plan shall also document the overall management approach to the RCRA Facility Investigation that will assure adherence to tasks and reporting schedules. The schedule for completing the RFI should reflect the schedules set forth in Module Condition II-E and Appendix

II-D. The schedule shall reflect dates for submittal of various RFI Work Plan components, dates for starting and accomplishing specific tasks associated with the RFI, and dates for reporting information from specific tasks to the Department.

B. Data Management Plan

The Permittee shall prepare a Data Management Plan to document and track investigation data and results. This Plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The Plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The data record shall include, but not be limited to the following:

(a) Unique sample or field measurement code;
(b) Sampling or field measurement location and sample or measurement type;
(c) Sampling or field measurement raw data;
(d) Laboratory analysis ID number;
(e) Property or component measured; and
(f) Result of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

(a) Unsorted (raw) data;
(b) Results for each medium or for each constituent monitored;
(c) Data reduction for statistical analysis;
(d) Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
(e) Summary data.

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):

(a) Display sampling location and sampling grid;
(b) Indicated boundaries of sampling area, and areas where more data are required;
(c) Display levels of contamination at each sampling location;
(d) Display geographical extent of contamination;
(e) Display contamination levels, averages, and maxima;
(f) Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and
(g) Indicate features affecting intramedia transport and show potential receptors.

C. Quality Assurance Project Plan (QAPjP)

The Permittee shall prepare a QAPjP to document each phase of investigative work and all sampling and monitoring procedures to be implemented during the RFI. The following activities

shall be covered in the QAPjP: sampling, field measurements and sample analysis performed during the investigations. This Plan shall ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPjP(s) shall be developed in accordance with the following guidance documents, "RCRA Quality Assurance Project Plan Guidance," "SW-846," and "Technical Enforcement Guidance Document." The Plan shall address all of the sixteen (16) essential QA/QC elements stipulated in the "RCRA Quality Assurance Project Plan Guidance." A summary of the QA/QC elements that shall be in the Plan is found in the subsequent paragraphs.

1. Data Quality Objectives

The QAPjP shall include, but not be limited to the following:

(a) Description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;
(b) Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;
(c) Description of the rational used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition or an environmental condition; and
(d) Description of the measures to be taken to assure that data sets can be compared to each other.

2. Sampling and Field Measurements

The QAPjP shall include, but not be limited to the following:

(a) Sampling and field measurement locations, depths, etc.;
(b) Collecting all necessary ancillary data;
(c) Conditions under which sampling and field measurements should be conducted;
(d) Media to be sampled and addressed by field measurements (e.g., groundwater, air, soil, sediment, etc.);
(e) Parameters to be measured and where;
(f) The frequency of sampling and field measurements and length of sampling period;
(g) The types of sample (e.g., composites vs. grabs) and number of samples to be collected;
(h) Measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;
(i) Documenting field sampling and measurement operations and procedures, including;

(i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and adsorbing reagents);
(ii) Procedures and forms for recording raw data and the exact location, time, and specific considerations associated with sample and data acquisition;
(iii) Documentation of specific sample preservation method;
(iv) Calibration of field devices;
(v) Collection of replicate samples and measurements;
(vi) Submission of field-biased blanks, where appropriate;
(vii) Potential interferences present at the facility;
(viii) Construction materials and techniques, associated with monitoring wells

and piezometers;
(ix) Field equipment listing and sample containers;
(x) Sampling and field measurement order; and
(xi) Decontamination procedures.

(j) Selecting appropriate sample containers;
(k) Sample preservation; and
(l) Chain-of-Custody, including:

(i) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment; and
(ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

The QAPjP shall include, but not be limited to the following:

(a) Chain-of-custody procedures, including:

(i) Identification of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
(ii) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
(iii) Specification of laboratory sample custody procedures for sample handling, storage, and disbursement for analysis.

(b) Sample storage procedures and storage times;
(c) Sample preparation methods;
(d) Analytical procedures, including:

(i) Scope and application of the procedure;
(ii) Sample matrix;
(iii) Potential interferences;
(iv) Precision and accuracy of the methodology; and
(v) Method detection limits.

(e) Calibration procedures and frequency;
(f) Data reduction, validation and reporting;
(g) Internal quality control checks, laboratory performance and systems audits and frequency, including:

(i) Method blank(s);
(ii) Laboratory control sample(s);
(iii) Calibration check sample(s);
(iv) Replicate sample(s);
(v) Matrix-spikes sample(s);
(vi) "Blind" quality control sample(s);
(vii) Control charts;
(viii) Surrogate samples;
(ix) Zero and span gases; and

(x) Reagent quality control checks.

(h) Preventive maintenance procedures and schedules;
(i) Corrective action (for laboratory problems); and
(j) Turnaround time.

D. Health and Safety Plan

The Permittee shall prepare a Health and Safety Plan for the protection of the investigative team(s), workers, and general public which may be exposed to hazards.

