NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
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www.dec.ny.gov

October 25, 2016

Mr, Ralph Larimore
Environmental Manager
CECOS International, Inc.
5600 Niagara Falls Boulevard
Niagara Falls, New York 14304

Dear Mr. Larimore:

PERMIT TRANSMITTAL LETTER
CECOS INTERNATIONAL INC.
PERMIT NO. 9-2911-00110/00015
EPA I.D. NO. NYD80336241

Enclosed is the final 6 NYCRR Part 373 Hazardous Waste Management Permit for the CECOS International Inc. facility. The draft permit was public noticed on June 24, 2016 and the comment period ended on August 8, 2016. No public comments were received during the comment period. One page from Exhibit A Supplement to Module 1 – General Provisions was revised to provide updated contact information for Department staff in the Division of Materials Management and the Division of Environmental Permits. This revised page (Exhibit A, page 3; page 25 of 389 of the permit) is enclosed for those receiving copies of this letter. Those receiving the updated page should replace this page to update their copy of the draft permit to make it the final 6 NYCRR Part 373 Hazardous Waste Management Permit for this facility.

The permit is contingent upon strict compliance with the requirements of the permit, ECL and all applicable regulations. This permit consists of all terms and conditions of the permit (including those in any Modules and attachments) and the applicable regulations contained in 6 NYCRR Parts 370 through 373-2, 374, 376 (a CD containing the applicable regulations is included in Attachment L of the permit) and 6 NYCRR Part 621.

If you have any questions regarding the permit conditions, compliance with 6 NYCRR Part 373 (Hazardous Waste Management Facilities), or the manner in which the captioned work shall be performed, please contact Kent Johnson at 518/402-9813 within 30 days of the issuance of the permit. If you have a question regarding the administration of your permit, please contact me at 716/851-7165.

Respectfully,
Lisa M. Czechowicz
Lisa M. Czechowicz
Deputy Regional Permit Administrator

Enclosure
cc: With a signed copy of the permit pages 1-5 and Updated Permit Page:
Mr. Peter Grasso, NYSDEC R9, Division of Materials Management, Attn: Nelson Schnabel
Mr. Adolph Everett, RCRA Programs Branch, USEPA Region II
Honorable Paul Dyster, Mayor, City of Niagara Falls
Honorable Lee Wallace, Supervisor, Town of Niagara
Niagara Falls Public Library

ecc: With a signed copy of the permit pages 1-5:
Mr. Kent Johnson, NYSDEC CO, Division of Materials Management
Mr. Tom Killeen, NYSDEC CO, Division of Materials Management

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
CECOS INTERNATIONAL INC
5600 NIAGARA FALLS BLVD
NIAGARA FALLS, NY 14304-1532

Facility:
CECOS INTERNATIONAL INC
56TH ST & NIAGARA FALLS BLVD
NIAGARA FALLS, NY 14304-0340

Facility Location: in NIAGARA FALLS in NIAGARA COUNTY
Facility Principal Reference Point: NYTM-E: 174.5 NYTM-N: 4779
Latitude: 43°05'37.7" Longitude: 78°59'57.6"
Authorized Activity: Post-closure maintenance of closed hazardous waste units, continued implementation of the final corrective action remedies for site-wide soil and groundwater contamination and perpetual care for closed hazardous waste units and corrective action systems.

Permit Authorizations

Resource Conservation and Recovery Act - Under Article 27, Title 9
Permit ID 9-2911-00110/00015 (RCRA ID NYD080336241)
Renewal Effective Date: 10/25/2016 Expiration Date: 10/24/2026

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: LISA M CZECHOWICZ, Deputy Regional Permit Administrator
Address: NYSDEC Region 9 Headquarters
270 Michigan Ave
Buffalo, NY 14203 -2915

Authorized Signature: Lisa M. Czechowicz Date 10/25/16

Permit Components

RESOURCE CONSERVATION AND RECOVERY ACT PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

RESOURCE CONSERVATION AND RECOVERY ACT PERMIT CONDITIONS

1. **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. Such approved plans were prepared by CECOS International and submitted to the Department on May 7, 2014.

2. **Accuracy of Permit Application** The permit is based on the information submitted in the permit application submitted by CECOS International on May 15, 2012 and subsequent submissions. The permit is based on the assumption that the information submitted by CECOS in the above documents are complete and accurate and the facility will be operated as specified in the above application. Any inaccuracies or incompleteness found in the information may be grounds for the termination or modification of this permit and potential enforcement action.

3. **Terms and Conditions of Permit** 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 373-2, 376, 621 and 624). The permittee must inform DEC of any deviation from or changes in the information contained in the application which would affect the permittee's ability to comply with the regulations or permit conditions.

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

5. **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 it must operate under the waste analysis and quality assurance provisions of this Permit.

6. Permit Modules and Attachments The Permittee must operate the facility in strict accordance with the modules to this permit and the sections of permit application as specified below:

MODULES
Module I - General Conditions
Schedule I of Module I
Exhibit A
Exhibit B
Exhibit C
Module II - Corrective Action Requirements
Module III - Landfills

ATTACHMENTS
Attachment A - Executive Summary
Attachment B - Security & Inspection Plan
Attachment C - Waste Analysis Plan
Attachment D - Solid Waste Management Units
Attachment E - Preparedness and Prevention Plan
Attachment F - Contingency Plan
Attachment G - Personnel Training
Attachment H - Post-Closure
Attachment I - Closure Plan
Attachment J - Air Emissions
Attachment K - Permit Modification Log
Attachment L - CD Containing Applicable Regulations

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.

PART 373 PERMIT

MODULE I – GENERAL CONDITIONS

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

A. EFFECT OF PART 373 PERMIT

1. This Permit consists of the general and special conditions contained in this and the attached Modules, including **Schedule 1 of Module I**; the Department-approved Permit Application, including the Attachments and documents incorporated by reference; and the applicable requirements of the New York State Environmental Conservation Law (ECL) Article 27, Title 9, Section 27-0900 et seq., and the following regulations:

   – 6 NYCRR 370 - Hazardous Waste Management System-General;
   – 6 NYCRR 371 - Identification and Listing of Hazardous Wastes;
   – 6 NYCRR 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities;
   – 6 NYCRR 373 - Hazardous Waste Management Facilities;
   – 6 NYCRR 374 - Management of Specific Hazardous Waste;
   – 6 NYCRR 376 - Land Disposal Restrictions;
   – 6 NYCRR 621 - Uniform Procedures; and,
   – 6 NYCRR 624 - Permit Hearing Procedures.

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

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

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

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

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

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

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

5. The Permittee is authorized to manage hazardous waste in the permitted units identified in **Schedule 1 of Module I** in accordance with the conditions of this Permit. Any storage, treatment or disposal of hazardous waste not authorized by this Permit is prohibited unless exempt under 6 NYCRR Part 373-1.1(d). Issuance of this Permit does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal, State or local laws or regulations.

6. All plans, reports, specifications and schedules required by the terms of this Permit and all subsequent amendments to those documents are incorporated by reference into this Permit when specifically noted in any written approval issued by the Department pursuant to 6 NYCRR 621.13. Upon incorporation, the provisions of each such document will be binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

7. The Permittee must submit plans, reports, specifications, implementation schedules and any subsequent amendments to those documents required by this Permit to the Department for review and comment. Following its review of a document, if the document requires formal Department approval (as determined by the Department), the Department may either approve the document as submitted or issue comments on the submittal. If the Department issues comments on the document, subsequent activities for the document must proceed in accordance with the following schedule:

   a. Meeting between the Permittee and the Department to discuss the document comments, if requested by the Permittee or deemed necessary by the Department; and,

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

   c. If the submission is not revised to the Department's satisfaction, the Department may revise the document and send the Permittee a notice of intent to modify the Permit to incorporate the revised document into the Permit, pursuant to 6 NYCRR 621.13.

8. The documents listed in **Condition B of Schedule 1 of Module I** are made part of this Permit, are binding upon the Permittee and have the same legal force and effect as the requirements of this Permit.

9. Informal advice, guidance, suggestion, or comment by the Department must not be construed as relieving the Permittee of the Permittee's obligation to obtain such formal approvals as may be required by this Permit. In the event of a conflict between the requirements within this Permit or between the terms of this Permit and any plans, reports, specifications and schedules submitted pursuant to this Permit, the more stringent requirement shall always control. The Permittee consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Permit.

10. The Permittee must also comply with the following:

    – 6 NYCRR 373-1.1(f) – Uniform Procedures
    – 6 NYCRR 373-1.1(g) – Enforcement
    – 6 NYCRR 373-1.1(h) – Severability

11. The Permittee must maintain a current and complete paper copy of this Permit, including all Modules, Attachments and documents incorporated by reference, in at least one location at the Facility for review by the Department upon request.

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

B. DEFINITIONS

1. For the purposes of this Permit, the terms used herein shall have the same meanings as those provided in 6 NYCRR 370 through 376, and the terms defined in **Condition B.2** of this Module, unless this Permit specifically states otherwise. Where the terms are not otherwise defined, the meanings associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industry meaning of the term.

2. The following additional terms used in this Permit are defined as such:

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

environmental health-based level. The action levels for groundwater are the more stringent of the following for each compound or constituent: 6 NYCRR 703.5, New York State Department of Health's Drinking Water Standards and the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs).

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

c. Corrective Action. For the purposes of this Permit, "corrective action" is a process that includes all activities related to the investigation, characterization and cleanup of a release of hazardous/mixed wastes or hazardous constituents from a solid waste management unit (SWMU) at a permitted or interim status treatment, storage and disposal facility (TSDF) to any environmental medium, including groundwater. Module II of this Permit contains a more detailed discussion of the corrective action process.

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

e. Hazardous Constituents. For the purposes of this Permit, "hazardous constituents" are those constituents listed in Appendix 23 of 6 NYCRR 371 or any constituent listed in Appendix 33 of 6 NYCRR 373-2.

f. Permittee. For the purposes of this Permit, "Permittee" herein refers to the party(ies) subject to this Permit. In addition, refer to **Conditions R.2 and R.3** of this Module.

g. Priority Pollutant. Pursuant to 6 NYCRR 750-1.2(a)(67), "priority pollutant" means those pollutants listed in 40 CFR 122, Appendix D (see 6 NYCRR 750-1.24) as Organic Toxic Pollutants (volatiles, acid compounds, base/neutral compounds and pesticides), Metals, Cyanide and Total Phenols.

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

i. Solid Waste Management Unit (SWMU). For purposes of this Permit, a "solid waste management unit" includes any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of hazardous or solid wastes. Such units include any area at the facility at which solid wastes have been routinely and systematically released. These units include certain areas associated with production processes that have become contaminated as a result of routine and systematic releases.

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

1. 6 NYCRR 373-1.6 provides conditions applicable to all Part 373 Permits which are therefore incorporated into this Permit. The provisions are incorporated into, and made enforceable under this Permit.

2. Oral Reports: The Permittee must orally report any noncompliance that may endanger health or the environment immediately from the time the Permittee becomes aware of the circumstances. The oral reports must be made to the Department using the New York State 24-hour oil and hazardous material spill notification number (800) 457-7362 and the National Response Center using its 24-hour number (800) 424-8802, or any designated telephone numbers which may subsequently replace those listed above. The Permittee must also provide such oral reports to Department staff that are on-site at the time of, or subsequent to, a reportable incident. The information reported must include that listed at 6 NYCRR 373-2.4(g)(4)(ii).

3. Entry Upon Facility:

   a. The Permittee must allow, pursuant to 6 NYCRR 373-1.6(a)(9), entry upon the Facility (or areas in the vicinity of the Facility which may be under the control of the Permittee) at reasonable times by any duly designated officer or employee of the United States Environmental Protection Agency (USEPA), the Department or any State agency having jurisdiction with respect to matters addressed pursuant to this Permit, and by any agent, consultant, contractor or other person so authorized by the Department, upon presenting identification, for inspecting, sampling, copying records that must be maintained by this Permit, testing, and any other activities necessary to evaluate the Permittee's compliance with this Permit.

   b. Upon request, the Permittee must: (i) provide the Department with suitable work space at the Facility, including access to a telephone, to the extent available; and, (ii) allow the Department full access to all records relating to matters addressed by this Permit. Raw data must be provided to the Department upon request.

   c. In the event the Permittee is not the owner of the Facility property and is unable to obtain any authorization from third-party property owners necessary to provide access, the Permittee must immediately notify the Department and provide any requested assistance in obtaining such authorizations.

d. The Department shall have the right to take its own photographs, samples and scientific measurements and to obtain split samples, duplicate samples or both. The Department shall make the results available to the Permittee in accordance with Department policy.

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

1. Proposed modifications to this Permit, including modifications to the Attachments and documents incorporated by reference into this Permit, must be addressed in accordance with 6 NYCRR 373-1.7 and 621.

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

   a. For modifications determined by the Department to be administrative, the Permittee shall make the change in the Permittee's copy of all affected Attachment(s) and/or document(s) incorporated by reference. Submittal to the Department of a change that the Department has determined is administrative in nature is not necessary. However, at the time of Permit renewal, the Permittee must incorporate all administrative changes into this Permit. The Permittee must record all administrative changes in the Permit Modification Log provided as Attachment M of this Permit in accordance with **Condition D.3** of this Module. Note: The Department reserves the right to have its project manager, environmental monitor and/or permit writer request proposed administrative changes in writing by the Permittee's submission of a cover letter, written description of the proposed administrative modification and a clean copy of the modified affected pages for the Department's review and approval.

   b. For modifications determined by the Department to be minor pursuant to 6 NYCRR 373-1.7(c) and 40 CFR 270.42(a), the Permittee must receive written approval from the Department before implementing the modification into this Permit, and subsequently follow the requirements of 6 NYCRR 373-1.7(e) and Department guidance for minor modifications.

   c. For modifications determined by the Department to be major, the Permittee must treat the modification as a new application in accordance with 6 NYCRR 621.11 and follow the applicable requirements of 6 NYCRR 621.

3. The Permittee must maintain a log of all modifications requested and made to this Permit, including modifications made to the Attachments and documents incorporated by reference into this Permit. The log must conform to the Department-approved format presented in Attachment K of this Permit and must be submitted with each modification request. The log must be filled out in its entirety, except for the issuance date. Upon issuance of each Permit modification, the Permittee must place the updated log in Attachment K of this Permit along with a copy of the Department's approval letters, when applicable, and replace all affected pages in the Modules, Attachments and/or documents incorporated by reference with the modified pages.

4. The Department may at any time, at its discretion, modify this Permit under the terms of 6 NYCRR 621.13 in accordance with the requirements contained therein.

5. Permit Transfer: The Permittee must process all changes in Facility ownership and/or operational control in accordance with the requirements of 6 NYCRR 373-1.7(a), including the timeframes specified therein. Prior to undertaking a change in Facility ownership and/or operational control, the Permittee must provide written notification to the Department and receive written approval from the Department to allow transfer of this Permit. The Permittee must demonstrate to the Department's satisfaction that the prospective transferee will be able to comply with all applicable laws and regulations, Permit conditions, financial assurance and other requirements to which the Permittee is subject. The written notification must include the identity of the transferee and of the nature and proposed date of the conveyance, and must notify the transferee in writing, with a copy to the Department, of the applicability of this Permit including the corrective action program, as appropriate. The Department will determine whether transfer of this Permit is acceptable and will require either a minor or major modification.

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

1. Requests for continuation of this Permit must be submitted in accordance with 6 NYCRR 373-1.8 and 621.11.

2. No sooner than one (1) year and no later than 180 days before the expiration of this Permit, the Permittee must provide the Department with a report regarding the matters identified in ECL 27-0913(3) occurring within two years of the date of the report. The report must include any such matters involving the permitted Facility, all other facilities owned or operated by the Permittee and any duly incorporated parent or subsidiary managing hazardous wastes within the United States. The Permittee must supply such documents and pertinent details regarding the matters in the report as may be requested by the Department.

3. The Permittee must schedule a "Pre-Application" meeting with the Department at least 270 days prior to the expiration date of this Permit. Renewal applications with a significant change (as defined at 6 NYCRR 373-1.10(a)(1)) are subject to the requirements of 6 NYCRR 373-1.10.

4. Complete applications for permit renewal must be submitted at least 180 days before the expiration date of this Permit pursuant to 6 NYCRR 373-1.8(b).

5. At any time during the review of the renewal application, the Department may request that the Permittee submit any additional information in writing which is necessary for determining the completeness of the application. Failure to provide such information by the date specified in the request may be grounds for denial of the application and the extension allowed pursuant to Section 401(2) of the State Administrative Procedures Act.

F. TERMINATION OF PERMIT ACTIVITIES

1. Should the Permittee cease the hazardous waste management activities allowed by this Permit prior to the expiration of this Permit, then, pursuant to 6 NYCRR 373-1.6(d), the Permittee must continue to comply with the applicable closure, post-closure and corrective action conditions and requirements stipulated in this Permit.

2. If the Permittee certifies closure of all hazardous waste management units at the Facility, and the Department accepts these closure certifications during the term of this Permit, and post-closure care or corrective action is determined to be necessary by the Department, the Department will make a determination whether a permit or other enforceable commitment document is appropriate, pursuant to Environmental Conservation Law (ECL) Section 71-2727(3). Based on that determination, the Permittee must enter into the appropriate enforceable commitment prior to the expiration of this Permit.

G. FACILITY OPERATION

1. In accordance with 6 NYCRR 373-2.3(b), the facility must be designed, constructed, maintained and operated to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste(s) or hazardous waste constituents to air, soil, surface water or groundwater that could threaten human health or the environment.

2. The Permittee must at all times construct, operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee as designed in accordance with this Permit including **Schedule 1 of Module I**.

3. The Permittee must inspect the Facility to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of hazardous waste(s) or hazardous waste constituents to the environment, or a threat to human health pursuant to 6 NYCRR 373-2.2(g).

H. COMPLIANCE SCHEDULE

1. The Permittee must complete any activities referenced in **Condition C of Schedule 1 of Module I** within the timeframes set forth therein and in accordance with 6 NYCRR 373-1.6(d).

2. The Permittee must submit reports in a Department-approved format no later than 14 days following each interim and the final compliance date that summarize the status of each of the activities listed in **Condition C of Schedule 1 of Module I**.

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

1. The Permittee must perform general waste analysis in accordance with the requirements of 6 NYCRR 373-2.2(e) and this Permit, including the Department-approved Waste Analysis Plan incorporated by reference into this Permit by **Schedule 1 of Module I**.

2. All laboratories utilized for the analysis of any closure, post-closure and/or corrective action samples must be certified under the New York State Department of Health's Environmental Laboratory Approval Program (ELAP). Any laboratory tests or sample analyses for which the commissioner of the New York State Department of Health (NYSDOH) issues certificates of approval must be performed by a laboratory certified to perform such tests or analyses pursuant to the NYSDOH Environmental Laboratory Approval Program.

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

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

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

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

1. The Permittee must comply with the preparedness and prevention requirements in accordance with 6 NYCRR 373-2.3 and this Permit.

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

L. WASTE REDUCTION REQUIREMENTS

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

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

1. The Permittee must comply with the recording, reporting and monitoring requirements listed in this Permit.

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

N. DATA AND DOCUMENT STANDARDS

1. All analytical data required by this Permit, as well as all analytical data requested by the Department, must be submitted to the Department in the standardized format in accordance with the Department's Electronic Data Deliverable guidance within 30 days of receipt from the laboratory (see http://www.dec.ny.gov/chemical/62440.html). The Permittee must have all closure, post-closure and corrective action data validated by a third party prior to submission to the Department. The individual performing the third-party validation must prepare a Data Usability Summary Report (DUSR) in accordance with the requirements of the Department's DER-10. The DUSR must be submitted with the report containing the data in accordance with **Condition N.2** of this Module. The data deliverable submitted to the Department must include the results of the data validation.

2. The Permittee must deliver to the Department preliminary or final reports, specifications or drawings prepared pursuant to this Permit in an electronic format that complies with the Department's Electronic Document Standards (EDS) or as otherwise directed by the Department. All final documents are to be submitted in an electronic format that complies with the most recent DER EDS. Until such time as the Department establishes an EDS, final documents are to be submitted as a PDF document (see http://www.dec.ny.gov/regulations/2586.html). Also, the Permittee must, at the request of the Department, provide electronic versions of technical documents in MS Word and/or MS Excel, and plan drawings and/or other site drawings in AutoCAD, or other format suitable to the Department.

3. In addition to electronic copies, the Permittee must provide paper copies of any document (e.g., reports, plans, data, specifications, drawings, etc.) requested by the Department in paper format or as may be specified in paper format in **Schedule 1 of Module I**.

O. FINANCIAL ASSURANCE

1. The Permittee must comply with all of the applicable requirements of 6 NYCRR 373-2.8 and this Permit. The definitions contained in 6 NYCRR 373-2.8(b) are applicable to the financial requirements within this Permit.

2. The Permittee must comply with this Permit and 6 NYCRR 373-2.6(l) for meeting the financial assurance requirements for corrective action for releases from any solid waste management unit located at the Facility, regardless of the time the waste was placed in the unit.

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

4. The Department-approved closure, post-closure and corrective action cost estimates are incorporated by reference into this Permit by **Condition B of Schedule 1 of Module I** of this Permit. These cost estimates must be adjusted annually for inflation in accordance with **Condition O.3** of this Module.

5. The Permittee must obtain approval in writing from the Department prior to any reduction in the approved cost estimates and for any changes to the instrument(s) and/or mechanism(s) (e.g., type of instrument(s) and/or mechanism(s), the issuing company(ies)/institution(s) and/or a reduction in the dollar amount(s)).

6. Corrective Action Cost Estimates: For any and all corrective actions required under the authority of this Permit for any newly identified Solid Waste Management Units, both final and interim, the Permittee must submit for the Department's approval, written estimates, in current dollars, which reflect all costs involved in implementing corrective action through Department-approved completion. Such estimates must reflect the cost of hiring a third party to perform the corrective action in accordance with 6 NYCRR 373-2.8(e)(1)(i). For the final corrective measure(s), the Permittee must provide such estimates with the submission of the Corrective Measures Implementation (CMI) work plan. For Interim Corrective Measures (ICM) requiring work plans, the Permittee must provide such estimates with the submission of each ICM work plan required by this Permit.

7. Short-Term Corrective Measures: For financial assurance of final or interim corrective measures for any newly identified Solid Waste Management Units required

by Department-approved work plans where the implementation schedule in the approved work plan(s) indicates anticipated completion of said action(s) within one (1) year, the Permittee must provide the Department with a letter certifying that the Permittee has sufficient liquid financial resources to perform and complete the approved corrective measure(s) based on the Department-approved cost estimate(s) required by **Condition O.6** of this Module. This letter must include a certification in accordance with 6 NYCRR 373-1.4(a)(5) and must be provided for the Department's acceptance with the Permittee's submission of a final or interim corrective measures work plan(s). If the Department notifies the Permittee that the certification is not acceptable, the Permittee must establish financial assurance for corrective measures in accordance with the requirements of financial assurance for Long-Term Corrective Measures as specified in **Condition O.8** of this Module within sixty (60) days of said notification. If the corrective action(s) are not completed within one year of the initial certification, the Permittee may request and the Department, at its discretion, may approve up to a one (1) year extension of the certification. If the corrective action(s) has not been completed to the Department's satisfaction at the end of the first year or a Department-approved extension, the Permittee must, within sixty (60) days, provide financial assurance in accordance with the requirements of financial assurance for Long-Term Corrective Measures as specified in **Condition O.8** of this Module.

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

9. For any Permit modification request pertaining to the Closure Plan or Post-Closure Plan provided as Attachment I of this Permit involving an increase in the cost of closure or post-closure, the Permittee must also submit a revised cost estimate, in current dollars, which includes the increase in these costs with appropriate third party justification. For any new or modified corrective measure required by this Permit and submitted by the Permittee subsequent to the issuance of this Permit which involves

an increase in the cost of corrective action, the Permittee must also submit for Department approval, a revised cost estimate, in current dollars, which includes the cost increase associated with implementing the corrective measure with appropriate third party justification.

10. Within sixty (60) days of a modification of this Permit or Department approval of a new or modified corrective measure involving an increase in a cost estimate, the Permittee must establish additional financial assurance to cover the amount of the increase in the cost estimate in accordance with the requirements of 6 NYCRR 373-2.8.

11. The Permittee must maintain the Department-approved financial assurance instruments for closure, post-closure and corrective action, which shall be those provided as Attachment I of this Permit, and any Department-approved revisions thereof, or Department-approved replacements for these financial instruments selected by the Permittee from the instrument types previously specified in this condition. Changes in existing financial assurance instruments or replacement of existing financial assurance instruments must be approved by the Department. The Permittee must provide annual evidence to the Department within thirty (30) days prior to the anniversary on which the initial approved financial assurance instrument was established, that all instruments provided as Attachment I of this Permit including any approved revisions or replacements thereof, have been maintained and not allowed to lapse.

12. Within sixty (60) days after any increase in the approved cost estimate, the Permittee must, in accordance with 6 NYCRR 373-2.8, either:

    a. Revise one or more of the Department approved financial assurance instrument(s) for closure to increase the instrument(s) amount by at least the amount of the increase in the approved cost estimate and submit the revised instrument(s) for Department approval; or

    b. Submit an additional financial assurance instrument, or instruments from the instrument types specified in 6 NYCRR 373-2.8 with an amount equal to at least the amount of the increase in the approved cost estimate and submit the additional instrument(s) for Department approval.

13. If the Permittee elects to replace any of the instruments provided as Attachment I of this Permit for financial assurance, with new financial assurance instrument(s) as specified by 6 NYCRR 373-2.8, the new instruments must be issued by an entity, or entities, that are legally and fiscally separate and distinct from the Permittee and any parent or subsidiary thereof. Also, if applicable, any replacement instruments pertaining to post-closure and corrective action must be worded in accordance with 6 NYCRR 373-2.8(j) except that the words “post-closure and corrective action” must be substituted for the words “post-closure” in any such replacement instrument.

P. COMMUNICATIONS

1. The Permittee must transmit all communications pursuant to this Permit to the Department via electronic delivery to the recipients specified in **Schedule 1 of Module I** of this Permit. All deliverables must be transmitted in a Department-approved format as specified in **Condition N** of this Module.

2. If requested by the Department in lieu of or in addition to an electronic deliverable, the Permittee must transmit the requested written communications pursuant to this Permit to the Department by United States Postal Service, by private courier service or by hand delivery to the following address:

   Chief, RCRA Permitting Section
   Division of Environmental Remediation
   New York State Department of Environmental Conservation
   625 Broadway, 12th Floor
   Albany, NY 12233-7017

3. The Permittee must submit additional copies of the specific deliverables identified in **Schedule 1 of Module I** to the addresses and agencies listed therein.

Q. PENALTIES

1. Permittee's Obligations

   a. The Permittee's failure to comply with any term of this Permit constitutes a violation of this Permit and the ECL. Nothing herein abridges the Permittee's right to contest any allegation that it has failed to comply with this Permit.

   b. Payment of any penalties must not in any way alter the Permittee's obligations under this Permit.

R. MISCELLANEOUS

1. The paragraph headings set forth in this Permit are included for convenience of reference only and must be disregarded in the construction and interpretation of any provisions of this Permit.

2. If there are multiple parties subject to this Permit, the term "Permittee" must be read in the plural, the obligations of each such party under this Permit are joint and several, and the insolvency of or failure by any Permittee to implement any obligations under this Permit must not affect the obligations of the remaining Permittee(s) under this Permit.

3. If the Permittee is a partnership, the obligations of all general partners (including limited partners who act as general partners) under this Permit are joint and several and the insolvency or failure of any general partner to implement any obligations

under this Permit must not affect the obligations of the remaining partner(s) under this Permit.

4. In any administrative or judicial action to enforce a condition of this Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Permit.

5. Whenever materials or equipment are specified or described in this Permit using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function, quality, performance and design criteria required. In all cases, unless the name is followed by words indicating that "no 'or equal' or substitution is allowed" or similar language, materials or equipment of other suppliers may be accepted by the Department if sufficient information is submitted by the Permittee to allow the Department to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of "or equal" or substitute items of material and equipment will not be accepted by the Department from anyone other than the Permittee. If the Permittee wishes to furnish or use an "or equal" or substitute item of material or equipment, the Permittee must make written application to the Department for acceptance thereof, certifying that the proposed "or equal" or substitute will perform the same functions and achieve the same results called for by the general design, be similar and of equal substance and quality to that specified, and be suited to the same use as that specified.

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

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

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

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

Department that such statutory or regulatory requirements afford equal or greater protection to continuing post-closure care and/or corrective action as is afforded by this Permit.

PART 373 PERMIT

SCHEDULE 1 OF MODULE I
FACILITY-SPECIFIC CONDITIONS

DEC Facility Name: **CECOS International**
DER Facility No.: 932046
EPA RCRA ID No.: NYD080336241

Facility Address: 5600 Niagara Falls Boulevard
Niagara Falls, New York 14304-1532
Niagara County
Hereinafter referred to as "Facility" or "Site"

A. PERMITTED ACTIVITIES

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

Post-closure maintenance of closed hazardous waste units, continued implementation of final corrective action remedies for site-wide contamination, and perpetual care for closed hazardous waste units and corrective action systems.

B. PERMIT DOCUMENTS

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

Modules:

- I General Conditions
  - Schedule 1 of Module I
    - Exhibit A
    - Exhibit B
    - Exhibit C
- II Corrective Action Requirements
- III Landfills

Attachments:

- A Executive Summary
- B Security and Inspection Plan
- C Waste Characteristics and Analysis Plan
- D Corrective Action Requirements
- E Preparedness and Prevention Plan

F Contingency Plan
G Personnel Training Plan
H Post-Closure Plan
I Closure Plan
J Air Emissions Standard for Equipment Leaks Plan
K Permit Modification Log
L CD Containing Applicable Regulations

Documents Incorporated by Reference[i]:

1. Part A Application
2. City of Niagara Falls Wastewater Discharge Permit, dated 12/6/2015
3. Operations Manual for 90 Day Units
4. Sampling and Analysis Plan
5. CMI Operation and Maintenance Program

Footnotes:

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

C. COMPLIANCE SCHEDULE

The Permittee must complete the following activities within the scheduled timeframes indicated in the following table in accordance with 6 NYCRR 373-1.6(d):

Item	Requirement	Compliance Date

Footnotes:

1. The Permittee must comply with the reporting requirements of 6 NYCRR 373-1.6(d)(1)(iii) for each interim date and the final compliance date.

D. SCHEDULE OF DELIVERABLES

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

Item	Requirement	Compliance Date
Sampling and Analysis Plan	Submit for Department approval an updated Sampling and Analysis plan in accordance with Exhibit C	Within ninety (90) days of the effective date of this permit

Item	Requirement	Compliance Date
CMI Operation and Maintenance Program	Submit for Department approval an updated O & M program for the Corrective measures system in accordance with Exhibit B	Within ninety (90) days of the effective date of this permit

E. REQUIREMENTS FOR AN ON-SITE ENVIRONMENTAL MONITOR

Number of Environmental Monitors assigned to Facility: One

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

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

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

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

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

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

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

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

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

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

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

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

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

F. ROUTINE REPORTING

The Permittee must submit the following routine reports to the Department by the indicated due date in accordance with the requirements of this Permit (Note: the table below is intended to serve as a guide for certain routine reporting required by this Permit. However, the Permittee is still obligated to comply with all applicable regulations cited in this Permit and all conditions and requirements contained in the Modules, Schedule 1 of Module I,

Attachments and documents incorporated by reference into this Permit, regardless of whether they are or are not listed in the table below.):

Item	Frequency	Due Date	Requirement
Routine Environmental Monitoring Results	Monthly	90 Days after month of collection	6NYCRR 373-1.6(a)(10)(iii); Exhibit C Condition C
Annual Report	Annually	March 1	6NYCRR 373-2.5(e), Condition C of Exhibit C
Leachate Volumes	Monthly	30 Days after month of collection	Condition II.A.5.b.iv of Attachment B
Cost Estimate for Post-Closure and Corrective Action Adjusted for Inflation	Annually	October 2	6NYCRR 373-2.8(c)(2) and 373-2.8(e)(2)
Well Inspection Report	Every three (3) years	December 31	Condition H of Exhibit C
Point in Time Groundwater Elevations	Semi-Annually	90 Days after month of collection	Condition C of Exhibit C
Annual Leachate Report	Annually	March 1	Condition II.A.5.b.iv of Attachment B
Engineering Assessment of Tanks and Containment (External)	Annually	March 1	6NYCRR 373-2.10
Engineering Assessment of Tanks (Internal)	Every five (5) years	March 1	6NYCRR 373-2.10

[1] Summary must be recorded on most recent form provided by the Department

G. FACILITY-SPECIFIC REQUIREMENTS THAT SUPPLEMENT THE STANDARD MODULES

Exhibit A Supplement to Module I – General Provisions

A General Conditions
B Plans, Reports, Specifications, Implementation Schedules and Other Submittals

C Land Disposal Restrictions
D Public Participation

Exhibit B Supplement to Module II – Corrective Action

A Applicability
B Standard Conditions for Corrective Action
C Corrective Action Requirements
D Corrective Measures
E Green Remediation
Appendix I – Groundwater Protection

Exhibit C Supplement to Module III – Landfills

A Perpetual Post-Closure Care Requirements

B Groundwater Monitoring Plan

EXHIBIT A
SUPPLEMENT TO
MODULE I - GENERAL PROVISIONS

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

A. GENERAL CONDITIONS

1. Upon notification by the Permittee of any partial closure of a unit or portion thereof, or of final closure of the Facility, the Department will determine at the time of said closures whether additional samples, sampling points, sampling techniques/methods and/or sample analysis (i.e., in addition to Closure Plan requirements in Attachment H of this Permit) will be necessary to verify the effectiveness of decontamination or removal of components, equipment, structures and contaminated soils. These determinations will be based upon the past history of operating practices and types of wastes handled at the unit/Facility and on the closure regulations and other requirements in effect at the time of closure of the unit/Facility. The operating record, the record of spills, the types of waste released, location of spills and the condition of any secondary containment systems will also provide data to be used in these determinations. Also, at the time of said closures, the Department will determine whether more restrictive and/or additional criteria (i.e., more restrictive than, or in addition to Closure Plan criteria in Attachment H of this Permit) will be necessary to verify the effectiveness of decontamination or removal of components, equipment, structures and contaminated soils, based on the Department's regulatory cleanup standards in effect at the time of said closures.

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

3. As used in this Permit, all references to "hazardous waste" include mixed waste (as defined in 6 NYCRR Part 374-1.9).

4. Compliance with the terms and conditions of this Permit does not constitute a defense to any other law providing for the protection of public health and the environment.

5. For permit modifications, the Permittee shall place a revision date on all pages submitted as part of any proposed permit modification application.

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

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

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

      Chief, RCRA Permitting Section
      Remedial Bureau E Division of Environmental Remediation
      New York State Department of Environmental Conservation
      625 Broadway
      Albany, NY 12233-7017
      c/o Thomas.killeen@dec.ny.gov

      and one (1) electronic copy, transmitted via e-mail, to:

      Chief, Hazardous Waste Programs Branch
      U.S. EPA Region II
      c/o everett.adolph@epamail.epa.gov

      Director, Remedial Bureau E
      New York State Department of Environmental Conservation
      c/o Michael.cruden@dec.ny.gov

      RCRA Project Manager
      New York State Department of Environmental Conservation
      c/o Kent.johnson@dec.ny.gov

b. One (1) paper copy and one (1) electronic copy of all waste reduction documents to:

Director, Bureau of Waste Reduction & Recycling
Division of Materials Management
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7253
c/o john.vana@dec.ny.gov

c. One (1) hard copy of Applications to renew or modify this Permit to:

Chief Permit Administrator
Division of Environmental Permits
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-1750
c/o john.ferguson@dec.ny.gov

d. Where additional Department staff are copied on the above submittals, the Pemittee shall submit these copies electronically. In addition, the Permittee shall provide hard copies of any of the above submittal(s) when specifically requested by the Department.

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.

3. Administrative changes or updates (e.g., recipient names, titles, mail or e-mail addresses) to the information contained in Condition D.1 above shall be done via letter or e-mail.

C. LAND DISPOSAL RESTRICTIONS

The regulations regarding the storage of mixed waste are set forth in 6NYCRR Part 376. 6NYCRR Part 376.5 sets forth prohibitions on the storage of waste restricted from land disposal. In order to facilitate proper recovery, treatment or disposal, the Permittee may accumulate and store mixed waste for a period of greater than one year in accordance with 6NYCRR Part 376.5(a)(3).

D. PUBLIC PARTICIPATION (including 6NYCRR 373-1.10)

1. Information Repository (6NYCRR 373-1.10(c))

   The Permittee shall establish and maintain an Information Repository at the Niagara Falls Public Library, 1425 Main Street, Niagara Falls, New York 14305, (716) 286-4894. The Permitee shall provide the Department with thirty (30) days' notice of any change to the location of the repository. The Permittee will continue to maintain the information repository for the life of the Permit or until otherwise notified by the Department.

   The repository shall contain a copy of the final approved Part 373 Permit application, approved documents such as plans, reports, other relevant documents, the Part 373 Permit Fact Sheet, public notices pertaining to the Part 373 Permit, copies of correspondence including enclosures and attachments from the effective date of the Permit between the Department and the Permittee pertaining to the Permit or to compliance. Certain portions of the permit, and other information within the repository, may be redacted as necessary to protect national security or due to public sensitivity. Those redacted portions may be made available based upon request and subsequent Department of Energy evaluation of a need to know.

   The Permittee shall provide a written notice of the availability of the information repository to all individuals on the facility mailing list within one month from the effective date of this Permit (except to those previously notified within 1 year prior to the effective date of the Permit) and to all individuals on the facility mailing list one year before the expiration date of this Permit.

2. Other public participation activities to consider to maintain good community relations:

   a. Public Meetings

   b. Citizens Advisory Group Meetings

EXHIBIT B
SUPPLEMENT TO MODULE II - CORRECTIVE ACTION

Background

As required by NYSDEC 6 NYCRR part 373-2 and USEPA Hazardous and Solid Waste Amendments of 1984, the Permittee has undertaken forty seven (47) RCRA Facility Investigations (RFI) at Solid Waste Management Units (SWMU) and Site-wide Areas of Concern (AOC) at the Pine Avenue facility. Detailed descriptions of the investigations can be obtained by referring to the RFI reports which are listed in Attachment D of this Permit.

During the course of conducting the RFI, the Permittee discovered areas of contamination at the facility. The majority of contamination is believed to have resulted from historical operations rather than regulated units (with the exception of surface impoundment L-1 at Wastewater Treatment Phase I). The Permittee and the Department have worked together to implement Corrective Measures at locations of the site where significant groundwater contamination has been observed. The purpose of the Corrective Measures is to minimize the spread of the contamination and, ultimately, to improve groundwater quality in the affected areas.

Upon approval of the Site-Wide RFI report, the Permittee submitted the "Site-Wide Corrective Measures Study" which evaluates the need for corrective measures and, where appropriate, selected the preferred corrective measure(s). Corrective measures consisting of a combination of institutional measures and groundwater withdrawal and treatment have been developed for the facility and are set forth in the module. The Department has determined that these corrective measures are sufficiently protective of human health and the environment. The Department's proposed corrective action determination was public noticed in December 1994. A Final Statement of Basis for corrective action at the CECOS facility was issued in 1995.

A. APPLICABILITY

1. Statute and Regulations. Article 27, Title 9, Section 27-0913, and 6NYCRR 373-2.6(l) requires corrective action, including corrective action beyond the facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit ("SWMU") 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 Commissioner may impose permit conditions as the Commissioner determines necessary to protect human health and the environment (i.e., Areas of Concern.

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

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

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

   (c) The following known SWMUs and AOCs located on-site and/or off-site:

Underground Transfer Lines	Secure Landfill #5
Container Management Unit	Acid Neutralization Ponds
Truck Wash Facility	Buffalo Color Rubble
Leachate Storage Tanks	Phenolic Residues
Wastewater Treatment Phase II	Methane Gas
Niagara Falls Sewage Sludge	18-Inch Transfer Line Closure
Foundry Sand	18-Inch Transfer Line Stub at Wastewater Treatment Phase II
Brine Sludge	18-Inch Transfer Line to Union Carbide
Lime/Slag Waste	2 Drums found in Sewage Sludge
Drum Handling/Drum Transfer	Transfer Pipeline - Cell A to 18-Inch Transfer Line
	Transfer Pipeline -Container Management
Unit to Leachate Storage Tanks	
Roadway Oiling	Transfer Pipeline Segment - Cell C Toward Wastewater Treatment Phase I
Sanitary Landfills I, II	SCMF Nos. 1, 2 & 3 Old Leachate Transfer Lines
Sanitary Landfills III, IV	Stained Soil - Excavation at Cell B
Sanitary Landfill V	Site-wide Groundwater
Sanitary Landfill VI	Wastewater Treatment Phase I
Sanitary Landfill VII	Scrap and Salvage Area (Scrap yard)
Ammonium Chloride Application Area	Thorium Disposal Pit
Dry Lime Neutralization	Copper Recovery
Calcium Fluoride Pond	Drying Bed No. 4
Intermediate Landfill Cell A	
Intermediate Landfill Cells B and C	
Drying Bed No. 1	
Secure Landfill #1	
Secure Landfill #2	
Secure Landfill #3	
Secure Landfill #4	

The approximate locations of the above SWMUs and AOCs are shown on the map of the CECOS International facility included in Attachment D.

B. STANDARD CONDITIONS FOR CORRECTIVE ACTION

1. The Permittee must follow the requirements of the Groundwater Monitoring Program in **Exhibit C** of this Permit, and the approved CECOS "Groundwater Sampling and Analysis Plan" for all sampling and analysis performed as part of the corrective action activities.

2. The Permittee and all contractors performing corrective action activities shall undergo appropriate training in accordance with the Personnel Training Plan in Attachment H of this Permit and follow the appropriate facility or contractor Health and Safety Plan.

3. All plans, reports and schedules required by the terms of this Permit are, upon approval of the Department, incorporated into this Permit in accordance with **Module I, Condition A** of this Permit. Any non-compliance with such approved plans (studies), reports or schedules, shall constitute a violation of this Permit.