1. The Health and Safety Plan shall include, but not be limited to the following:

(a) Facility description including availability of resources such as roads, water supply, electricity and telephone service;
(b) Describe the known hazards and evaluate the risks associated with the incident and with each activity conducted;
(c) List key personnel and alternates responsible for site safety, response operations, and for protection of public health;
(d) Delineate work areas;
(e) Describe levels of protection to be worn by personnel in work areas;
(f) Establish procedures to control site access;
(g) Describe decontamination procedures for personnel and equipment;
(h) Establish site emergency procedures;
(i) Address emergency medical care for injuries and toxicological problems;
(j) Describe requirements for an environmental surveillance program;
(k) Specify any routine and special training required for responders; and
(l) Establish procedures for protecting workers from weather-related problems.

2. The Facility Health and Safety Plan shall be consistent with:

(a) NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985) and subsequent revisions;
(b) EPA Order 1440.1 - Respiratory Protection;
(c) EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;
(d) Facility Contingency Plan;
(e) EPA Standard Operating Safety Guide (1984) and subsequent revisions;
(f) OSHA regulations particularly in 29 CFR §§ 1910 and 1926;
(g) State, local, and other federal agency (e.g., DOD, DOE) regulations; and
(h) Other EPA guidance as provided.

E. Community Relations Plan

The Permittee shall prepare a plan on disseminating information to the public regarding investigation activities and results. The plan should identify who will be notified and will receive summary RFI reports.

V. TASK IV: THE FACILITY INVESTIGATION

The Permittee shall submit a work plan that shall address the techniques and procedures necessary to characterize the environmental setting at and within the vicinity of the facility and the media-specific contamination resulting from the release(s) by the SWMU(s) and the AOC(s). The part of the work plan

that addresses field sampling and measurement activities shall meet the sampling plan requirements stipulated in the "RCRA Quality Assurance Project Plan Guidance."

A. Environmental Setting

The Permittee shall submit an appropriate plan on collecting information to supplement existing information on the environmental setting at the facility and in the vicinity of the facility. Sufficient information shall be collected by the Permittee to characterize only those environmental media impacted by the release(s) from the SWMU(s) and the AOC(s):

1. Hydrogeology

The Permittee shall conduct a program to characterize the hydrogeologic conditions at the facility and the off-site areas where contamination has migrated. The program shall provide relevant information on geology and hydrogeology that should include, but not be limited to the following facts:

(a) A description of the regional and facility specific geologic and hydrogeologic characteristics which affect groundwater flow both beneath and within the vicinity of the facility, including:

(i) Regional and facility specific geomorphology and stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
(ii) Structural geology: description of local and regional structural features (e.g., folds, faults, joints, and fractures);
(iii) Identification and characterization of areas and amounts of recharge and discharge;
(iv) Regional and facility specific groundwater flow patterns; and
(v) Characterize seasonal variations in the groundwater flow regime.

(b) An analysis of any topographic features that might influence the groundwater flow system.

(c) Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways (i.e., the aquifers and any intervening saturated and unsaturated units), including:

(i) Hydraulic conductivity and porosity (total and effective);
(ii) Lithology, grain size, sorting, degree of cementation;
(iii) An interpretation of hydraulic interconnections between saturated zones; and
(iv) The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content etc.).

(d) Based on field studies and cores, structural geology and hydrogeologic cross sections, a description of the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways, including:

(i) Sand and gravel deposits in unconsolidated deposits;
(ii) Zones of fracturing or channeling in consolidated or unconsolidated

deposits;

(iii) Zones of higher permeability or low permeability that might direct and restrict the flow of contaminants;

(iv) The uppermost aquifer: geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs; and

(v) Water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration including perched zones of saturation.

(e) Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:

(i) Water-level contour and/or potentiometric maps;
(ii) Hydrologic cross sections showing vertical gradients;
(iii) The flow system, including the vertical and horizontal components of flow; and
(iv) Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.

(f) A description of man-made influences that may affect the hydrogeology, identifying:

(i) Active and inactive local water-supply and production wells with an approximate schedule of pumping; and
(ii) Man-made hydraulic structures (sewers, pipelines, French drains, ditches, unlined ponds, septic tanks, outfalls, retention areas, etc.).

2. Soils

The Permittee shall conduct a program to characterize the soil and rock units above the water table in the vicinity of the contaminant release(s). The program shall provide relevant information on soil characterization that should include, but not be limited to the following facts:

(a) SCS soil classification;
(b) Surface soil distribution;
(c) Soil profile, including ASTM classification of soils;
(d) Transects of soil stratigraphy;
(e) Hydraulic conductivity (saturated and unsaturated);
(f) Relative permeability;
(g) Bulk density;
(h) Porosity;
(i) Soil sorptive capacity;
(j) Cation exchange capacity (CEC);
(k) Soil organic content;
(l) Soil pH;
(m) Particle size distribution;
(n) Depth of water table;
(o) Moisture content;
(p) Effect of stratification on unsaturated flow;
(q) Infiltration;

(r) Evapotranspiration;
(s) Storage capacity; and
(t) Mineral content.