4. The Department will review any plans, reports, schedule, and/or written submittals, and inform the Permittee in writing of its approval, approval with modifications or disapproval of these submittals or any part thereof. In the event of disapproval or modification of all or any past of any submittal, the Department will specify the deficiencies and reasons for the disapproval or any required modification. Within ten (10) days of receipt of such disapproval or required modifications, the Permittee shall notify the Department in writing of the Permittee's position concerning the disapproval or required modifications and arrange for the immediate scheduling of an appropriate forum to discuss the Department's determinations and resolve any issues concerning those determinations.

   The Department shall, pursuant to 6NYCRR Part 621.14 and within forty-five (45) days of notice of disapproval or required modifications, send to the Permittee a notice of intent to modify this Permit with regard to all unresolved issues.

5. Compliance with Governmental Requirements – During investigative activities, interim corrective measures, and final corrective measures, (including, but not limited to, equipment decommissioning, excavation and unit demolition) required by this Module, the Permittee 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 in a way that is protective of human health and the environment. Nothing in this Module shall be construed to require the Permittee to proceed in a manner which is in violation of any such requirements.

6. Notifications –

(a) Notification of Groundwater Contamination – If at any time the Permittee discovers that hazardous constituents in groundwater that have been released from a Solid Waste Management Unit or Area of Concern at the facility have migrated beyond the facility boundary in concentrations that exceed the Department's "Technical Assistance Guidance Manual" (TAGM) 3028 action levels, the Permittee shall, within fifteen (15) calendar days of discovery, provide written notice to the Commissioner.

(b) Notification of Groundwater Contamination – If at any time the Permittee discovers that hazardous constituents in air that have been released from a Solid Waste Management Unit or Area of Concern at the facility, and have or are migrating to areas beyond the facility boundary in concentrations that exceed action levels in the Department's "Air Guide 1," and that residences or other places at which continuous, long-term human exposure to such constituents might occur are located within such areas where, the Permittee shall, within fifteen (15) calendar days of such discovery:

(i) Provide written notification to the Commissioner; and

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

(c) Notification of Residual Contamination – Because hazardous wastes or hazardous constituents have been released from Solid Waste Management Units or Areas of Concern and will remain in or on the land , including groundwater, after the term of the Permit has expired, the Permittee must record, in accordance with State law, a notation in the deed to the facility property or in some other instrument which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property, of the types, concentrations and location of such hazardous wastes or hazardous constituents.

(d) Newly Discovered SWMUs – The Permittee shall notify the Department, in writing, of any additional SWMUs discovered during the course of groundwater monitoring, field investigations, environmental audits or other means within fifteen (15) days of discovery. Thereafter, the Permittee shall proceed with the assessment, investigation, evaluation and remediation of the SWMU as set for the in Module II of this Permit.

C. CORRECTIVE ACTION REQUIREMENTS

Introduction

This section describes the conclusions of the "Site-Wide Corrective Measures Study" (CMS) which was completed by CECOS in May 1994 and approved by the Department. The purpose of the CMS program is to:

- Evaluate the data presented in the RFI from the standpoint of potential risk to human health and the environment;
- Determine the need to evaluate corrective measures for the impacted media based on potential risk to human health and the environment and media cleanup criteria;
- Complete an evaluation of potential corrective measures alternatives to address media cleanup objectives; and
- Select a corrective measure alternative based on public health, environmental, technical, institutional, and cost criteria.

A listing of the documents that were generated as part of the RFI process and used as references to perform the Corrective measures study can be found in Attachment D of this Permit.

1. No Action Requirement

(a) On the basis of the RCRA Facility Assessment Report dated June 30, 1986, the Site-Wide RCRA Facility Investigation Report, dated April 30 1992, and subsequent SWMU specific reports, the Commissioner 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):

Thorium Disposal Pit	2 Drums Found in Sewage Sludge
Copper Recovery	Transfer pipeline - Cell A to 18" Transfer Line
Buffalo Color Rubble	Transfer Pipeline - Container Management Unit to Leachate Tanks
Drying Bed No. 4	SCMF Nos. 1, 2 & 3 Leachate Transfer Lines
Acid Neutralization Ponds	Stained Soil - Excavation at Cell B
Container Management Unit	
Truck Wash Facility	
18" Transfer Line Closure	
18" Transfer Line to Union Carbide	

(b) The Permittee need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Exhibit Condition C.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 Commissioner 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) or likelihood of release(s) from SWMU(s) and/or AOC(s) identified in Exhibit Condition C.1.(a) that could pose a threat to human health or the environment.

2. No Action Requirement - Previously Addressed

(a) On the basis of the Site-Wide RCRA Facility Investigation Report, dated April 30 1992, and the "Final Site-Wide Corrective Measures Study," dated May 1994, the following SWMU(s) and/or AOC(s) identified in this Exhibit Condition A.2 have had corrective actions addressed as part of a separate "SWMU specific" action:

Scrapyard (Corrective Measures Implementation - 5/92)
Drum Handling/Drum Transfer (Risk Assessment - 3/91)
Wastewater Treatment (WWT) Phase II (Risk Assessment - 3/91)
18" Transfer Line Stub at WWT Phase II (Risk Assessment - 3/91)
Niagara Falls Sewage Sludge (Corrective Measures Implementation - 6/92)
Leachate Storage Tanks

Details of the specific corrective measures undertaken are described in Attachment D of this permit.

(b) The Permittee need not undertake additional corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Exhibit Condition C.2.(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 Commissioner 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) or likelihood of release(s) from

SWMU(s) and/or AOC(s) identified in Exhibit Condition C.2.(a) that could pose a threat to human health or the environment.

3. Regulated Units - Routine Monitoring

(a) On the basis of the Site-Wide RCRA Facility Investigation Report, dated April 30 1992, and the "Final Site-Wide Corrective Measures Study", the Department has determined that there is no evidence at this time of the release of hazardous waste and/or constituents that threaten human health or the environment from the following SWMU(s) identified in this Exhibit Condition A.2. These units are subject to a detection groundwater monitoring program as set forth in 6 NYCRR Part 373-2 and/or Part 360:

SCMF #1 SCMF #2
SCMF #3 SCMF #4
SCMF #5 Intermediate Landfill Cells B & C
The above units shall be monitored in accordance with Module III of this permit.

Sanitary Landfills I-IV Sanitary Landfill V
Sanitary Landfill VII Intermediate Landfill Cell A
Scrapyard
The above units shall be monitored as part of the perimeter monitoring program described in Appendix I of this Exhibit.

Sanitary Landfill VI
Sanitary Landfill V (New)
Sanitary Landfill VIII
The above units are monitored under a separate 6 NYCRR Part 360 permit.

Underground Transfer Lines
The above unit is monitored in accordance with Module III of this Permit.

(b) The Permittee need not undertake additional corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in this Exhibit Condition C.3.(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.

4. Deferred Regulated Units (Reserved)

5. No Further Action - Risk Assessment Performed

(a) On the basis of the Site-Wide RCRA Facility Investigation Report, dated April 30 1992,and the "Site-Wide Corrective Measures Study, dated May 13, 1994, the Commissioner has determined that although there may be de minimus releases from the following SWMU(s) and/or AOC(s) identified in this Exhibit Condition A.2, they do not represent a threat to human health or the environment:

Roadway Oiling	Ammonium Chloride Application
Calcium Floride Ponds	Foundry Sand
Phenolic Residue	Methane Gas

(b) The Permittee need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in this Exhibit ConditionC.5.(a) as long as there is no evidence of significant 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 Commissioner 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) or likelihood of release(s) from SWMU(s) and/or AOC(s) identified in this Exhibit Condition C.5.(a) that could pose a threat to human health or the environment.

D. CORRECTIVE MEASURES

Introduction

This Section of Exhibit B begins with a brief discussion of the nature and extent of releases of hazardous waste constituents which have been observed at the CECOS International Facility. It sets forth the "remedial goals" which the Department has established to address those releases; describes the "remedial criteria" which shall be used to ensure that the remedial goals will be attained; and requires the development and implementation of a corrective measures program to achieve the remedial criteria.

Background

CECOS has completed the RCRA Facility Investigation (RFI) of releases of hazardous waste constituents at the Niagara Falls facility. As a result of the investigation, CECOS has determined that hazardous waste constituents have been released to the fill/soil and groundwater beneath the facility.

The most significant area of contamination is located in the central area of the facility. An initial and supplemental RFI investigation has been completed for the Central Area (See Figure 1). The initial investigation involved the collection of groundwater samples from four monitoring wells, leachate samples from Intermediate Landfill Cells A, B & C and an evaluation of historical groundwater data collected as part of the SCMF #5 and Wastewater Treatment Phase I groundwater assessments. Based on the review of the analytical data, an estimation of the extent and magnitude of groundwater contamination was made for each of the groundwater transmissive zones. The extent of groundwater contamination in the central area of the Niagara Falls facility is as follows:

Top of Clay Zone: As shown in Figure 1, the highest concentrations of volatiles organic compounds (VOCs) in the central area were found in the area south of WWT Phase I and in the area between SCMF #5 and Cells B and C, however groundwater contamination extends throughout the central area.

Top of Rock: As shown in Figure 2 the highest concentrations of VOCs in the central area were found in the area south of WWT Phase I and in one well southwest of SCMF #5.

Bedrock: As shown in Figure 3, the highest concentrations of VOCs in the central area were found in the area south of WWT Phase I.

Evaluation of possible sources has indicated that WWT Phase I Impoundment L-1 was the most significant source of the contamination found immediately south of WWT Phase I in the Top of Clay, Top of Rock and Bedrock zones. In 1990, CECOS completed physical closure of L-1 and the other WWT Phase I impoundments. Closure included removing the sludge and backfilling the impoundments. The impoundments were then capped with a low permeability cover system which promotes surface runoff and limits infiltration of water in the area where wastes were managed. The closure was designed to minimize the potential for hazardous constituents to be leached from the waste residues and released to the groundwater.

In 2007, the entire WWT Phase I area was excavated and removed. It is no longer a continuing source of contamination.

A source other than Impoundment L-1 is indicated for groundwater contamination found between SCMF #5 and Cells B and C. The Department has determined that SCMF #5 is not the source of the detected contaminants. Because of the location of the contamination, it was not possible to conclusively identify the source or sources of contaminants. The most likely source or sources were Drying Bed #1, Dry Lime Neutralization or an unknown source.

In response to the groundwater contamination found in the Central area, the USEPA and NYSDEC required CECOS to implement Corrective Measures (CM) for the area. The intent of the corrective measures is to control contaminant "hot spots" in the central area of the facility and to intercept contaminated groundwater before it reaches the site perimeter. The CM includes top of clay, top of rock and bedrock pumping wells and the treatment of collected groundwater at the facilities

wastewater treatment plant. The CM's also include a performance monitoring program to assess the effectiveness of the system. In addition to the CM groundwater extraction system, a drain system along sides of Sanitary Landfills I - IV and Sanitary Landfill VII has been installed to intercept and collect groundwater from the top of clay zone.

Another area of significant groundwater contamination is located in the southwestern portion of the facility. Secure Chemical Management Facilities (SCMFs) Nos. 1, 2 & 3 have been investigated jointly in accordance with a Consent Order issued under Section 3013 of RCRA. Following review of the resulting groundwater investigative reports for SCMF Nos. 1, 2 & 3, NYSDEC and USEPA have determined that SCMF Nos. 1, 2 & 3 are not the source of the contaminants. The Necco Park landfill which is located immediately upgradient of SCMF Nos. 1, 2 & 3 is the source of the groundwater contamination. Releases from the Necco Park landfill are being addressed under the CERCLA (Superfund) program.

The hazardous waste constituents which were released from the central area are present in the soil/fill and in the groundwater as aqueous (dissolved) phase contaminant plume. A list of hazardous waste constituents which have been released to the groundwater, and the "Groundwater Protection Standard" for the constituents is included in Table 1.

On the basis of the Site-Wide RCRA Facility Investigation Report, dated April 30 1992, and the "Final Site-Wide Corrective Measures Study, Corrective Measures are required for the following SWMU(s) and/or AOC(s) identified in Exhibit Condition A.3:

Lime/Slag Waste	Dry Lime Neutralization	Brine Sludge
Drying Bed No. 1	Wastewater Treatment Phase I	Site-wide Groundwater

The remediation of contamination released or derived from these units is to be addressed by a combination of a groundwater remedial program and institutional controls. The requirements of the remedial program are described in Exhibit Condition D.3.

TABLE 1

PARAMETER	CAS#	GROUNDWATER PROTECTION STANDARD (µg/L)
Volatile Organic Compounds		
Methylene chloride	75-09-2	5.0
Trichloroethylene	79-01-6	5.0
1,1,1-Trichloroethane	71-55-6	5.0
Acetone	67-64-1	50
1,2-Dichloroethylene (total)	75-35-4	5.0
Vinyl chloride	75-01-4	2.0
Carbon disulfide	75-15-0	50
1,1-Dichloroethylene	75-35-4	5.0
1,1-Dichloroethane	75-34-4	5.0
Xylene (total)	1330-20-7	5.0
Chloroform	67-66-3	7.0
Toluene	108-88-3	5.0
Benzene	71-43-2	0.7
Ethylbenzene	100-41-4	5.0
Trichlorofluoromethane	75-69-4	5.0
2-Butanone	591-78-6	50
Tetrachloroethylene	127-18-4	5.0

PARAMETER	CAS#	GROUNDWATER PROTECTION STANDARD (µg/L)
Acid/Base/Neutral/Pesticides Compounds		
Benzo (a) anthracene	71-43-2	0.002
Benzo (b) fluoranthene	205-99-2	0.002
Benzo (a) pyrene	50-32-8	0.002
bis (2-Ethylhxyl) phthalate	117-81-7	50
Chrysene	218-01-9	0.002
Acenaphthene	83-32-9	20
Acenaphthylene	208-96-8	20
Anthracene	120-12-7	50
Benzo (ghi) perylene	191-24-2	5.0
Fluorene	86-73-7	50
Phenanthrene	85-01-8	50
Pyrene	129-00-0	50
Di-n-butyl phthalate	84-74-2	50
Fluoranthene	206-44-0	50
Naphthalene	91-20-3	10
Phenol	108-95-2	1.0
Indeno (1,2,3-c,d) pyrene	193-39-5	0.002
1,2,4,-Trichlorobenzene	120-82-1	5.0

PARAMETER	CAS#	GROUNDWATER PROTECTION STANDARD (µg/L)
2-Methylnaphthalene	91-57-6	50
2,3,4,6-Tetrachlorophenol	58-90-2	1.0
2,4-Dimethylphenol	105-67-9	50
2-Chlorophenol	95-57-8	50
1,2,4,5-Tetrachlorobenzene	95-54-3	5.0
Di-n-octylphtalate	117-84-0	50
o-Dichlorobenzene	95-50-1	4.7
p-Dichlorobenzene	106-46-7	4.7
Aroclors (PCB's)		
PCB-1254	011097-69-1	total 0.1
PCB-1260	011096-82-5	
Metals		
Arsenic	7440-38-2	25
Barium	7440-39-3	1000
Cadmium	7440-43-9	5.0
Chromium	7440-47-3	50
Lead	7439-95-4	25
Nickel	7440-02-0	700
Selenium	7782-49-2	10

PARAMETER	CAS#	GROUNDWATER PROTECTION STANDARD (µg/L)
Vanadium	7440-62-2	250
Zinc	7440-66-6	300

Determination

The Department has determined that the presence of hazardous waste constituents in the groundwater represents a potential threat to human health and the environment. Corrective Measures are required to mitigate that threat. Based upon the review of the "Site-Wide RCRA Facility Investigation" and the "Site-Wide Corrective Measures Study", the Department has determined that development and implementation of the following Corrective Measures are appropriate and protective of human health and the environment:

1. REMEDIAL GOALS

(a) Restrict the plume of Top of Clay contamination to prevent its migration off-site of the facility.

(b) Remediation of the Top of Clay Zone contamination and restoration of the Top of Clay zone aquifer through the development and operation of a groundwater extraction system.

(c) Restrict the plume of Top of Rock contamination to prevent its migration off-site of the facility.

(d) Remediation of the Top of Rock Zone contamination and restoration of the Top of Rock Zone aquifer through the development and operation of a groundwater extraction system.

(e) Restrict the plume of Bedrock contamination to prevent its migration off-site of the facility.

(f) Remediation of the Bedrock Zone contamination and restoration of the Bedrock Zone aquifer through the development and operation of a groundwater extraction system.

The goals are to be achieved through the implementation of the corrective measures specified in Exhibit Condition D.3.

The definition of the word "restrict", as used in this document, is to eliminate significant off-site discharge or migration of CECOS hazardous waste constituents that pose threats to human health and the environment to the maximum extent possible or technically feasible.

2. Remedial Criteria

The remedial criteria will be used to demonstrate that the remedial goals are being achieved.

(a) Plume Capture: Establish and maintain a groundwater capture zone that extends to the limits depicted on Figures 1, 2 & 3 and that contains contaminated groundwater in the central area of the site. The intent of the groundwater capture zone shall be to control the movement of groundwater so as to restrict off-site migration of hazardous waste constituents, and to restore the groundwater quality of the aquifers.

The Department is aware of the limited presence of hazardous waste constituents, at or near the Groundwater Protection Standards, in groundwater monitoring wells at the perimeter of the facility. Based upon the risk assessment performed by CECOS, the Department has concluded that these levels (off-site organic flux approx. 0.02 lbs/day) do not present an unacceptable short-term risk to human health and the environment.

It is anticipated that operation of the remedial system will prevent additional migration of contaminated groundwater from the source to the site boundary, and; therefore, will foster natural attenuation of the low-level contamination. CECOS must continue to monitor the perimeter of the facility to evaluate the effect of the remedial system at reducing the concentration of hazardous waste constituents at the site boundary.

(b) Cleanliness Standards: Restore the quality of the on-site Top of Clay, Top of Rock and Bedrock aquifers to levels at or below the Groundwater Protection Standards set forth in Table 1 above.

Reduce the concentration of hazardous waste constituents in the Central Area contaminant plumes and the site perimeter by 50% within ten (10) years after start-up of the Final Corrective Measure; by 75% within fifteen (15) years after start-up of the Final Corrective Measure.

Restore the quality of the Top of Clay, Top of Rock and Bedrock aquifers at the facility boundary to levels at or below the Groundwater Protection Standards set forth in Table 1 above within 15 years of startup.

3. Corrective Measures Implementation

CECOS has developed a remedial program which the Department considers an appropriate

technology to achieve the Remedial Criteria and to attain the Remedial Goals set forth in this Permit.

The Department has determined that the most effective and timely way to achieve the necessary corrective measures is to continue the implementation of the previously approved remedial program specified in the Corrective Measures Implementation Report issued in August 1995 and revised in November 1996.

The Department recognizes that over time, changes in the operation and monitoring of the Corrective Measures program specified in the Corrective Measures Implementation report may be appropriate. Such changes will require written authorization from the Department, and will be treated as minor permit modifications unless otherwise specified by the Department.

(a) Reporting

(1) System Down Time - The remedial system shall be operated on a continuous basis. If any part of the system is inoperable (down) for a period of more than 3 days consecutively or 5 days in a 30 day period, CECOS shall notify the Department. The notification will include a plan for restoring system operation as quickly as possible.

(2) Reports - CECOS shall submit a written report containing groundwater quality and elevation information collected during the previous sampling episode. Data shall be provided as hard copy and in an acceptable digital format for input into the Department's computers. In addition, these reports shall summarize system operation data for the previous reporting period including average pumping rates from each well, the cause and duration of system upsets requiring notification, corrective action taken or to be taken to resolve recurrent operational difficulties.

(3) Annual Reporting - Annually the Permittee shall submit a summary report of all sampling results obtained during the preceding year.

The Annual Report shall be due by March 1 of each year and shall contain a summary of all data and evaluations as required for semiannual reports.

In addition, the following information shall be contained in the Annual Report:

(a) The Permittee shall determine the groundwater flow rate and direction. [6 NYCRR 373-2.6(i)(5)].

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

(4) Five year Review Requirements – Because the selected corrective actions may result in hazardous substances, pollutants, or contaminants remaining at the site above levels that

allow for unlimited use and unrestricted exposure, and will take longer than five years to achieve remedial action goals and clean-up levels, a review will be required within ninety (90) days of permit issuance and every five years afterwards to ensure the remedy selected is, or will be protective of human health and the environment.

(b) Modification of the Remedial System

If, after review of the performance monitoring data, the Department determines that the design or operation of the Remedial System is not sufficient to achieve the remedial criteria, the Department may require CECOS to modify the design or operation of the system so as to achieve the remedial criteria.

If the Department determines that a remedial technology other than groundwater recovery is needed to achieve the remedial criteria, the Department will initiate Permit Modification pursuant to 6 NYCRR part 621.

CECOS may implement, without prior Department approval, adjustments to the groundwater recovery system that will facilitate or improve groundwater control and cleanup. Modification of the groundwater treatment system may only be made after receipt of written approval by the Department.

(c) Termination of Groundwater Recovery

CECOS must petition the Department for approval to shut down a groundwater recovery system and/or well. Termination of pumping at any part of the recovery system will be permissible when "Termination Criteria" (a) and (b) described herein are met in the area and aquifer(s) associated with the well(s).

(1) Termination Criteria

(a) All Groundwater Protection Standards set forth in Table 1 have been achieved.

(b) The total concentration of all organic compounds is no greater than 100 parts per billion (ppb), and no single organic compound concentration exceeds 50 ppb.

Termination of the entire system may not take place until CECOS submits, and the Department approves, an assessment which indicates that the residual groundwater contamination does not pose an unacceptable risk to human health and the environment.

(2) Termination Monitoring

Termination Monitoring will be initiated whenever CECOS determines that cleanup in all or part of the area/aquifer is achieving the Termination Criteria. Eight quarterly sampling episodes are required to demonstrate that groundwater quality meets the

termination criteria. At least 60 days prior to commencing Termination Monitoring, CECOS shall submit for Department review and approval a Termination Monitoring Plan. That Plan will describe the area (or wells) for which Termination Monitoring is proposed, and the monitoring program, including wells, which will be used to determine whether the Termination Criteria have been achieved.

The basis for determining whether the termination criteria have been met for a particular recovery well shall be determined by the following methodology:

Samples taken from designated groundwater monitoring wells within the capture zone of the recovery well will be analyzed and the data will be evaluated to determine the mean concentration for each constituent. The mean concentration for a constituent is determined for eight consecutive quarterly samples using the arithmetic mean. If the arithmetic mean concentration of each constituent at each well is less that set forth in 3.c., (1) and (2) above, the termination criteria have been met for that recovery well.

Constituents that can be demonstrated as not attributable to releases from the CECOS site may be excluded from the data evaluation used to determine whether the termination criteria have been met. CECOS shall notify and have the burden to demonstrate to the Department the justification for excluding data on that basis.

(3) Alternative Termination Criteria

In the event that the Groundwater Protection Standards set forth in Table 1 are not met, the only other basis for the termination of a groundwater recovery system and/or well is by meeting Alternative Termination Criteria. Once the alternative criteria are met, CECOS may petition the Department to begin Termination Monitoring to shut down a groundwater recovery system and/or well as provided below:

An on-site groundwater recovery system and/or well may be shut down if:

(a) The Point of Exposure Wells associated with that system and/or well meet the On-Site Termination Criteria in 3.c., (1) and (2) above;

and

(b) The chemical concentration of hazardous waste constituents in all the Internal Monitoring Wells associated with that system and/or recovery well indicate that the the "Zero Slope Condition" defined below can be attained during Termination Monitoring.

and

(c) The chemical concentration of hazardous waste constituents in all the Internal

Monitoring Wells associated with that system and/or recovery well are such that after shutdown of the recovery system and/or well, the concentration of hazardous waste constituents in the Point of Exposure Wells down gradient of the recovery system and/or well will remain below the groundwater protection standard;

or in lieu of (c) above,

CECOS submits, and the Department approves, an analysis which indicates that the residual groundwater contamination would not result in an unacceptable risk to human health and the environment.

(d) "Zero Slope Condition" - The zero slope condition is defined as follows: when the slope of the plot of the sum of the concentration of hazardous waste constituents in a well versus time is deemed zero according to the procedures described herein. The determination of said condition shall be made on a well-by-well basis at all specified groundwater monitoring wells associated with a given groundwater recovery well. The determination of whether there is a zero slope shall be made as follows.

(1) The sum of the concentration of hazardous waste constituents resulting from eight consecutive quarterly sampling events will be plotted versus time.
(2) If the curve which best fits these data points is linear, then a straight line using a least squares regression model will be fitted to the data and the slope of the fitted curve will be computed and designated as the estimated slope.

(3) If the data points fit a non-linear form, then an exponential curve using a least squares regression model will be fitted to the data. The estimated slope will be the first derivative of the curve at a value of time half way between the last two sampling points.

(4) The estimated slope shall be deemed zero if:

That slope is less than or equal to zero, (i.e. the concentration is stable) or the yearly decrease of the total concentration of hazardous waste constituents is less than the average overall precision of analytical methods used. (CECOS and the Department will develop a methodology for calculating the average overall precision prior to implementation of Termination Monitoring.)

(5) (5) In addition, the spatial and temporal distributions of the concentrations of compounds will be assessed to provide additional information regarding trends.

(e) Post-Termination Monitoring and System Reactivation

Whenever CECOS petitions the Department to shut down the Remedial System, the petition must include a proposal for a "Post Termination Monitoring Program". The

purpose of the program shall be to continue to demonstrate that the Remedial Criteria have been achieved. Post Termination Monitoring shall be performed quarterly for three years after termination of the system.

Upon receipt of Department approval to shut down the recovery system, CECOS must initiate the Post Termination Monitoring Program. During Post Termination Monitoring, CECOS must keep the remedial system in place and be prepared to place it back into service, if required, within a reasonable period of time.

In the event that one of the following events occurs during Post Termination Monitoring, CECOS shall notify the Department and the Department in its discretion may require CECOS to restart the associated groundwater recovery system:

(1) Two successive quarterly results from any well exceed the Termination Criteria by an amount greater than the average overall precision of the analytical methods used. (CECOS and the Department will develop a methodology for calculating the average overall precision prior to implementation of Termination Monitoring.)

(2) The yearly average results from any well exceed the termination criteria.

Notwithstanding the above, in the event that the total of all organic compounds or the concentration of any given compound at a well exceeds the termination criteria by a factor of 10, the Department will be notified, and the well will be resampled within 30 days to verify the analysis. If the original analysis has been verified, the associated groundwater recovery system shall be restarted by CECOS as soon as practicable unless CECOS receives authorization from the Department to delay reactivation.

4. Institutional Measures

In order to minimize the impacts of the soil and groundwater contamination on the surrounding community CECOS must:

(a) Restrict public access to the facility.

(b) Formal notification on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous waste;

(ii) The use of the property is restricted under 6NYCRR Part 373-2.7, as if it were a "hazardous waste disposal facility."

(c) Maintain the infiltration control measures previously installed at Wastewater Treatment Phase I, Wastewater Treatment Phase II, Scrapyard, Sanitary Landfills I-IV, V and VII, and Intermediate Landfill Cells A, B & C.

5. Financial Assurance

Within thirty days of the effective date of this Permit, CECOS shall submit the necessary documentation to demonstrate financial responsibility for completing the corrective measures and the post-closure care during the post-closure care period. The estimate and the mechanism used to demonstrate financial responsibility must conform to the requirements set forth in 6NYCRR Part 373-2.8.

E. GREEN REMEDIATION

1. The Permittee must make best efforts to implement green remediation practices in the performance of the requirements of the Work, including but not limited to performance of a RCRA Facility Investigation, Corrective Measures Study, Interim Corrective Measure, Corrective Measures Implementation and Post-Closure/Effectiveness Evaluations to maximize to the extent practicable, sustainability, reduce energy and water usage, promote carbon neutrality, promote materials reuse and recycling, and protect and preserve land resources.

2. The Permittee must make best efforts to utilize concepts and techniques presented in the New York State Department of Environmental Conservation – DEC Program Policy DER-31/Green Remediation, most recent edition.

3. The Permittee must report Green Remediation metrics as required by **Condition F of Schedule 1 of Module I**.

Figures

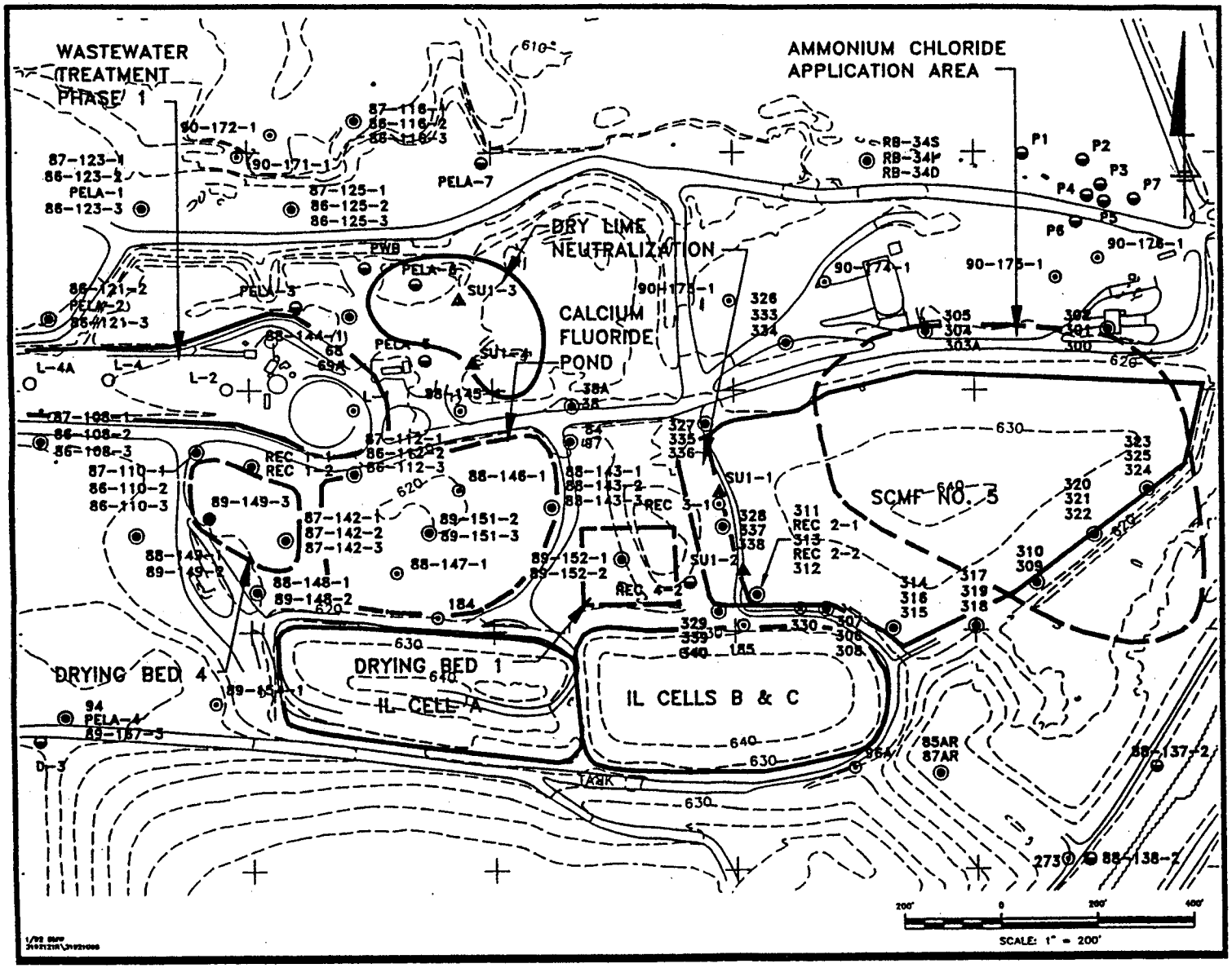

FIGURE 1

LEGEND

- TOP OF CLAY MONITORING WELL
- TOP OF ROCK MONITORING WELL
- BEDROCK MONITORING WELL
- WELL CLUSTER
- SOIL BORING
- ABANDONED WELL

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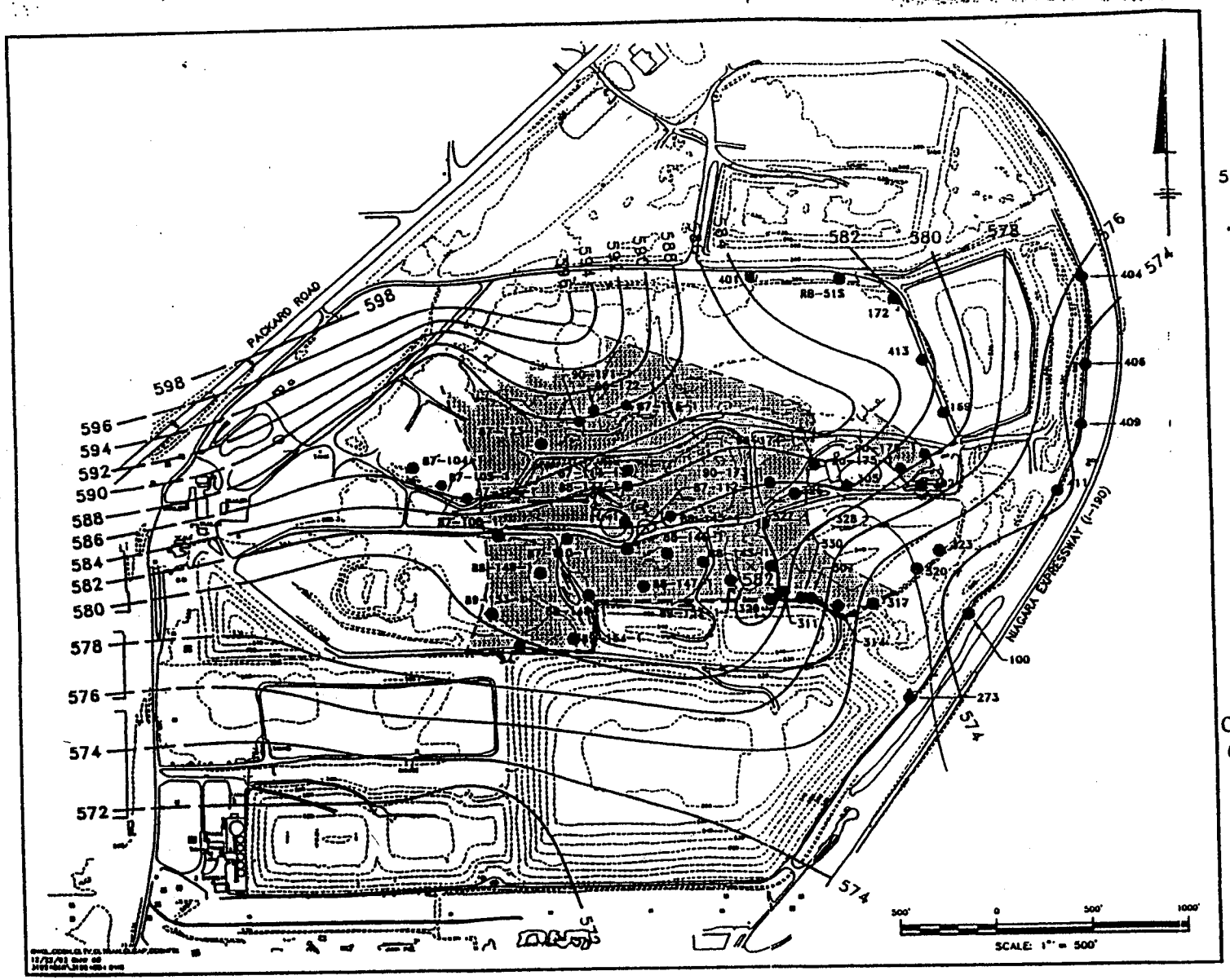
CENTRAL AREA LOCATION MAP

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 2



LEGEND

574 —— GROUND-WATER CONTOUR LINE (FEET), JUNE 16, 1993 DASHED WHERE INFERRED

— — — TOP OF CLAY TRANSECT LINE

● NO VOLATILE ORGANIC COMPOUNDS DETECTED IN EXCESS OF GROUND-WATER PROTECTION CONCENTRATIONS BASED ON SELECTED DATA

TOTAL VOLATILE ORGANIC CONCENTRATION EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS:

● 0.1-100 ug/L
● 100.1-1000 ug/L
● GREATER THAN 1000 ug/L

▒ CAPTURE ZONE ASSUMING PASSIVE GROUND-WATER INTERCEPTION ALONG TRANSECT

NOTES:
1. GROUND-WATER PROTECTION CONCENTRATION AS PRESENTED IN MODULE VII OF CECOS' 373 PERMIT.
2. ANALYTICAL DATA SOUTH OF NECCO PARK IS NOT ILLUSTRATED.

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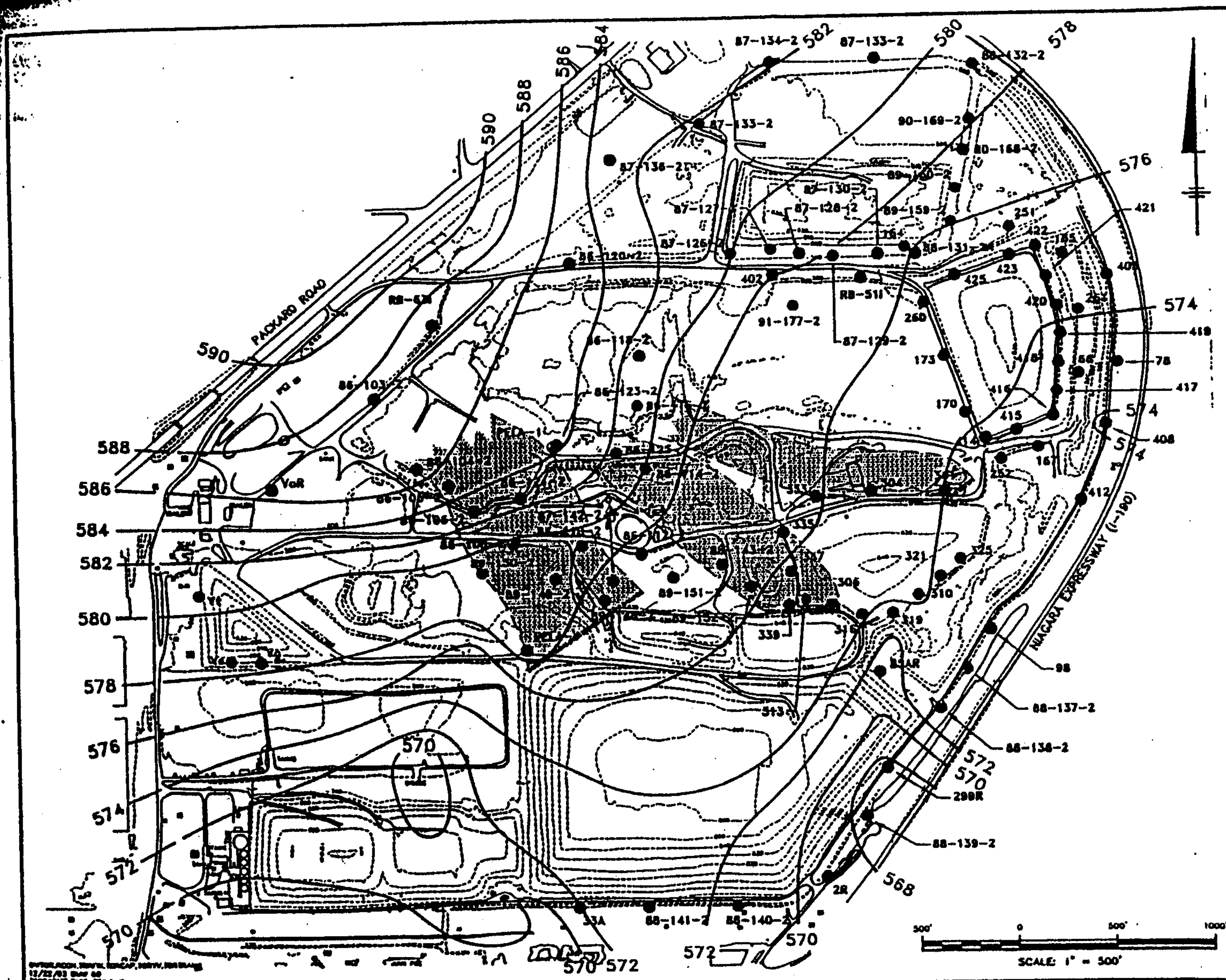
TOTAL VOLATILE ORGANIC CONCENTRATIONS EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS RELATIVE TO CONCEPTUAL AREAS OF GROUND-WATER CAPTURE IN TOP OF CLAY ZONE

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 3



LEGEND

574 —— GROUND-WATER CONTOUR LINE (FEET), JUNE 16, 1993 DASHED WHERE INFERRED

TOP OF ROCK TRANSECT LINE

● NO VOLATILE ORGANIC COMPOUNDS DETECTED IN EXCESS OF GROUND-WATER PROTECTION CONCENTRATIONS BASED ON SELECTED DATA

TOTAL VOLATILE ORGANIC CONCENTRATION EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS:

● 0.1–100 ug/L

● 100.1–1000 ug/L

● GREATER THAN 1000 ug/L

CAPTURE ZONE ASSUMING PASSIVE GROUND-WATER INTERCEPTION ALONG TRANSECT

NOTES: 1. GROUND-WATER PROTECTION CONCENTRATION AS PRESENTED IN MODULE VII OF CECOS' 373 PERMIT.