3. Surface Water and Sediment

The Permittee shall conduct a program to characterize the surface-water bodies in the vicinity of the contaminant release(s). The program shall provide relevant information on surface water and sediment characterization that should include, but not be limited to the following facts:

(a) Description of the temporal and permanent surface-water bodies including:

(i) For lakes and estuaries: location, elevation, surface area, inflow-outflow characteristics, depth, temperature stratification, and volume;
(ii) For impoundments: location, elevation, surface area, depth, volume, inflow-outflow characteristics, freeboard, and purpose of impoundment;
(iii) For rivers, streams, ditches, drains, swamps and channels: location, elevation, flow, velocity, depth, width, inflow-outflow characteristics, seasonal fluctuations, and flooding tendencies (i.e., 100 year event);
(iv) Drainage patterns; and
(v) Evapotranspiration.

(b) Description of the chemistry of the surface water. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients (NH_3, NO_3^-/NO_2, PO_4^{-3}), chemical oxygen demand, total organic carbon, and specific contaminant concentrations.

(c) Description of sediment characteristics including:

(i) Deposition area;
(ii) Thickness profile; and
(iii) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, and pH).

4. Air

The Permittee shall conduct a program to characterize the climate at the facility and in the vicinity of the facility when contamination migrates off-site. The program shall provide relevant information on climatic conditions that should include, but not be limited to the following facts:

(a) A description of the following parameters:

(i) Annual and monthly rainfall averages;
(ii) Monthly temperature averages and extremes;
(iii) Wind speed and direction;
(iv) Relative humidity/dew point;
(v) Atmospheric pressure;
(vi) Evaporation data;
(vii) Development of inversions; and
(viii) Climate extremes that have been known to occur in the vicinity of the

facility, including frequency of occurrence.

(b) A description of topographic and man-made features which affect air flow and emission patterns, including:

(i) Ridges, hills or mountain areas;
(ii) Canyons or valleys;
(iii) Surface-water bodies (e.g., rivers, lakes, bays, etc.);
(iv) Wind breaks and forests;
(v) Buildings; and
(vi) Existing man-made air emission sources (e.g., industrial processes, residences, etc.).

B. Contamination Characterization Plan

The Permittee shall submit a work plan on collecting analytical data to supplement existing data on groundwater, soils, surface water, sediment, air and subsurface gas contamination. This data shall be sufficient to define the nature, extent, origin, direction, and rate of movement of contaminant plume(s) in the environmental medium impacted by the release(s) from the SWMU(s) and AOC(s).

1. Groundwater Contamination

The Permittee shall conduct a program to characterize any plume(s) of contamination at the facility and any plume(s) that have migrated off-site. The program shall provide relevant information on groundwater contamination that should include, but not be limited to the following facts:

(a) A description of the horizontal and vertical extent of any immiscible or dissolved plume(s);
(b) The horizontal and vertical direction of contamination movement;
(c) The velocity of contaminant movement;
(d) The horizontal and vertical concentration profiles of contaminant constituents in the plume(s);
(e) An evaluation of factors influencing the plume movement, specific contaminant movement, and specific contaminant transformation (e.g., physical, chemical, biological, etc.); and
(f) An extrapolation of future contaminant movement.

2. Soil Contamination

The Permittee shall conduct a program to characterize the contamination of the soil and rock units above the water table in the vicinity of the contaminant release(s). The program shall provide relevant information on soil contamination that should include, but not be limited to the following facts:

(a) A description of the vertical and horizontal extent of contamination.
(b) A description of relevant contaminant chemical properties within the contaminant source area and plume. This includes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation.

(c) Specific contaminant concentrations.
(d) The velocity and direction of contaminant movement.
(e) An extrapolation of future contaminant movement.

3. Surface Water and Sediment Contamination

The Permittee shall conduct a program to characterize the contamination in surface water bodies resulting from the contaminant release(s) at the facility. The program shall provide relevant information on surface water and sediment contamination that shall include, but not be limited to the following facts:

(a) A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility, and the extent of contamination in underlying sediments;
(b) The horizontal and vertical direction of contaminant movement;
(c) The contaminant velocity;
(d) An evaluation of the physical, biological and chemical factors influencing contaminant movement;
(e) An extrapolation of future contaminant movement; and
(f) The toxicity of the sediment and adjacent water column to aquatic life.

4. Air Contamination

The Permittee shall conduct a program to characterize the particulate and gaseous contaminants released into the atmosphere. The program shall provide relevant information on air emissions that should include, but not be limited to the following facts:

(a) A description of the horizontal and vertical direction and velocity of contaminant movement;
(b) The rate and amount of the release; and
(c) The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

5. Subsurface Gas Contamination

The Permittee shall conduct a program to characterize subsurface gas contamination in the soil. The program shall provide relevant information on subsurface gas contamination that should include, but not be limited to the following facts:

(a) A description of the horizontal and vertical extent of subsurface gas migration;
(b) The chemical composition of the gases being emitted;
(c) The rate, amount, and density of the gases being emitted; and
(d) Horizontal and vertical concentration profiles of the subsurface gases emitted.

VI. TASK V: INVESTIGATION ANALYSIS

The Permittee shall prepare an analysis and summary of all facility investigations and their results. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature, rate, and extent of contamination, potential threat to human health and/or the environment, and to support the Corrective Measures Study.

A. Data Analysis

The Permittee shall analyze all facility investigation data outlined in Task IV and prepare a report on the nature, rate, and extent of contamination at the facility including sources and migration pathways. The report shall describe the nature and extent of contamination (qualitative/ quantitative) in relation to background levels indicative for the area.

B. Protection Standards

The Permittee shall identify all relevant and applicable standards and action levels (e.g., health based guidance values) for the protection of human health and the environment.

VII. TASK VI: LABORATORY AND BENCH SCALE STUDIES

The Permittee shall conduct laboratory and/or bench scale studies to determine the applicability of a corrective measure technology or technologies to facility conditions. The Permittee shall analyze the technologies, based on literature review, vendor contracts, and past experience to determine the testing requirements.

The Permittee shall develop a testing plan identifying the type(s) and goal(s) of the study(s), the level of effort needed, and the procedures to be used for data management and interpretation.

Upon completion of the testing, the Permittee shall evaluate the testing results to assess the technology or technologies with respect to the site-specific questions identified in the test plan.

The Permittee shall prepare a report summarizing the testing program and its results, both positive and negative.

VIII. TASK VII: REPORTS

A. Progress Reports

The Permittee shall provide signed progress reports as required by Condition B.8.(a) of Module II of this Permit.

B. Draft and Final Reports

The Permittee shall prepare a RCRA Facility Investigation ("RFI") Report presenting all information gathered under the approved RFI Workplan.

APPENDIX II-C

Corrective Measure Study and Selection

General Electric Co.
Buffalo Service Shop
NYD067539940

This Appendix is applicable if there is a newly identified SWMU and/or AOC or a newly discovered release at any SWMU and/or AOC.

I. PURPOSE

The purpose of this Corrective Measure Study (CMS) is to develop and evaluate the corrective action alternative or alternatives and to recommend the corrective measure or measures to be taken. This Appendix serves as guidance for developing a CMS and much of its content may not be applicable, especially when developing a focused CMS addressing a presumptive remedy. Permittee should consult with Department representatives before beginning the CMS process regarding which items need to be addressed during the study. The Permittee will furnish the personnel, materials, and services necessary to prepare the corrective measure study, except as otherwise specified. Based on the information presented in the CMS, the Commissioner will propose the corrective measure(s) and the permit will be modified as necessary.

II. SCOPE

The Corrective Measure Study consists of four tasks:

Task I: Identification and Development of the Corrective Measure Alternative or Alternatives

A. Description of Current Situation
B. Establishment of Corrective Action Objectives
C. Screening of Corrective Measures Technologies
D. Identification of the Corrective Measure Alternative or Alternatives

Task II: Evaluation of the Corrective Measure Alternative or Alternatives

A. Technical/Environmental/Human Health/Institutional
B. Cost Estimate

Task III: Justification and Recommendation of the Corrective Measure or Measures

A. Technical
B. Human Health
C. Environmental

Task IV: Reports

A. Progress
B. Final

Following the CMS, the Commissioner will select the corrective measure(s) and the permit will be modified as necessary.

III. TASK I: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE ACTION ALTERNATIVE OR ALTERNATIVES

Based on the results of the RCRA Facility Investigation and consideration of the identified Preliminary Corrective Measure Technologies (Task II of Appendix II-B), the Permittee shall identify, screen, and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

The Permittee shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. The Permittee shall provide an update to information presented in Task I of the RFI to the Commissioner regarding previous response activities and any interim measures which have or are being implemented at the facility. The Permittee shall also make a facility-specific statement of the purpose for the response, based on the results of the RCRA Facility Investigation ("RFI"). The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

The Permittee, in conjunction with the Department, shall establish site specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA and New York State guidance, and the requirements of any applicable federal and state statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under 6NYCRR 373-2.6.

C. Screening of Corrective Measure Technologies

The Permittee shall review the results of the RFI and reassess the technologies specified in Task II of Appendix II-B and identify additional technologies which are applicable at the facility. The Permittee shall screen the preliminary corrective measure technologies identified in Task II of the RFI and any supplemental technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the

corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations. Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

   Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

2. Waste Characteristics

   Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site); and

3. Technology Limitations

   During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternative or Alternatives

The Permittee shall develop the corrective measure alternative or alternatives based on the corrective action objectives and analysis of the Preliminary Corrective Measure Technologies, as presented in Task II of the RFI and as supplemented following the preparation of the RFI Final Report. The Permittee shall rely on engineering practice to determine which of the previously identified technologies appear most suitable. Technologies can be combined to form the overall corrective action alternative or alternatives. The alternative or alternatives developed should represent a workable number of option(s) that each appears to adequately address all problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Permittee shall document the reasons for excluding technologies, identified in Task II, as supplemented in the development of the alternative or alternatives.