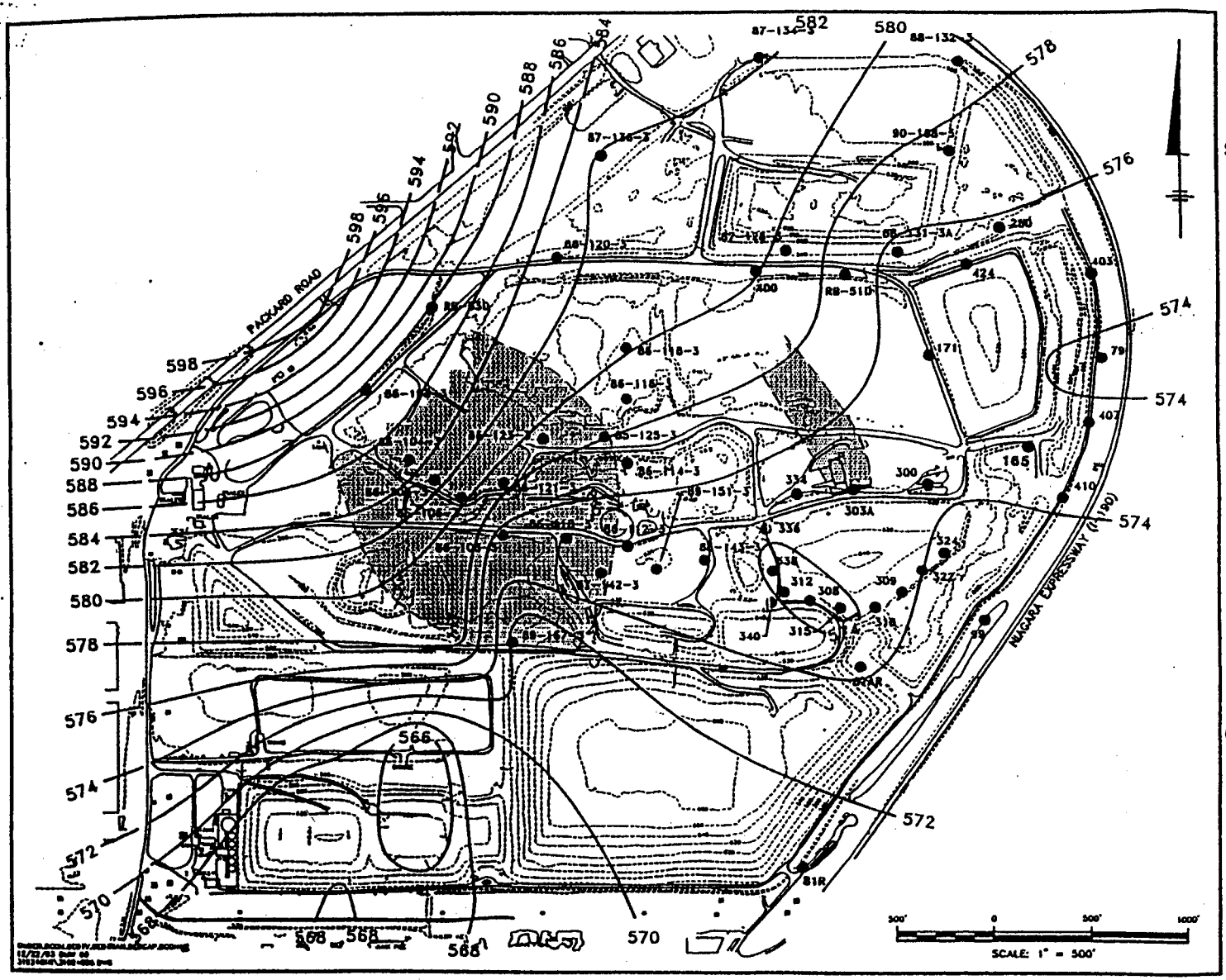
2. ANALYTICAL DATA SOUTH OF NEWCO PARK IS NOT ILLUSTRATED.

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

TOTAL VOLATILE ORGANIC CONCENTRATIONS EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS RELATIVE TO CONCEPTUAL AREAS OF GROUND-WATER CAPTURE IN TOP OF ROCK ZONE

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 4



LEGEND

584 —— GROUND-WATER CONTOUR LINE (FEET), JUNE 16, 1993 DASHED WHERE INFERRED

—— BEDROCK TRANSECT LINE

● NO VOLATILE ORGANIC COMPOUNDS DETECTED IN EXCESS OF GROUND-WATER PROTECTION CONCENTRATIONS BASED ON SELECTED DATA

TOTAL VOLATILE ORGANIC CONCENTRATION EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS:

● 0.1-100 ug/L

● 100.1-1000 ug/L

● GREATER THAN 1000 ug/L

▨ CAPTURE ZONE ASSUMING PASSIVE GROUND-WATER INTERCEPTION ALONG TRANSECT

NOTES:
1. GROUND-WATER PROTECTION CONCENTRATION AS PRESENTED IN MODULE VII OF CECOS' 373 PERMIT.
2. ANALYTICAL DATA SOUTH OF NEDCO PARK IS NOT ILLUSTRATED.
3. CONTOURS AROUND WELL 325R NOT SHOWN FOR CLARITY.

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

TOTAL VOLATILE ORGANIC CONCENTRATIONS EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS RELATIVE TO CONCEPTUAL AREAS OF GROUND-WATER CAPTURE IN BEDROCK ZONE

BLASLAND & BOUCK ENGINEERS, P.C.

APPENDIX I - GROUNDWATER PROTECTION

A. Applicability

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

2. The Permittee shall modify the groundwater monitoring program, as necessary, to maintain compliance with any subsequent changes in 6NYCRR 373-2.6 within ninety (90) days after the effective date of such change.

3. The Permittee shall follow its corporate Health and Safety Plan when carrying out the permit's groundwater monitoring activities, unless other requirements govern.

B. Permit Modification

If the Permittee determines that the monitoring programs required under this Permit no longer satisfy the requirements of the regulations, the Permittee shall, within ninety (90) days of such determination, submit an application for a permit modification which describes the changes that will be necessary to maintain regulatory compliance at the site. The Commissioner may require the Permittee to perform additional sampling and install additional monitoring wells, as necessary, to maintain compliance with 6NYCRR Part 373-2.6 at the site. If at any time it is determined that the groundwater monitoring network is not in compliance, the Department shall require the Permittee to take whatever actions are necessary to bring the monitoring network into compliance.

C. Groundwater Monitoring Plan

1. Point of Compliance.
   The Point of Compliance for Sanitary I - IV and Cell A is defined as the vertical surface passing through the down gradient monitoring wells 88-138-2, 299R, 88-139-2, 2R, 88-140-2, 88-141-2, 50SR and 33A.
   The Point of Compliance is shown on Figure 1.

   The Point of Compliance for Sanitary Landfill V is defined as a vertical surface passing through the down gradient monitoring wells Ve and Vg.
   The Point of Compliance is shown on Figure 2.

   The Point of Compliance for Sanitary Landfill VII is defined as the vertical surface passing through the down gradient monitoring wells 412, 98, 88-137-2, and 88-138-2.
   The Point of Compliance is shown on Figure 3.

The Point of Compliance for the Scrapyard is defined as the vertical surface passing through the down gradient monitoring wells 98-188-1, 03-197-1 and 03-199-1.

The Point of Compliance is shown on Figure 4.

2. Length of Monitoring Requirements. The groundwater monitoring requirements set forth herein shall extend for a period of thirty (30) years beyond the closure of the facility. In the event that a compliance monitoring program is needed at the unit, a compliance period equal to the active life of the unit plus thirty (30) years shall be established.

3. Description of Wells.

   (a) Sanitary I -IV, Cell A. The detection monitoring network for Sanitary Landfills I - IV and Intermediate Landfill Cell A shall consist of the following wells:

   Down gradient.
   Top of Clay well 273
   Top of Rock wells 88-138-2, 299R, 88-139-2, 2R, 88-140-2, 88-141-2, 50SR and 33A
   Bedrock wells 81R, 51

   (b) Sanitary V (old). The detection monitoring network for Sanitary Landfill V shall consist of the following wells:

   Down gradient.
   Top of Rock wells Ve, Vg

   (c). Sanitary VII. The detection monitoring network for Sanitary Landfill VII shall consist of the following wells:

   Down gradient.
   Top of Clay wells 404, 406, 409, 411, 100 and 273
   Top of Rock wells 412, 98, 88-137-2, and 88-138-2
   Bedrock wells 410, 99

   (d) Scrapyard. The detection monitoring network for the Scrapyard shall consist of the following wells:

   Up gradient.
   Top of Clay well 74R
   Top of Rock well 75R

   Down gradient.
   Top of Clay wells 98-188-1, 03-197-1
   Top of Rock wells 03-197-2

4. Additional Monitoring. Samples of Sanitary Landfills I - V, VII and Intermediate Cell A leachate shall be collected from each individual subcell and analyzed for the same suite of parameters as the monitoring wells, every fourth sampling event.

5. Sampling Frequency. All Top of Rock monitoring wells in the detection monitoring program shall be samples semi-annually. Top of Clay and Bedrock wells shall be sampled annually during post-closure, and whenever underdrain or Top of Rock “statistical hits” are observed.

   Groundwater wells in the Scrapyard monitoring network shall be sampled annually.

6. Indicator Parameters. The following parameters shall be used as indicator parameters in the Sanitary Landfils I-IV, V, VII and Intermediate Landfill Cell A detection monitoring program:

   Target Compound List Volatile Organics
   Target Compound List Metals

   The following parameters shall be used as indicator parameters in the Scrapyard detection monitoring program:

PCBs	Hexachlorobenzene
Lead	Arsenic
Cobalt	

   The Permittee shall analyze all detection monitoring wells for the indicator parameters and shall compare the values obtained during each sampling event with the background values of the parameters.

   Field determinations of pH, specific conductance, and temperature must be obtained at each detection monitoring well at the time of sampling. Statistical comparisons of these parameters need not be performed.

7. Statistical Evaluation. Whenever the Permittee determines groundwater quality at the point of compliance, he must determine whether there has been a "statistically significant" increase of the indicator parameters. That determination must be made for each indicator parameter and for every well.

D. Reporting Requirements

Routine Monitoring Reporting
The Permittee shall report the results of all groundwater analyses which are obtained from the detection monitoring network.

The results of the groundwater sampling must be submitted to the Department no later than ten (10) weeks after the date of sampling. The sampling data must be submitted as a hard (paper)

copy. In addition, sampling/analytical data shall be made available in an acceptable digital format for input into the Department's computers.

Along with the sampling results, the Permittee shall submit the results of the pH, specific conductance, temperature and groundwater elevation measurements which were obtained at the time the detection monitoring network was sampled. The groundwater elevation data shall be expressed both in tabulated form and as potentiometric contour maps.

The Permittee shall, on a semi-annual basis, collect "Point in time" groundwater elevations from a Department approved list of wells on site for each transmissive zone. The groundwater elevation data shall be expressed both in tabulated form and as potentiometric contour maps.

The depth to the static water surface shall be measured to the nearest 0.01 feet each time a well is sampled prior to well purging. As a check, a duplicate water level measurement will be taken and recorded on every tenth well.

Within ten (10) weeks after each sampling event, the Permittee must evaluate the groundwater quality data for the indicator parameters using the procedures set forth below. If analyses reveal a statistically significant increase in the concentration of an indicator parameter at any well in the Detection monitoring network, the Permittee must:

1. If the results of analyses fail statistical criteria, the data will have a QA/QC review of the analysis.

2. If the QA/QC data review indicates that the analytical data is erroneous, the evaluation returns to detection monitoring with a statement in the annual report that indicates the reasons for the erroneous data. Otherwise, the well in question must be resampled within thirty (30) days of receipt of the original detection monitoring results.

3. Within seven (7) days of receipt of the results of the resampling, the results shall be subjected to the same statistical evaluation criteria.

4. If the resampling results pass statistical criteria, then the well in question returns to detection monitoring with a statement in the annual report.

5. If the resampling results fail statistical criteria then, within 7 days of receiving the results, the Permittee shall provide written notification of the failure of the evaluation criteria to the Department. Within thirty (30) days of receiving results of the resampling, a plan must be submitted to the Department to determine the source of the detected compounds. Within ninety (90) days of receiving the results of the resampling, a permit modification request must be submitted to the Department.

6. In addition to Step 5, within fourteen (14) days of receiving the resampling results

the Permittee shall sample the affected well and adjacent wells which monitor the regulated unit for Appendix 33 constituents. Adjacent wells will be those wells remaining in the cluster and the two closest wells which are located in the same monitoring zone. Samples from adjacent wells shall be analyzed for Appendix 33 constituents except for USEPA method 8280 compounds.

7. Upon approval of the source investigation plans called for in Step 5 by the Department, an evaluation must be made to determine the source of the detected compounds.

8. If the source investigation determines that the regulated unit is not the source of the detected compounds, the Permittee must submit a permit modification request to continue detection monitoring. In addition, an investigation must be conducted to determine the source, rate and extent of the contamination as well as determine what, if any, remedial action is required.

9. If the source investigation determines that the regulated unit is the source of the detected compounds, the regulated unit will be deemed to be in compliance monitoring and groundwater protection standards must be developed. Within ninety (90) days of notification, the permittee must also submit an application for permit modification. The permit modification must either be for the establishment of a Corrective Action program [373-2.6(k)] or for the establishment of a Compliance monitoring program with alternative concentration limits [373-2.7(e)(2)].

Annual Reporting. Annually the Permittee shall submit a summary report of all sampling results obtained during the preceding year.

The Annual Report shall be due by March 1 of each year and shall contain all data and evaluations as required for semi-annual reporting. Any data previously submitted to the Department may be referenced.

In addition, the following information shall be contained in the Annual Report:

(i) The Permittee shall determine the groundwater flow rate and direction. [6 NYCRR 373-2.6(i)(5)].
(ii) Proposal for any changes to the Groundwater Monitoring Plan.

E. **Inability to Obtain Representative Samples**

1. If the Permittee knows that a well may not provide representative samples, or accurate piezometric values, may be damaged, or is inaccessible, the Permittee shall within seven (7) days of such knowledge notify the Commissioner of the problem in writing and propose a remedy. Within fourteen (14) days of such knowledge, the Permittee shall attempt to remedy the problem and, when appropriate, sample or re-

sample the well. Within twenty-one (21) days of such knowledge, the Permittee shall, through written notice to the Commissioner, provide information which describes the nature of the problem.

In addition, the notification shall contain:

(a) A description of how the problem with the well has been rectified; or

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

If a problem with the well prevented the Permittee from obtaining a scheduled sample, a sample shall be obtained within fourteen (14) days after the rehabilitation or replacement of the well.

2. If the Permittee knows that an error in either sampling or analytical methods has occurred, the affected samples shall be retaken within fourteen (14) days of such knowledge.

F. **Well Maintenance**

The groundwater monitoring system will be maintained to ensure that all monitoring points yield representative samples of high integrity. Within 30 days of the effective date of this Permit, and during each sampling event, all wells in the Monitoring Network shall be inspected for integrity in accordance with the Groundwater Monitoring System Inspection Plan in Appendix C-1 of Exhibit C. Should a well 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 cracking or frost heaving of grout be observed, repairs will be made and the top of the inner well casing resurveyed, to ensure accurate definition of groundwater elevations. All repairs or replacements shall be completed prior to the next scheduled sampling events.

G. **Collection of Groundwater Samples by NYSDEC**

At the request of the Department, the Permittee shall allow the Department and/or its authorized representatives to collect samples or splits of any samples collected by the Permittee pursuant to the requirements of this Permit. Similarly, at the request of the Permittee, the Department will allow the Permittee or the Permittee's authorized representatives to take splits or duplicates of any samples collected by the Department. The Permittee shall provide for adequate disposal of purge water whenever samples are collected by the Department.

H. **Well Construction**

All groundwater monitoring wells 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 NYSDEC requirements and guidelines. Work plans which include proposed well installations shall include a description of installation procedures, and materials to be used.

I. Well Rehabilitation

Within ninety (90) days of the effective date of this permit and every three (3) years the Permittee shall inspect the detection monitoring network to determine its integrity. The inspection shall be certified by a professional engineer or qualified geologist. The inspection shall include the following:

1. A survey of all groundwater wells and piezometers in the monitoring network (performed by a New York State licensed surveyor) to the top of well casing elevation and to provide an updated site plan. The survey must be accurate to within 0.01 feet of elevation and the site plan must be presented on a scale of 1 inch equals 200 feet.

2. An establishment of the ability of all wells and piezometers in the monitoring network to yield meaningful groundwater elevations when measured with an instrument accurate to within 0.01 feet. The ability of the wells to yield such information shall be based upon a comparison of the sounding of a well to its historical depth. Wells shall be considered obstructed if 10% or more of the well screen is covered or otherwise inaccessible. At a minimum, these wells will be redeveloped to remove sediments from the bottom of the well.

3. An establishment of the ability of all groundwater wells to yield representative samples for determining the concentration of hazardous waste constituents that may be present in the groundwater. Physical examination of the well shall include removal and inspection of any dedicated sampling device to assure that the device is functioning as designed.

4. If the first triennial inspection of the monitoring system indicates the need for more (or less) frequent inspections, the frequency of required inspections may, with Department approval, be changed.

J. Additions to the Sampling Program

If hazardous waste constituents are consistently present in the detection monitoring wells below the statistical "trigger" levels, the Department may require the Permittee to perform additional sampling and install additional wells to determine whether the constituents originate from the Regulated Unit.

K. Sampling and Analysis

All Sampling and Analysis shall be performed in accordance with the approved CECOS SAP. Any modification of the approved SAP must be approved by the Department prior to its implementation.

Figures

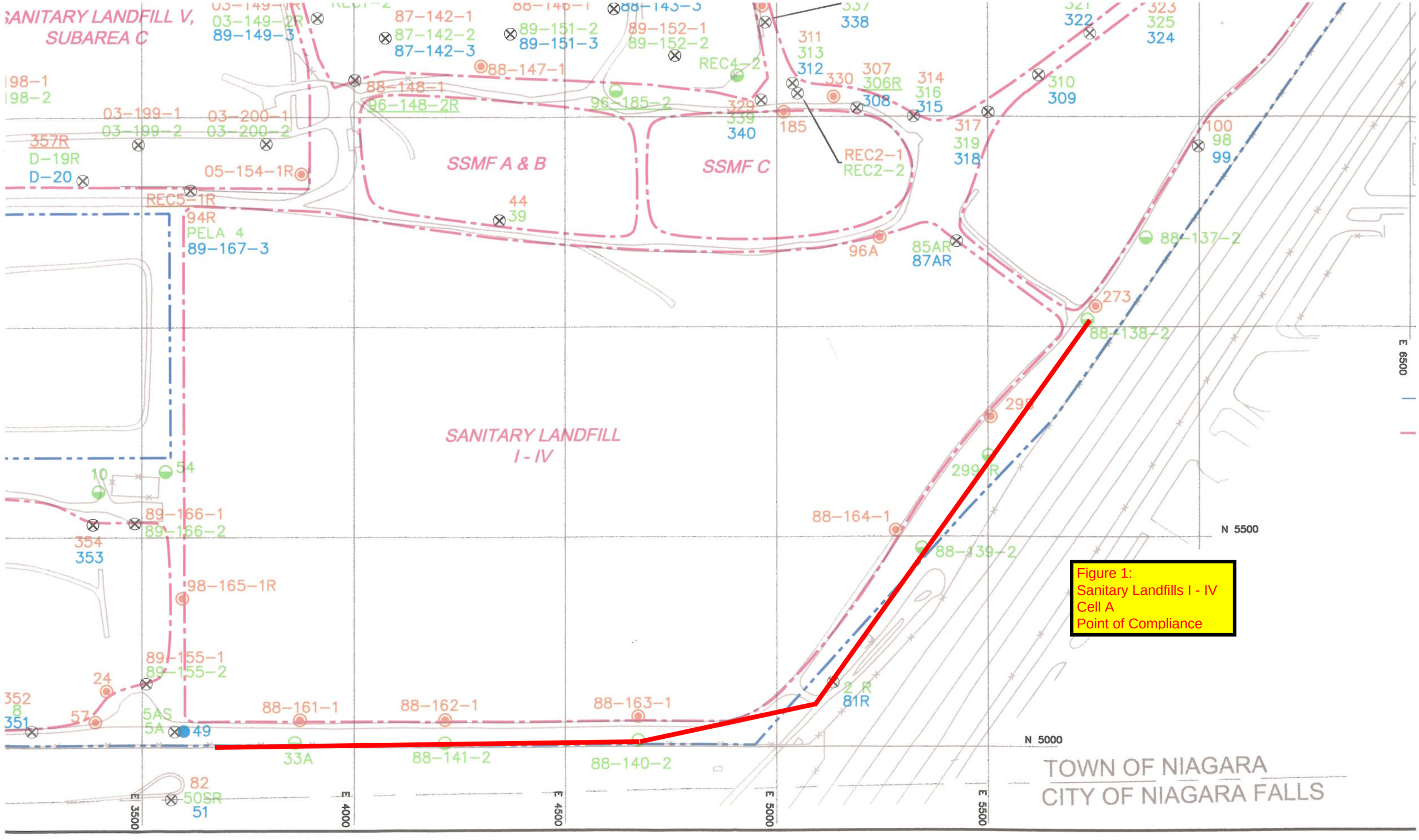


Figure 1:
Sanitary Landfills I - IV
Cell A
Point of Compliance

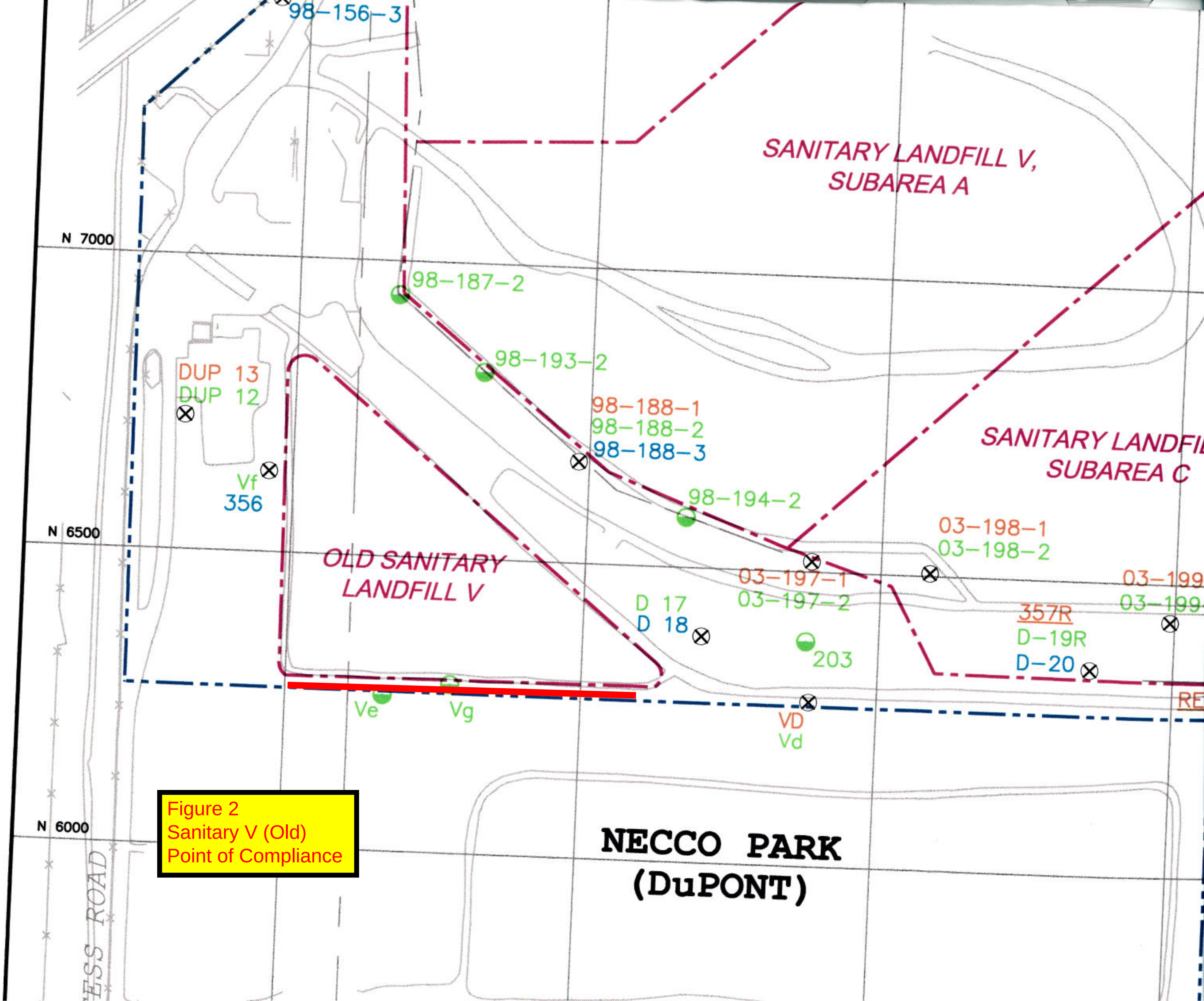


Figure 2
Sanitary V (Old)
Point of Compliance

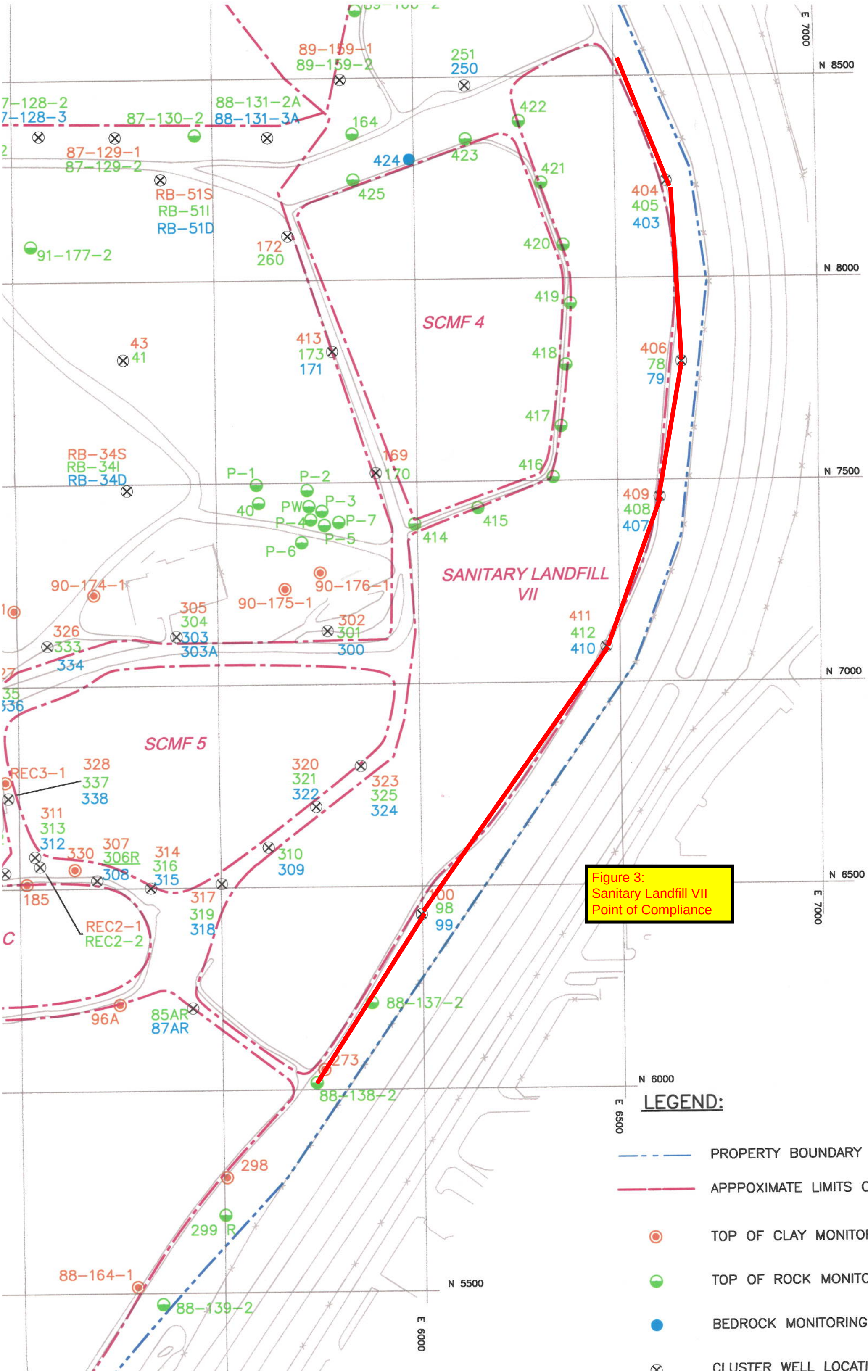


Figure 3:
Sanitary Landfill VII
Point of Compliance

LEGEND:

- PROPERTY BOUNDARY
- APPPOXIMATE LIMITS OF
- TOP OF CLAY MONITORIN
- TOP OF ROCK MONITORI
- BEDROCK MONITORING W
- CLUSTER WELL LOCATION

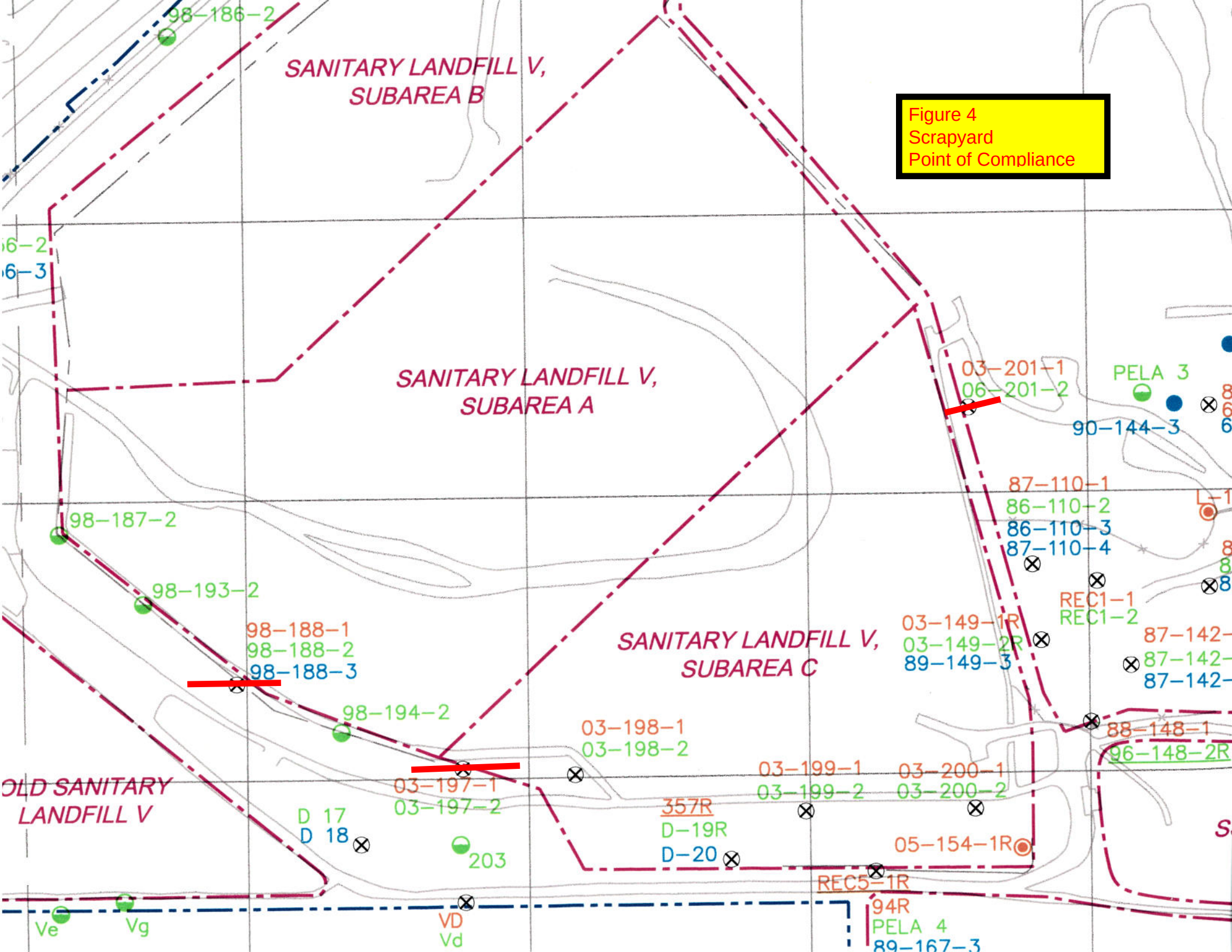


Figure 4
Scrapyard
Point of Compliance
SANITARY LANDFILL V,
SUBAREA B
SANITARY LANDFILL V,
SUBAREA A
SANITARY LANDFILL V,
SUBAREA C
OLD SANITARY
LANDFILL V
98-186-2
98-187-2
98-193-2
98-188-1
98-188-2
98-188-3
98-194-2
03-197-1
03-197-2
03-198-1
03-198-2
03-199-1
03-199-2
03-200-1
03-200-2
03-201-1
06-201-2
PELA 3
90-144-3
87-110-1
86-110-2
86-110-3
87-110-4
REC1-1
REC1-2
03-149-1R
03-149-2R
89-149-3
88-148-1
96-148-2R
357R
D-19R
D-20
05-154-1R
REC5-1R
94R
PELA 4
89-167-3
D 17
D 18
203
Ve
Vg
VD
Vd

EXHIBIT C – SUPPLEMENT TO MODULE III
CLOSED LANDFILLS

A. Perpetual Post-Closure Care Requirements

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

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

Secure Landfill SCMF #1
-Secure Landfill SCMF #2
-Secure Landfill SCMF #3
-Secure Landfill SCMF #4
-Secure Landfill SCMF #5
-Secure Sludge Cell B
-Secure Sludge Cell C
-Standpipe 47A
-PCB Oil/Water Separator
-Underground Hazardous Waste Leachate Transfer Lines

1. Closed Secure Landfills (SCMFs) 1, 2, 3, 4, 5, Secure Sludge Cells B & C

    a. General Requirements for SCMF 1, 2, 3, 4, 5, Secure Sludge Cells B & C Leachate Collection and Removal

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

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

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

iv. If a statistically significant change in the groundwater quality is noted for SCMF 1, 2, 3, 4 & 5, SSMF Cells B & C and such change indicates that the landfill may be impacting the groundwater, the standpipe(s) nearest to the affected monitoring well(s) must be sampled for the same suite of parameters and at the same frequency indicated in the Groundwater Monitoring Program in **Condition B** of this Exhibit of this Permit until the source of the potential problem is identified and corrected to the satisfaction of the Department.

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

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

2. Closed Wastewater Treatment Phase II Tank Locations

a. For the currently closed Wastewater Treatment Phase II area tank locations as listed in the beginning of this Condition as defined on figures in the Corrective Measures Requirements in Attachment E of the Permit and any currently operating tank systems within this same area that are closed in accordance with 6 NYCRR 373-2.10(h)(2) (i.e., closure as a landfill) due to remaining soil contamination, the Permittee must perform the following additional perpetual post-closure care activities.

i. Inspect and maintain all final covers for the closed tank systems within the WWT Phase II area. The Permittee must inspect these covers on at least a semi-annual basis for defects (e.g., cracks, gaps, holes, separated joints, areas of differential settlement, etc.) which visually expose the underlying soil and which could allow migration of soil contaminants. The Permittee must record these inspections in the Facility's operating record. The Permittee must repair any and all such defects by application of cover materials or a weather-resistant caulk or sealant. In lieu of making these specific repairs, the Permittee may submit and the Department may approve, an alternative cover design to replace or enhance any existing cover, including a schedule for its construction. Once approved by the Department, the Permittee must construct the alternative cover in accordance with the approved schedule.

B. **Groundwater Monitoring Plan**

1. Secure Chemical Management Facilities Nos. 1, 2 and 3 (SCMF 1-3)

Status of the Units. Groundwater quality data collected pursuant to Administrative Order on Consent Index No. II RCRA 85-3013-50201 has shown that the degradation of groundwater quality downgradient of SCMF's 1-3 is not attributable to those landfills. Therefore, a Detection monitoring program pursuant to 6NYCRR

Subpart 373-2.6 (i) is specified herein for the prescribed 30 year post-closure period.

a. Point of Compliance. The Point of Compliance for SCMF's 1-3 is defined as the vertical surface passing through the downgradient monitoring wells 71, 55R, 360, 19ASR, 352, 82, 350, 53 and 52SR. Because of the presence of Necco Park pumping wells immediately north of SCMF #1-3, the Permittee is required to evaluate groundwater flow directions each time the detection monitoring system is sampled to determine the need to modify the point of compliance.

   The Point of Compliance is shown in Figure 1.

b. Length of Monitoring Requirements. The groundwater monitoring requirements set forth herein shall extend for a period of thirty (30) years beyond the closure of the facility. For the period following the 30 year post closure period monitoring shall be conducted in accordance with the approved perpetual care monitoring program.

c. Description of Wells. The detection monitoring network for post-closure monitoring shall consist of the following wells:

   i. Upgradient.
   Top of Clay wells 31SR, 18ASR, 56SR, 354

   Top of Rock wells 20SR, 18SR, 10

   Bedrock wells 353, 355

   ii. Downgradient.
   Top of Clay wells 82, 352, 19ASR, 360, 55R, 71R

   Top of Rock wells 53, 50SR, 8, 19SR, 359, 26SR, 1S2R

   Bedrock wells 52SR, 350, 51, 351, 95, 358, 63, 83

d. Additional Monitoring. Samples of SCMF 1, 2 and 3 leachate shall be collected from each individual subcell and analyzed for the same suite of parameters as the monitoring wells every fourth sampling episode.

e. Sampling Frequency. All monitoring wells in the detection monitoring program shall be sampled semi-annually during the post closure care period. All monitoring wells in the perpetual care monitoring program shall be sampled annually during the perpetual care period.

f. Indicator Parameters. As set forth in 6 NYCRR 373-2.6(i)(a), the following parameters shall be used as indicator parameters in the detection monitoring program:

1,1-Dichloroethane	Chlorobenzene
1,2-Dichlorobenzene	1,4-Dichlorobenzene
1,2,4-Trichlorobenzene	Nitrobenzene
Aniline	Chlorotoluene (N.O.S.)
Pyridine	Chloropyridine (N. O.S.)
Chlorobenzotrifluoride (N.O.S)	Methylaniline (N.O.S.)
Benzeneacetonitrile	Benzeneacetic Acid
Methylcyclopentanol	N,N- Dimethylacetamide
CBF 400/500 (unknown)	CAG-800 (unknown)
CU-600 (unknown)	CN-500 (unknown)
NVF-400 (unknown)	

The Permittee shall analyze all detection monitoring wells for the indicator parameters and shall compare the values obtained during each sampling event with the background values of the parameters using the approach developed under the 3013 consent order.

Field determinations of pH, specific conductance, and temperature must be obtained at each detection monitoring well at the time of sampling. Statistical comparisons of these parameters need not be performed.

g. Background Values for Indicator Parameters. Indicator parameters have been detected in the background monitoring wells sporadically at concentrations at or near the detection limits.

h. Statistical Evaluation. Whenever the Permittee determines groundwater quality at the point of compliance, he must determine whether there has been a "statistically significant" increase of the indicator parameters. That determination must be made for each indicator parameter and for every well.

Due to the presence of hazardous constituents in the vicinity of SCMF #1-3, standard statistical evaluation of groundwater analytical data is not possible. The Permittee must evaluate analytical data for each indicator parameter at each well against the historical database to determine whether there has been a "statistically significant" increase. The evaluation shall follow the approach developed under the 3013 consent order. This evaluation approach uses descriptive statistics such as frequency of detection, means, maximum and minimum values along with observations and finding from direct review of the data itself.

i. It is recognized that groundwater remediation activities at the adjacent DuPont NECCO Park site will impact groundwater flow and direction in the vicinity of SCMF's 1, 2 and 3. Should monitoring results from the CECOS program or information from the DuPont program indicate that the monitoring program for SCMF's 1, 2 and 3 requires modification the program will be amended to accommodate the impacts from the DuPont facility. Request for modification may be initiated by the Department or by the Permittee. Changes resulting from DuPont impacts are defined as minor modifications pursuant to 6NYCRR 373-1.7.

j. At the termination of the 30 year post closure monitoring period SCMF's 1,2 and 3 will enter the perpetual care monitoring program. For purposes of calculating the cost of perpetual care monitoring it is assumed that the monitoring system (i.e. wells) used to monitor will continue to be utilized and the frequency of monitoring will be amended to annual monitoring. The actual monitoring program that will be in place will be determined at the time of permit renewal prior to the unit entering the perpetual care monitoring program.

2. Secure Chemical Management Facility No. 4 (SCMF #4)

Status of the Unit Groundwater quality data collected pursuant to the SCMF #4 Groundwater Quality Assessment Program has shown that, with the exception of Phenol, the groundwater downgradient of SCMF #4 does not contain measurable concentrations of any of the hazardous waste constituents that have been detected in SCMF #4 leachate. Because Phenols have been detected at various locations throughout the site they are not, in and of themselves, reliable for the purpose of evaluating the impact of SCMF #4. The Department has determined that if a release from SCMF #4 were to occur, Phenol would not be the only leachate constituent present in the groundwater. Therefore, a Detection monitoring program pursuant to 6NYCRR Subpart 373-2.6 (i) is specified herein for the prescribed 30 year post-closure period.

a. Point of Compliance. The Point of Compliance for SCMF #4 is defined as the vertical surface passing through the downgradient monitoring wells 414, 415, 416, 417, 418, 419, 420 and 421.

The Point of Compliance is shown in Figure 2.

b. Length of Monitoring Requirements. The groundwater monitoring requirements set forth herein shall extend for a period of thirty (30) years beyond the closure of the facility. For the period following the 30 year post closure period, monitoring shall be conducted in accordance with the approved perpetual care monitoring program.

c. Description of Wells. The detection monitoring network shall consist of the following wells:

i. Upgradient.
Top of Clay wells: 169R, 413R, 172R

Top of Rock wells: 170R, 173R, 422, 423, 425

Bedrock wells: 171R, 424

ii. Downgradient.
Top of Clay wells: 404, 406, 409, and 411

Top of Rock wells: 414, 415, 416, 417, 418, 419, 420, and 421

Bedrock wells:403, 79, 407, and 410

d. Additional Monitoring. Samples of SCMF #4 leachate shall be collected from each individual subcell and analyzed for the same suite of parameters as the monitoring wells every fourth monitoring episode. In addition, each time the detection monitoring wells are sampled water level measurements will be taken from the monitoring wells listed in Table I. The groundwater elevations shall be submitted with the analytical data as potentiometric contour maps for top of rock transmissive zone and in tabulated form.

e. Sampling Frequency. All top of rock monitoring wells in the detection monitoring program shall be sampled semi-annually. Bedrock and top of clay wells will be sampled annually through post-closure. During perpetual care monitoring, Top of Rock wells shall be sampled annually, Bedrock and Top of Clay wells will be sampled every two years.

f. Indicator Parameters. As set forth in 6 NYCRR 373-2.6(i)(a), the following parameters shall be used as indicator parameters in the detection monitoring program:

Hazardous Substances Volatile Organics

These parameters are listed in Table 1 of this Module

The Permittee shall analyze all detection monitoring wells for the indicator parameters and shall statistically compare the values obtained during each sampling event with the background values of the parameters.