IV. TASK II: EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVE OR ALTERNATIVES

The Permittee shall describe each corrective measure alternative that passes through the Initial Screening in Task I of Appendix II-C and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Permittee shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Permittee shall provide a description of each corrective measure alternative which includes, but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Permittee shall evaluate each alternative in the four following areas:

1. Technical

The Permittee shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

(a) The Permittee shall evaluate performance based on the effectiveness and useful life of the corrective measure:

(i) Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and

(ii) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

(b) The Permittee shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:

(i) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straight forward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and

(ii) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Permittee should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes.

(c) The Permittee shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:

(i) Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth of water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). The Permittee shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

(ii) Time has two components that shall be addressed: (1) the time it takes to implement a corrective measure; and (2) the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

(d) The Permittee shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers

during implementation. Among the factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental

The Permittee shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short and long term beneficial and adverse effects of the response alternative; any adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

3. Human Health

The Permittee shall assess each alternative in terms of the extent to which it mitigates short and long term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines.

4. Institutional

The Permittee shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, State, and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

B. Cost Estimate

The Permittee shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (non-construction and overhead) costs.

(a) Direct capital costs include:

(i) Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure;

(ii) Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;

(iii) Land and site-development costs: Expenses associated with purchase of land and development of existing property; and

(iv) Buildings and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.

(b) Indirect capital costs include:

(i) Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;

(ii) Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;

(iii) Startup and shakedown costs: Costs incurred during corrective measure startup; and

(iv) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Permittee shall consider the following operation and maintenance cost components;

(a) Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;

(b) Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;

(c) Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;

(d) Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;

(e) Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues generated during operations;

(f) Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;

(g) Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accidental insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

(h) Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and

(i) Other costs: Items that do not fit any of the above categories.

V. TASK III: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Permittee shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The Commissioner will select the corrective measure alternative or alternatives to be implemented based on the results of Tasks II and III of Appendix II-C. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;

2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated will be given preference;

3. Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and

4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure or measures must comply with existing EPA and/or State criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure or measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

VI. TASK IV: REPORTS

A. Progress Reports

The Permittee shall provide the Commissioner with signed progress reports as required by Condition B.8.(a) of Module II of this Permit.

B. Corrective Measures Study ("CMS") Final Report

The Permittee shall prepare a CMS Final Report as required by Condition C.6., D, E.10 and/or E.12.of Module II of this Permit. The CMS Final Report shall include all information gathered under the approved CMS Workplan. The CMS Final Report shall at a minimum include:

1. A description of the facility;

   (a) Site topographic map and preliminary layouts.

2. A summary of the corrective measure or measures;

   (a) Description of the corrective measure or measures and rationale for selection;
   (b) Performance expectations;
   (c) Preliminary design criteria and rationale;
   (d) General operation and maintenance requirements; and
   (e) Long-term monitoring requirements.

3. A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;

   (a) Field studies (groundwater, surface-water, soil, air); and

(b) Laboratory studies (bench scale, pilot scale).

4. Design and Implementation Precautions;

(a) Special technical problems;
(b) Additional engineering data required;
(c) Permits and regulatory requirements;
(d) Access, easements, right-of-way;
(e) Health and safety requirements; and
(f) Community relations activities.

5. Cost Estimates and Schedules;

(a) Capital cost estimate;
(b) Operation and maintenance cost estimate; and
(c) Project schedule (design, construction, operation).

VII. CORRECTIVE MEASURE(S) SELECTION

A. Based on the information presented in the CMS, and any further evaluations of additional corrective measures under this study, the Commissioner shall select the corrective measure(s) that at a minimum will meet the following standards:

1. Be protective of human health and the environment;

2. Attain media target cleanup levels selected by the Commissioner during the corrective measures selection process;

3. Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and

4. Meet all applicable waste management requirements.

B. In selecting the corrective measure(s) which meets the standards for corrective measures established under Module Condition E.13.(a), the Commissioner shall consider the following evaluation factors, as appropriate:

1. Long-term reliability and effectiveness. Any potential corrective measure(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful. Factors that shall be considered in this evaluation include:

(a) Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), considering the

persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents:

(b) The type and degree of long-term management required, including monitoring and operation and maintenance;

(c) Potential for exposure of humans and environmental receptors to remaining hazardous wastes, including hazardous constituents, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment;

(d) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated hazardous wastes, including hazardous constituents, and their residuals; and

(e) Potential need for replacement of the corrective measure(s).