Field determinations of pH, specific conductance, and temperature must be obtained at each detection monitoring well at the time of sampling. Statistical comparisons of these parameters need not be performed.

g. Background Values for Indicator Parameters. The background wells 169, 413, 172, 170, 173, 422, 423, 425, 171, 424 have been sampled as part of the SCMF #4 groundwater assessment. Hazardous constituents have been detected sporadically at concentrations at or near the detection limit.

h. Statistical Evaluation. Whenever the Permittee determines groundwater quality at the point of compliance, he must determine whether there has been a statistically significant increase of the indicator parameters. That determination must be made for each indicator parameter and for every well.

A statistically significant increase shall be determined by any one of the following events:

1. The analytical data from the downgradient top-of-rock wells will be compared to the expected number of detections using the chi-square

calculation. If the probability of a chi-square value is less than 0.01, a statistically significant increase will have occurred. The first ten rounds of data has been analyzed by the chi-square calculation. The analytical data from each additional round will be added to these tables and a new chi-square value determined.

Due to the low number of detections in the bedrock zone, the number of downgradient detections will be analyzed by using an exact binomial calculation. Once the expected value of upgradient and downgradient detections reach five (total number of actual detections becomes greater than 15) a chi-square calculation will be used. The first sixteen rounds of data has been analyzed by the binomial calculation. If the cumulative probability is less than 0.01, a statistically significant increase will have occurred.

2. The number of indicator compounds detected at any well exceeds the predicted Multiple Detection Criteria of 3 detections.

3. Any one indicator compound is detected in the same well on three (3) consecutive rounds of sampling.

   Methylene Chloride will not be statistically evaluated due to its presence in field and laboratory blanks.

i. At the termination of the 30 year post closure monitoring period SCMF 4 will enter the perpetual care monitoring program. For purposes of calculating the cost of perpetual care monitoring it is assumed that the monitoring system (i.e. wells) used to monitor will continue to be utilized and the frequency of monitoring will be amended to annual monitoring. The actual monitoring program that will be in place will be determined at the time of permit renewal prior to the unit entering the perpetual care monitoring program.

3. Secure Chemical Management Facility No. 5 (SCMF #5)

Status of the Unit Groundwater quality data collected pursuant to the SCMF #5 Groundwater Quality Assessment Program indicate that groundwater contamination exists on all sides of SCMF #5. A comparison of the contaminant distribution upgradient and downgradient of SCMF #5 with the leachate chemistry of the landfill supports the conclusion that SCMF #5 is not the source of the contamination. Therefore, a Detection monitoring program pursuant to 6NYCRR Subpart 373-2.6 (i) has been specified. In addition, approved corrective measures are in place to mitigate the impacts of the groundwater contamination in the vicinity of SCMF #5. Implementation of the corrective measures has resulted in a significant groundwater removal program via the Sanitary Landfill Area VII underdrain system. This system collects top of clay groundwater passing beneath SCMF #5 (and also a portion of SCMF #4). The collected water is routed to the City of Niagara Falls wastewater treatment plant for processing.

The Permittee shall follow the detection monitoring program outlined below for the prescribed 30 year post-closure period:

a. Point of Compliance. The Point of Compliance for SCMF #5 is defined as the vertical surface passing through the downgradient monitoring wells 306R, 308, 309, 310, 312, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, and 325. Each time the detection monitoring system is sampled, the Permittee shall evaluate groundwater flow and demonstrate that the underdrain system is continuing to function as intended.

   The Point of Compliance is shown in Figure 3.

b. Length of Monitoring Requirements. At a minimum, the groundwater monitoring requirements set forth herein shall extend for a period no less than thirty (30) years beyond the closure of the facility. For the period following the 30 year post closure period monitoring shall be conducted in accordance with the approved perpetual care monitoring program.

c. Description of Wells. The detection monitoring network shall consist of the following wells:

   i. Upgradient.
   Top of clay wells 302R, 305R, 311, 326, 327, 328, 329

   Top of Rock wells 301R, 304R, 313, 333, 335, 337, 339

   Bedrock wells 300R, 303AR, 312, 334, 336, 338, 340

   ii. Downgradient.
   Top of Clay wells: 100, 273, 307, 314, 317, 320, 323, and 330

   Top of Rock wells 98, 88-137-2, 88-138-2, 85AR, 325, 321, 310, 319, 316, and 306R

   Bedrock wells 99, 87AR, 324, 322, 309, 318, 308 and 315

d. Additional Monitoring. Samples of SCMF #5 leachate shall be collected from each individual subcell and analyzed for the same suite of parameters as the monitoring wells every fourth monitoring episode. In addition, groundwater elevations shall be measured on a semiannual basis at all detection monitoring wells. The Permittee shall also determine the nature and extent of the influence of the corrective measures system on groundwater flow conditions around SCMF #5.

e. Sampling Frequency. All top of rock monitoring wells in the detection monitoring program shall be sampled semi-annually. Bedrock and top of clay wells will be sampled annually through post-closure. During perpetual care

monitoring, Top of Rock wells shall be sampled annually, Bedrock and Top of Clay wells will be sampled every two years.

f. Indicator Parameters. As set forth in 6 NYCRR 373-2.6(i)(a), the following parameters shall be used as indicator parameters in the detection monitoring program:

Hazardous Substance List Volatile Organic Compounds

These parameters are listed in Tables 1 of this Module

The Permittee shall analyze all detection monitoring wells for the indicator parameters and shall compare the values obtained during each sampling event with the background values of the parameters.

Field determinations of pH, specific conductance, and temperature must be obtained at each detection monitoring well at the time of sampling. Statistical comparisons of these parameters need not be performed.

g. Background Values for Indicator Parameters. Background values for each of the indicator parameters shall be used to compare the monitoring results from upgradient and downgradient wells. As part of the SCMF #5 groundwater assessment groundwater samples have been collected from all detection monitoring wells on a minimum of twenty (20) occasions. Numerous hazardous constituents have been determined to be present in background monitoring wells.

h. Statistical Evaluation. Whenever the Permittee determines groundwater quality at the point of compliance, he must determine whether there has been a "statistically significant" increase of the indicator parameters. That determination must be made for each indicator parameter and for every well.

Due to the presence of hazardous constituents in the vicinity of SCMF #5 and the implementation of corrective measures, standard statistical evaluation of groundwater analytical data is not possible at this time. The Permittee must evaluate analytical data for each indicator parameter at each well against the historical database to determine whether there has been a "statistically significant" increase. The evaluation shall be consistent with the evaluation procedures developed as part of the groundwater assessment program.

The evaluation procedures developed as part of the groundwater quality assessment consists if the following steps:

1) Identify constituents present in the leachate.

2) Identify constituents present in each of the downgradient monitoring wells that are also identified in Step 1 as present in the leachate.

3) For each downgradient monitoring well, compare the concentration of the constituents identified in Step 2 with the concentration of the same constituents in wells which are upgradient and with concentration in the leachate.

4) Identify the constituents from Step 3 that are higher in concentration downgradient than upgradient as possibly indicating SCMF #5 as the source.

i. At the termination of the 30 year post closure monitoring period SCMF 5 will enter the perpetual care monitoring program. For purposes of calculating the cost of perpetual care monitoring it is assumed that the monitoring system (i.e. wells) used to monitor will continue to be utilized and the frequency of monitoring will be amended to annual monitoring. The actual monitoring program that will be in place will be determined at the time of permit renewal prior to the unit entering the perpetual care monitoring program.

4. Secure Sludge Management Facility Cells B & C

Status of the Unit Groundwater quality data collected pursuant to the SCMF #5 Groundwater Quality Assessment has shown that, groundwater contamination exists in the vicinity of SSMF Cells B & C But that the contamination is from a source other than the regulated units. Therefore, a Detection monitoring program pursuant to 6NYCRR Subpart 373-2.6 (i) has been specified for the prescribed 30 year post-closure period.

a. Point of Compliance. The Point of Compliance for SSMF Cells B & C is defined as the vertical surface passing through the downgradient monitoring wells 273, 85AR, 87AR, 299R, and 2R.

The Point of Compliance is shown in Figure 4.

b. Length of Monitoring Requirements. At a minimum, the groundwater monitoring requirements set forth herein shall extend for a period no less than thirty (30) years beyond the closure of the Landfill. For the period following the 30 year post closure period, monitoring shall be conducted in accordance with the approved perpetual care monitoring program.

c. Description of Wells. The detection monitoring network shall consist of the following wells:

i. Upgradient.
Top of Clay well 329

Top of Rock well 339

Bedrock well 340

ii. Downgradient.
Top of Clay wells 96A and 273

Top of Rock wells 85AR, 299R and 2R

Bedrock wells 87AR and 81R

d. Additional Monitoring. Samples of SSMF B&C leachate shall be collected from each individual subcell and analyzed for the same suite of parameters as the monitoring wells every fourth monitoring episode.

e. Sampling Frequency. All Top of rock monitoring wells in the detection monitoring program shall be sampled semi-annually. Bedrock and top of clay wells will be sampled annually through post-closure. During perpetual care monitoring, Top of Rock wells shall be sampled annually, Bedrock and Top of Clay wells will be sampled every two years.

f. Indicator Parameters. As set forth in 6 NYCRR 373-2.6(i)(a), the following parameters shall be used as indicator parameters in the detection monitoring program:

Hazardous Substance List Volatile Organic Compounds

These parameters are listed in Table 1 of this Module

The Permittee shall analyze all detection monitoring wells for the indicator parameters and shall statistically compare the values obtained during each sampling event with the background values of the parameters.

Field determinations of pH, specific conductance, and temperature must be obtained at each detection monitoring well at the time of sampling. Statistical comparisons of these parameters need not be performed.

g. Background Values for Indicator Parameters. Background values for each of the indicator parameters shall be used to statistically compare the monitoring results from upgradient and downgradient wells.

h. Statistical Evaluation. Whenever the Permittee determines groundwater quality at the point of compliance, he must determine whether there has been a statistically significant increase of the indicator parameters. That determination must be made for each indicator parameter and for every well.

Due to the presence of hazardous constituents in the vicinity of SSMF Cells B & C and the development of corrective measures, standard statistical evaluation of groundwater analytical data is not possible at this time. The

Permittee must evaluate analytical data for each indicator parameter at each well against the historical database to determine whether there has been a "statistically significant" increase. The evaluation shall be consistent with the evaluation procedures developed as part of the groundwater assessment program.

The evaluation procedures developed as part of the groundwater quality assessment consists if the following steps:

1) Identify constituents present in the leachate.

2) Identify constituents present in each of the downgradient monitoring wells that are also identified in Step 1 as present in the leachate.

3) For each downgradient monitoring well, compare the concentration of the constituents identified in Step 2 with the concentration of the same constituents in wells which are upgradient and with concentration in the leachate.

4) Identify the constituents from Step 3 that are higher in concentration downgradient than upgradient as possibly indicating SSMF Cells B & C as the source.

5. Wastewater Treatment Phase I (WWT Phase I)

Status of the Unit Groundwater quality data collected pursuant to the WWT Phase I Groundwater Quality Assessment has shown that, the regulated unit (L-1) is a source of groundwater contamination. The Permittee has completed physical closure of WWT Phase I. Closure included the placement of an engineered low permeability cover system which promotes surface water runoff and limits infiltration of water in the area where wastes were managed. The closure was designed to minimize the potential for hazardous constituents to be leached from the waste residues and released to the groundwater. Since, a remedial work plan to remove the major source of contamination was approved in 2007, the vigorous analysis and excavation of materials has reduced the volume of contaminated soils significantly. The work plan was completed and the entire Phase-I Area soils of concern under L-1 lagoon, have been removed and disposed of at approved facilities, to an elevation of ~ 570'.The Permittee is currently implementing an approved Corrective Measures program to mitigate impacts caused by operation of this unit.

Therefore, a Corrective Action program pursuant to 6NYCRR Subpart 373-2.6 (k) is specified herein.

a. Point of Compliance. The Point of Compliance for WWT Phase I is defined as monitoring wells 03-147-1R, 03-147-2 and 03-147-3

The Point of Compliance is shown in Figure 5.

b. Compliance Period. At a minimum, the groundwater monitoring requirements set forth herein shall extend for a period no less than thirty (30) years beyond the closure of the facility. For the period following the 30 year post closure period monitoring shall be conducted in accordance with the approved perpetual care monitoring program.

c. Description of Wells. The Phase I monitoring program has been incorporated into the Corrective Measures Implementation program specified in Module II.

d. Groundwater Protection Concentration. The following hazardous constituents have been identified in the groundwater, and the corresponding concentrations have been established as Groundwater Protection Concentrations. The Commissioner shall review these concentrations annually to determine if there is a need to revise, add, or delete a constituent and its associated protection concentration.

Constituent	Conc. Limit (ug/l)
Acetone	50
Benzene	ND
2-Butanone	50
Carbon disulfide	50
Carbon Tetrachloride	5
Chlorobenzene	5
Methylene Chloride	4.7
1,1,2,2-Tetrachloroethane	5
Tetrachloroethylene	0.69
Ethylbenzene	5
1,1-Dichloroethane	0.4
1,2-Dichloroethane	5
1,1-Dichloroethene	5
Trichloroethylene	5
cis-1,3-Dichloropropylene	5
trans-1,3-Dichloroproplyene	5
1,2-Trans-Dichloroethylene	5
4-Methyl-2-pentanone	50
Toluene	5
Vinyl Chloride	0
Total Xylenes	5
Total Trihalomethanes	100
4-Chloro-3-methylphenol	5
2-Chlorophenol	5
2,4-Dimethylphenol	50
Phenol	50
Aniline	5
Benzyl Alcohol	50
4-Chloroaniline	5

Pyridine	50
2-Methylphenol	50
3-Methylphenol	50
4-Methylphenol	50

(A) The total concentration of all organic constituents, excluding pesticides, herbicides, vinyl chloride and trihalomethanes, shall not exceed 100.0 ug/l

(B) Total concentration of all trihalomethanes not to exceed 100.0 ug/l

e. Corrective Measures Program
The Department has approved the Corrective Measures Program that addresses releases from Phase I. CECOS shall continue to implement the program specified in Module II.

f. At the termination of the 30 year post closure monitoring period Wastewater Treatment Phase I will enter the perpetual care monitoring program. For purposes of calculating the cost of perpetual care monitoring it is assumed that the monitoring system (i.e. wells) used to monitor will continue to be utilized and the frequency of monitoring will be amended to annual monitoring. The actual monitoring program that will be in place will be determined at the time of permit renewal prior to the unit entering the perpetual care monitoring program.

C. **Reporting Requirements**

Routine Monitoring Reporting
The Permittee shall report the results of all groundwater analyses which are obtained from the detection monitoring network.

The results of the groundwater sampling must be submitted to the Department no later than ninety (90) days after the date of sampling. The sampling data must be submitted as a hard (paper) copy. In addition, sampling/analytical data shall be made available on magnetic/computer media suitable for use with a commercially available data base management software.

Along with the sampling results, the Permittee shall submit the results of the pH, specific conductance, temperature and groundwater elevation measurements which were obtained at the time the detection monitoring network was sampled. The groundwater elevation data shall be expressed both in tabulated form and as potentiometric contour maps.

The Permittee shall, on a semi-annual basis, collect "Point in time" groundwater elevations from a Department approved list of wells on site for each transmissive zone. The groundwater elevation data shall be expressed both in tabulated form and as potentiometric contour maps.

The depth to the static water surface shall be measured to the nearest 0.01 feet each time a well is sampled prior to well purging. As a check, a duplicate water level measurement will be taken and recorded on every tenth well.

Within ninety (90) days after each sampling event, the Permittee must evaluate the groundwater quality data for the indicator parameters using the procedures set forth below. If analyses reveal a statistically significant increase in the concentration of an indicator parameter at any well in the Detection monitoring network, the Permittee must:

1. If the results of analyses fail statistical criteria, the data will have a QA/QC review of the analysis.

2. If the QA/QC data review indicates that the analytical data is erroneous, the evaluation returns to detection monitoring with a statement in the annual report that indicates the reasons for the erroneous data. Otherwise, the well in question must be resampled within thirty (30) days of receipt of the original detection monitoring results.

3. Within seven (7) days of receipt of the results of the resampling, the results shall be subjected to the same statistical evaluation criteria.

4. If the resampling results pass statistical criteria, then the well in question returns to detection monitoring with a statement in the annual report.

5. If the resampling results fail statistical criteria then, within 7 days of receiving the results, the Permittee shall provide written notification of the failure of the evaluation criteria to the Department. Within thirty (30) days of receiving results of the resampling, a plan must be submitted to the Department to determine the source of the detected compounds. Within ninety (90) days of receiving the results of the resampling, a permit modification request must be submitted to the Department.

6. In addition to Step 5, within fourteen (14) days of receiving the resampling results the Permittee shall sample the affected well and adjacent wells which monitor the regulated unit for Appendix 33 constituents. Adjacent wells will be those wells remaining in the cluster and the two closest wells which are located in the same monitoring zone. Samples from adjacent wells shall be analyzed for Appendix 33 constituents except for USEPA method 8280 compounds.

7. Upon approval of the source investigation plans called for in Step 5 by the Department, an evaluation must be made to determine the source of the detected compounds.

8. If the source investigation determines that the regulated unit is not the source of the detected compounds, the Permittee must submit a permit modification request to continue detection monitoring. In addition, an investigation must be conducted to determine the source, rate and extent of the contamination as well as determine what, if any, remedial action is required.

9. If the source investigation determines that the regulated unit is the source of the detected compounds, the regulated unit will be deemed to be in compliance monitoring and groundwater protection standards must be developed. Within ninety (90) days of notification, the permittee must also submit an application for permit

modification. The permit modification must either be for the establishment of a Corrective Action program [373-2.6(k)] or for the establishment of a Compliance monitoring program with alternative concentration limits [373-2.7(e)(2)].

Annual Reporting Annually the Permittee shall submit a summary report of all sampling results obtained during the preceding year.

The Annual Report shall be due by March 1 of each year and shall contain all data and evaluations as required for semi-annual reporting. Any data previously submitted to the Department may be referenced.

In addition, the following information shall be contained in the Annual Report:

i. The Permittee shall determine the groundwater flow rate and direction. [6 NYCRR 373-2.6(i)(5)].

ii. Proposal for any changes to the Groundwater Monitoring Plan.

D. **Inability to Obtain Representative Samples**

1. If the Permittee knows that a well may not provide representative samples, or accurate piezometric values, may be damaged, or is inaccessible, the Permittee shall within seven (7) days of such knowledge notify the Commissioner of the problem in writing and propose a remedy. Within fourteen (14) days of such knowledge, the Permittee shall attempt to remedy the problem and, when appropriate, sample or re-sample the well. Within twenty-one (21) days of such knowledge, the Permittee shall, through written notice to the Commissioner, provide information which describes the nature of the problem.

   In addition, the notification shall contain:

   (a) A description of how the problem with the well has been rectified; or

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

   If a problem with the well prevented the Permittee from obtaining a scheduled sample, a sample shall be obtained within fourteen (14) days after the rehabilitation or replacement of the well.

2. If the Permittee knows that an error in either sampling or analytical methods has occurred, the affected samples shall be retaken within fourteen (14) days of such knowledge.

E. **Well Maintenance**

The groundwater monitoring system will be maintained to ensure that all monitoring points yield representative samples of high integrity. Within 30 days of the effective date of this Permit, and during each sampling event, all wells in the Monitoring Network shall be inspected for integrity in accordance with the Groundwater Monitoring System Inspection Plan in Appendix C-1 of this Exhibit. Should a well 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 cracking or frost heaving of grout be observed, repairs will be made and the top of the inner well casing resurveyed, to ensure accurate definition of groundwater elevations. All repairs or replacements shall be completed prior to the next scheduled sampling events.

F. **Collection of Groundwater Samples by NYSDEC**

At the request of the Department, the Permittee shall allow the Department and/or its authorized representatives to collect samples or splits of any samples collected by the Permittee pursuant to the requirements of this Permit. Similarly, at the request of the Permittee, the Department will allow the Permittee or the Permittee's authorized representatives to take splits or duplicates of any samples collected by the Department. The Permittee shall provide for adequate disposal of purge water whenever samples are collected by the Department.

G. **Well Construction**

All groundwater monitoring wells 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 NYSDEC requirements and guidelines. Work plans which include proposed well installations shall include a description of installation procedures, and materials to be used.

H. **Well Rehabilitation**

Within ninety (90) days of the effective date of this permit and every three (3) years the Permittee shall inspect the detection monitoring network to determine its integrity. The inspection shall be certified by a professional engineer or qualified geologist. The inspection shall include the following:

1. A survey of all groundwater wells and piezometers in the monitoring network (performed by a New York State licensed surveyor) to the top of well casing elevation and to provide an updated site plan. The survey must be accurate to within 0.01 feet of elevation and the site plan must be presented on a scale of 1 inch equals 200 feet.

2. An establishment of the ability of all wells and piezometers in the monitoring network to yield meaningful groundwater elevations when measured with an instrument accurate to within 0.01 feet. The ability of the wells to yield such information shall be based upon a comparison of the sounding of a well to its historical depth. Wells shall be considered obstructed if 10% or more of the well screen is covered or otherwise inaccessible. At a minimum, these wells will be

redeveloped to remove sediments from the bottom of the well.

3. An establishment of the ability of all groundwater wells to yield representative samples for determining the concentration of hazardous waste constituents that may be present in the groundwater. Physical examination of the well shall include removal and inspection of any dedicated sampling device to assure that the device is functioning as designed.

4. If the first triennial inspection of the monitoring system indicates the need for more (or less) frequent inspections, the frequency of required inspections may, with Department approval, be changed.

I. Additions to the Sampling Program

If hazardous waste constituents are consistently present in the detection monitoring wells below the statistical "trigger" levels, the Department may require the Permittee to perform additional sampling and install additional wells to determine whether the constituents originate from the Regulated Unit.

J. Sampling and Analysis

All Sampling and Analysis shall be performed in accordance with the approved CECOS SAP. Any modification of the approved SAP must be approved by the Department prior to its implementation.

TABLE 1

Hazardous Substance List

Volatile Organics:

Acetone	Bromodichloromethane
Benzene	Bromomethane
Bromoform	2-Butanone
Carbon disulfide	2-Chloroethylvinyl ether
Carbon Tetrachloride	Chloromethane
Chlorobenzene	Methylene Chloride
Dibromochloromethane	1,1,2,2-Tetrachloroethane
Chloroethane	Tetrachloroethylene
Chloroform	Ethylbenzene
1,1-Dichloroethane	1,1,1-Trichloroethane
1,2-Dichloroethane	1,1,2-Trichloroethane
1,1-Dichloroethene	Trichloroethylene
1,2-Dichloropropane	cis-1,3-Dichloropropylene
trans-1,3-Dichloroproplyene	
1,2-Trans-Dichloroethylene	
2-Hexanone	4-Methyl-2-pentanone
Toluene	Styrene
Vinyl Chloride	Vinyl acetate
Total Xylenes	

GROUNDWATER MONITORING SYSTEM INSPECTION PLAN

A. Inspections for the groundwater monitoring system shall be performed on a Semi-annual basis to conform with the post-closure monitoring schedule. Personnel trained in groundwater sampling, collection and sample preservation will be used. The original inspection forms will be maintained by the Permittee in an inspection log book for the full term of post-closure monitoring. Copies shall be submitted with the monitoring reports.

B. The well inspection will include visual inspection of the security cap and lock, condition of surface grout, and condition of inner casing and cap. During well purging, the relative rate of recharge should be noted for comparison with previous data to ensure that the well screen is not plugged. Also during purging and sampling, the integrity of the well shall be inspected by measuring total well depth and noting the presence of obstructions such as casing bends, foreign objects or siltation. The measured well depth shall be compared to the "as built" well depth.

C. If it becomes apparent that a well is not capable of providing representative samples, the Permittee shall respond in accordance with Condition I.1 of this Permit Exhibit.

Figures

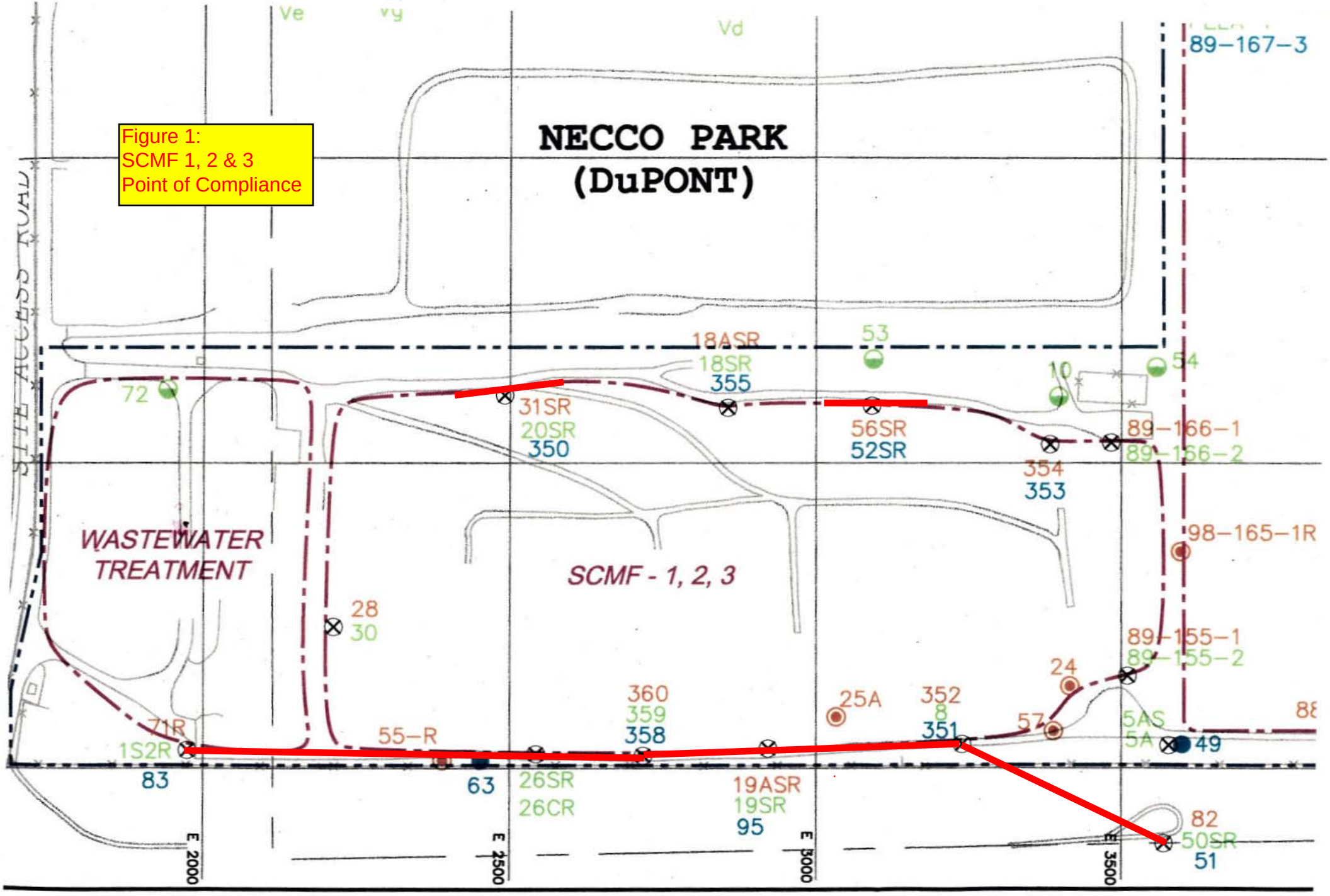


Figure 1:
SCMF 1, 2 & 3
Point of Compliance
NECCO PARK
(DuPONT)
SITE ACCESS ROAD
WASTEWATER
TREATMENT
SCMF - 1, 2, 3
89-167-3
89-166-1
89-166-2
98-165-1R
89-155-1
89-155-2
18ASR
18SR
355
53
54
10
72
31SR
20SR
350
56SR
52SR
354
353
28
30
24
25A
352
8
351
57
5AS
5A
49
360
359
358
71R
1S2R
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E 2000
E 2500
E 3000
E 3500

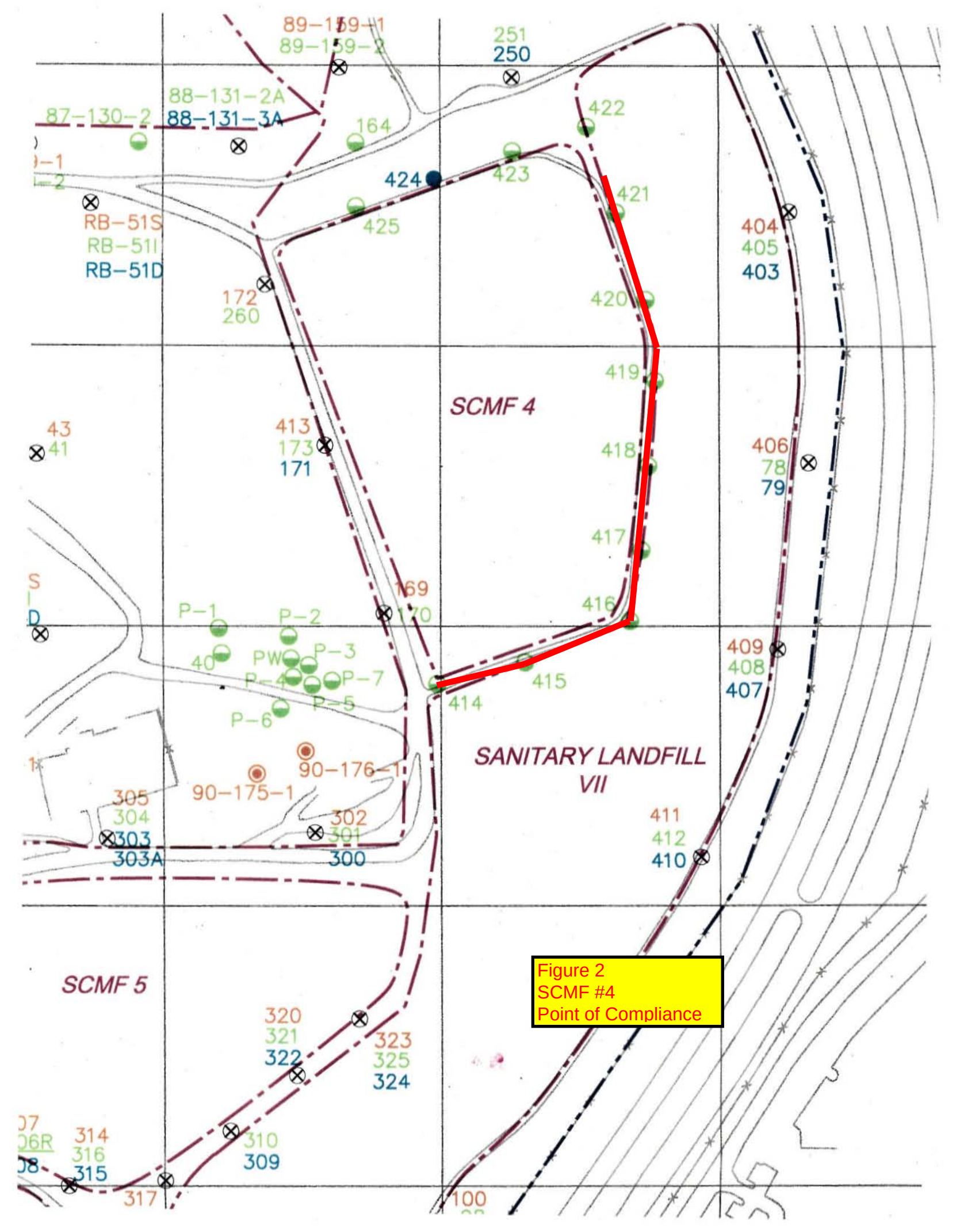

Figure 2
SCMF #4
Point of Compliance

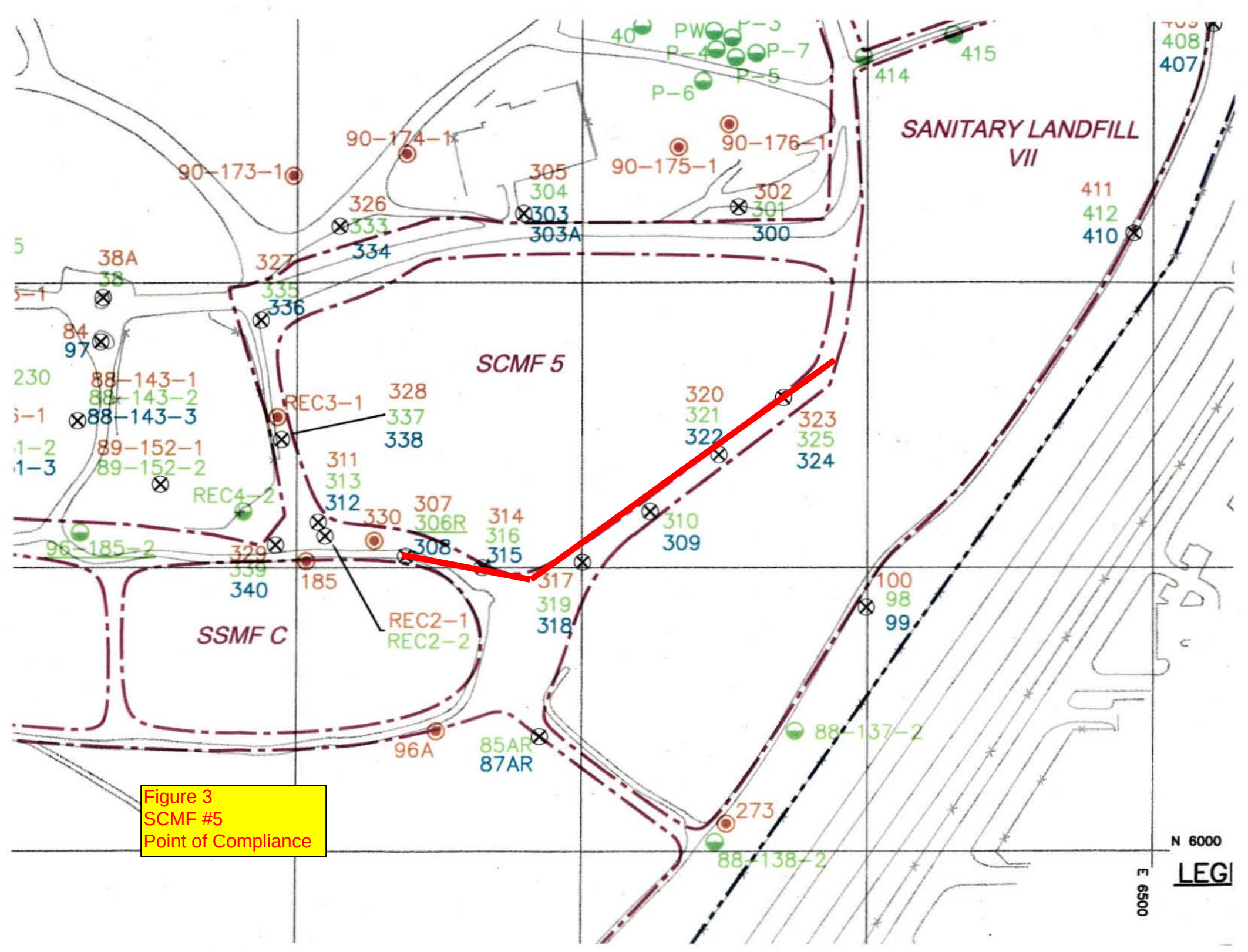

Figure 3
SCMF #5
Point of Compliance

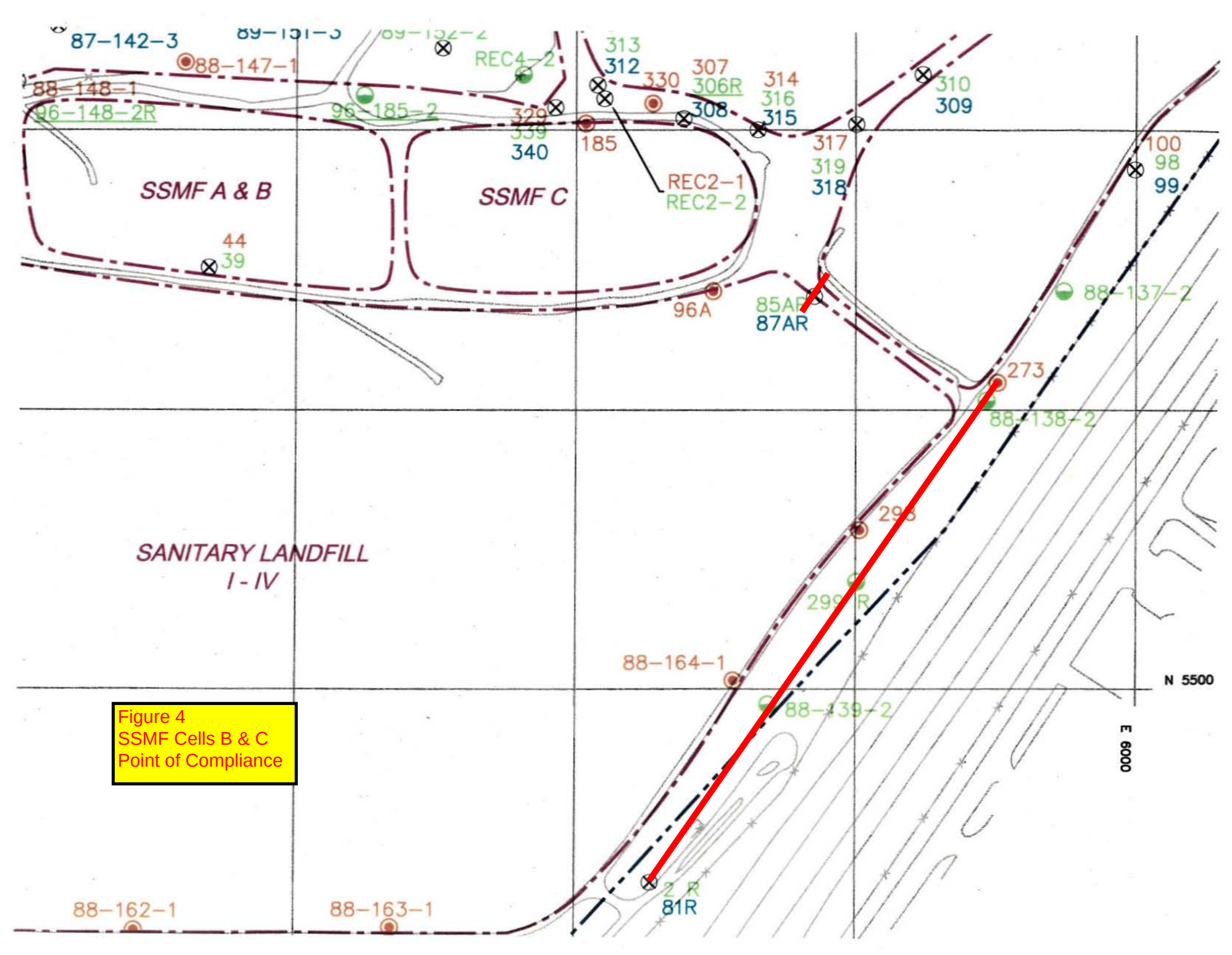

Figure 4
SSMF Cells B & C
Point of Compliance

PART 373 PERMIT

MODULE II – CORRECTIVE ACTION REQUIREMENTS

A. APPLICABILITY

1. Statute and Regulations: Article 27, Title 9, Section 27-0913, and 6 NYCRR 373-2.6(l) requires corrective action, including corrective action beyond the Facility boundary where necessary to protect human health and the environment, for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit (SWMU) regardless of the time at which waste was placed in such unit. Pursuant to 6 NYCRR 373-1.6(c)(2), the Department may impose Permit conditions as the Department determines necessary to protect human health and the environment (such as areas of concern (AOCs) as defined in **Module I** of this Permit).

2. Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs): The Permittee must initiate and complete the corrective action process for all SWMUs and AOCs at the Facility. The conditions of this Module apply to:

   a. All known SWMUs and AOCs as identified in **Schedule 1 of Module I** that have not completed the corrective action process; and

   b. Any newly-identified SWMUs and AOCs identified during the course of groundwater monitoring, field investigations, environmental audits or other means including, but not necessarily limited to, those identified pursuant to **Condition C** of this Module.

B. STANDARD CONDITIONS FOR CORRECTIVE ACTION

1. The Permittee must perform any and all corrective action specified in **Condition A.2** of this Module.

2. The Permittee must follow the requirements for Groundwater Protection as specified in **Schedule 1 of Module I** of this Permit, including any groundwater sampling and analysis plan which may be required therein.

3. The Permittee and its consultants/contractors performing corrective action activities must demonstrate completion of appropriate training in accordance with the Department-approved Personnel Training Program Plan incorporated by reference into this Permit by **Schedule 1 of Module I** and follow all applicable health and safety plans.

4. Compliance with Governmental Requirements: During investigative activities, interim corrective measures and final corrective measures (including, but not limited to, equipment decommissioning, excavation and unit demolition) required by this Module, the Permittee must ensure that the transportation, treatment, storage,

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

5. Notifications:

   a. Groundwater Contamination: If at any time the Permittee discovers that hazardous constituents in groundwater released from the Facility have migrated beyond the Facility boundary in concentrations that exceed an action level, the Permittee must, within fifteen (15) calendar days of discovery, provide written notice to the Department.

   b. Air Contamination: If at any time the Permittee discovers that hazardous constituents in air have been released from a SWMU or AOC at the Facility, and have or are migrating to areas beyond the Facility boundary in concentrations that exceed action levels in the Department's DAR-1 ("Guidelines for the Control of Toxic Ambient Air Contaminants"), and that residences or other places at which continuous, long-term human exposure to such constituents might occur are located within such areas, the Permittee must immediately initiate all appropriate actions necessary to mitigate the release to concentrations below the action levels or cease operation immediately. In addition, the Permittee must:

      i. Provide written notification to the Department within fifteen (15) calendar days of such discovery; and

      ii. Immediately initiate any actions that might be necessary to provide notice to all individuals who have been or may become exposed to the released constituents.

   c. Residual Contamination: If hazardous wastes or hazardous constituents are located within or have been released from SWMUs or AOCs and will remain in or on the land, including groundwater, after the term of this Permit has expired, the Permittee must record, in accordance with State law, a notation in the deed to the Facility property or in some other instrument acceptable to the Department which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property, of the types, concentrations and locations of such hazardous wastes or hazardous constituents.

   d. Newly Discovered SWMUs and AOCs: The Permittee must notify the Department, in writing, of any additional SWMUs and AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits or other means within fifteen (15) days of discovery. Thereafter, the Permittee

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

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

6. Determination of No Further Action:

a. Based on the results of a RFA or a RFI for a particular SWMU or AOC, or combination of SWMUs and/or AOCs, and any other relevant information, the Permittee may submit an application to the Department for a permit modification under 6 NYCRR 373-1.7(b) and 621.13 to terminate the subsequent corrective action requirements of this Module and **Schedule 1 of Module I** for the subject SWMU(s) or AOC(s). The permit modification application must contain information demonstrating that no release(s) of hazardous wastes, including hazardous constituents, have occurred from the subject SWMU(s) and/or AOC(s), or that such releases do not and will not pose a threat to human health or the environment. The permit modification application must also include the information required in 6 NYCRR 373-1, 373-2 and 621.4(n).