2. Reduction of toxicity, mobility or volume. A potential corrective measure(s) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes, including hazardous constituents. Factors that shall be considered in such assessments include:

(a) The treatment processes the corrective measure(s) employs and materials it would treat:

(b) The amount of hazardous wastes, including hazardous constituents, that would be destroyed or treated;

(c) The degree to which the treatment is irreversible;

(d) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituent; and

(e) All concentration levels of hazardous waste, including hazardous constituents, in each medium that the corrective measure(s) must achieve to be protective of human health and the environment.

3. The short-term effectiveness of a potential corrective measure(s) may be assessed considering the following:

(a) Magnitude of reduction of existing risks;

(b) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a corrective measures(s), including potential threats to human health and the environment

associated with excavation, transportation, and redisposal or containment; and

(c) Time until full protection is achieved.

4. Implementability. The ease of difficulty of implementing a potential corrective measure(s) may be assessed by considering the following types of factors:

(a) Degree of difficulty associated with constructing the technology;

(b) Expected operational reliability of the technologies;

(c) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(d) Availability of necessary equipment and specialists;

(e) Available capacity and location of needed treatment, storage and disposal services; and

(f) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s).

5. Cost. The types of costs that may be assessed include the following:

(a) Capital cost;

(b) Operation and maintenance costs;

(c) Net present value of capital and operation and maintenance costs; and

(d) Potential future corrective measure costs.

VIII. PERMIT MODIFICATION FOR CORRECTIVE MEASURE(S)

A. Based on information the Permittee submits in the RFI Report, the CMS and other information, the Commissioner will propose the final corrective measure(s) and will issue a public notice for a major permit modification in accordance with 6 NYCRR Part 373 permit modification. The Commissioner will also issue a Statement of Basis (SB) discussing the proposed final corrective measure(s), which will also be published in the public notice.

B. Within thirty (30) calendar days after this permit modification has been issued, the Permittee shall demonstrate in writing to the Commissioner financial assurance for completing the approved final corrective measure(s).

APPENDIX II-D
Compliance Schedule

General Electric Co.
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I. Compliance Schedule for Newly Identified Interim Corrective Measures.

A. Pursuant to Module Condition B.6.(a), Permittee shall submit for approval an interim corrective measures study within thirty (30) calendar days following the date of the notification by the Commissioner requiring implementation of interim corrective measures.

B. Pursuant to Module Condition B.6.(b), Permittee shall submit for approval an interim corrective measures work plan within thirty (30) calendar days after notifying the Commissioner of the actual or potential threat to human health or the environment.

II. Compliance Schedule for Reporting.

A. Pursuant to Module Condition B.8.(a), Permittee shall submit signed progress reports as specified in approved work plans of all activities conducted in accordance with the provisions of this Permit Module, beginning no later than thirty (30) calendar days after the Permittee is first required to begin implementation of any such requirement.

III. Compliance Schedule for Notification

A. Pursuant to Module II Condition B.10.(a), Permittee within fifteen (15) calendar days; after discovering facility releases of hazardous constituents in groundwater have migrated off-site, shall notify the Commissioner and off-site owners or residents on land overlying such contamination.

B. Pursuant to Module II Condition B.10.(b), Permittee within fifteen (15) calendar days; after discovering facility releases of hazardous constituents in air have or are migrated off-site, exceeding action levels, shall notify the Commissioner and off-site individuals subject to such long-term exposure.

IV. Compliance Schedule for Assessment of Newly Identified SWMUs and AOCs.

A. Pursuant to Module Condition C.1., Permittee shall notify the Commissioner, in writing, of any additional SWMU(s) and/or AOC(s) within fifteen (15) calendar days after discovery.

B. Pursuant to Module Condition C.2., Permittee shall submit a SWMU/AOC Assessment Report within thirty (30) calendar days after notifying the Commissioner of any additional SWMU(s) and/or AOC(s).

C. Pursuant to Module Condition C.3., Permittee shall submit for approval a SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days after submittal of the SWMU/AOC Assessment Report.

D. Pursuant to Module Condition C.4.(b), Permittee shall submit for approval revisions of the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days after meeting with the Department to discuss Plan comments or within forty-five (45) calendar days after Permittee's receipt of Plan comments when no meeting is scheduled.

E. Pursuant to Module Condition C.4.(c), Permittee shall begin to implement the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days following written approval of the Plan.

F. Pursuant to Module Condition C.5., Permittee shall submit a SWMU/AOC Sampling and Analysis Report within thirty (30) calendar days of receipt by the Permittee of validated analytical data generated under in the approved SWMU/AOC Sampling and Analysis Plan.

V. Compliance Schedule and Notification Requirements for Newly-Discovered Releases At SWMUs and AOCs.

A. Pursuant to Module Condition D., Permittee shall notify the Commissioner, in writing, of any newly-discovered releases at SWMUs and/or AOCs, no later than fifteen (15) calendar days after such discovery.

VI. Compliance Schedule for RFA-Sampling Visit (SV) Work Plan.

Not applicable at this time.

VII. Compliance Schedule for RFA-SV Work Plan Implementation.

Not applicable at this time.

VIII. Compliance Schedule for RFA-SV Report.

Not applicable at this time.