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

c. A determination of no further action shall not preclude the Department from modifying this Permit in accordance with 6 NYCRR 621.13 in order to implement the following actions:

i. Require the Permittee to perform such investigations as necessary to comply with the requirements of this Module and **Schedule 1 of Module I** if new information or subsequent analysis indicates that there are, or are likely to be,

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

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

C. SCHEDULE FOR ASSESSMENT OF NEWLY IDENTIFIED SWMUs AND AOCs

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

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

   a. Type of unit/area;

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

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

   d. Function of unit/area;

   e. Dates that the unit/area was operated;

   f. Description of the wastes that were placed or spilled at the unit/area;

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

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

   i. Whether this unit/area, individually or in combination with other units/areas described in **Schedule 1 of Module I**, is a significant source of contaminant release.

3. SWMU/AOC Sampling and Analysis Plan: If prior to or after submission of the SWMU/AOC Assessment Report required in **Condition C.2** of this Module the Department determines and notifies the Permittee that sampling and analysis is

required, the Permittee must, within thirty (30) calendar days of such notification, submit to the Department for approval a plan prepared in accordance with **Condition D** of this Module, for sampling and analysis of specific environmental media including, but not limited to, groundwater, land surface and subsurface strata, surface water/sediment or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) and/or area(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU/AOC Sampling and Analysis Plan must demonstrate that the sampling and analyses program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste, including hazardous constituents, from the newly-discovered SWMU(s) and/or AOC(s) to the environment.

4. Subsequent Assessment Actions: Following submission of the SWMU/AOC Assessment Sampling and Analysis Plan set forth in **Condition C.3** of this Module, the Department may either approve the Plan as submitted or issue comments on the Plan. If approved, the Permittee must implement sampling in accordance with the Plan within thirty (30) calendar days of receipt of the Department's approval. If the Department issues comments on the Plan, subsequent activities for the Plan must proceed in accordance with **Condition A.7 of Module I** of this Permit.

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

6. Assessment Conclusions: Based on the results of the SWMU/AOC Sampling and Analysis Report, the Department shall determine the need for further investigations at the specific unit(s) covered in the SWMU/AOC Assessment Report. If the Department determines that such investigations are needed, the Department shall, by written notification, require the Permittee to prepare and submit for approval a RFI Work Plan. In addition, the Department may, at its discretion, require the Permittee to submit an Interim Corrective Measures (ICM) Work Plan if an ICM is deemed necessary by the Department to safeguard human health and the environment. Any additional activities required by the Department must be undertaken in accordance with **Condition D** of this Module.

D. DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION PROGRAM

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

Superfund nomenclature when using "DER-10 – Technical Guidance for Site Investigation and Remediation":

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

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

1. Work Plan Development

    a. The Permittee must submit a corrective action work plan to the Department within thirty (30) days of notification by the Department that such work plan is necessary.

    b. All corrective action activities at the Facility must be conducted pursuant to one or more Department-approved work plans. The work plan(s) prepared pursuant to this Permit must address both on-site and off-site contamination consistent with the provisions of Department guidance entitled "DER-10 - Technical Guidance for Site Investigation and Remediation."

    c. All work plans must be developed consistent with Department guidance entitled "DER-10 - Technical Guidance for Site Investigation and Remediation." Work plans prepared to address corrective action at active units or units under post-

closure care must also incorporate the applicable requirements of 6 NYCRR 373-2.6 and 373-2.7.

d. All Department-approved work plans will be incorporated into this Permit when specifically noted in such approvals, pursuant to 6 NYCRR 621.13, and become enforceable under this Permit.

e. The Department may, at its discretion, direct the Permittee to prepare "supplemental" work plans, studies and/or designs as it determines necessary to ensure protection of human health and the environment.

f. The Permittee may opt to propose one or more supplemental work plans (including one or more IRM Work Plans) at any time, which the Department shall review for appropriateness and technical sufficiency.

g. Any proposed work plan must be submitted for the Department's review and approval, and must include, at a minimum, a chronological description of the anticipated activities, a schedule for performance of those activities, and sufficient detail to allow the Department to evaluate that work plan. The requirements for submittal review are specified in **Condition D.4** of this Module.

h. Within twenty (20) days of the Department's request for a work plan, the Permittee must submit for review and approval a written citizen participation plan prepared in accordance with applicable Department guidance. Upon approval, the citizen participation plan shall be incorporated by reference into this Permit.

i. All work plans prepared pursuant to this Module must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

2. Work Plan Implementation

a. Upon approval of a work plan by the Department, the Permittee must implement such work plan in accordance with the schedule contained therein.

b. The Department must be notified at least 7 days in advance of, and be allowed to attend, any field activities to be conducted under a Department-approved work plan, as well as any pre-bid meetings, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting.

c. During all field activities conducted under a Department-approved work plan, the Permittee must have, on-site, a representative who is qualified to supervise the activities undertaken. Such representative may be an employee or a consultant retained to perform such supervision.

d. The Permittee must follow the notification requirements of **Condition B.5** of this Module during work plan implementation.

e. All corrective action activities must be conducted in accordance with **Condition B.4** of this Module.

f. In accordance with the schedule contained in a Department-approved work plan, the Permittee must submit a final report (e.g., RFI report, etc.) that meets the requirements set forth in "DER-10 - Technical Guidance for Site Investigation and Remediation", summarizes all data generated during implementation of the work plan, and includes a complete description of all assessments and evaluations required by the work plan.

g. Any final report or final engineering report that includes construction activities must include "as built" drawings showing any changes made to the remedial design or the IRM.

h. All final reports and final engineering reports must be submitted for the Department's review and approval. The requirements for submittal review are specified in **Condition D.4** of this Module.

i. All final reports and final engineering reports must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

3. Remedy Selection

a. The Department shall select a proposed remedy in accordance with DER-10 following receipt of the Corrective Measures Study (CMS) or Feasibility Study (FS). The proposed remedy shall be set forth in a draft Statement of Basis (SOB) prepared by the Department for the Facility. The selected remedy in the final SOB shall be incorporated by reference into this Permit by modification pursuant to 6 NYCRR 621.13.

b. Once the SOB has been incorporated into this Permit, the Permittee must submit a Corrective Measures Implementation (CMI) Work Plan or Remedial Design/ Remedial Action (RD/RA) Work Plan that provides for the development and implementation of final plans and specifications for implementing the remedial alternative set forth in this Permit (i.e., in the SOB). This work plan must, unless otherwise provided in writing by the Department, be submitted within one hundred twenty (120) days of the effective date of the Permit modification. The Permittee must commence implementation of the CMI Work Plan or RD/RA Work Plan within thirty (30) days of the Department's approval of such work plan.

c. The Permittee must submit a Site Management Plan (SMP) or an update to an existing SMP, as necessary, in accordance with the schedule set forth in the approved CMI Work Plan or RD/RA Work Plan, or in accordance with a request from the Department. The Permittee must commence implementation of the Site

Management Plan within thirty (30) days of the Department's approval of such plan.

d. The Permittee must submit an initial periodic review report (PRR) in accordance with the schedule in the SMP and thereafter annually, unless the Department approves an alternate frequency in writing. The periodic review report must include the information specified in DER-10 and other applicable NYSDEC guidance, and must also include, but not be limited to, documentation of the performance of any required groundwater compliance inspections, operation and maintenance inspections, groundwater comprehensive monitoring evaluations, and any required corrective measures effectiveness evaluations related to the remedy(ies) in place at the Facility, as well as a description and results summary for any investigation or corrective action activity that occurred at the Facility during the period. The PRR must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

e. As part of the periodic review report submission, the Permittee must provide an annual certification of institutional and engineering controls until such time that the Department notifies the Permittee in writing that this certification is no longer needed. Therefore, the PRR must: (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and, (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the SMP unless otherwise approved by the Department. The Permittee must submit a written certification in accordance with 6 NYCRR 373-1.4(a)(5) and DER-10 - Technical Guidance for Site Investigation and Remediation.

f. The Permittee must continue operation of the selected remedy until such time that the remedial objectives have been achieved and the Department determines that continued operation is technically impracticable or not feasible.

4. Review of Submittals

a. The Department shall review and respond in writing to each submittal (e.g., plans, studies, reports, schedules, written submittals, etc.) the Permittee makes pursuant to this Permit, unless the Department determines that a response is not necessary. The Department's response shall include an approval, modification request, or disapproval of the submittal, in whole or in part. Failure of the Permittee to act in accordance with the requirements of this Condition is a violation of this Permit.

b. Following its review of a submittal, the Department may either approve the submittal or issue comments. If approved, the Permittee must implement the submittal or initiate the next step in the program in accordance with the schedule

contained in the submittal or the Department's approval letter. If the Department issues comments on the submittal, subsequent activities for the submittal must proceed in accordance with **Condition A.7 of Module I** of this Permit.

c. In the event the Department provides conditional approval of a submittal, within thirty (30) days of the Department's conditional approval the Permittee must modify the submittal in accordance with any Department comments and resubmit the document, including all required supporting data and documents in an electronic format acceptable to the Department in accordance with the requirements of **Condition N of Module I**. All resubmissions must be certified in accordance with 6 NYCRR 373-1.4(a)(5), and by a Professional Engineer or other qualified environmental professional as the Department may find acceptable using the language provided in DER-10.

d. Upon approval, the submittal will be incorporated into this Permit when specifically noted by the Department in such approval, pursuant to 6 NYCRR 621.13. If directed by the Department, the Permittee must place the submittal within the Facility's document repository within fifteen (15) days of receipt of the Department's approval.

e. In the event that the Permittee and the Department cannot resolve the Department's comments, the Department shall, pursuant to 6 NYCRR 621.13 and within 45 days of notice of disapproval or required modifications, send to the Permittee a notice of intent to modify this Permit with regard to all unresolved issues in order to safeguard human health and the environment.

E. OTHER REQUIREMENTS

1. Reservation of Rights

a. Nothing contained in this Permit shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities, including, but not limited to, the right to require performance of further investigations and/or response action(s), and/or to exercise any summary abatement powers with respect to any person, including the Permittee.

b. Except as otherwise provided in this Permit, the Permittee specifically reserves all rights and defenses under applicable law, and further reserves all rights respecting the enforcement of this Permit, including the rights to notice, to be heard, to appeal, and to any other due process. The existence of this Permit or the Permittee's compliance with it shall not be construed as an admission of liability, fault, wrongdoing, or breach of standard of care by the Permittee, and shall not give rise to any presumption of law or finding of fact, or create any rights, or grant any cause of action, which shall inure to the benefit of any third party.

2. Environmental Easement

   a. If a Statement of Basis (SOB), or other approved work plan, for the Facility relies upon one or more institutional and/or engineering controls, the Permittee (or the owner of the Facility) must submit to the Department for approval an environmental easement and/or restrictive covenant to run with the land in favor of the State which must be:

      i. created and recorded pursuant to ECL Article 71, Title 36;

      ii. in a form and manner as prescribed by the Department;

      iii. in compliance with General Obligations Law (GOL) 5-703(1) and ECL 71-3605(2); and,

      iv. recordable pursuant to Real Property Law (RPL) 291.

   b. Upon acceptance of the environmental easement and/or restrictive covenant by the State, the Permittee must comply with the requirements of **Condition E.2** of this Module.

   c. Agents, employees or other representatives of the State may enter and inspect the property burdened by an environmental easement with reasonable prior notice to the property owner, to assure compliance with the restrictions identified by the environmental easement.

   d. If the SOB provides for no action other than implementation of one or more institutional controls, the Permittee must cause an environmental easement to be recorded under the provisions of **Condition E.2.a** of this Module.

   e. If the Permittee does not cause such environmental easement to be recorded in accordance with **Condition E.2.a** of this Module, the Department may file an Environmental Notice on the Facility.

3. Progress Reports

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

4. Dispute Resolution

   a. The Permittee must submit any dispute related to the Department's comments to the designated individual in writing no more than 15 days after it knew or should have known of the facts which are the basis of the dispute. The designated individual shall render a written decision and furnish a copy thereof to the

Permittee, which shall be the final Department determination, unless the Permittee files a written appeal of that decision with the designated appeal individual within 20 days of receipt of that decision.

i. Upon receipt of the written appeal pursuant to **Condition E.4.a** of this Module, the designated appeal individual, will review the record and decision. The designated appeal individual will take one of the following actions, with written notice to the Permittee:

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

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

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

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

iii. The designated individual to:

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

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

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

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

F. MISCELLANEOUS

1. Required Authorizations

a. The Permittee must use best efforts to obtain all Facility access, permits, easements, approvals, institutional controls, and/or authorizations necessary to

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

b. If an interest in property is needed to implement an institutional control required by a work plan and such interest cannot be obtained, the Department may require the Permittee to modify the work plan to reflect changes necessitated by the Permittee's inability to obtain such interest. Within 15 days of receipt of such notice, the Permittee must elect in writing to either: a) modify the work plan as requested by the Department, or accept a Department modified work plan, within 30 days of receipt of the written notice; or, b) invoke dispute resolution in accordance with **Condition E.4** of this Module.

PART 373 PERMIT

MODULE III - LANDFILLS

A. AUTHORIZED STORAGE, WASTE TYPES AND STORAGE VOLUME

1. The Permittee is authorized to operate landfills subject to the terms of this Permit as described in **Schedule 1 of Module I**. **Schedule 1 of Module I** provides information regarding the location, capacity and the design and post-closure requirements.

2. In the event that the Facility has multiple landfills, the following provisions apply individually to each landfill.

B. SITE CHARACTERISTICS [6 NYCRR 373-2.14(b)]

1. The Permittee must comply with the site characteristics for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(b) and this Permit including **Schedule 1 of Module I**.

C. DESIGN AND OPERATING REQUIREMENTS [6 NYCRR 373-2.14(c)]

1. The Permittee must operate each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(c) and this Permit including **Schedule 1 of Module I**. All piping outside the landfill liner system which is used to transport leachate and/or contaminated runoff outside of the landfill must meet the requirements for tank ancillary equipment in accordance with 6 NYCRR 373-2.10(d)(6) and this Permit, including **Schedule 1 of Module I**.

D. MONITORING AND INSPECTION [6 NYCRR 373-2.14(e)]

1. The Permittee must perform monitoring (including groundwater) and inspection of each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.6(a) through (j) for groundwater, 6 NYCRR 373-2.14(e) and this Permit, including **Schedule 1, Exhibit C of Module I** and the Department-approved Security and Facility Inspection Plan incorporated by reference into this Permit.

2. The Permittee must take action to repair any identified defect in a landfill's liner and leachate collection systems and to repair or replace any defective landfill equipment (e.g., pumps, piping, etc.) in accordance with 6 NYCRR 373-2.2(g)(3) and **Condition G** of this Module.

3. For any identified deterioration or malfunction of equipment or structures associated with a hazardous waste management unit, except for specific defects where other Permit conditions or the regulations require repairs within other specified time periods, the Permittee must either:

a. Schedule and complete repairs to the defect within thirty (30) days from the date the defect was first identified;

b. Submit a proposed schedule for Department approval within seven (7) days from the date the defect was first identified, if it is anticipated that it will take longer than 30 days to complete repairs. The proposed schedule must include the date for completing the repairs which must be within six (6) months from the date when the defect was identified; or

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

E. SURVEYING AND RECORDKEEPING [6 NYCRR 373-2.14(f)]

1. The Permittee must perform surveying and recordkeeping for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(f) and this Permit including **Schedule 1 of Module I**.

F. CLOSURE AND POST-CLOSURE CARE [6 NYCRR 373-2.14(g)]

1. The Permittee must perform closure and post-closure care for each landfill authorized by this Permit in accordance with the requirements of 6 NYCRR 373-2.14(g), 6 NYCRR 373-2.7 and this Permit, including **Schedule 1 of Module I** and the Department-approved Closure Plan and Post-Closure Plan provided as Attachment H of this Permit.

G. RESPONSE ACTIONS [6 NYCRR 373-2.14(o)]

1. The Permittee must perform the response actions for each landfill authorized by this Permit that is subject to 6 NYCRR 373-2.14(c)(3) and (4) in accordance with the requirements of 6 NYCRR 373-2.14(o) and this Permit, including **Schedule 1 of Module I** and the Department-approved Response Action Plan incorporated by reference into this Permit.

CECOS International

Niagara Falls, New York

Attachment A

Executive Summary

RCRA PART 373 PERMIT

EXECUTIVE SUMMARY

CECOS International

Niagara Falls, NEW YORK

TABLE OF CONTENTS

1.0 Facility Description

1.1 General Description

CECOS International, Inc. is a wholly owned subsidiary of Republic Services Inc. located in Phoenix Arizona. The operations described herein occur within the boundaries of the 385 acre site located in an industrial-commercial area of Niagara Falls, New York. The majority of site operations are located in the City of Niagara Falls, with the remainder of the sites boundaries located in the Town of Niagara. The site is bound by Packard Road and the Niagara Junction Railroad to the West, Niagara Falls Boulevard (Route 62) to the south and the New York State Thruway (I-190) to the north and eastern portion of the site. CECOS is a fully permitted facility pursuant to the New York State Department of Environmental Conservation Regulations of (6NYCRR 373.2.10) and the United States EPA Hazardous Waste Regulations (RCRA/HSWA). CECOS manages and operates a Wastewater Treatment Plant for the treatment of on-site generated leachate (F039) from closed, secure and intermediate landfills.

1.2 Background Information

The site is located on a 385 acre tract of property in an industrial-commercial area of Niagara County. The majority of the site is within the town of Niagara; however a portion of the site does lie within the city of Niagara Falls. The facility contains a variety of waste operations including an operating sanitary landfill, 10 closed landfills, a wastewater treatment facility and a container storage facility. The site was first used for waste disposal in 1897and has been used for hazardous waste treatment storage and disposal since 1977. A RFI of the facility has been conducted and a final corrective action of groundwater recovery was approved in February 1995.

1.3 Site Map

See attached Figure1

1.4 Other Facility Permits

The active solid waste operations are regulated under separate 6NYCRR Part 360 Permits.

2.0 Permitted Units

Post-Closure maintenance and monitoring of the following closed hazardous waste units are aurthorized under this permit:

SCMF #1	SCMF #2
SCMF #3	SCMF #4
SCMF #5	Intermediate Landfill Cells B & C

These units shall be monitored in accordance with Module II of this permit.

Sanitary Landfills I-IV	Sanitary Landfill V (old)
Sanitary Landfill VII	Intermediate Landfill Cell A
Scrapyard	

3.0 Corrective Action Summary

Potential Threats and Contaminants: As required by NYSDEC 6 NYCRR part 373-2 and USEPA Hazardous and Solid Waste Amendments of 1984 permits CECOS has investigated forty seven (47) Solid Waste Management Units **(SWMU)** and Site-wide Areas of Concern **(AOC)** at the Pine Avenue facility. Based upon the investigations, it has been determined that hazardous waste constituents have been released to the fill/soil and groundwater beneath the facility.

The most significant area of contamination attributable to CECOS' operations is located in the central area of the facility. Evaluation of possible sources indicated that the former Phase I Wastewater Treatment Impoundments were the principle source of the contamination. Other inactive sources in the central area have also released hazardous waste constituents to the groundwater. **It is noteworthy that none of the observed contamination has been attributed to releases from any of CECOS' five hazardous waste landfills which were formerly operated at the site.**

CECOS and the Department worked together to implement Interim Corrective Measures at site locations where significant soil or groundwater contamination has been observed. The purpose of the Interim Measures has been to minimize the spread of the contamination and, ultimately, to improve groundwater quality in the affected areas. Under the Interim Measures programs, contaminated soils have been excavated and the Phase I impoundments were closed, graded and capped. Since 1991 CECOS has recovered and treated more than 65 million gallons of groundwater as part of the corrective action. Total concentrations of contaminants within the plume have been reduced from approximately 550 ppm to 200 ppm.

The most significant source of groundwater contamination at CECOS is the adjacent 24-acre unlined dump site known as NECCO Park. The Superfund

dump site is located in the southwest quadrant of the CECOS facility and is bordered on three sides by CECOS. Necco Park is owned and operated by E.I. DuPont de Nemours and Company, Inc. (DuPont) and was previously used for the disposal of thousands of tons of industrial and hazardous wastes. Studies of the NECCO Park site indicate that the vast majority of the contamination which has been observed in the vicinity of CECOS is attributable to releases from the Necco Park dump site. DuPont has voluntarily implemented an interim groundwater remedial program to partially mitigate the environmental impacts associated with Necco Park. Additional remedial activities are planned for the facility.

Cleanup Approach and Progress: Because of the long-term potential for off-site migration, the contaminated groundwater is the principle threat to human health and the environment at the CECOS facility. The remedy focuses on the recovery of contaminated groundwater in the central area of the CECOS facility, maintenance of existing infiltration controls (caps and pavement) and the monitoring of the facility's perimeter groundwater to assess the impact of off-site migration. The cleanup objectives are to prevent current and future exposure to contaminated groundwater and soils through treatment and/or containment, to reduce the migration of contaminants from soil to groundwater, and to reduce the migration of contaminants through the groundwater.

It should also be noted that ongoing development of sanitary landfill cells at this site is essentially a “brownfields” re-use of areas of the site. This re-use also serves to place cover (both bottom and top liners) which stops surface water infiltration and thus serves to reduce the volume of contaminated groundwater that is generated and thus reduces the overall threat of contaminated groundwater leaving the site.

4.0 POST-CLOSURE CARE/SITE MANAGEMENT

4.1 Institutional Controls

Condition D.4 of Exhibit B requires the continued implementation of institutional controls at the facility. These controls include restricting access to the facility; and formal deed notification.

4.2 Engineering Controls

As part of the approved post-closure plan and corrective actions, engineering control are in place and required to be maintained in perpetuity. Engineering controls include: Groundwater recovery; leachate removal and treatment from closed landfills; maintenance of low permeability caps and site drainage.

UPS Gate
Normally Locked

NEW YORK STATE ROUTE I-190

PROPERTY BOUNDARY

RETENTION BASIN I
4 ACRES

PROPERTY BOUNDARY

Packard Road Gate
Normally Locked
-Guard stationed during construction use for site access.

PACKARD ROAD

CITY OF NIAGARA FALLS
TOWN OF NIAGARA

PERIMETER DRAINAGE CHANNEL

SANITARY LANDFILL VI
42 ACRES

RETENTION BASIN II
6 ACRES

PROPERTY BOUNDARY

SECURE CHEMICAL MANAGEMENT FACILITY NO. IV
10 ACRES

SANITARY LANDFILL VII SUBAREA B

SANITARY LANDFILL AREA VIII
84± ACRE FOOTPRINT

OFFICE, ADMINISTRATION, PARKING, AND MAINTENANCE
4 ACRES

Railspur Gate
Normally Locked

MAINTENANCE BUILDING

SANITARY LANDFILL V SUBAREA B
50 ACRES (A, B, & C)

OPERATIONS BUILDING

PROPERTY BOUNDARY

RAILROAD SPUR

SANITARY LANDFILL V SUBAREA C (UNDER CONSTRUCTION)

SECURE CHEMICAL MANAGEMENT FACILITY NO. V
9 ACRES

SANITARY LANDFILL VII

OLD SANITARY LANDFILL V
5 ACRES

INTERMEDIATE LANDFILL CELLS A & B
4 ACRES

INTERMEDIATE LANDFILL CELL C
4 ACRES

PROPERTY BOUNDARY

NECCO PARK (OWNED BY DuPONT)

PROPERTY BOUNDARY

PROPERTY BOUNDARY

SITE ACCESS ROAD

SANITARY LANDFILL I TO IV
47 ACRES

WASTEWATER TREATMENT
6 ACRES

SECURE CHEMICAL MANAGEMENT FACILITY NOS. I & III
17 ACRES

PERIMETER DRAINAGE CHANNEL
3 ACRES

Site Main Gate
Normally open during business hours

TOWN OF NIAGARA
CITY OF NIAGARA FALLS

OFFICE, ADMIN. AND PARKING
5 ACRES

PROPERTY BOUNDARY

Connecting Road Gate
Normally Locked

372 ACRES (SITE PROPERTY LINE)

NORTH

SCALE IN FEET
0 150 300 600 900

DRAWN BY: DEW
DATE: JUNE 2003

GZA GeoEnvironmental of New York

REV No.	DESCRIPTION	BY	DATE

ALLIED/BFI WASTE SYSTEMS OF NORTH AMERICA, INC.
NIAGARA FALLS, NEW YORK
SANITARY LANDFILL AREA VIII

SITE PLAN

PROJECT No.
21.0055597.10

FIGURE No.
2

CECOS International
Niagara Falls

Attachment B

Security And Inspection Plan

I. Security

Introduction

The CECOS Niagara Falls site prevents the unknowing entry and minimizes the unauthorized entry of persons, animals or livestock into the facility by providing: an artificial barrier around the facility, a 24-hour surveillance system and a means to control entrance during operation of the facility.

A. Security Requirements

1 24-hour Surveillance

The site maintains at a minimum, a personal presence 16 hours a day Monday through Friday and 8 hours on Saturday and Sunday. An employee mans the scale-house and controls access into and from the facility. At all other times, surveillance and access through the main gate is controlled via an electronic gate. While the entrance area and scale-house is accessible to vehicular traffic, the entrance gate to the area where waste is stored, treated or disposed is set back 500 feet from the Scale-house/Entrance Area, where access is controlled. There is, in addition, a 24 hour video surveillance system in place monitoring the entrance and exit lanes on the site at the scale house.

During normal operations, incoming shipments follow a set procedure to gain entry into the facility and obtain directions to the non-hazardous Solid Waste facility.

Visitors to the site must report to the Scale house. Site personnel must accompany all visitors while they are at the Niagara Falls site.

CECOS personnel reporting for work, park in the main entrance area and pass by the Administration Building to reach the personnel trailer where the locker room is located.

2 Barriers and Means to Control Entry

To prevent unknowing access of unauthorized personnel, animals or livestock, the entire site is surrounded by a 6-foot high chain link fence.

All traffic enters the CECOS site at the southwestern corner of the facility at 56th Street and U.S. Route 62. All vehicles are required to stop and park in the entrance area near the Administration Building to have their visit or purpose confirmed before proceeding onto the active facility.

The entrance gate to the active portion of the facility is located along the southwestern access road leading from the main entrance area. Vehicles are allowed access to the active facility after obtaining approval at the Administration Building/Scale-house. The scale-house is manned as described above, and site access is controlled by an electronic gate during evenings, weekends and holidays.

In addition to the main gate, five other gates are incorporated in the facility fencing surrounding the site. A rail gate is located at the northwestern corner of the site where railcars of sanitary wastes obtain entrance to the site. This gate remains locked at all times except when in use. The four other gates are used primarily for construction and maintenance operations. Two are located at the southeastern corner of the property while the other two gates are located along the northern expanse

of the perimeter fence which runs parallel to Packard Road. The southern and northern gates are used for the movement of facility operating equipment, maintenance personnel, and if necessary, can serve as an emergency exit or entrance. These gates are continually locked except when in use by facility personnel.

These barriers and means to control entry are shown on Figure 1.

II. GENERAL INSPECTION REQUIREMENTS

Introduction

CECOS received certification of the clean closure of the remaining vessels at Phase II/III waste water treatment in November 2007 from the NYSDEC. General Inspection requirements (373-2.100) for the vessels put back in service as 90 – day units will be found under separate cover in a Operations manual. The inspection requirement for Post-Closure activities will remain in this section of the permit.

POST-CLOSURE INSPECTION SCHEDULE [6 NYCRR 373-1.5(A)(2)(V)]

The Permittee shall comply with 373-2.2(g) and follow this Post-Closure Inspection Schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection.

A. General Structures and Facilities to be Inspected:

1. Security Devices

The perimeter fencing, entrance gates, locks and signs used to prevent unauthorized access to the closed facility will be inspected on an annual basis for evidence of damage or defacing. Damages to these security devices that will be inspected include:

a. Holes and tears in the fencing or gates which would require mending or replacement.

b. The defacing of warning signs which would require the replacement of the sign.

c. The damage of locks which would prohibit their proper operation and would require their replacement.

d. Damages to other items that may be added in the future to assist in the security of the facility.

2. Perimeter Drainage System

The perimeter berm and drainage ditches around individual landfills will be inspected on an annual basis for evidence of erosion and obstruction of the conveyance of surface water run-off. The identification of an erosion rill made by visual observation is the threshold used to initiate remedial action. The obstruction of flow relates to sediment and debris build up carried into the ditches by surface water run-off which would prevent the free flow of run-off into the perimeter drainage system and causes a back-up of standing water.

All individual drainage ditches and site wide perimeter drainage ditches may be found on Exhibit 12, Site-wide Drainage Scheme, in the post-closure application.

3. Site Vegetation

Cover vegetation and surrounding on-site vegetation will be formally inspected annually in April of each year for the following items:

a. Continuity of Vegetation - the presence of bare spots or areas of the final cover that vegetation has not established itself. These bare spots would require reseeding and fertilizing as discussed in the Post-Closure Plan.

b. The presence of species detrimental to cover integrity - this includes burrowing animals such as the groundhog, woodchuck and gopher. This would require possible removal or destruction of these animals to prevent further destruction of the cover's integrity.

c. Evidence of vegetation stress - the presence of deep-rooted vegetation such as small trees, shrubs and long rooted weeds. The presence of this type of vegetation would require its removal.

d. In addition to the inspections for year one, the site vegetation will receive four (4) additional bimonthly inspections for a total of six (6) in the first year of post-closure.

4. Final Cover Integrity

All areas receiving a final cover will be inspected in April and September of each year for the following items:

a. Dehydration cracking - the separation of soils due to a lack of moisture.

b. Ponding of rainwater - collection of water due to differential settlement.

c. Erosion - visual evidence of an erosion rill forming.

d. Slope integrity - the stability of the slope and any visual evidence of sloughing.

Remedial actions will be taken when the presence of one or more of the above noted problems is observed. The corrective action methods are presented in Maintenance Activities, Item C. of Attachment H.

5. Leachate Collection Systems and Transfer Lines

a. Leachate Transfer Lines

i. ROUTINE INSPECTION - All underground transfer lines (with or without secondary containment and leak detection) will be inspected on a routine basis for integrity and structural soundness as described in Appendix C to this section. Appendix C also includes the list of lines that may be tested.

ii. DAILY INSPECTION -

For secondary containment lines that do not have liquid sensor alarms contained within the secondary containment line for the detection of leachate, each manhole and/or collection pan shall be inspected daily for the presence of accumulated liquid. This inspection shall be recorded in the inspection log (forms in Appendix E).

iii. WEEKLY INSPECTION-
For secondary containment lines that have an alarm connected to a liquid sensor contained within the secondary lines for the detection of leachate, the alarms will be checked and inspected daily and recorded in the inspection log (forms in Appendix E).

iv. MONTHLY INSPECTION - On a monthly basis, those manholes that have alarms present shall be inspected to ensure proper operation. This inspection shall be recorded in the inspection log (forms in Appendix E).

v. IF LIQUID IS DETECTED - In the event that any liquid is detected in the secondary containment system (i.e. collection pan or manhole) via triggered alarm or visual inspection of any transfer line, the following Standard Operating Procedures will be implemented immediately:

1. Leachate Line Leak Alarm,

- and/or -

2. Leachate Line Leak Detection, (both are in Appendix E).

b. Leachate Collection System

i. MONTHLY INSPECTIONS - Inspections of the leachate collection systems will be made to assure the proper operation of the systems by checking data from the automated pumping system. Monitoring standpipe leachate levels will be physically measured on a monthly basis.

ii. INSPECTIONS PER SOP - The proper working order of the high level alarms for leachate levels will be made as described in Appendix D of this section.

iii. All inspections shall be completed at the designated frequency and maintained at the facility in the inspection record (forms in Appendix E). Sampling Analysis Plan of CECOS.

iv. CECOS shall track leachate generation rates by individual landfill on a monthly basis. Leachate volumes removed shall be reported to the Department monthly. CECOS shall prepare an annual report, which presents the previous four years data in a graphical fashion, both monthly and as a twelve month rolling average. Additionally, CECOS shall submit a narrative which identifies any anomalies in the data and recommends, where appropriate, additional investigation. The

Department reserves the right to require additional investigation should it be warranted by the Departments review of the data submitted.

6. Cover Elevation Reference Points

Benchmarks established on the individual landfills may be determined using the survey report prepared by Wendel Engineers, found in Exhibit 13 of the Post-Closure Application. See attached Figure 1. CECOS will protect and maintain these benchmarks as required by NYCRR 373-2. 14 (g)(vi). Inspection form is found in Appendix E.

7. Groundwater Monitoring Wells

The groundwater monitoring wells will be inspected annually in May of each year. The inspection will check for the proper working order of protective equipment, the physical appearance of the well and the appearance of the surrounding area as presented on the Well Inspection Chart, Appendix E to this section.

The elevations of the monitoring wells will also be surveyed as required by Exhibit C of Schedule I of Module I every three years.

8. Groundwater Contours

Groundwater contours will be mapped as required by Exhibit C of Schedule I of Module I to determine the height of the groundwater under the individual landfills and the entire CECOS parcel.

9. Leachate Analysis/Sampling

Leachate analysis/sampling will be conducted for all standpipes in SCMF #1-5 and SSMF Cells B and C.

a. Analysis for a full scope of leachate characterization parameters in accordance with the Groundwater Monitoring Plan, Exhibit C of Schedule I of Module I.

b. In addition, each batch of treated Standpipe 47A leachate shall be sampled/analyzed for PCB's before transfer to WWT Phase II. Transfer of the treated leachate to WWT Phase II shall not occur until the PCB analysis confirms that all TSCA requirements have been attained.

B. Frequency of Inspections

All structures and facilities will be inspected at the designated frequency identified in the Post-Closure Plan, Inspection Schedule and in the unit descriptions that follow. Exception to these schedules will be for year one of the final cover integrity and site vegetation inspections that will occur on a bi-monthly basis (6 inspections).

Additional inspections will be conducted following any storm event greater than or equal to the intensity of a 10-year storm event. A 10-year storm event shall be defined as:

a. Short Duration - a short duration, high intensity 10-year storm event will produce 1.55 inches of rainfall in a 1-hour period.

b. Long Duration - a long duration, low intensity 10-year storm event will produce 3.5 inches of rainfall in a 24-hour period.

If such precipitation events occur within 10 days of the scheduled inspection, the precipitation event inspection will be submitted for the scheduled inspection.

C. Signing Off for Inspections and Repairs

All deficiencies, malfunctions, deterioration and damages to items identified in the Post-Closure Plan, Inspection Schedule and in the unit descriptions which follow will be noted on the inspection forms found in Appendix A and E or recorded and documented as deemed necessary by the permittee. Repairs and rectification to damaged or deficient items will be completed within a 4 week (1 month) period from time of discovery or sooner where practicable or deemed environmentally necessary. For inspections performed in late fall, remediation for some items may not be possible until spring. In this case, a schedule for remediation shall be put in place and records for completion shall be included in the inspection record. The inspection schedule will require a name and date of the inspecting personnel for both when the damages or deficiencies are discovered and when work has been completed to correct or repair the damages or deficiencies. Records will be kept on site for the review by inspecting personnel.

Unit: SCMF No. 1
Year of Closure: 1978
End of Post Closure: 2008

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Site Vegetation	Once per year	Checklist
Fertilizing and Mulching	Five year intervals	Checklist and report
Landfill Drainage System	Annual	Checklist(with date)
Final Cover Integrity	Once per year	Checklist(with date)
Leachate Transfer Line Pressure Test	As Needed	Checklist (with date)
Monitoring Standpipe Leachate Levels	Monthly	Checklist (with date)
High Level Alarm	Daily Inspection	Checklist (with date)
Aerial Survey	Every five years	Report
Groundwater Monitoring Wells	Concurrent with sampling	Report
Survey Elevations of Monitoring Wells	Every three (3) years	Report
Groundwater Contours	Semi-annual	Report
Leachate Sampling/ Analysis	Every fourth groundwater monitoring event	Report

Report Unit: SCMF No. 2
Year of Closure: 1979
End of Post Closure: 2009

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Site Vegetation	Once per year	Checklist
	Annually	Checklist (with date)
Perimeter Drainage System	Annual	Checklist (with date)
Final Cover Integrity	Once per year	Checklist
Leachate Transfer Line Pressure Test	As Needed	Checklist (with date)
Monitoring Standpipe Leachate Levels	Monthly	Checklist (with date)
High Level Alarm	Daily Inspection	Checklist (with date)
Aerial Survey	Every five (5) years	Report
Groundwater Monitoring Wells	Concurrent with sampling	Report
Survey Elevations of Monitoring Wells/ Landfill Standpipes	Every three (3) years	Report
Groundwater Contours	Semi-annual	Report
Leachate Sampling/ Analysis	Every fourth groundwater monitoring event	Report

Unit: SCMF No. 3
Year of Closure: 1981
End of Post Closure: 2011

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Security devices	Annual	Checklist
Site Vegetation	Once per year	Checklist with date
Perimeter drainage System	Annual	Checklist w/date
Final Cover Integrity	Once per year	Checklist (with date)
Leachate Transfer Line Pressure Test	As Needed	Checklist w/date
Monitoring Standpipe Leachate Levels	Monthly (with date)	Checklist
High Level Alarm	Daily Inspection (with date)	Checklist
Aerial Survey	Every five (5) years	Report
Groundwater Monitoring Wells	Concurrent with sampling	Report
Survey Elevations of Monitoring Wells	Every three (3) years	Report
Groundwater Contours	Semi-annual	Report
Leachate Sampling/ Analysis	Every fourth groundwater monitoring event	Report

Unit: SCMF No. 4
Year of Closure: 1984
End of Post Closure: 2014

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Security Devices	Annual	Checklist
Site Vegetation	Once per year	Checklist (with date)
Perimeter Drainage System	Annually	Checklist (with date)
Final Cover Integrity	Once per year	Checklist (with date)
Leachate Transfer Line Pressure Test	As Needed	Checklist (with date)
Monitoring Standpipe Leachate levels	Monthly	Checklist (with date)
High Level Alarm	Daily Inspection	Checklist (with date)
Aerial Survey	Every five (5) years	Report
Groundwater Monitoring Wells	Concurrent with sampling	Report
Survey Elevations of Monitoring Wells/	Every three (3) years	Report
Groundwater Contours	Semi-annual	Report
Leachate Sampling/ Analysis	Every fourth groundwater monitoring event	Report

Unit: SCMF No. 5
Year of Closure: 1990
End of Post Closure: 2020

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Security Devices	Annual	Checklist
Site Vegetation	Once per year	Checklist (with date)
Perimeter Drainage System	Annual	Checklist (with date)
Final Cover Integrity	Once per year	Checklist (with date)
Leachate Transfer Line Pressure Test	AS Needed	Checklist (with date)
Monitoring Standpipe Leachate Levels	Monthly	Checklist (with date)
High Level Alarm	Weekly	Checklist (with date)
Aerial Survey	Every five (5) years	Report
Groundwater Monitoring Wells	Concurrent with sampling	Report
Survey Elevations of Monitoring Wells	Every three(3) years	Report
Groundwater Contours	Semi-annual	Report
Leachate Sampling/ Analysis	Every fourth groundwater monitoring event	Report

Unit: SSMF Cells B and C
Year of Closure: 1984
End of Post Closure: 2014

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Site Vegetation	Once per year	Checklist (with date)
Landfill Drainage System	Annual	Checklist (with date)
Final Cover Integrity	Once per year	Checklist (with date)
Leachate Transfer Line Pressure Test	As Needed	Checklist (with date)
Monitoring Standpipe Leachate Levels	Monthly	Checklist (with date)
High Level Alarm	Daily Inspection	Checklist (with date)
Survey of Cover Elevations Reference Points	Every three (3) years	Report
Groundwater Monitoring Well	Twice per year	Report
Survey Elevations of Monitoring Wells	Every three (3) years	Report
Groundwater Contours	Semi-annual	Report
Leachate Sampling/ Analysis	Every fourth groundwater monitoring event	Report

Unit: WWTS - Phase I
Year of Closure: 1990
End of Post Closure: 2020

Inspection Item	Frequency of Inspection	Method of Recordkeeping
Groundwater Monitoring Wells	Twice per year	Report
Groundwater Contours	Semi-annual	Report
Survey Elevation of Monitoring Wells	Every three (3) years	Report

The Phase I area underwent complete removal/remediation in 2008 – 2009. This was performed with a plan formulated by GZA and approved by Region 9 NYSDEC.

Figure 1

Barriers and Means to Control Entry

UPS Gate
Normally Locked

NEW YORK STATE ROUTE 1-190

PROPERTY BOUNDARY

RETENTION BASIN I
4 ACRES

PROPERTY BOUNDARY

Packard Road Gate
Normally Locked
-Guard stationed during construction use for site access.

PERIMETER DRAINAGE CHANNEL

PACKARD ROAD

CITY OF NIAGARA FALLS
TOWN OF NIAGARA

SANITARY LANDFILL VI
42 ACRES

RETENTION BASIN II
6 ACRES

PROPERTY BOUNDARY

SECURE CHEMICAL MANAGEMENT FACILITY NO. IV
10 ACRES

SANITARY LANDFILL AREA VII
64 ACRE FOOTPRINT

OFFICE, ADMINISTRATION, PARKING, AND MAINTENANCE
4 ACRES

Railspur Gate
Normally Locked

MAINTENANCE BUILDING

SANITARY LANDFILL SUBAREA B

SANITARY LANDFILL SUBAREA C
50 ACRES (A, B & C)

SECURE CHEMICAL MANAGEMENT FACILITY NO. V
9 ACRES

SANITARY LANDFILL VII
10 ACRES

OPERATIONS BUILDING

PROPERTY BOUNDARY

RAILROAD SPUR

SANITARY LANDFILL SUBAREA C (UNDER CONSTRUCTION)

OLD SANITARY LANDFILL V
5 ACRES

INTERMEDIATE LANDFILL CELLS A & B
4 ACRES

INTERMEDIATE LANDFILL CELL C
4 ACRES

PROPERTY BOUNDARY

NECCO PARK (OWNED BY DuPONT)

PROPERTY BOUNDARY

PROPERTY BOUNDARY

SITE ACCESS ROAD

SANITARY LANDFILL I TO IV
47 ACRES

WASTEWATER TREATMENT
5 ACRES

SECURE CHEMICAL MANAGEMENT FACILITY NOS. I & III
17 ACRES

PERIMETER DRAINAGE CHANNEL
3 ACRES

Site Main Gate
Normally open during business hours

TOWN OF NIAGARA
CITY OF NIAGARA FALLS

OFFICE, ADMIN. AND PARKING
5 ACRES

PROPERTY BOUNDARY

Connecting Road Gate
Normally Locked

372 ACRES (SITE PROPERTY LINE)

NORTH

SCALE IN FEET
0 150 300 600 900

DRAWN BY: DEW
DATE: JUNE 2003

GZA GeoEnvironmental of New York

ALLIED/BFI WASTE SYSTEMS OF NORTH AMERICA, INC.
NIAGARA FALLS, NEW YORK
SANITARY LANDFILL AREA VIII

SITE PLAN

PROJECT No.
21.0055597.10

FIGURE No.
2

REV. No. | DESCRIPTION | BY | DATE

Appendix A

CECOS INTERNATIONAL, INC.
DAILY SITE INSPECTION
Monday-Friday

Inspector: _____
Date: _____
Time: _____
Signature: _____

I. General Site

		NO	YES
III.	Perimeter fence, gates, signs are intact and secured?	____	____
A.	Roadways are free of obstruction and major deterioration?	____	____
B.	Housekeeping standards maintained on roadways and parking areas?	____	____
C.	Drainage ditches and run-on/run-off control systems free of obstructions and erosion?	____	____
E.	Communicational devices operational (i.e., telephones)?	____	____
F.	No evidence of off-site odors?	____	____
G.	Weather conditions: _____		

II. Leachate Storage Tanks

			*YES	NO
A.	U.S.T. #4 Tank and Leachate system			
	1.	High level alarm and siren on?	____	____
	2.	Evidence of corrosion/blockage or leaks in piping or ancillary equipment?	____	____
	3.	Evidence of spills or deterioration of loading area?	____	____
B.	A.S.T. #1&5 (90 day storage tanks, not permitted tanks, Inclusion on this form for operator convenience only.)			
	1.	Liquid level =	#1_____ #5 _____	inches
	2.	High level and over flow equipment inoperable?	____	_____
	3.	Evidence of corrosion/blockage or leaks in piping or ancillary equipment?	____	_____
	4.	Evidence of spills?	____	_____

*Note: If any response in Section II is yes, follow the appropriate S.O.P.

III. Groundwater Recovery System Inspection – Transfer system (piping)

1.	Evidence of leakage (If yes, specify location)	_____	_____

Comments:
_____
_____
_____
_____

CECOS INTERNATIONAL, INC.
DAILY SITE INSPECTION
Monday-Friday

Inspector: _____
Date: _____
Time: _____
Signature: _____

IV. Daily Leachate level Alarm Check/Leak Detection (Semi-automatic) – visual inspection

	LOCATION	WAS ALARM TRIGGERED? *YES	NO	(IF YES)-TIME
A.	SSMF #1 CELL B STANDPIPE	____	____	____
B.	SSMF #1 CELL C STANDPIPE	____	____	____
C.	SSMF #1 MW 5	____	____	____
D.	SCMF #1 AST SYSTEMS	____	____	____
E.	SCMF #4 MANHOLES	____	____	____
F.	SCMF #5 PUMPING CHAMBER	____	____	____
G.	SCMF #5 STANDPIPE #5	____	____	____
H.	SCMF #5 MANWAY #1	____	____	____
I.	SCMF #2 STANDPIPE 47A	____	____	____

*If yes, follow the S.O.P. for Leachate Line Leak Indication.

Comments:_____

_____

_____

Leachate Level Alarm Check/Leak Detection Alarm Inspection (semi-automatic) – Weekly

Note: Trip high level alarms by pulling up float and visually ensure alarm is activated. Follow proper limits!

LOCATION	DID THE ALARM OPERATE PROPERLY? *NO	YES
SSMF #1 CELL B STANDPIPE	____	____
SSMF #1 CELL C STANDPIPE	____	____
SSMF #1 MANWAY #5	____	____
SCMF #1 AST SYSTEM	____	____
SCMF #4 SYSTEM	____	____
SCMF #5 PUMPING CHAMBER	____	____
SCMF #5 STANDPIPE 5	____	____
SCMF #5 MANWAY #1	____	____

*If no, follow S.O.P for "Leachate Line Leak Indication"

COMMENTS:_____

_____

CECOS INTERNATIONAL, INC.
Weekend / Holiday Inspection

Inspector: _____
Date: _____
Time: _____
Signature: _____

1) Leachate visual alarms check

Units – SCMF's 1 – 5 & Intermediate Cells A, B and C

	YES	NO
Auto Leak / Level Detection		
Any panel lights on?	_____	_____
Semi-auto Leak / Level Detection		
Any lights or alarms on?	_____	_____

If Yes, indicate which one and time_____

Notified_____

2) Waste Water Treatment Plant

Panel Board, Boiler House		
Any lights or alarms	_____	_____
Containment Area walk-through		
Any leaks / problems	_____	_____

If Yes, indicate which one and time_____

Notified_____

3) BFI # 2 / 002 Outfall

Any lights or alarms on?	_____	_____

4) Leachate Storage Tanks – AST's #1 & #5 (SCMFs 1&5)

Any evidence of leaks or spills?	_____	_____

5) Water Main Sheds

Any red lights or alarms?	_____	_____

Comments:_____
_____
_____
_____

Facility Safety and Emergency Response Equipment Operations: Monthly Inspection

Inspector: _____

Date: _____

Observations	NO	YES	Remedial Action (If necessary)
Emergency/systems alarms operational	___	___	_____
Communication systems available and operational	___	___	_____
Spill control equipment accessible and properly supplied	___	___	_____
Portable fire extinguishers inspected and readily accessible	___	___	_____
First aid available and properly supplied	___	___	_____
Emergency eye/shower stations operable and accessible	___	___	_____
Emergency procedures/phone listing and evacuation routes posted	___	___	_____
Appropriate signs posted (prcs, exits, waste, NFPA)	___	___	_____
Personal protective equipment properly stored/supplied/disposal	___	___	_____
General facility conditions satisfactory (stairways, housekeeping, lighting, etc.)	___	___	_____

Comments:

_____

_____

_____

_____

_____

_____

Safety and Emergency Response Equipment Phase II: Monthly Inspection

Inspector: _____

Date: _____

Observations	NO	YES	Remedial Action (If necessary)
Emergency/systems alarms operational	___	___	_____
Communication systems available and operational	___	___	_____
Spill control equipment accessible and properly supplied	___	___	_____
Portable fire extinguishers inspected and readily accessible	___	___	_____
First aid supplied available and properly supplied	___	___	_____
Emergency eye/shower stations operable and accessible	___	___	_____
Emergency procedures/phone listing and evacuation routes posted	___	___	_____
Appropriate signs posted (prcs, exits, waste, NFPA)	___	___	_____
Personal protective equipment properly stored/supplied/disposal	___	___	_____
General facility conditions satisfactory (stairways, housekeeping, lighting, etc.)	___	___	_____

Comments:

_____

_____

_____

_____

_____

_____

CECOS INTERNATIONAL INC.
DAILY SITE INSPECTION

Inspector: _____
Week Ending _____
Signature: _____

47A BUILDING	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY	
Date:										
Time:										
	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
No evidence of leaks or spills? (If evidence of leaks or spills follow appropriate S.O.P.)										
Tanks are properly labeled and accumulation date?										
Waste disposal drums are labeled / secured with the acculation date?										
No evidence of leaks / corrosion or damage to piping, hoses, or supportive equipment?										
No evidence of erosion or cracking of containment pad?										
No evidence of liquid in sump?										
PCB & other labels are posted and legible?										
Approximate liquid level in tank										
Tank A										
Acc. Date										
Tank B										
Acc. Date										
Tank C										
Acc. Date										
Approximate daily leachate pumped in gallons:										

Comments:

Monday

Tuesday

Wednesday

Thursday

Friday

CECOS INTERNATIONAL INC
DAILY INTERMEDIATE CELLS
& TANK INSPECTION

Inspector: _____
Date: _____
Time: _____

Signature: _____

A. TANKS

1.	Outages - T201 <1'	YES ___	NO ____
2.	Evidence of leaks or corrosion	YES ___	NO ____
3.	Evidence of spills	YES ___	NO ____
4.	All audible overfill alarms operating and accurately measuring one foot freeboards	NO ___	YES ____

Comments:

_____
_____
_____

B. SECONDARY CONTAINMENT SYSTEM

1.	ANNULAR LEAK DETECTION			
	a.	Liquid present	YES ___	NO ___
	b.	Signs of corrosion, cracking	YES ___	NO ___

Comments:

_____
_____
_____

C. HOSES

1.	Signs of deterioration	YES ___	NO ___
2.	Evidence of blockage	YES ___	NO ___
3.	Evidence of leaks	YES ___	NO ___
4.	Evidence of spills	YES ___	NO ___

Comments:_____
_____
_____

CECOS INTERNATIONAL INC
DAILY PHASE II INSPECTION

Inspector: _____
Date: _____
Time: _____

Signature: _____

A. TANKS (Select 90-day units)

1.	Outages -	T111 <5%	YES ___	NO ___
		T104 <5%	YES ___	NO ___
		T105 <5%	YES ___	NO ___
		T101 <5%	YES ___	NO ___
		T102 <5%	YES ___	NO ___
2.	Evidence of leaks or corrosion		YES ___	NO ___
3.	Evidence of spills		YES ___	NO ___

B. TREATMENT EQUIPMENT (if in service)

1.	Carbon systems operating at proper pressure	YES ___	NO ___
2.	Evidence of leaks	YES ___	NO ___
3.	Evidence of spills	YES ___	NO ___
4.	HCL Storage Tank (HS-1) Evidence of Leaks Or Problems	YES____	No____

C. PIPING

1.	Signs of corrosion	YES ___	NO ___
2.	Evidence of blockage	YES ___	NO ___
3.	Evidence of leaks	YES ___	NO ___
4.	Evidence of spills	YES ___	NO ___

Comments:

_____
_____
_____

CECOS INTERNATIONAL INC
DAILY PHASE II INSPECTION
(continuation) Page 2

Inspector: _____
Date: _____

FOUNDATIONS/CONTAINMENT	NO	YES	OBSERVATION	REMEDIAL ACTION
D. TANK FARM SECONDARY CONTAINMENT PAD				
Integrity of visible portions of foundations, joints, and dikes is acceptable	___	___	_____	_____
No leaks, spills, structural deficiencies of secondary containment areas are observed	___	___	_____	_____
E. TRUCK UNLOADING PAD				
Integrity of visible portions of foundations, joints, and dikes is acceptable	___	___	_____	_____
No leaks, spills, structural deficiencies of secondary containment areas are observed	___	___	_____	_____
F. SUMPS				
Level of liquids 6" or less	___	___	_____	_____
No signs of leakage	___	___	_____	_____
SAFETY/EMERGENCY EQUIPMENT				
COMMUNICATION SYSTEM				
G. Operating	___	___	_____	_____
LIGHTING				
H. Acceptable	___	___	_____	_____
DRAINAGE DITCHES				
I. Clear	___	___	_____	_____

Comments:

_____
_____
_____

CECOS INTERNATIONAL INC
PHASE II
SUMP INSPECTION
(1x/month)

Inspector: _____
Date: _____
Time: _____

Signature: _____

MAIN CONTAINMENT SUMP:

Sump evacuated	NO ___ YES ___
No leaks or cracks observed	NO ___ YES ___
Lining/sealer intact	NO ___ YES ___
Pumps tested	NO ___ YES ___

Comments:

_____
_____
_____

CARBON SUMP:

Sump evacuated	NO ___ YES ___
No leaks or cracks observed	NO ___ YES ___
Lining/sealer intact	NO ___ YES ___
Pumps tested	NO ___ YES ___

Comments:

_____
_____
_____

_____

Air Emission Points: (031 at Phase II & 0005 at 47A Bldg)

Dragar tube test – (031____ppm / 0005 ____ppm)

Any of the following observed:
-Control equipment breakdowns
-Upsets NO_____ YES_____
-Repairs/maintenance
-Deviation from design parameters

If yes to any above, comment below –

_____
_____
_____
_____

Appendix B

REMEDIAL ACTION FORM

Type of Problem:

Date Observed:
Location:
Inspector:

Corrective Action Initiated:

Date Completed:
Signed:
Approved:
Date:

APPENDIX C

1. HYDROSTATIC PRESSURE TESTING OF UNDERGROUND TRANSFER LINES

The purpose of this section is to identify all underground transfer lines, which require hydrostatic pressure testing, and the protocol in which they will be tested. All lines (whether single lined or having secondary containment with leak detection) shall be tested in accordance with the testing procedure outlined below.

2. LINES TO BE TESTED

The transfer line systems in the following table have been identified as lines that are required to undergo hydrostatic pressure testing.

3. FREQUENCY OF HYDROSTATIC PRESSURE TESTING

a. All lines having secondary containment with leak detection, shall be tested:
   i) At the permittee's discretion, in an attempt to determine if liquid found in the containment pipe (secondary line) has originated from the carrier pipe or outside sources in accordance with the appropriate protocol outlined in this Attachment.
   ii) When a repair or alteration has been performed on a section of carrier pipe, prior to putting the line back in service. If the source of the leak has been determined to be a fitting, connection, etc., and has not traveled down the secondary containment. Then a repair and re-pressurization of the line to observe for leakage will be sufficient.
   iii) For new or unused existing section of carrier pipe when it is added to the system, prior to putting it in service.

4. LINES NOT LISTED IN THIS PERMIT OR LINES REPLACED

The Permittee shall notify the Department in writing within ten (10) days of discovering any line which transfers or stores hazardous waste which is not listed in the following table, or if a line without secondary containment is replaced with a line having secondary containment with leak detection.

UNDERGROUND LEACHATE TRANSFER LINES

UNIT	LINE LOCATION	PRIMARY LINE	SECONDARY CONTAINMENT)
Header Line SCMF #2-3	MH 9 to MHI5	2" HDPE	4" HDPE
SCMF #1	MH 6 to MH 3 MH 3 to MH 7	1-1/4" HDPE 1-1/4" HDPE	4" HDPE 4" HDPE
SCMF #2	MH46A to MH9	1-1/4" HDPE	4" HDPE
SCMF #3	MH62A to MH10 MH60A to MH11 MH59A to MH12 MH58A to MH13	1-1/4" HDPE " " "	4" HDPE " " "
SCMF #4	MH1 to MH3 MH3 to MH4 MH4 to MH5 MH8 to MH7 MH7 to MH6 MH5 to MeterPit MH6 to MeterPit MeterPit to UST#4	2" HDPE " " " " " " "	4" HDPE " " " " " " "
SCMF #5	Pump Chamber to MH1	2" HDPE	6" HDPE
SSMF Cells B&C	C-Cell to MH#1 MH#1 to MH#2 MH#2 to MH#3 MH#3 to MH#4 MH#4 to MH#5 MH#5 to MH#6 MH#6 to MH#7 MH AB to MH#7 B- Cell to MHAB	1 1/4 " Hose " " " " " " 2" Hose 2" Hose 2" HDPE	6" HDPE " " " " " " " " 4" HDPE

TESTING PROTOCOL FOR HAZARDOUS WASTE/LEACHATE TRANSFER LINES
SCHEDULE FOR HYDROSTATIC PRESSURE TESTING

I. TESTING PROCEDURE – PRIMARY AND SECONDARY CONTAINMENT LINES

Procedure for Hydrostatic Testing of Primary and Secondary Containment Piping

1. Line to be tested will be filled completely with fresh water, have all air bled off from its highest point, and be allowed to stabilize for 24 hours before pressurizing.

2. Line shall be pressurized to not less than 1.25 times the system operating pressure or a minimum of 22-psi using a Petrotite Line Tester as manufactured by Heath Consultants or equivalent.

3. At one- (1) hour intervals, the pressure will be checked and recorded. If the pressure drops below 22-psi, the line shall be re-pressurized and the volume of water needed for the re-pressurization will be measured via a graduated cylinder and then recorded.

4. The test shall be considered complete after the fourth (4th) interval. The test shall be considered successful if it can be determined that the leakage rate (or volume of water added to re-pressurize) does not exceed 0.05 gallons/hour.

APPENDIX D

LEACHATE LEVEL INSPECTION SOP

Background

The regulated landfill units at the CECOS International Inc. Niagara Falls, NY site all have leachate collection points. At these points leachate is withdrawn with pumps. There are leachate levels which, by permit condition, may not be exceeded.

Inspection Requirements

All leachate removal points require inspection of some type to verify that leachate levels are not allowed to exceed the level specified in the permit.

There are three types of inspections/monitoring available to accomplish the above task.

Inspection forms shall be completed for each type of monitoring and kept in the inspection record.

1. MANUAL MEASUREMENT OF LEACHATE LEVELS

   For leachate collection points that do not have any instrumentation/alarm to verify compliance, a manual measurement of leachate levels must be made daily to verify compliance with standards. (See inspection sheet and SOP in Appendix E).

2. SEMI-AUTOMATIC INSTRUMENTATION

   Semi-automatic instrumentation consists of a float or other device which is energized and sends a signal to an alarm located either at the leachate collection point (which would require a daily inspection but not measurement) or at a remote location which is attended. Failure of the sensor would not trigger the alarm and thus the sensor itself requires inspection on a once per week schedule to verify that it is operational. (See inspection sheet and SOP in Appendix E).

3. FULLY AUTOMATIC INSTRUMENTATION

   Fully automatic instrumentation consists of a capacitance type level controller (Magnetrol #080-5123-302 or equivalent) with a remote alarm at an attended location (Phase II, WWTS). This type of probe operates on a capacitance principle and thus a probe failure results in a change in capacitance and activates the high level alarm as well. Additionally, the controller is wired so that loss of power will also activate the high level alarm. Because of these self-diagnostic features, no additional inspections to monitor probe integrity (beyond the monthly leachate level measurements) are needed. (See inspection sheet and SOP in Appendix E).

STANDARD OPERATING PROCEDURE
SCMF #5 LEACHATE ALARMS

THE FOLLOWING PROCEDURES ARE TO BE FOLLOWED TO RESPOND TO A HIGH LEVEL CONDITION IN THE SCMF #5 LEACHATE REMOVAL SYSTEM:

BACKGROUND

The SCMF #5 leachate removal system consists of four standpipes (one in each subcell) and one pumping chamber. The standpipes are piped directly to the pumping chamber within the landfill. Flow to the pumping chamber is by gravity. A high-level float switch is installed on the pumping chamber and on the standpipe in the toxic subcell. These high level alarms are set to activate prior to the leachate level reaching two (2) feet above the bottom of the standpipe. Activation of the float switch activates a flashing light located at the top of the standpipe or pumping chamber.

INSPECTION SCHEDULE

The following inspection schedule will be followed:

Daily Inspection

The individual will note whether or not the high level alarm is operational by visual observation. If the alarm is activated, the operations manager will be contacted so that remedial measures can be initiated.

Weekly Inspection

On a once per week basis the high level alarms will be activated manually to check that the alarm is functional. Should the alarm be found non-functional, the operations manager will be contacted so that remedial measures can be initiated. Until repairs are effected, daily inspections will be expanded to measure leachate levels.

Additionally, during the once per month alarm check all standpipes will be visually inspected to verify that the gravity lines are not plugged.

Monthly Inspection

On a monthly basis, all standpipes and the pump chamber shall be physically measured to verify leachate levels. These levels shall be recorded and kept in the inspection record.

STANDARD OPERATING PROCEDURE

LEACHATE HIGH LEVEL INDICATION

The following procedures are to be followed whenever a high leachate level is indicated or high leachate level is measured. Be sure to document this entire procedure thoroughly on the inspection form.

A. GENERAL PROCEDURE

If a failure of a high-level leachate alarm or sensor is discovered, follow the next step immediately.

If a high leachate level is measured, follow the next step immediately.

B. NOTIFY MAINTENANCE IMMEDIATELY

The maintenance department will be notified as follows:

NORMAL WORK DAYS (i.e., MON - FRI/7:00 AM -3:30PM)

1. Call the leachate operator and inform him of the situation. Proceed to item #2 only if the leachate operator cannot be reached.

2. Call the maintenance foreman or the maintenance manager and inform him of the situation.

EVENINGS, WEEKENDS, AND HOLIDAYS (IF A MAINTENANCE PERSON IS NOT ON SITE).

1. Call the maintenance manager at home or on pager, if he is not available;

2. Call the maintenance foreman at home or on pager.

C. RESPONSE BY MAINTENANCE

1. On a normal workday, appropriate personnel will be assigned to perform any corrective action necessary to repair the system.

2. At other times, due to the fact that a high leachate level is not a short-term threat to human health or the environment, if a maintenance person is not on-site, the maintenance manager or foreman will evaluate the situation as described by the operator. Unless otherwise determined, he will assign the maintenance person scheduled for the following day shift to perform any needed repairs, including manual pumping of leachate if necessary. There is a maintenance person available to work the day shift seven days per week.

D. NOTIFY NYSDEC

Notification will be given to NYSDEC in writing within ten (10) days of a measured high leachate level. The notification must include: 1) the amount the leachate exceeded the level 2) estimated time the level was exceeded, and 3) how the level was brought into compliance.

APPENDIX E

SECURITY DEVICES INSPECTION SCHEDULE				INSPECTION DATE:	
TIME FRAME: ANNUAL INSPECTION				INSPECTION TIME:	
				INSPECTOR:	
		STATUS			REMEDIAL ACTION
ITEM	PROBLEM	OK	NEEDS REPAIR	OBSERVATIONS	PERFORMED/DATE
Holes and tears in fencing or gates Defacing of signs Damage to locks Other					

DRAINAGE SYSTEM INSPECTION SCHEDULE				INSPECTION DATE:	
TIME FRAME: ANNUAL INSPECTION				INSPECTION TIME:	
				INSPECTOR:	
		STATUS			REMEDIAL ACTION
ITEM	PROBLEM	OK	NEEDS REPAIR	OBSERVATIONS	PERFORMED/DATE
Individual landfill inspection: erosion, obstruction of flow Sitewide perimeter inspection: erosion, obstruction of flow Inspector must inspect all individual drainage ditches and sitewide perimeter drainage ditches as found on Exhibit 12 in the Post-Closure Application.					

FINAL COVER INTEGRITY INSPECTION SCHEDULE				INSPECTION DATE:	
TIME FRAME: ANNUAL INSPECTION				INSPECTION TIME:	
LANDFILL:				INSPECTOR:	
		STATUS			REMEDIAL ACTION
ITEM	PROBLEM	OK	NEEDS REPAIR	OBSERVATIONS	PERFORMED/DATE
Dehydration cracking Ponding of rainwater Erosion Presence of burrowing animals detrimental to cover integrity Evidence of vegetative stress: deep-rooted vegetation Continuity of vegetation Slope integrity					

LEACHATE TRANSFER LINES EMERGENCY SCHEDULE			INSPECTION DATE:	
LANDFILL:			INSPECTION TIME:	
			INSPECTOR:	
	STATUS			REMEDIAL ACTION
EMERGENCY PROCEDURES	OK	NEEDS REPAIR	OBSERVATIONS	PERFORMED/DATE
1. The line shall be immediately taken out of service. 2. Secondary leachate pumping, utilizing replacement secondary hose, shall be initiated. 3. Pressure testing of line shall be initiated within three business days to verify leak. Testing will be conducted in accordance with procedures outlined in Appendix C. 4. Line shall be placed back in service upon passing pressure testing. 5. Submit report and testing results to the New York DEC within 14 days.				

FACILITY MAINTENANCE ACTIVITIES				INSPECTION DATE:	
LANDFILL:				INSPECTION TIME:	
				INSPECTOR:	
		STATUS			REMEDIAL ACTION
ITEM	PROBLEM	OK	NEEDS REPAIR	OBSERVATIONS	PERFORMED/DATE
Mowing Fertilizing and mulching Fertilizing Erosion control					

- Attach soil analysis from each landfill for pH and nutrient content (nitrogen, phosphorus, potassium) as indicated in the post-closure plan.

- Also, attach the Soil Conservation Service contact person and recommendation. Include date contacted.

- Attach verification of lime/fertilizer application within 30 days of SCS contact.

PERMANENET BENCHMARKS				INSPECTION DATE:	
INSPECTION SCHEDULE				INSPECTION TIME:	
TIMEFRAME:				INSPECTOR:	
LANDFILL:					
		STATUS			REMEDIAL ACTION
ITEM	PROBLEM	OK	NEEDS REPAIR	OBSERVATIONS	PERFORMED/DATE
Structural integrity Proper identification					

STANDARD OPERATING PROCEDURE

LEACHATE LINE LEAK ALARM

The following procedures are to be followed whenever a leak into Secondary Containment is indicated by an alarm.

Be sure to document this entire procedure thoroughly on the inspection form.

A. GENERAL PROCEDURE

1. Visually inspect the manhole or standpipe where the leak is indicated.

2. If failure of a Leak Detection sensor is the cause, corrective action is required to repair it (as per "General Inspection Requirements", Section 3).

3. If a leak is the cause, corrective action is required immediately (as per Section B and C).

B. NOTIFY MAINTENANCE IMMEDIATELY

Whenever correction action is required, the maintenance department will be notified as follows:

NORMAL WORK DAYS: (i.e., Monday - Friday/7:00 AM to 3:30 PM)

1. Call the leachate operator and inform him of the situation. Proceed to item #2 only if the leachate operator cannot be reached.

2. Call the maintenance foreman or the maintenance manager and inform him of the situation.

EVENINGS, WEEKDAYS, AND HOLIDAYS (If a maintenance person is not on site).

1. Call the maintenance manager at home or on pager; or if he is not available,

2. Call the maintenance foreman at home.

3. Inform him of the situation and follow any instruction given.

C. RESPONSE TO A LEAK

If liquid is detected, follow the S.O.P. for "Leachate Line Leak Indication".

STANDARD OPERATING PROCEDURE

LEACHATE LINE LEAK INDICATION

* BE SURE TO DOCUMENT THIS ENTIRE PROCEDURE THOROUGHLY *

In the event that any liquid is detected in the secondary containment system (i.e., collection pan or manhole) via triggered alarm and/or visual inspection of any transfer line, one of the following procedures will be implemented immediately:

A. IF THE SOURCE OF LIQUID IS READILY IDENTIFIABLE

1. If the liquid is suspected to be something other than leachate, an investigation will take place to determine what it is (e.g., rainwater, groundwater). If it is not leachate, the secondary collection system will be cleaned out and monitored as usual. Any corrective action necessary to prevent a reoccurrence will be done immediately. If it is determined to be leachate, proceed to the next step.

2. If the liquid is leachate whose source is readily identifiable, such as a cracked fitting, failed gasket, unsecured clamp, etc., the system will be shut down. The liquid in the secondary containment system will be removed and the system flushed with clean water. All necessary repairs will be done to put the system back in service as soon as possible. If necessary, backup leachate pumping will be initiated until repairs are complete.

3. When the system is checked under operating conditions, if no further leakage is observed, the source of liquid will be considered confirmed. No pressure testing of the primary line will be necessary.

4. If the liquid traveled through any secondary containment line(s) to a collection point, then that (those) section(s) of line must pass pressure testing before the system is put back into service. Pressure testing will be done in accordance with the procedures outlined in Appendix C.

5. The Permittee will submit a report on the incident to the NYSDEC within 14 days of completion of all repairs, plus any required testing.

B. IF THE SOURCE OF LIQUID IS NOT READILY IDENTIFIABLE

1. The primary line will be immediately shut down and taken out of service. The liquid in the secondary containment system will be removed and the system flushed with clean water.

A "parallel" investigation may take place to determine whether detected liquid was leachate or another type (rain water, groundwater) of aqueous material.

2. Backup leachate pumping will be initiated.

3. Pressure testing of the secondary containment line will be conducted as soon as possible to verify its integrity. Pressure testing will be conducted in accordance with the procedures outlined in Appendix C.

4. The line shall be placed back in service upon a passing pressure test of both primary and secondary lines following any necessary repairs.

5. The Permittee will submit a report with test results to the NYSDEC within 14 days of completion of all testing.

WASTE CHARACTERISTICS

AND

ANALYSIS PLAN

FOR

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK FACILITY

Revised May 2014

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WASTE CHARACTERISTICS

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

1.0 Chemical and Physical Characteristics

The CECOS facility manages leachate generated from the closed Hazardous Waste units, occasional site groundwater, and collected weather event water from secondary containment areas. The waste for treatment typically falls within the following category:

- Leachate - Basic, or neutral solution and/or low levels of soluble organics. These materials are treated in the aqueous treatment facility for pH, solids removal and if required, carbon adsorption. Then discharged to the Niagara Falls sewer system in accordance with the Niagara Falls Sewer System Pretreatment Discharge Permit.SIU #4

2.0 Waste Analysis Plan

In accordance with the regulatory requirements set forth in 6 NYCRR 373-1.1(g)(2), CECOS International, Inc. (CECOS) has developed this Waste Analysis Plan as an integral part of the 373-2 Permit Application for the Niagara Falls treatment facility located in Niagara County, New York. The procedures set forth in this plan dictate that this facility will be in compliance with all requirements of 6 NYCRR 373-2.2. A copy of this plan will be available at the facility at all times.

2.1 Introduction

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

- Analytical Techniques and Rationale - Section 3.0 outlines the techniques and rationale CECOS will utilize to determine or identify certain waste properties to ensure proper management of the waste at the site.

- Sampling Methodology - Section 4.0 outlines the proper sampling method(s) for a given waste type. CECOS personnel can then obtain waste samples to help ensure accurate analytical results when a waste is analyzed.

- Process Operations Procedures - Section 4.0 outlines the steps that CECOS will take to monitor process operations and includes handling on-site generated wastes.

- Land Disposal Restrictions - Section 6.0 outlines the required notifications, testing and certifications under 40 CFR Part 268 and 6 NYCRR 376.

It is the policy of the Niagara Falls facility that all hazardous waste handled in the Wastewater Treatment System will be subjected to these procedures. This is to help ensure that this facility will be in compliance with applicable permits and regulations.

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

3.0 Analytical Rationale

Analytical techniques utilized by CECOS are classified into two basic categories:

- Supplemental Analyses - are performed as directed by site management to augment existing information on the waste.

- Standard Analyses - are performed as required by the discharge permit or as directed by site management.

This tiered approach provides CECOS with sufficient information to manage the leachate processing properly.

The analytical techniques given in this text have been chosen for their ability to provide the information required to properly manage site generated specific waste. A summary of the analytical parameters within each category and the rationale behind their usage is provided herein. Analyses are not necessarily repeated for sequential activities or movement of the same waste within the facility unless required by changes in the waste's identity, as discharge parameters require.

- Metals (e.g., Cd, Cr, Ni, Pb, Cu, Zn, Hg) - are analyzed using approved methodologies as required by the City of Niagara Falls Discharge Permit on a Quarterly composite.

- TOC - used to determine the soluble organics loading in the effluent discharged to the City of Niagara Falls POTW.

- pH - provides a more precise measurement of pH on a pH meter. It is also used to monitor various steps of the WWT process.

- Total Suspended Solids - are determined on the discharge of treated wastewater to determine compliance with the facility discharge permit.

- TCLP - determines whether a waste stream contains concentrations of restricted constituents above the regulatory level. Also may be used on treatment residues to determine concentration of regulated constituents.

- Total Cyanides (Distillation with Magnesium Chloride) - quantifies the concentration of all free and complexed cyanides.

- Total Sulfides - is used to quantify the concentration of total sulfide.

Other standard methods may occasionally be employed as needed. Other standard techniques, not listed here, may also be used if additional information is required. The procedures and protocol for standard analyses are referenced in the following publications:

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, First Update 1990 or later approved revisions. SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC 20460.

2. Standard Methods for the Examination of Water and Wastewater, 18TH edition, 1992 or most recent edition. American Public Health Association.

3. Annual Book of ASTM Standards. 1986 or most recent edition.
American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19013.

4. Methods for Chemical Analysis of Water and Wastes. March 1979, or most recent edition. EPA-600/4-79-020, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.

5. Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. July 1982, or most recent edition. EPA 600 14-81-057, USEPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio.

6. 40 CFR Part 268 Appendix I, revised July 1, 1991 and 6 NYCRR Part 376 appendix 35.

7. 40 CFR Part 136, EPA Regulations on Test Procedures for the Analysis of Pollutants, revised 1991

4.0 Process Operations Procedure

The CECOS International Wastewater Treatment plant discharges to the City of Niagara Falls Wastewater Treatment plant in accordance with SIU Permit #4. The discharge from the CECOS plant is regulated in accordance with the City's industrial pretreatment program.

As such, CECOS is required to pretreat for both hazardous and nonhazardous constituents. The city treatment plant is a tertiary plant, which provides additional treatment of wastewater discharged by CECOS as well as other industries. Under the terms and conditions of its permit, CECOS pays the city for this additional treatment. The city's permit contains discharge limits that assure that the city can treat the wastes it receives and comply with its NPDES discharge permit.

It is CECOS' mission to provide treatment for constituents regulated by the city permit to levels, which are, at a minimum, in compliance with the city permit. Where reasonably feasible, CECOS treats to levels lower than those required by permit.

4.1 Aqueous Waste Treatment

The wastewater treatment plant at the CECOS Niagara Falls, New York facility is capable of performing physical/chemical treatment to site generated materials from the closed Hazardous Waste Units. The plant consists of one portion, as shown in the process flow diagrams in Figure 5-1.

4.1.1 Phase II Treatment Plant

The treatment steps performed at the Phase II Plant include pH adjustment, and activated carbon filtration. A discussion of the major operations that take place in this system is provided below.

pH Adjustment: The pH of the wastewater is adjusted in the header system. Adjustment of the pH of influent waste streams occurs through an in-line hydrochloric acid metering pump and static mixing system, which is controlled by a feed-forward pH monitoring device. The monitoring of the pH of process influent is important to ensure the proper operation of downstream treatment operations and compliance with the SIU permit.

Activated Carbon Adsorption: CECOS may use carbon to further treat waste as needed in order to comply with the discharge limits in POTW permit #4. Additionally, CECOS is required by the POTW permit to either use the carbon system

during storm events or to cease discharge to the POTW. The activated carbon system at the Phase II treatment plant consists of two 20,000 pound down-flow absorber bed, which functions primarily to remove refractory organic contaminants that are not removed by the upstream treatment processes. Typical processing will use this bed to remove contaminants of concern. The carbon, once spent, will be removed within 90-days, and regenerated at the vendor's facility. In order to assess the organic constituent removal, the carbon beds are typically monitored for breakthrough of volatile organics. Phenol and SOC levels may also be monitored when the beds are in use. When any of the above parameters approaches the daily maximum loading allowed under the City Permit SIU #4, the system will be shut down and a new carbon delivery arranged. A safety factor using 80% of the permit limit is routinely employed.

In-process control analyses include pH, TSS, metal concentrations, volatile organics, phenols and/or TOC. For specific information on monitoring points, parameters and typical frequencies in-process refer to Table 4-3. Analyses are performed as per Section 3.0.

The aqueous effluent from the Phase II treatment system is discharged to the City of Niagara Falls POTW in accordance with the Niagara Falls Sewer System Pretreatment Discharge Permit #4. The processed effluent is monitored monthly, according to the parameters in Table 4-3, and the data is reported on a quarterly basis to the City of Niagara Falls and NYSDEC.

4.2 On-site Generated Waste and Treatment Residues

Waste that is generated by CECOS as part of normal operations is characterized through testing and/or process knowledge. A WCD or equivalent has been completed for each site generated waste stream.

Wastes that must be sent off-site for treatment or disposal are subject to the pre-acceptance procedure of the receiving facility.

4.2.1 Waste Analysis and Sampling

On-site generated waste and treatment residues requiring analysis are sampled and sent out for testing by an approved facility at the discretion of the management. Analyses are repeated whenever the process generating the waste changes.

4.2.2 Land Disposal Restrictions

Each waste or treatment residue is evaluated to determine if the waste is restricted under 40 CFR 268 and 6 NYCRR 376 and whether it meets the applicable treatment standards. Notices and certifications are prepared for all wastes and treatment residues that are sent off-site for further treatment or disposal.

TABLE 4-3

PHASE II WASTEWATER TREATMENT SYSTEM DISCHARGE STATION

COMPLIANCE MONITORING PARAMETERS AND MONITORING FREQUENCY

PARAMETER	SAMPLE TYPE	FREQUENCY
Volatile Halogenated Priority Pollutants	Lab Composite of 4 grabs over 24 hours	1 per quarter
Semi-Volatile Priority Pollutants and Pesticide Compounds	Quarterly Composite	1 per quarter
Total Suspended Solids	Sample Composite	During discharge
Soluble Organic Carbon	Sample Composite	During discharge
Total Phosphorous	24 hr grab	1 per quarter
Total Phenol	24 hr grab	1 per month
Metals - Cd, Cr, Cu, Pb, Hg, Ni, Zn	24 hr grab	1 per quarter
Total Cyanide	24 hr grab	1 per quarter

5.0 Contract Laboratories

All laboratories are subject to inspection and audit of all procedures while under contract to CECOS. Contract laboratories are required to adopt and implement all of the quality control practices listed above as they are applicable to sample type and volume. Any contract lab employed by CECOS will be on the DEC approval list.

6.0 Land Disposal Restrictions

The CECOS facility will potentially generate, treat, and dispose of hazardous wastes that come under the purview of the 40 CFR 268 and 6 NYCRR 376 regulations. Therefore, this section of the Waste Analysis Plan (WAP) is provided to comply with the requirements of the referenced land disposal restrictions. The Land Disposal Restrictions are addressed as a separate section within this Waste Analysis Plan to facilitate the addition of amendments as future land disposal restrictions regulations are promulgated.

The CECOS facility has historically, and will continue to engage in the generation, treatment, and disposal of RCRA hazardous wastes that fall under the scope of the land disposal restrictions. The regulations mandate certain recordkeeping, storage, and management methods that are applicable to CECOS activities. In addition, the CECOS facility will generate treatment residues and other materials ancillary to the site's activities that may be affected by the land disposal restrictions.

6.1 Generator's Responsibilities Under 40 CFR 268/6 NYCRR 376

The initial generator is responsible for determining the applicable land disposal restrictions at the point the waste is generated. This determination can be made by actually testing the waste, or by using knowledge of the waste [40 CFR 268.7(a)/6 NYCRR 376.1(g)].

The generator's knowledge is essential in determining the applicable restrictions, due to the fact that the process in which the original material was used will determine the proper classification of a waste in certain cases. Depending upon the use, a solvent may have two (2) possible waste classifications. For example, toluene can either be listed as an F005 waste or as a U220 waste depending on whether the waste is a spent solvent, or a commercial chemical product.

6.2 Treatment/Storage Facility Record Keeping Requirements

Pursuant to 40 CFR 268.7 and 6 NYCRR 376.1(g), the following requirements will be fulfilled:

6.3 Treatment Facility Recordkeeping Requirements

A treatment facility must comply with the following requirements:

- Ensure that the appropriate notices and certifications accompany shipments of waste subject to land disposal restrictions;
- Comply with the generator notification and certification requirements for treatment residues shipped off-site for additional waste management;
- When applicable, treat wastes to meet all of the applicable 6 NYCRR 376/ 40 CFR 268, Subpart D, treatment standards and 40 CFR 268.32, RCRA Section 3004(d) and 6 NYCRR 376.3(b) prohibition levels, and prepare the certification outlined in 40 CFR 268.7(b)(95)(i); 6 NYCRR 376.1(g)(2)(v)(b);

- When applicable, treat wastes in accordance with specified treatment technologies [40 CFR 268.42] and prepare the certification outlined in 40 CFR 268.7(b)(5)(ii);

- Maintain copies of all notices, certifications and waste analyses in the facility operating record.

6.4 47A Pretreatment

Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than 50 ppm must be:

- Stored in a facility that meets the requirements of 40 CFR 761.65(b); and

- Must be removed from storage and treated or disposed within 90 days of the date when the waste was first placed in storage area.
- The tanks in the 47A pre-treatment building shall be inspected each operating day as required by 6NYCRR 373-2.10(f)(2) using the inspection checklist provided in Attachment II.

- Discharges from the 47A Pretreatment System to the on-site wastewater treatment unit shall be in accordance with the April 25, 1991 letter from Peter Tarnawskyj to Maria Jon/USEPA.

- The following conditions apply to the 47A Pretreatment Building

(a) On an annual basis the 47A Pretreatment Area shall be inspected by an independent NYS registered professional engineer who is qualified to evaluate the condition of the concrete. All surfaces must be completely exposed where possible and inspected for cracks, failed joint filler or sealant, differential settlement, and any other defects which may decrease the relative impermeability of the containment areas or reduce the effectiveness of collecting spilled waste or storm water. The engineer must prepare a detailed report which specifies the nature and content of the inspection, observations made, details of any defects found (including photographs, if needed to fully describe the effect), evaluates the adequacy of any repairs made during the year, provides details of any remedial action taken (including methods, procedures, and materials specifications) and certifies that all repairs made in response to the inspection were made in accordance with the descriptions contained within the report. This report must be submitted to the NYSDEC.