IX. Compliance Schedule for RCRA Facility Investigation ("RFI") Work Plan At Accessible SWMU(s) and AOC(s).

Not applicable at this time.

X. Compliance Schedule for RCRA Facility Investigation ("RFI") Work Plan at Inaccessible SWMU(s) and AOC(s).

A. Pursuant to Module Condition E.6.(b)., Permittee shall submit for approval a RFI Task I and II reports and a Work Plan for the inaccessible SWMU(s) identified in Module Condition E.6.(a) and/or Module Condition C.6 no later than one-hundred and eighty (180) calendar days prior to the date when the SWMU(s) becomes accessible for such an investigation.

XI. Compliance Schedule for RFI Work Plan Implementation, RFI Final Report and Summary Report.

A. Pursuant to Module Condition E.7.(a)., Permittee shall begin to implement the RFI Work Plan within thirty (30) calendar days following written approval of the Plan.

B. Pursuant to Module Condition E.7.(b)., Permittee shall submit for approval the RFI Final and Summary Reports within sixty (60) calendar days after receipt by the Permittee of validated analytical data generated under the approved work plan.

C. Pursuant to Module Condition E.7.(c)(ii), Permittee shall submit for approval revisions to the RFI Final and Summary Reports within forty-five (45) calendar days after meeting with the Department to discuss Report comments, or within forty-five (45) calendar days when no meeting is scheduled.

D. Pursuant to Module Condition E.7.(d), Permittee shall mail the approved Summary Report to all individuals on the facility mailing list within thirty (30) calendar days of receipt of Report approval.

XII. Compliance Schedule for Current Interim Corrective Measures.

A. Pursuant to Module Condition E.8.(a), Permittee will implement the interim measures during the Spring of 2012.

B. Pursuant to Module Condition E.8.(b), Permittee shall submit within thirty (30) calendar days after receipt of ICM design plan approval, financial assurance for the interim measures identified in E.8.(a).

XIII. Compliance Schedule for Corrective Measures Study ("CMS") Scope of Work.

A. Pursuant to Module Condition E.10.(b), Permittee shall submit for approval a CMS Plan within sixty (60) calendar days after the effective date of this permit or within sixty (60) calendar days after the approval by the Department of the RFI.

B. Pursuant to Module Condition E.10.(d)(ii), Permittee shall submit for approval revisions to the CMS Plan within thirty (30) calendar days after meeting with the Department to discuss Plan comments, or within forty-five (45) calendar days when no meeting is scheduled.

XIV. Compliance Schedule for CMS Implementation.

A. Pursuant to Module Condition E.11., Permittee shall begin to implement the CMS Plan within thirty (30) calendar days after the effective date of this permit or following written approval of the Plan.

XV. Compliance Schedule for CMS Final Report.

A. Pursuant to Module Condition E.12(a), Permittee shall submit for approval a CMS Final Report within forty-five (45) calendar days after completion of the CMS.

B. Pursuant to Module Condition E.12(c)(ii), Permittee shall submit for approval revisions to the CMS Final Report within thirty (30) calendar days after meeting with the Department to discuss Report comments or within forty-five (45) calendar days when no meeting is scheduled.

XVI. Compliance Schedule for Corrective Measure(s) Implementation

A. Within ninety (90) calendar days after the effective date of this Permit, the Permittee shall submit to the Department for review and approval Corrective Measure Implementation (CMI) work plan(s) for the selected corrective measures.

B. The Permittee shall begin to implement selected remedies for the final corrective measures within sixty (60) calendar days of receipt of Department approval of the CMI work plan(s). Modifications proposed by the Permittee to enhance the effectiveness of corrective measures shall upon approval by the Department, be incorporated into the respective CMI work plan. The CMI work plan(s) describe the remedy, remedy implementation and remedy performance evaluation requirements, and are incorporated into this permit by reference.

C. Within one hundred and twenty (120) calendar days of receipt by the Permittee of validated analytical data generated under the approved Corrective Measures Implementation Work Plan, the Permittee shall submit for approval the Corrective Measures Completion Final Report.

XVII. Compliance Schedule for Financial Assurance for Corrective Measure(s)

A. Pursuant to Module Condition E.8(b), Permittee shall demonstrate financial assurance for completing the approved interim corrective measure(s) within ninety (90) calendar days after receipt of ICM Design Plan approval.

B. Pursuant to Module Condition E.14(b), Permittee shall demonstrate financial assurance for completing the approved final corrective measure(s) within ninety (90) calendar days after the effective date of this Permit.

C. Pursuant to Module Condition G, Permittee shall demonstrate financial assurance for completing the approved corrective measure(s) within ninety (90) calendar days after this Permit has been modified.

XVIII. Modification of the Compliance Schedules

A. Pursuant to Module Condition E.15.(a)(i), Permittee shall submit proposed modification of any Compliance Schedule within fifteen (15) calendar days of determining that a schedule cannot be met.