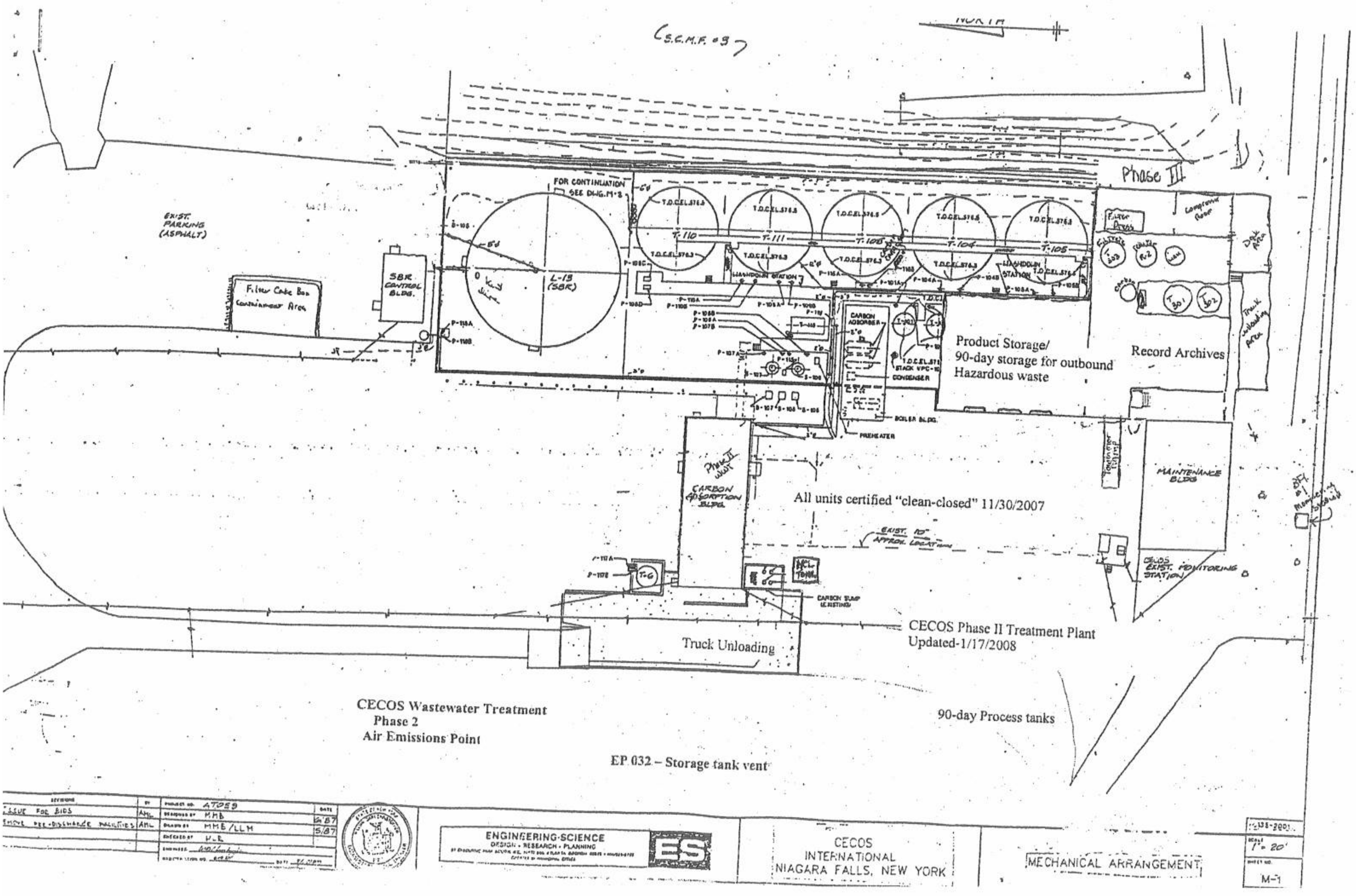
(b) As part of condition (a) above, the integrity of the sumps and transfer lines (if applicable) shall be annually certified by an independent NYS registered professional engineer.

(c) If the inspection required as part of condition (a) and (b) above reveals that the concrete containment system needs to be resealed it shall be done within 30 days of the inspection. The containment system shall then be re-inspected by an independent NYS registered professional engineer. A certification report shall be completed and submitted to the NYSDEC.

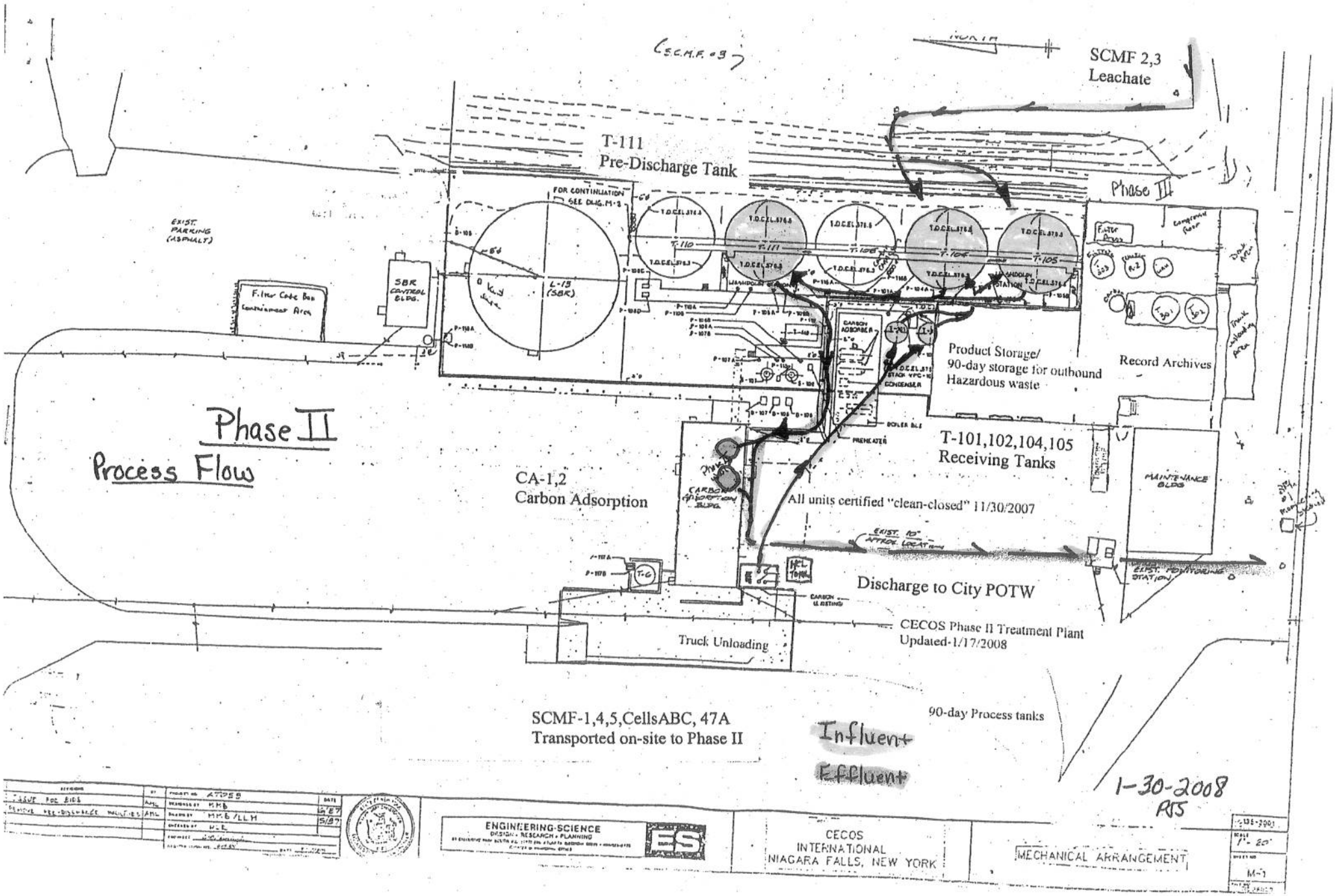
(d) Storage of PCB containment material in the 47A Pretreatment Building shall be in accordance with all State and Federal regulations and requirements.

FIGURE 5.1

Process Flow/Phase II



NORTH
Phase III
FOR CONTINUATION SEE DWG. M-8
L-13 (SBR)
T-110
T-111
T-108
T-104
T-105
SBR CONTROL BLDG.
Filter Cake Box Containment Area
EXIST. PARKING (ASPHALT)
Filter Press
Record Archives
Product Storage/
90-day storage for outbound
Hazardous waste
CARBON ADSORBER
CONDENSER
BOILER BLDG.
PREHEATER
CARBON ADSORPTION BLDG.
MAINTENANCE BLDG.
CECOS EXIST. MONITORING STATION
All units certified "clean-closed" 11/30/2007
CARBON SUMP (EXISTING)
CECOS Phase II Treatment Plant
Updated-1/17/2008
Truck Unloading
CECOS Wastewater Treatment
Phase 2
Air Emissions Point
90-day Process tanks
EP 032 – Storage tank vent
ENGINEERING-SCIENCE
DESIGN • RESEARCH • PLANNING
CECOS
INTERNATIONAL
NIAGARA FALLS, NEW YORK
MECHANICAL ARRANGEMENT
1" = 20'
M-1


SCMF 2,3
Leachate
T-111
Pre-Discharge Tank
Phase III
EXIST. PARKING (ASPHALT)
SBR CONTROL BLDG.
L-15 (SBR)
Product Storage/
90-day storage for outbound
Hazardous waste
Record Archives
Phase II
Process Flow
T-101,102,104,105
Receiving Tanks
CA-1,2
Carbon Adsorption
All units certified "clean-closed" 11/30/2007
MAINTENANCE BLDG
Discharge to City POTW
CECOS Phase II Treatment Plant
Updated-1/17/2008
Truck Unloading
SCMF-1,4,5,CellsABC, 47A
Transported on-site to Phase II
90-day Process tanks
Influent
Effluent
1-30-2008
RTS
ENGINEERING-SCIENCE
CECOS
INTERNATIONAL
NIAGARA FALLS, NEW YORK
MECHANICAL ARRANGEMENT

APPENDIX I

EPA CODES PERMITTED AT CECOS

May-2014

F039

ATTACHMENT D - SOLID WASTE MANAGEMENT UNITS (SWMUs)

TABLE OF CONTENTS

RCRA REGULATED UNIT
Underground Transfer Lines

UNIT DESCRIPTION:	Underground Transfer Lines
STATUS:	Active
PERIOD OF OPERATION:	1980's
TYPE OF WASTE(S):	Leachate
CONSTITUENT(S):	Various Organics and Inorganics
AREA(S) OF CONCERN:	Groundwater, Soils
INVESTIGATION STATUS:	All underground transfer lines at the site were hydrostatically pressure tested to determine integrity and soundness. Any lines which failed this test were immediately taken out of service. All replacement underground lines are now double walled with leak detection capabilities.

RCRA REGULATED UNIT
Container Management Unit

UNIT DESCRIPTION:	Container Management Unit
STATUS:	Closed
PERIOD OF OPERATION:	1981-1994
TYPE OF WASTE(S):	Drummed (55 gallon) waste
CONSTITUENT(S):	Various Organics and Inorganics
AREA(S) OF CONCERN:	Soil and groundwater from sump and underground lines.
INVESTIGATION STATUS:	All underground transfer lines associated with this unit were hydrostatically pressure tested to determine integrity and soundness. It was discovered that several lines failed this integrity assessment. All lines that failed were immediately taken out of service and a Consent Order was issued by NYSDEC to close this unit. A full evaluation of the environmental impacts from this unit and associated transfer lines was performed and any remediation took place during closure. This unit has undergone closure in accordance with a Department approved closure plan. Certification of Closure was approved December 1, 1994.

RCRA REGULATED UNIT
Truck Wash Facility

UNIT DESCRIPTION:	Truck Wash Facility
STATUS:	Closed
PERIOD OF OPERATION:	1984-1988
TYPE OF WASTE(S):	Contaminated water
CONSTITUENT(S):	Unknown
AREA(S) OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	This unit has undergone closure in accordance with a Department approved closure plan. Certification of Closure was approved December 1, 1994.

RCRA REGULATED UNIT
Leachate Storage Tanks

UNIT DESCRIPTION:	Underground storage tanks (90-day)
STATUS:	Active
PERIOD OF OPERATION:	1981 to present
TYPE OF WASTE(S):	Landfill leachate
CONSTITUENT(S):	Various Organic and Inorganic
AREA(S) OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	These tanks have undergone integrity assessment by a certified professional engineer and have been determined to be in satisfactory condition. Annual re-assessment of integrity is required by the permit. A secondary containment vault is also inspected on a regular basis as required by the permit to monitor for potential leaks. Investigation of any environmental impacts from these units will be performed as part of a Department approved Closure plan.

RCRA REGULATED UNIT
Wastewater Treatment Phase II

UNIT DESCRIPTION:	Wastewater Treatment facility consisting of tanks (active) and surface impoundments (closed)
STATUS:	"clean-closed"
PERIOD OF OPERATION:	1979-2007 Impoundments L-10, L-11, L-12: 1979-1988 Impoundments L-5 through L-9: 1979-1989
TYPE OF WASTE(S):	Contaminated wastewater and aqueous organic wastes
CONSTITUENT(S):	Organics, acids, non-biodegradable organics
AREA(S) OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	The tanks associated with this unit were "Clean Closed" in November 2007. They are currently operated as < 90 day units. General inspection and operation requirements for these vessels are found in Attachment D. The Permittee has completed an RFI investigation of this unit. The investigation included the sampling and analysis for volatile and semi-volatile organic compounds of 40 shallow soil borings. Analytical results show an abundance of volatile and semi-volatile compounds in background soils adjacent to and within the WWT Phase II area. The conclusions of the investigation suggest that operation of the former surface impoundments at WWT Phase II has impacted the soils underlying the units. The Permittee has performed a risk assessment for this SWMU to address concerns regarding potential human health and environmental impacts associated with the

chemical compounds observed. The risk assessment concluded that there are no unacceptable risks associated with existing conditions. As an additional precaution, the vicinity of the former impoundments has been paved to prevent exposure to the contaminated soils and to minimize water infiltration. A maintenance program for the pavement is included as part of Module II of this Permit.

SOLID WASTE MANAGEMENT UNIT
Niagara Falls Sewage Sludge

UNIT DESCRIPTION:	Sewage Sludge Temporary Storage
STATUS:	Closed
PERIOD OF OPERATION:	1977 - 1981
TYPE OF WASTE(S):	Sludge from Niagara Falls WWTP
CONSTITUENT(S):	Unknown
MEDIA OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	The investigation consisted of four soil borings which were sampled from 0 to 5 feet below the top of natural sediments. Collected samples were analyzed for Chlorobenzenes and Chlorotoluenes. Analytical results of collected samples were all non-detectable except for the occurrence of 1,2,4-Trichlorobenzene at below the detection limit in samples SU3-1B (<59 ppb) and SU3-2B (<110 ppb). The remaining Sewage sludge was excavated and placed in Sanitary Landfill VI in 1992 as part of an approved corrective measures program.

SOLID WASTE MANAGEMENT UNIT
Foundry Sand

UNIT DESCRIPTION:	Foundry Sand Storage Piles
STATUS:	Inactive
PERIOD OF OPERATION:	1975 – 1980's
TYPE OF WASTE(S):	Foundry Sand
CONSTITUENT(S):	Phenolics, Metals
MEDIA OF CONCERN:	Groundwater, Soil
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The investigation consisted of the collection of soil samples for two locations. All soil sample analytical results were non-detectable for acid phenolics, EP Toxicity Herbicides and EP Toxicity Pesticides. The EP Toxicity metals results were below the USEPA maximum allowable concentrations. The conclusions of the investigation suggest that this unit has not caused an impact to the groundwater. Evaluation of soils impacts was performed as part of the site wide Corrective Measures Study and no further action is considered necessary.

SOLID WASTE MANAGEMENT UNIT
Brine Sludge

UNIT DESCRIPTION:	10' x 10' Pit used dispose of Brine Sludge form Olin Chemical chlorine cells
STATUS:	Closed
PERIOD OF OPERATION:	1972 - 1977
TYPE OF WASTE(S):	Brine Sludge from Olin Corp. Chlorine Cells
CONSTITUENT(S):	Mercury
MEDIA OF CONCERN:	Groundwater, Soils
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The initial investigation included the collection of soil and groundwater samples from four borings. Samples collected from borings SU3-5, SU3-6, SU3-7 and SU3-8 were analyzed for total and dissolved mercury. Analytical results revealed total mercury in two of the soil samples, SU3-7B and SU3-8B, at concentrations of 1.1 mg/kg and 3.2 mg/kg respectively. The higher concentration was detected in the background soil boring, SU3-8. Total Mercury was detected in one groundwater sample SU3-5D, at a concentration of 1.8ug/L. Dissolved mercury was not detected in any of the groundwater samples. USEPA collected split samples from these borings and analyzed the samples for full Target Compound List inorganics. Results of USEPA split sample analysis indicated elevated concentrations of chromium. Supplemental investigation included soil samples from two borings (SU3-6R, SU3-7R) and groundwater samples from six top of clay monitoring wells (DUP-6, DUP-8, VD, 357, 89-153-1 and 94). All supplemental investigation samples were analyzed for total

chromium and hexavalent chromium. Soils analytical results ranged from 2,430 to 6,080 ppm for total chromium and 3.2 to 10.8 ppm for hexavalent chromium. Groundwater results for total chromium ranged from 38 ppb (89-153-1) to 246 ppb (VD). Hexavalent chromium was only detected in the sample collected from well VD (104 ppb).

Elevated levels of Chromium detected during the investigation required additional evaluation to determine possible impacts to human health and the environment. Evaluation performed as part of the site wide Corrective Measures Study have determined that Corrective Measures are necessary. The corrective measures program is specified in Module II of this Permit.

SOLID WASTE MANAGEMENT UNIT
Lime/Slag Waste

UNIT DESCRIPTION:	Lime/Slag Waste
STATUS:	Closed
PERIOD OF OPERATION:	1917 - mid 1970's
TYPE OF WASTE(S):	Lime waste from industrial processing
CONSTITUENT(S):	Calcium hydroxide, calcium carbonate, Hexachlorocyclopentadiene (C56) has been detected in slag waste associated with the lime waste
MEDIA OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	The initial investigation of this unit has been completed. The initial investigation included: 1) a Subsurface Lithologic evaluation; 2) Groundwater flow evaluation; 3) Lime/Soil evaluation from 32 samples; 4) groundwater quality evaluation from 87 wells. Results of the investigation have detected two (2) areas of groundwater degradation in the top of clay zone: (1) along the southern perimeter of the East Lime pond area, at wells 302 (Avg. total organics 2,396 ppb) and 326 (918 ppb); and (2) in the southeastern part of the west lime pond area, at wells 87-114-1 (710 ppb) and 87-125-1 (1,232 ppb); Three areas of groundwater degradation in the top of rock zone: (1) along the northern perimeter of the east lime pond area, at well 402 (406 ppb); (2) along the southern perimeter of the east lime pond area, at well 335 (390 ppb); and (3) in the southeastern part of the west lime pond area, at well 86-114-2 (439 ppb); And one area in the bedrock zone at well 86-114-3 (655 ppb). Groundwater degradation in top of rock well 335 is believed to be related to the contamination

found in the Central area SWMUs and will be evaluated as part of that program. The source of groundwater contamination found at wells 87-114-1, 86-114-2 and 86-114-3 is unknown. To eliminate possible artificial communication between the groundwater transmissive zones, these wells has been removed and the boreholes sealed and replaced with nearby wells.

This unit has been evaluated as part of the Site-wide Corrective Measures Study and it has been determined that Corrective Measures are necessary. The corrective measures program is specified in Module II of this Permit.

As part of the construction of Sanitary Landfills V and VIII, large quantities of Lime and Slag wastes have been removed and placed in the landfills. In addition, the liner systems of the landfills serve to cap and isolate the remaining wastes from the surface infiltration.

RECRA REGULATED UNIT
Drum Handling/Drum Transfer

UNIT DESCRIPTION:	Former Container Storage Area
STATUS:	Closed
PERIOD OF OPERATION:	1979-1984
TYPE OF WASTE(S):	Containerized hazardous waste
CONSTITUENT(S):	Various Organic and Inorganic
MEDIA OF CONCERN:	Soil, groundwater
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The investigation included the sampling and analysis for volatile and semi-volatile organic compounds of 7 shallow soil borings. Analytical results show an abundance of volatile (3,700 ppm) and semi-volatile (300 ppm) compounds in background soils adjacent to and within the DH/DT area. The conclusions of the investigation suggest that operation of the former Drum Handling/Drum Transfer area has impacted the soils underlying the unit. However, it is not possible to identify the degree of contaminant contributions from the unit due to the documented area-wide presence of PAHs in surface soils and the influence of shallow contaminated groundwater from upgradient sources. The Permittee has performed a risk assessment for this SWMU to address concerns regarding potential human health and environmental impacts associated with the chemical compounds observed. The risk assessment concluded that there are no unacceptable risks associated with existing conditions. As an additional precaution, the vicinity of the former impoundments has been paved to

prevent exposure to the contaminated soils and to minimize water infiltration. The maintenance of the pavement is included as part of the corrective measures program located in Module II of this permit.

SOLID WASTE MANAGEMENT UNIT
Roadway Oiling

UNIT DESCRIPTION:	Site wide oiling of roadway used as a dust suppressive.
STATUS:	Inactive
PERIOD OF OPERATION:	1976 - 1980
TYPE OF WASTE(S):	Waste Oil
CONSTITUENT(S):	PCBs
MEDIA OF CONCERN:	Groundwater, Soil
INVESTIGATION STATUS:	The Permittee has performed an RFI investigation of this SWMU. The Investigation has included the collection of soil samples and analysis for PCBs from nine (9) locations along and under site roadways. In addition, groundwater samples were collected from seven top of clay monitoring wells in the vicinity of this SWMU to determine possible impacts to groundwater. Results of the investigation have detected the presence of PCBs at 8 of 9 Soil sampling locations at concentrations ranging from below the quantification limit to 8.9 ppm. PCBs were not detected in groundwater samples collected as part of the investigation. The PCB contaminated soils found as part of this investigation have been evaluated as part of the site-wide Corrective Measures Study. The CMS has determined that no further actions beyond those already in place (paving of roads, notice in deed) are necessary.

SOLID WASTE MANAGEMENT UNIT
Sanitary Landfills I, II

UNIT DESCRIPTION:	Sanitary Landfills
STATUS:	Closed
PERIOD OF OPERATION:	1972 - 1984, Capped - 1987
TYPE OF WASTE(S):	Non-hazardous municipal and industrial waste
CONSTITUENT(S):	Non-hazardous municipal and industrial waste
MEDIA OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of these units. The investigation included the collection and analysis for USEPA Appendix IX constituents of groundwater samples from eleven monitoring wells at the perimeter of the landfills. Review of the analytical data shows the presence of contamination in top of rock wells 10 (7,268 ppb total organics) and 33A (454 ppb total organics); and Bedrock well 51 (70,821 ppb total organics). However, a source other than the Sanitary landfills (DuPont-Necco Park landfill) is thought to be the origin of the detected contamination. The groundwater contamination found as part of this investigation were evaluated as part of the site-wide Corrective Measures Study. Groundwater monitoring for these units shall be performed in accordance with Appendix I of Schedule I of Module I, Exhibit B. Remediation of the groundwater contamination will be addressed through the DuPont-Necco Park remedial program.

SOLID WASTE MANAGEMENT UNIT
Sanitary Landfills III, IV

UNIT DESCRIPTION:	Sanitary Landfills
STATUS:	Sanitary III, IV Phase 1: Closed Sanitary IV, Phase 2: Closed
PERIOD OF OPERATION:	Sanitary III: 1984-1987 Sanitary IV: 1983-1994
TYPE OF WASTE(S):	Municipal, demolition, non-hazardous industrial
CONSTITUENT(S):	Municipal, demolition, non-hazardous industrial
MEDIA OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of these units. The investigation included the collection and analysis for USEPA Appendix IX constituents of groundwater samples from eleven monitoring wells at the perimeter of the landfills. Review of the analytical data shows the presence of contamination in top of rock wells 10 (7,268 ppb total organics) and 33A (454 ppb total organics); and Bedrock well 51 (70,821 ppb total organics). However, a source other than the Sanitary landfills (DuPont-Necco Park Landfill) is thought to be the origin of the detected contamination. The contamination found as part of this investigation were evaluated as part of the site-wide Corrective Measures Study. Groundwater monitoring for these units shall be performed in accordance with Appendix I of Schedule I of Module I, Exhibit B. Remediation of the groundwater contamination will be addressed through the DuPont-Necco Park remedial program.

SOLID WASTE MANAGEMENT UNIT
Sanitary Landfill V (Old)

UNIT DESCRIPTION:	Sanitary Landfill
STATUS:	Inactive
PERIOD OF OPERATION:	1984-1987
TYPE OF WASTE(S):	Municipal, demolition, non-hazardous industrial
CONSTITUENT(S):	Municipal, demolition, non-hazardous industrial
MEDIA OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of these units. The Investigation included the collection and analysis for USEPA Appendix IX constituents of groundwater samples from four monitoring wells at the perimeter of the landfill. Review of the analytical data shows the presence of contamination in top of rock well VaR (185 ppb total organics). However, well VaR is hydraulically upgradient of the landfill. Therefore a source other than the Sanitary landfill is probably responsible for the detected contamination. The contamination found as part of this investigation were evaluated as part of the site-wide Corrective Measures Study. Groundwater monitoring for this unit shall be performed in accordance with Appendix I of Schedule I of Module I, Exhibit B.

SOLID WASTE MANAGEMENT UNIT
Sanitary Landfill VI

UNIT DESCRIPTION:	Sanitary Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1988 - 1998
TYPE OF WASTE(S):	Municipal, demolition, non-hazardous industrial
CONSTITUENT(S):	Municipal, demolition, non-hazardous industrial
MEDIA OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	Operation and Monitoring of this unit shall be performed in accordance with NYSDEC Permit # 90-86-0940, or any 6 NYCRR Part 360 permit which supersedes it.

SOLID WASTE MANAGEMENT UNIT
Sanitary Landfill VII

UNIT DESCRIPTION:	Sanitary Landfill
STATUS:	Inactive
PERIOD OF OPERATION:	1988 - 1992
TYPE OF WASTE(S):	Lime, Slag
CONSTITUENT(S):	Lime, Slag
MEDIA OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	Groundwater monitoring of this unit shall be performed in accordance with Appendix I of Schedule I of Module I, Exhibit B.

SOLID WASTE MANAGEMENT UNIT
Ammonium Chloride Application Area

UNIT DESCRIPTION:	Area of site which had Ammonium chloride application as a dust suppressant
STATUS:	Inactive
PERIOD OF OPERATION:	1977 - 1979
TYPE OF WASTE(S):	Ammonium Chloride solution
CONSTITUENT(S):	Ammonium Chloride, Ammonium Hydroxide, Calcium Chloride, Toluene
MEDIA OF CONCERN:	Groundwater, soils
INVESTIGATION STATUS:	This unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

SOLID WASTE MANAGEMENT UNIT
Dry Lime Neutralization

UNIT DESCRIPTION:	Surface Impoundment for Neutralization of Acid wastes
STATUS:	Closed
PERIOD OF OPERATION:	1975-1978
TYPE OF WASTE(S):	Acids
CONSTITUENTS:	Nitric, Sulfuric and Hydrochloric Acids
MEDIA of CONCERN:	Soil. Groundwater
INVESTIGATION STATUS:	This unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

SOLID WASTE MANAGEMENT UNIT
Calcium Fluoride Pond

UNIT DESCRIPTION:	Surface Impoundment
STATUS:	Closed
PERIOD OF OPERATION:	1978 - 1980
TYPE OF WASTE(S):	Calcium Fluoride Sludge from Occidental Chemical
CONSTITUENT(S):	Calcium Fluoride
MEDIA OF CONCERN:	Groundwater, Soils
INVESTIGATION STATUS:	This unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

SOLID WASTE MANAGEMENT UNIT
Intermediate Landfill Cell A
Secure Sludge Management Facility

UNIT DESCRIPTION:	Non-hazardous Industrial Waste Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1979-1988; redesigned and certified in 1985 for non-hazardous wastes
TYPE OF WASTE(S):	Calcium fluoride sludge, non-hazardous industrial waste, foundry sand, Oil contaminated soils, Asbestos contaminated materials
CONSTITUENT(S):	Fluoride, heavy metals, Asbestos, organics
MEDIA OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	Routine groundwater monitoring and leachate analysis is performed as required in Appendix I of Schedule I of Module I, Exhibit B. This unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

RCRA REGULATED UNIT
Intermediate Landfill Cells B and C

UNIT DESCRIPTION:	Hazardous Waste Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1979-1985
TYPE OF WASTE(S):	Municipal, inorganic and industrial sludges
CONSTITUENT(S):	Heavy metals
MEDIA OF CONCERN:	Groundwater, soils
INVESTIGATION STATUS:	Routine groundwater monitoring and leachate analysis is performed as required in Module III and Schedule I of Module I, Exhibit C The RFI investigation for this unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

SOLID WASTE MANAGEMENT UNIT
Drying Bed No. 1

UNIT DESCRIPTION:	Surface impoundment used for dewatering sludges.
STATUS:	Closed
PERIOD OF OPERATION:	1979-1981
TYPE OF WASTE(S):	Industrial sludge, on-site wastewater treatment sludge
CONSTITUENT(S):	Calcium flouride and pickle acids.
MEDIA OF CONCERN:	Soil, groundwater
INVESTIGATION STATUS:	This unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

CENTRAL AREA EVALUATION

An initial and supplemental RFI investigation has been completed for the Central Area (Figure 1). The initial investigation involved the collection of groundwater samples from four monitoring wells, leachate samples from Intermediate landfill cells A, B & C and an evaluation of historical groundwater data collected as part of the SCMF #5 and Wastewater Treatment Phase I groundwater assessments. Based on the review of the analytical data an estimation of the extent and magnitude of groundwater contamination was made for each of the transmissive zones. The extent of groundwater contamination in the central area of the Niagara Falls facility is as follows:

Top of Clay Zone: As shown in Figure 2, the highest concentrations of total volatiles in the central area were found in the area south of WWT Phase I and in the area between SCMF #5 and Cells B and C, However groundwater contamination extends through most of the central area.

Top of Rock: As shown in Figure 3, the highest concentrations of total volatiles in the Central area were found in the area south of WWT Phase I and in one well southwest of SCMF #5.

Bedrock: As shown in Figure 4, the highest concentrations of total volatiles in the Central Area were found in the area south of WWT Phase I.

A preliminary evaluation of possible sources has indicated that WWT Phase I Impoundment L-1 was the most significant source of the contamination found immediately south of WWT Phase I in the top of clay, top of rock and bedrock zones. However, because L-1 has been taken out of service, cleaned out and capped, it is no longer a continuing source of contamination. A source other than Impoundment L-1 is indicated for groundwater contamination found between SCMF #5 and Cells B and C. The Department has determined that SCMF #5 is not the source of the detected contaminants. Because of the location of the contamination, it was concluded that the most likely source or sources were Drying Bed #1, Dry Lime Neutralization or an unknown source.

As required by the NYSDEC and USEPA comments, a supplemental investigation has been conducted to better evaluate Drying Bed #1 and Dry Lime Neutralization. The supplemental investigation included drilling and sampling four soil borings (See Figure 14) to assess the presence or absence of the waste material or liners in the former area of Dry Lime Neutralization, a review of historical top of clay groundwater quality data in the area down gradient of the soil borings to determine if any evidence exists that suggests that Dry Lime Neutralization activities impacted groundwater quality and further clarify the correct location of Drying Bed #1 and Dry Lime Neutralization. The conclusions of the supplemental investigation are as follows:

- The organic constituents identified in the Central Area (Drying Bed #1) soil borings are very similar to those identified south of WWT Phase I, and are consequently not conclusive indicators to distinguish the source of groundwater contamination in the area between SCMF #5 and Intermediate landfill cells B and C.

- No materials were encountered in the soil borings which were obviously waste or liner materials from the Dry Lime Neutralization Areas.

- Relatively high levels of Copper (8730 mg/kg in SU1-2), Zinc (3460 mg/kg in SU1-2) and Chromium (1830 mg/kg in SU1-2) detected in the soil borings indicate that Drying Bed # 1 may have impacted groundwater.

In response to the groundwater contamination found in the Central area, the USEPA and NYSDEC have required Interim Corrective Measures (ICM) for the area. The ICM includes the installation of top of clay, top of rock and bedrock pumping wells and the treatment of collected groundwater at the facilities wastewater treatment plant. The ICM's also call for the development of a performance monitoring program to assess the effectiveness of the system.
The Central Area has been evaluated as part of the Site-wide Corrective Measures Study. The CMS has determined that corrective measures are necessary. The corrective measures are discussed in Module II and Exhibit B of Schedule I of Module I.

RCRA REGULATED UNIT
Secure Landfill #1

UNIT DESCRIPTION:	Hazardous Waste Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1977 to 1978
TYPE OF WASTE(S):	Hazardous and non-hazardous
CONSTITUENT(S):	Organic solvents, heavy metals, pesticides, asbestos, PCBs, acid wastes, coal tars, plating solutions, miscellaneous materials containing organic and inorganic constituents
MEDIA OF CONCERN:	Groundwater, subsurface gas, air
INVESTIGATION STATUS:	The USEPA and NYSDEC have completed their review of the "Final Interpretive Report, Sampling of Groundwater and Leachate, Administrative Order on Consent, Index No. II, RCRA-85-3013-50201, Secure Chemical Management Facility's (SCMF) 1, 2 and 3," which was submitted by CECOS International Inc. Based upon review of the report, the USEPA and NYSDEC have determined that the preponderance of evidence indicates that the significant degradation of groundwater quality down gradient of SCMF's Nos. 1, 2 and 3 is not attributable to those landfills. The source(s) of the contamination is up gradient of SCMF Nos. 1, 2 and 3. Groundwater monitoring and leachate sampling are performed as required in Module III and Schedule I of Module I.

RCRA REGULATED UNIT
Secure Chemical Management Unit #2

UNIT DESCRIPTION:	Hazardous Waste landfill
STATUS:	Closed
PERIOD OF OPERATION:	1978 to 1979
TYPE OF WASTE(S):	Hazardous and non-hazardous
CONSTITUENT(S):	Organic solvents, heavy metals, pesticides, asbestos, PCBs, acid wastes, coal tars, plating solutions, miscellaneous materials containing organic and inorganic constituents
MEDIA OF CONCERN:	Groundwater, subsurface gas, air
INVESTIGATION STATUS:	The USEPA and NYSDEC have completed their review of the "Final Interpretive Report, Sampling of Groundwater and Leachate, Administrative Order on Consent, Index No. II, RCRA-85-3013-50201, Secure Chemical Management Facility's (SCMF) 1, 2 and 3," which was submitted by CECOS International Inc. Based upon review of the report, the USEPA and NYSDEC have determined that the preponderance of evidence indicates that the significant degradation of groundwater quality down gradient of SCMF's Nos. 1, 2 and 3 is not attributable to those landfills. The source(s) of the contamination is up gradient of SCMF Nos. 1, 2 and 3. Groundwater monitoring and leachate sampling are performed as required in Module III and Schedule I of Module I.

RCRA REGULATED UNIT
Secure Landfill Facility #3

UNIT DESCRIPTION:	Hazardous Waste Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1979-1982
TYPE OF WASTE(S):	Hazardous and non-hazardous waste
CONSTITUENT(S):	Organic solvents, heavy metals, pesticides, asbestos, PCBs, acid wastes, coal tar, plating solutions, miscellaneous inert materials containing organic and inorganic constituents
MEDIA OF CONCERN:	Groundwater, sub-surface gas, Air
INVESTIGATION STATUS:	The USEPA and NYSDEC have completed their review of the "Final Interpretive Report, Sampling of Groundwater and Leachate, Administrative Order on Consent, Index No. II, RCRA-85-3013-50201, Secure Chemical Management Facility's (SCMF) 1, 2 and 3," which was submitted by CECOS International Inc. Based upon review of the report, the USEPA and NYSDEC have determined that the preponderance of evidence indicates that the significant degradation of groundwater quality down gradient of SCMF's Nos. 1, 2 and 3 is not attributable to those landfills. The source(s) of the contamination is up gradient of SCMF Nos. 1, 2 and 3. Groundwater monitoring and leachate sampling are performed as required in Module III and Schedule I of Module I.

RCRA REGULATED UNIT
Secure Chemical Management Facility #4

UNIT DESCRIPTION:	Hazardous Waste Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1981-1985
TYPE OF WASTE(S):	Hazardous and non-hazardous
CONSTITUENT(S):	Organic solvents, heavy metals, pesticides, asbestos, PCBs, acid wastes, coal tars, plating solutions, miscellaneous inert material containing organic and inorganic constituents
MEDIA OF CONCERN:	Groundwater, sub-surface gas, air
INVESTIGATION STATUS:	The findings of the 3008(H) consent order and Groundwater Quality assessment has determined that this unit has not caused degradation of the groundwater. A summary of the groundwater quality investigations can be found in Module III of the 6 NYCRR Part 373 permit. Groundwater monitoring and leachate sampling shall be performed as required in Module III and Schedule I of Module I.

RCRA REGULATED UNIT
Secure Chemical Management Facility #5

UNIT DESCRIPTION:	Hazardous Waste Landfill
STATUS:	Closed
PERIOD OF OPERATION:	1984-1990
TYPE OF WASTE(S)	Hazardous and non-hazardous waste
CONSTITUENT(S):	Organic solvents, heavy metals, pesticides, asbestos, PCBs, acid wastes, coal tar, plating solutions, miscellaneous inert materials containing organic and inorganic constituents
MEDIA OF CONCERN:	Groundwater, sub-surface gas, Air
INVESTIGATION STATUS:	The findings of the 3008(H) consent order and Groundwater Quality assessment has determined that this unit has not caused degradation of the groundwater. A summary of the groundwater quality investigations is located in Module III of the 6 NYCRR Part 373 permit. Groundwater monitoring and leachate sampling are performed as required in Module III and Schedule I of Module I.

RCRA REGULATED UNIT
Wastewater Treatment Phase I

UNIT DESCRIPTION:	Wastewater treatment in above ground tanks and surface impoundments
STATUS:	Closed
PERIOD OF OPERATION:	1979-1986
TYPE OF WASTE(S):	Wastewater from industrial sources, contaminated water generated on-site
CONSTITUENT(S):	Sulfuric acid, pickle liquors, organics, heavy metals
MEDIA OF CONCERN:	Groundwater, soil, air
INVESTIGATION STATUS:	As a result of the WWT Phase I groundwater quality assessment the USEPA and NYSDEC have determined that this unit is a source of groundwater contamination. A Corrective Measures program involving the pumping and treating groundwater is currently in place and in operation. The RFI investigation for this unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation. A remedial work plan to remove the major source of contamination was approved in 2007, and excavation of materials has reduced the volume of contaminated soils significantly. The work plan was completed and the entire Phase-I Area soils have been removed and disposed of at approved facilities, to an elevation of ~ 570'.

SOLID WASTE MANAGEMENT UNIT
SCRAPYARD

Unit Description: Former Union Carbide, Inc. Plant and then Niagara Recycling Scrap and Salvage Area (Scrapyard).

Status: Closed

Approximate Period of Operation: Union Carbide's Industrial Activities closed by the 1970's.

Niagara recycling scrap metal shearing operations took place from 1973 to 1985. No industrial activities have taken place since 1985.

Type of Wastes: Metal scrap and fill of unknown origin.

Area(s) of Concern: Groundwater, soil.

Corrective Measures: CECOS has completed a Corrective Measures program for this unit in 1993. The corrective measures included removal of soil and fill contaminated with PCBs, Hexachlorobenzene, arsenic and/or lead in excess of established limits and the construction of a clay cap over the area. For details on the corrective measures program, see the Corrective Measures Certification report (Engineering Science, 9/93). The entire area was excavated prior to the construction of Sanitary Landfill V, Subarea B. The liner system of the landfill serves as a cap to prevent infiltration.

Routine groundwater monitoring is performed as required in Appendix I of Schedule I of Module I, Exhibit B.

SOLID WASTE MANAGEMENT UNIT
Thorium Disposal Pit

UNIT DESCRIPTION:	Thorium Disposal Pit
STATUS:	Closed
PERIOD OF OPERATION:	Late 1960's
TYPE OF WASTE(S):	Thorium oxide from Union Carbide Furnaces, slag and dust
CONSTITUENT(S):	Thorium oxide
MEDIA OF CONCERN:	Groundwater, Soil, Air (radioactivity)
INVESTIGATION STATUS:	Based on Agency review of the CECOS Solid Waste Management Unit Report dated June 30, 1986, revised November 17, 1986, further investigation of this SWMU is not required. Institutional measures including restrictions to public access and Notice in Deed have been implemented.

SOLID WASTE MANAGEMENT UNIT
Copper Recovery

UNIT DESCRIPTION:	Transformer Decontamination Process
STATUS:	Inactive
PERIOD OF OPERATION:	1983 (Test Operation)
TYPE OF WASTE(S):	PCBs and trichloroethylene
CONSTITUENT(S):	PCBs and trichloroethylene
MEDIA OF CONCERN:	Air
INVESTIGATION STATUS:	Based on Agency review of the CECOS Solid Waste Management Unit Report dated June 30, 1986, revised November 17, 1986, further investigation of this SWMU is not required.

SOLID WASTE MANAGEMENT UNIT
Drying Bed No. 4

UNIT DESCRIPTION:	Shallow surface impoundment used for dewatering sludges
STATUS:	Closed
PERIOD OF OPERATION:	1978 - 1985
TYPE OF WASTE(S):	1978-79: calcium fluoride 1983-85: non-hazardous temporary storage
CONSTITUENT(S):	Fluoride
MEDIA OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	The RFI investigation for this unit has been addressed as part of Project #1: Central Area Evaluation. See Central Area Evaluation for details of the investigation.

SOLID WASTE MANAGEMENT UNIT
Acid Neutralization Ponds

UNIT DESCRIPTION:	Surface Impoundment
STATUS:	Closed
PERIOD OF OPERATION:	1975-1985
TYPE OF WASTE(S):	Hydrochloric acid
CONSTITUENT(S):	Hydrochloric acid
MEDIA OF CONCERN:	Groundwater, soil
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The investigation involved a review of historical groundwater quality data from the Sanitary Landfill VI and SCMF #4 monitoring wells. The investigation concluded that this unit was probably not a source of groundwater degradation at the facility. It has been determined that no further action is necessary for this unit beyond the continued monitoring of groundwater as part of Sanitary Landfill VI permit requirements.