APPENDIX II-E

Groundwater Monitoring Plan

General Electric Co.
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In order to assure consistency in the sampling program the Permittee shall follow a Department approved Groundwater Monitoring Plan. The Plan must be kept at the facility and the well record (described below) regularly updated with current groundwater quality data. The Permittee shall ensure that all appropriate site personnel and outside contractors have been properly trained in the application of the Groundwater Monitoring Plan and that the Plan is followed whenever samples are obtained at the site. The following information must be contained within the Plan:

1. Presampling procedures that describe:

   A. Procurement, inspection, and calibration of equipment
   B. Procurement and preparation of sample bottles
   C. Storage and handling of sampling gear between uses
   D. Personal protective equipment needed for sampling
   E. Well purging techniques
   F. Water level measuring techniques
   G. Laboratory notification/verification

2. Sampling procedures that describe:

   A. Use of sampling equipment
   B. Field measurements and calibration techniques
   C. Sampling parameters / sample handling techniques
   D. Sampling parameters / sample containers to be used
   E. Sampling parameters / sample preservation techniques
   F. Sampling parameters / sample filtration techniques
   G. Sampling parameters / order of sample collection
   H. Sampling parameters / sample labels
   I. Sampling parameters / sample storage
   J. Field QA/QC (cleaning, blanks, duplicate measurements)
   K. Sample shipping and chain-of-custody procedures
   L. Health and safety / personal protection measures

3. Laboratory handling and analytical protocols:

   A. Documentation of laboratory processing steps
   B. Analytical methodologies for each parameter of interest
   C. QA/QC protocols
   D. Reporting format

4. Available background information for each monitoring well and piezometer:

   A. Boring log and well construction details
   B. Water level recovery rate of wells
   C. Measuring point elevation
   D. Normal purge volume of the well
   E. Water quality
   F. Development / redevelopment procedure and history

5. A detailed demonstration of how the statistical evaluation method shall be applied to groundwater quality data including mathematical formulas and statistical tables that shall be used to evaluate the data.

6. A protocol for data management including a well record for each well and piezometer and procedures for updating the background well information when field data deviate from historical data. That record must contain the following information:

   A. Well identification number
   B. Up/down gradient or clean/contaminated designation
   C. Depth of well as installed
   D. Depth of well as measured
   E. Measuring point elevation
   F. Depth to water
   G. Water level elevation
   H. Purge volume
   I. Purge time (start/stop)
   J. Recharge time
   K. Sampling time
   L. Water level at sample time
   M. Temperature, pH, specific conductance (field measurements)
   N. Physical condition of well
   O. Important field observations regarding purge or sample water or conditions related to sample integrity
   P. Names of samplers
   Q. Weather conditions
   R. Purge/sample date
   S. Concentration of indicator parameters
   T. Concentration of any other hazardous constituents identified in sample
   U. Pertinent laboratory information (name of laboratory performing analysis, run dates of the samples, QA/QC problems, etc.)
   V. Pertinent health and safety concerns

APPENDIX II-F

Groundwater Monitoring System Inspection Plan

General Electric Co.
Buffalo Service Shop
NYD067539940

Inspections for the groundwater monitoring system shall be performed on a regular basis conforming to the groundwater monitoring schedule. Personnel shall be fully trained in implementing the procedures for groundwater sampling, collection, and sample preservation. They will utilize the inspection form at the end of this Appendix or an equivalent form.

The original inspection forms will be maintained at the site for a minimum of three years from their date of collection. On the request of the Commissioner and upon reasonable notice, the Permittee shall produce any inspection report(s) prepared under this Permit and retained as required per Module I, Condition D.5.(g).

The sampling crew will notify the Permittee's program coordinator of any unusual inspection findings immediately. Completed inspection logs will be reviewed upon completion of all scheduled inspections.

The well inspections shall include visual inspection of the security cap and lock, condition of surface grout, condition of inner well casing, condition of inner cap (for wells without riser pipes) and condition of location flagging as applicable.

During monitoring well sampling, the well depth, as measured from the top of casing, will be recorded and will be compared by the field crew to the well's reference depth. A difference of greater than 0.2 feet will be measured as confirmation. If the well has accumulated more than one foot of sediment, then it will be redeveloped using a method appropriate to the well. Also, during purging and sampling, the integrity of the inner section of the well will be inspected, noting the presence of any obstruction such as casing bends and foreign objects.

GROUNDWATER MONITORING SYSTEM
INSPECTION

Well Designation _____
Date of Inspection _____ (month/day/year)
Time of Inspection _____
Inspector's Name(s) _____

Item	Types of Problems	*Status A	*Status U	Comments	Action	Date
Well Condition	Flagging Visibility (if applicable) Well Number Readable on Outer Casing Integrity of Surface Seal/Apron Integrity of Surface Casing Corrosion Inner Casing/Screen Integrity Measuring Point Visibility Total Depth Siltation Recharge Rate Other					
Security	Security Cap in Place Lock in Place Lock Functional Other					

* Status: A=acceptable
U=unacceptable