SOLID WASTE MANAGEMENT UNIT
Buffalo Color Rubble

UNIT DESCRIPTION:	Waste Pile
STATUS:	Inactive
PERIOD OF OPERATION:	1979
TYPE OF WASTE(S):	Demolished structures from the Buffalo Color Corporation
CONSTITUENTS:	Building Debris
MEDIA of CONCERN:	Soil
INVESTIGATION STATUS:	Based on Agency review of the CECOS Solid Waste Management Unit Report dated June 30, 1986, revised November 17, 1986, further investigation of this SWMU is not required.

SOLID WASTE MANAGEMENT UNIT
Phenolic Residues

UNIT DESCRIPTION:	Purple Phenolic Material found at 29' depth during the Sewage Sludge RFI investigation (Boring SU3-4).
STATUS:	Inactive
PERIOD OF OPERATION:	Unknown
TYPE OF WASTE(S):	Phenolic Residues
CONSTITUENTS:	Phenol
MEDIA of CONCERN:	Soil, Groundwater
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The investigation included the drilling of eight soil borings located 25 feet and 50 feet from boring SU3-4. The phenolic residue was only encountered in soil boring SU3-4. No evidence of the presence of Phenolic Residue was observed during the drilling and soil sampling of soil borings SU9-1 through SU9-4, located 50 feet from SU3-4, or during the drilling and soil sampling of soil borings SU9-5 through SU9-8, and located 25 feet from SU3-4. The conclusions of the investigation suggest that the areal extent of phenolic residues is confined to a small area in the fill material in the vicinity of soil boring SU3-4 and that this SWMU has had a limited environmental impact. Any impact to the groundwater which might have been caused by the Phenolic Residue SWMU will be remediated as part of the Interim Corrective Measures for the Wastewater Treatment Facility Phase I. Soils impacted were excavated and disposed in Sanitary Landfill VI in 1992 as part of a Department approved corrective measure.

RCRA SITE INVESTIGATION
Former Stream Channels

UNIT DESCRIPTION:	Former surface water drainage channels which may serve as preferential pathways for migration of contaminants.
STATUS:	Inactive
PERIOD OF OPERATION:	Unknown (prior to development of the site)
TYPE OF WASTE(S):	Not applicable
CONSTITUENTS:	Not applicable
MEDIA of CONCERN:	Surface water, Groundwater
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The conclusions of the investigation indicate that the facility's surface water drainage has changed over time and that two areas of former off-site surface water drainage which may serve as pathways to migration are east of SCMF #5/Sanitary 7 and south of SCMF #2 (current surface water discharge). Due to the presence of engineered features (Cut-off walls in the top of clay zone), the environmental impacts of these former stream channels is minimized. Further evaluation has been performed as part of the site wide Corrective Measures Study.

RCRA SITE INVESTIGATION
Methane Gas

UNIT DESCRIPTION:	An evaluation of the possible impacts of methane gas generated by the sanitary landfills.
STATUS:	Inactive
PERIOD OF OPERATION:	Not Applicable
TYPE OF WASTE(S):	Methane
CONSTITUENTS:	Methane
MEDIA of CONCERN:	Air
INVESTIGATION STATUS:	The Permittee has completed an RFI investigation of this unit. The conclusions of the investigation suggest that the environmental impacts of generated methane is minimal. In addition, methane gas generation is regulated as part of the facilities NYSDEC air permit. Further evaluation was performed as part of the site wide Corrective Measures Study. A Methane gas collection and treatment (flaring) system was installed for Sanitary landfills in 1994. Use of the system was terminated due to the minimal amount methane gas generated by the facility.

RCRA SITE INVESTIGATION
Site-wide Acetone and 2-Butanone

DESCRIPTION:	Site-wide characterization of the distribution of Acetone and 2-Butanone in the groundwater.
STATUS:	RFI complete
CONSTITUENTS:	Acetone, 2-Butanone
MEDIA of CONCERN:	Groundwater
INVESTIGATION STATUS:	The conclusions of the RFI report indicate that Acetone and 2-Butanone have been detected site-wide, but reveal no discernable source or trend. Further evaluation was performed as part of the site-wide Corrective Measures Study and will be addressed as part of site wide groundwater remediation.

RCRA SITE INVESTIGATION
Site-wide Phenolic Compounds

DESCRIPTION:	Site-wide characterization of the distribution of Phenolic Compounds in the groundwater.
STATUS:	RFI Complete
CONSTITUENTS:	Phenolic compounds
MEDIA of CONCERN:	Groundwater
INVESTIGATION STATUS:	The conclusions of the RFI report indicate that Phenolic compounds have been detected site-wide, but reveal no discernable source or trend. Further evaluation was performed as part of the site-wide Corrective Measures Study and will be addressed as part of site wide groundwater remediation

RCRA SITE INVESTIGATION
Site-wide Volatile Organic Compounds

DESCRIPTION:	Site-wide characterization of the distribution of Volatile Organic Compounds in the groundwater.
STATUS:	RFI complete
CONSTITUENTS:	Volatile Organic compounds
MEDIA of CONCERN:	Groundwater
INVESTIGATION STATUS:	The conclusions presented in the report indicate that Volatile Organic compounds have been detected site-wide, but reveal no discernable source or trend. Further evaluation was as part of the site- wide Corrective Measures Study and will be addressed as part of site wide groundwater remediation.

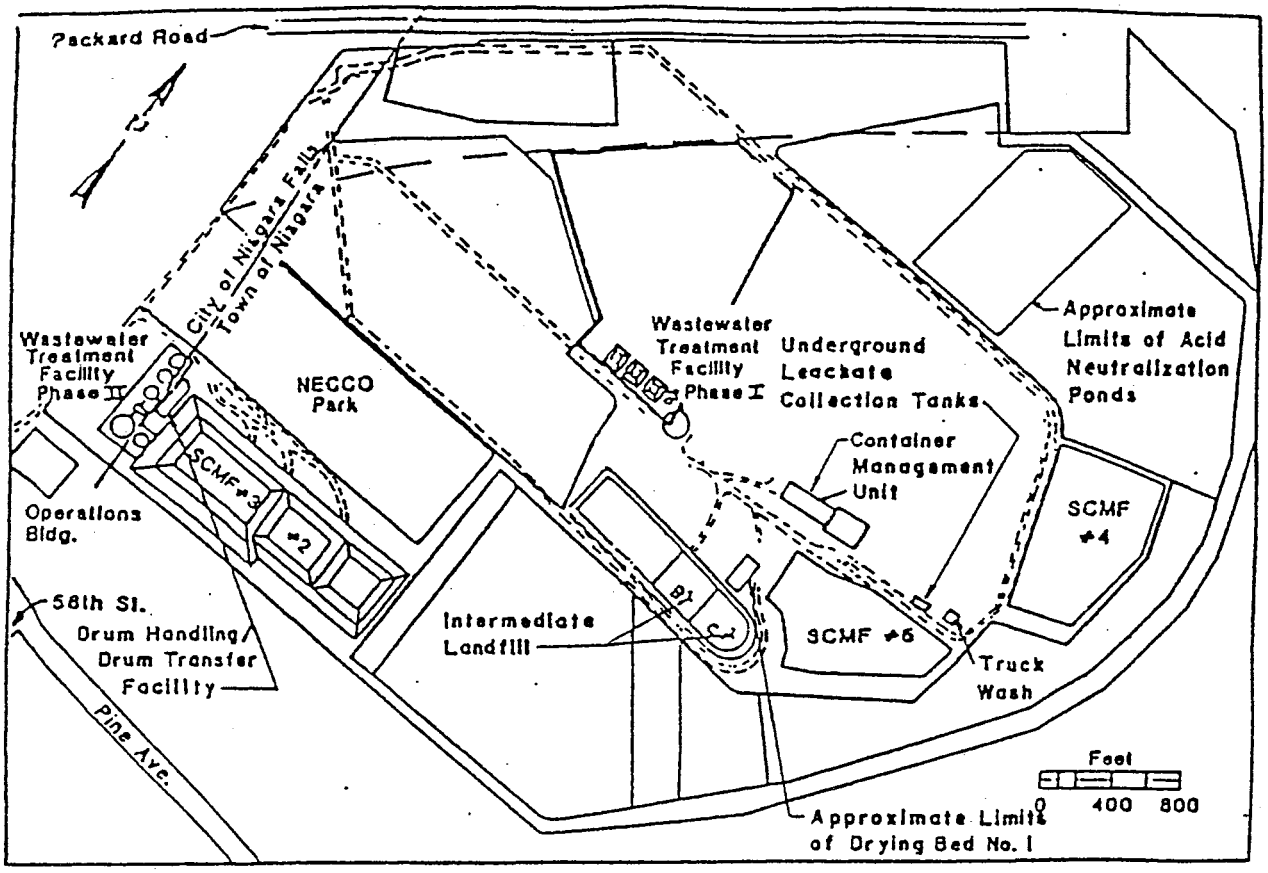
RCRA SITE INVESTIGATION
Off-site Flux Calculations

DESCRIPTION:	The Development of loading estimates of hazardous waste constituents which migrate from the site via groundwater
STATUS:	RFI complete
CONSTITUENTS:	Volatile Organic compounds, Semi-Volatile Organic compounds, Pesticides, PCBs and Heavy Metals
MEDIA of CONCERN:	Groundwater
INVESTIGATION STATUS:	The Permittee has completed a report on this RFI investigation. The conclusions of the investigation state a total organics flux from Sanitary III to North of SCMF #4 of approximately two (2) pounds per year and a total metals flux (excluding total zinc and dissolved iron) of approximately seven and one half (7.5) pounds per year. The results of the report have been used as part of the site wide Corrective Measures Study.

RCRA SITE INVESTIGATION
Off-site Contamination

UNIT DESCRIPTION:	Characterization of the magnitude and extent of off-site groundwater contamination.
STATUS:	RFI
CONSTITUENTS:	Volatile Organic compounds, Semi-Volatile Organic compounds, Pesticides, PCBs and Heavy Metals
MEDIA of CONCERN:	Groundwater
INVESTIGATION STATUS:	The conclusions of the investigation were used as part of the site-wide Corrective Measures Study.

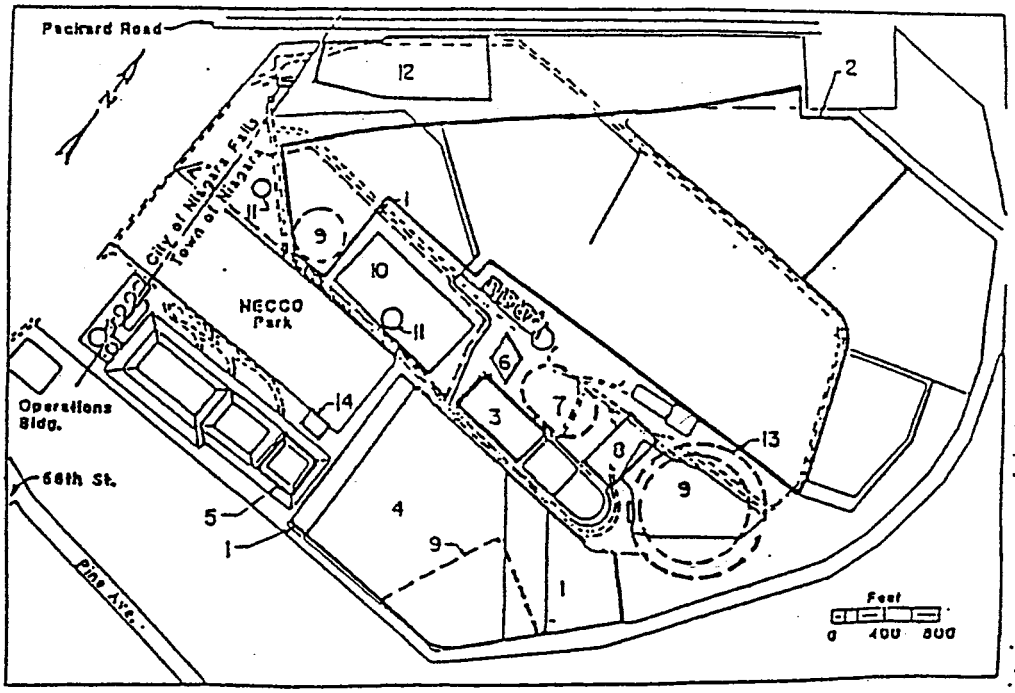
Attachment D
Drawings and Figures



RCRA REGULATED UNITS
NIAGARA FALLS FACILITY

LEGEND

No.	Unit/Operation
1	Sanitary Landfill Nos. III, IV and V
2	Existing Lime/Slag Waste
3	Intermediate Landfill Cell A
4	Sanitary Landfill Nos. I and II
5	Secure Landfill (SLF) No. 1
6	Drying Bed No. 4
7	Calcium Fluoride Pond
8	Dry Lime Neutralization
9	Foundry Sand Storage
10	Sewage Sludge Disposal Operation
11	Brine Sludge Disposal
12	Scrap Metal Salvage Area
13	Ammonium Chloride Application
14	Thorium Disposal
15	Copper Recovery Building



SOLID WASTE MANAGEMENT UNITS
(SWMU's)

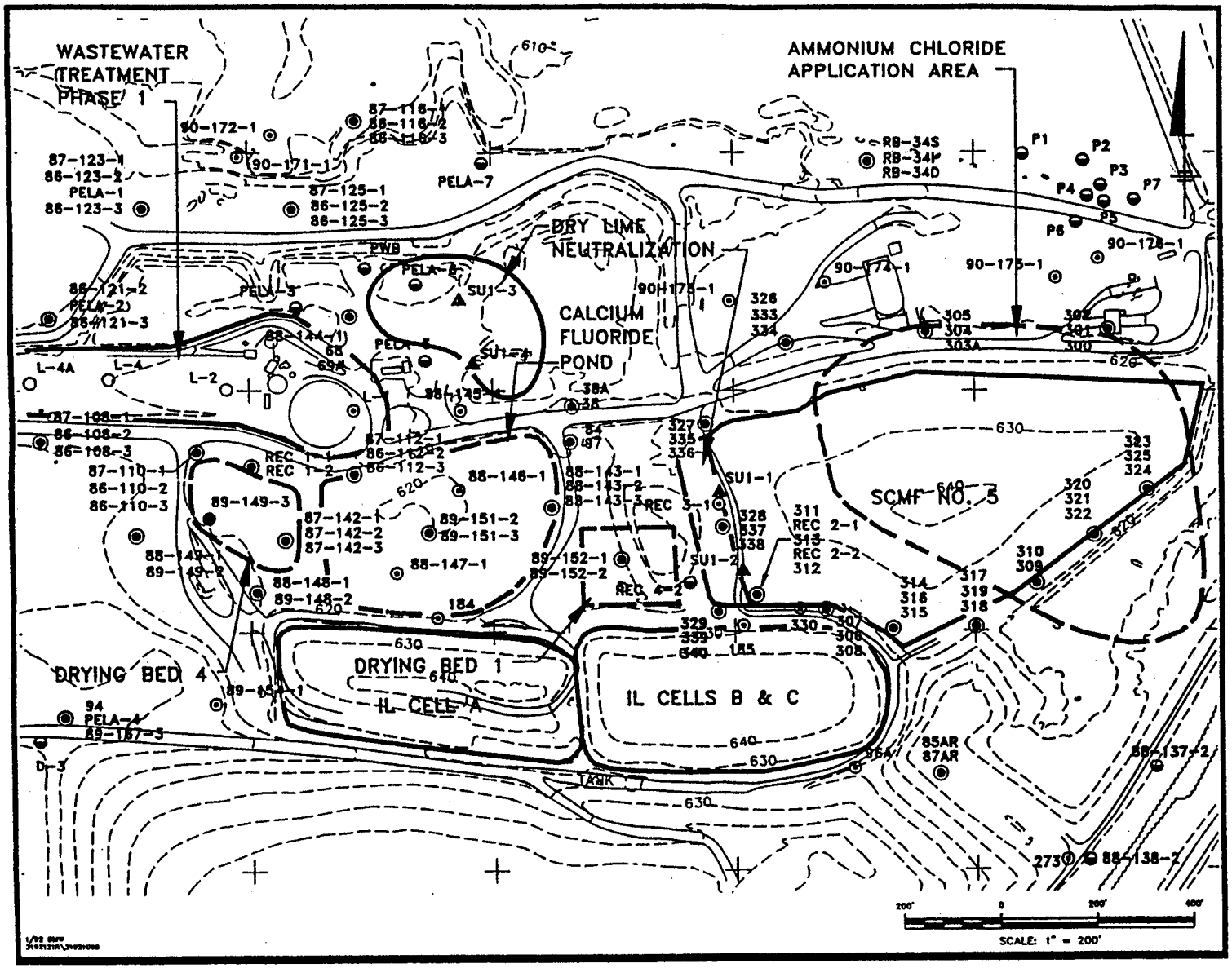


FIGURE 1

LEGEND

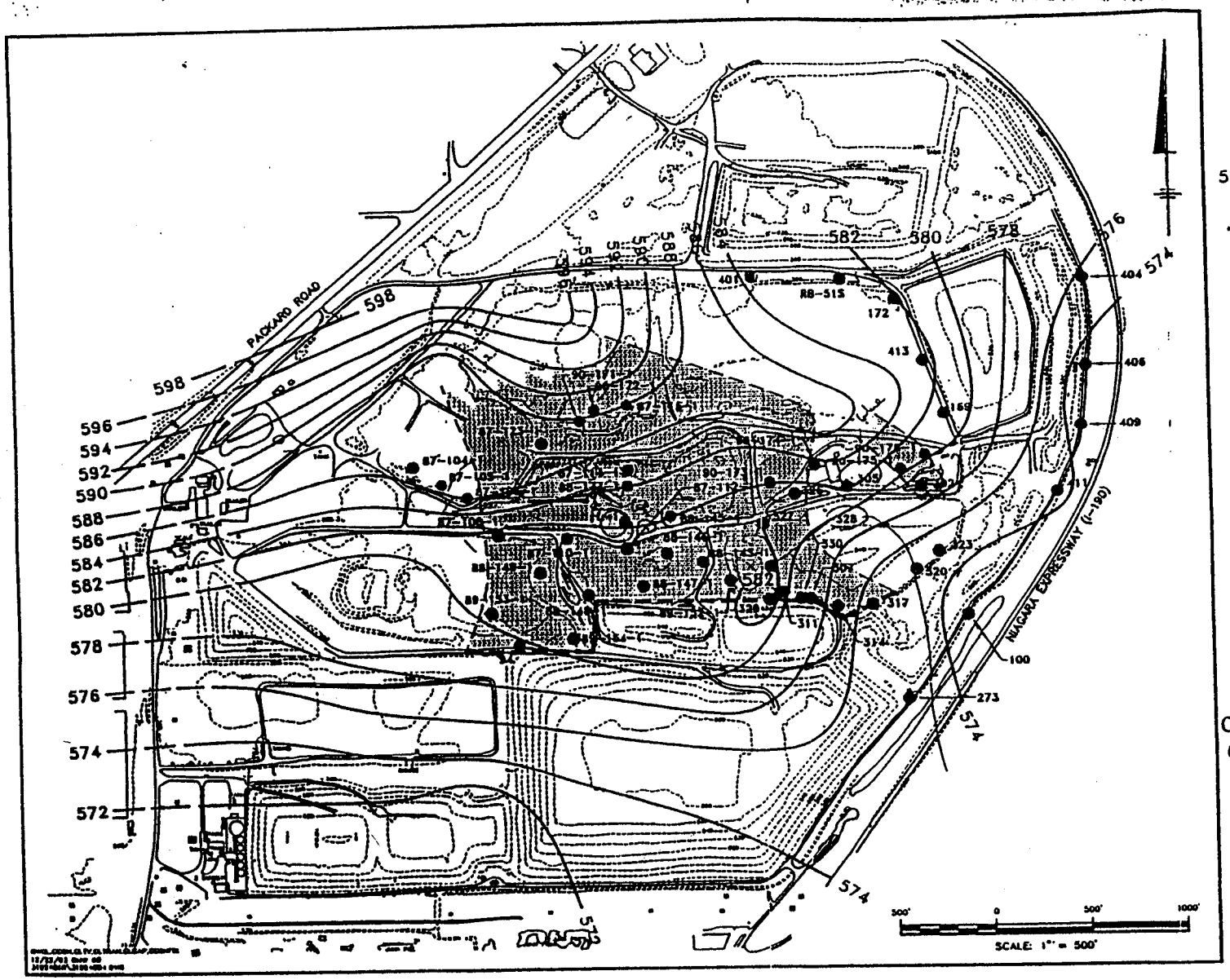
- TOP OF CLAY MONITORING WELL
- TOP OF ROCK MONITORING WELL
- BEDROCK MONITORING WELL
- WELL CLUSTER
- SOIL BORING
- ABANDONED WELL

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

CENTRAL AREA LOCATION MAP

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 2



LEGEND

574 —— GROUND-WATER CONTOUR LINE (FEET), JUNE 16, 1993 DASHED WHERE INFERRED

— — — TOP OF CLAY TRANSECT LINE

● NO VOLATILE ORGANIC COMPOUNDS DETECTED IN EXCESS OF GROUND-WATER PROTECTION CONCENTRATIONS BASED ON SELECTED DATA

TOTAL VOLATILE ORGANIC CONCENTRATION EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS:

● 0.1-100 ug/L
● 100.1-1000 ug/L
● GREATER THAN 1000 ug/L

▒ CAPTURE ZONE ASSUMING PASSIVE GROUND-WATER INTERCEPTION ALONG TRANSECT

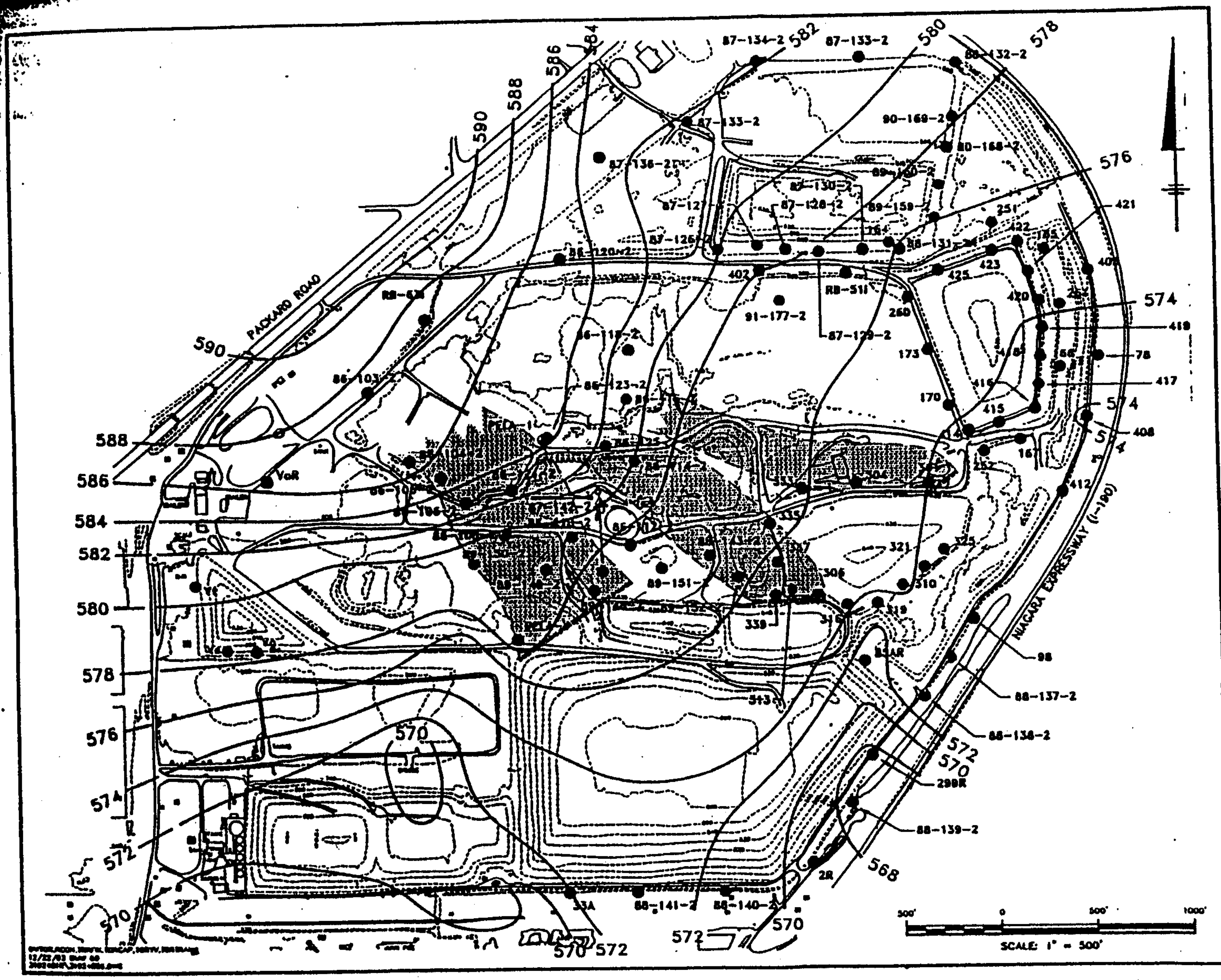
NOTES:
1. GROUND-WATER PROTECTION CONCENTRATION AS PRESENTED IN MODULE VII OF CECOS' 373 PERMIT.
2. ANALYTICAL DATA SOUTH OF NECCO PARK IS NOT ILLUSTRATED.

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

TOTAL VOLATILE ORGANIC CONCENTRATIONS EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS RELATIVE TO CONCEPTUAL AREAS OF GROUND-WATER CAPTURE IN TOP OF CLAY ZONE

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 3



LEGEND

574 —— GROUND-WATER CONTOUR LINE (FEET), JUNE 16, 1993 DASHED WHERE INFERRED

TOP OF ROCK TRANSECT LINE

● NO VOLATILE ORGANIC COMPOUNDS DETECTED IN EXCESS OF GROUND-WATER PROTECTION CONCENTRATIONS BASED ON SELECTED DATA

TOTAL VOLATILE ORGANIC CONCENTRATION EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS:

● 0.1-100 ug/L
● 100.1-1000 ug/L
● GREATER THAN 1000 ug/L

CAPTURE ZONE ASSUMING PASSIVE GROUND-WATER INTERCEPTION ALONG TRANSECT

NOTES: 1. GROUND-WATER PROTECTION CONCENTRATION AS PRESENTED IN MODULE VII OF CECOS' 373 PERMIT.

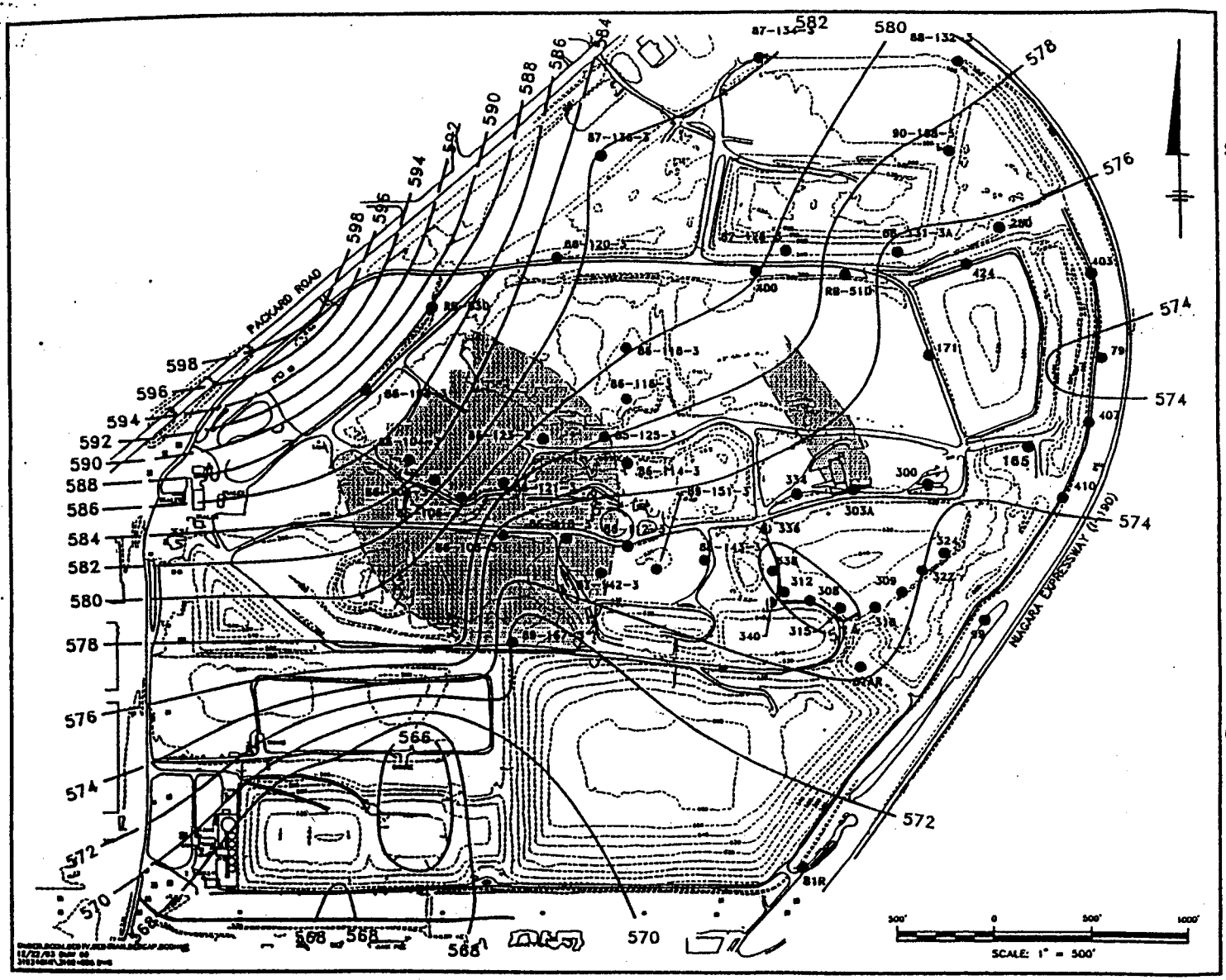
2. ANALYTICAL DATA SOUTH OF NIECO PARK IS NOT ILLUSTRATED.

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

TOTAL VOLATILE ORGANIC CONCENTRATIONS EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS RELATIVE TO CONCEPTUAL AREAS OF GROUND-WATER CAPTURE IN TOP OF ROCK ZONE

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 4



LEGEND

584 —— GROUND-WATER CONTOUR LINE (FEET), JUNE 16, 1993 DASHED WHERE INFERRED

—— BEDROCK TRANSECT LINE

● NO VOLATILE ORGANIC COMPOUNDS DETECTED IN EXCESS OF GROUND-WATER PROTECTION CONCENTRATIONS BASED ON SELECTED DATA

TOTAL VOLATILE ORGANIC CONCENTRATION EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS:

● 0.1-100 ug/L

● 100.1-1000 ug/L

● GREATER THAN 1000 ug/L

▨ CAPTURE ZONE ASSUMING PASSIVE GROUND-WATER INTERCEPTION ALONG TRANSECT

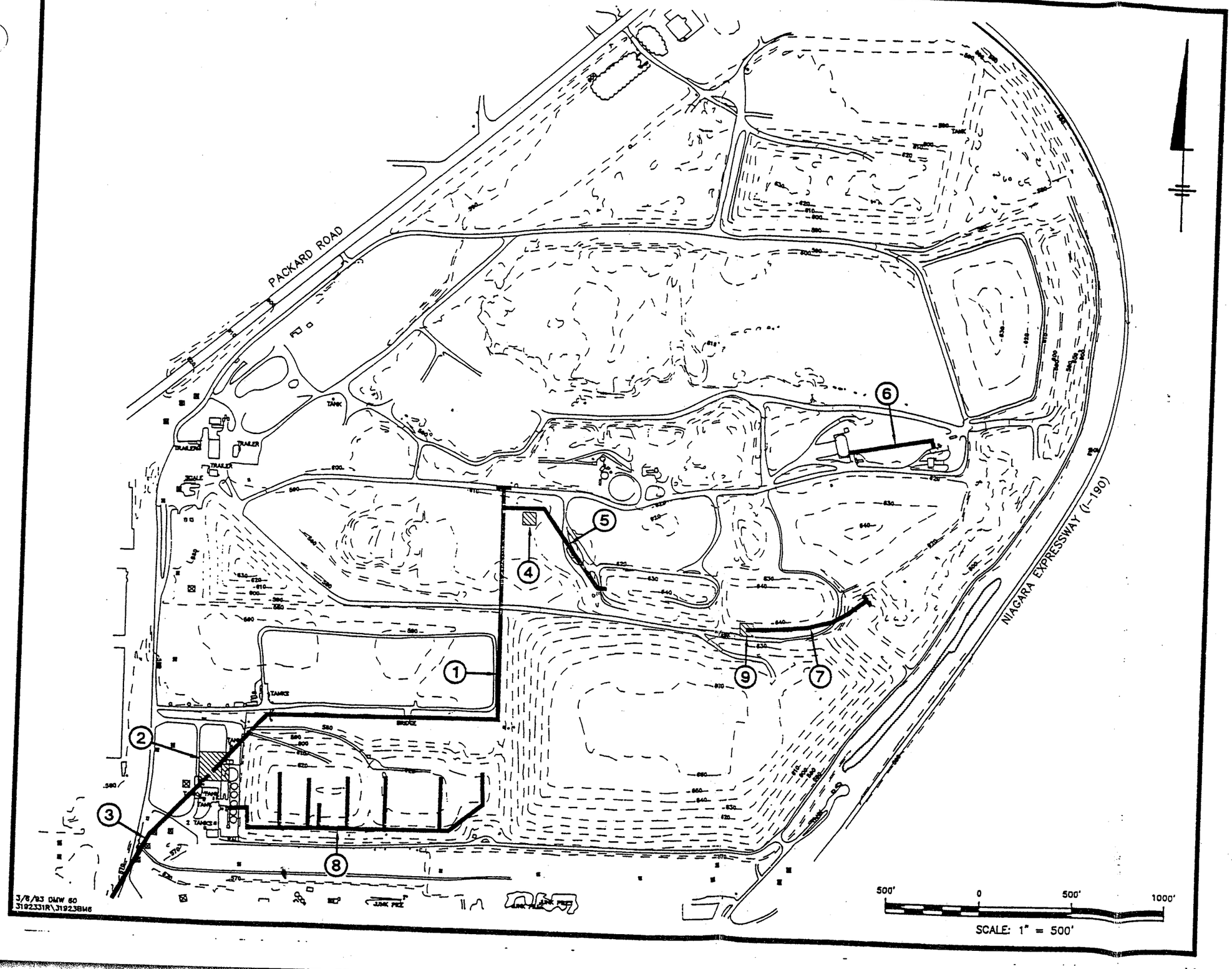
NOTES:
1. GROUND-WATER PROTECTION CONCENTRATION AS PRESENTED IN MODULE VII OF CECOS' 373 PERMIT.
2. ANALYTICAL DATA SOUTH OF NEDCO PARK IS NOT ILLUSTRATED.
3. CONTOURS AROUND WELL 325R NOT SHOWN FOR CLARITY.

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

TOTAL VOLATILE ORGANIC CONCENTRATIONS EXCEEDING GROUND-WATER PROTECTION CONCENTRATIONS RELATIVE TO CONCEPTUAL AREAS OF GROUND-WATER CAPTURE IN BEDROCK ZONE

BLASLAND & BOUCK ENGINEERS, P.C.

FIGURE 1-10



LEGEND

1. 18–INCH TRANSFER LINE
2. 18–INCH TRANSFER LINE STUB AT WASTEWATER TREATMENT PHASE II
3. 18–INCH TRANSFER LINE TO UNION CARBIDE
4. TWO DRUMS FOUND IN SEWAGE SLUDGE
5. TRANSFER PIPELINE – CELL A TO 18–INCH LINE
6. TRANSFER PIPELINE – CONTAINER MANAGEMENT UNIT TO LEACHATE TANKS
7. TRANSFER PIPELINE SEGMENT CELL C TO WASTEWATER TREATMENT PHASE I
8. SCMF NOS. 1,2, & 3 OLD LEACHATE TRANSFER LINES
9. STAINED SOIL EXCAVATION AT CELL B

CECOS INTERNATIONAL, INC.
NIAGARA FALLS, NEW YORK

ADDITIONAL SOLID WASTE MANAGEMENT UNITS LOCATION MAP

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

ATTACHMENT E

PREPAREDNESS AND PREVENTION

A. Applicability

CECOS International Inc., acknowledges the applicability of the regulations of 6NYCRR 373-2.3 concerning Preparedness and Prevention planning to the Niagara Falls site.

B. Design and Operation

The CECOS International Inc., Niagara Falls site is designed, constructed, maintained and operated to minimize the possibility of fire, explosions or any release of hazardous waste or hazardous constituents to the air, soil or surface water which may threaten human health or the environment. The design and construction provides secure containment and proper segregation of waste material during all phases of on-site management, movement and disposal. All facilities and monitoring systems are inspected and maintained on a periodic basis in order to provide continual minimization of the possibility of fire, explosion or discharge of waste and waste constituents to the environment. All facilities are operated in accordance with design capabilities. All personnel associated with the operation of the facility are continually supervised and trained for compliance with guidelines designed to minimize the potential for personal injury and environmental impairment.

C. Required Equipment

1. Internal Communications

All site employees are issued mobile phones which are capable of providing immediate emergency warning instructions to other site personnel.

Remote electric horns are used to indicate the existence of an emergency situation and are equipped with flashing lights to indicate the area of emergency involved.

A complete listing of the number and locations of radios and telephones can be found in Attachment F, Contingency Plan.

2. External Communications

In the event outside emergency assistance (local police department, fire department, response personnel) is required at the site, help can be summoned by using the employee's mobile phones or one of the telephones available on-site. Telephones can be found in the Administration Building, Scale House and Maintenance Building.

The use of the site radio system and the telephone system both allow on-site and off-site communication to be maintained during emergency and non-emergency situations.

3. Fire Extinguisher, Spill Control and Decontamination Equipment

Equipment is provided on-site to contain and control the release or spread of a spill or fire.

Fire extinguishers are on-site at all times. The number, size, type and location of the fire extinguishers are detailed in Attachment F, Contingency Plan. These extinguishers are inspected annually per the inspection schedule detailed in section 373.2.2(g) to ensure they are charged and operational.

To contain and clean up any potential spill, the site maintains an inventory of adsorbents, shovels, brooms and open top drums.

4. Water System

Water service is supplied to the site by the City of Niagara Falls. Water lines run along the western and central portions of the site. Another line, entering at Packard Road, services the north and central portions of the site. These lines provide sufficient volume and pressure to operate fire hoses and foam producing equipment.

D. Testing and Maintenance of Equipment

All safety and emergency equipment, including the communication system, alarms and spill control equipment is inspected monthly as detailed in Attachment B-Security and Inspection to ensure there are adequate supplies and that all equipment is operable and in good working condition. Emergency equipment is inspected according to manufacturer's specifications for the frequency and type of testing.

E. Access to Communication or Alarm System

1. Employee Access

Whenever hazardous waste is handled, personnel involved in the operation have immediate access emergency communication systems, either directly or through visual or voice contact with others in the area.

The emergency communications (Telephones and alarms) are located at the Phase II Wastewater Treatment Building, the Maintenance Building, the Administration Building and the Scalehouse.

2. Working Alone

If there is ever just one employee at the facility while it is operating, the employee has

immediate access to the communication devices previously discussed and addressed to summon emergency assistance.

See Attachment F, Contingency Plan, for a complete listing of the locations of the communication devices.

F. Required Aisle Space

In all drum-handling areas, sufficient aisle space is present to allow passage of personnel, operating equipment and emergency response equipment. Inspection aisles (24" minimum) are maintained to allow visual inspection to ensure the containers are not corroded or leaking.

G. Arrangements with Local Authorities

1. Organizations Contacted

i. Numerous emergency response organizations have been contacted by CECOS to establish cooperative agreements for assistance. These agencies include the Niagara Falls Police and Fire Departments, and Town of Niagara Police and Fire Departments. In case of an emergency, these agencies have the ability to assist the personnel at the Niagara Falls site. These agencies have been provided a copy of the Contingency Plan for the site and are familiar with the site layout, operations, and types of possible hazards and emergencies.

ii. While there are numerous local authorities that might respond in the case of an emergency, responses in Niagara County are coordinated through the Technical Assistance Team which is comprised of representatives of the Niagara County Health Department and Sheriff's Department and the Fire Coordinator. Representatives of the Niagara County Health Department routinely inspect the site and provide the primary means of contact with the various emergency response units. Niagara County Health Department officials routinely receive copies of all correspondence relating to site operations.

iii. In addition to the relationship with the Niagara County Health Department, the New York State Department of Environmental Conservation maintains a 24-hour emergency response capability. As described in the Contingency Plan, **Attachment F**, the emergency coordinator is responsible for contacting local authorities in case of an emergency.

2. Documentation of Agreements

The following list denotes the emergency response organizations that have agreed to assist in case of an emergency.

In the event, any agency declines to enter into a cooperation agreement with the facility, the refusal will be documented in the operating record.

The Contingency Plan for the CECOS International Inc. Niagara Falls site has been sent to:

City of Niagara Falls Fire Department
Niagara County Sheriff's Department
City of Niagara Falls Police Department
Town of Niagara Police Department
New York State Police
Niagara County Emergency Management Office
Niagara County Fire Coordinator
Niagara Falls Memorial Medical Center

As a sign of acknowledgement, copies of the letters can be found in the Contingency Plan, Attachment F.

ATTACHMENT F

CECOS INTERNATIONAL, INC.

5600 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK 14304

CONTINGENCY PLAN

Revision September 2014

TABLE OF CONTENTS

TABLES

APPENDIX

1.0 Emergency Response Plan

The purpose of this plan is to outline countermeasures and remedial actions taken in case of a sudden or non-sudden release of a hazardous waste at the Niagara Falls Site.

Topics discussed include spills, air emission episodes, severe meteorological events, surface and groundwater contamination, fire and explosion prevention and control, and landfill structure failure.

Remedial courses of action described here in have been developed to minimize the potential for any negative human health or environmental impacts. Specific design and operational procedures have been implemented for the express purpose of preventing or minimizing the impact of the circumstances described herein.

1.1 General Site Information

CECOS International, Inc. is a wholly owned subsidiary of Republic Services Inc. located in Phoenix Arizona. The operations described herein occur within the boundaries of the 385-acre site located in an industrial-commercial area of Niagara Falls, New York. The majority of site operations are located in the City of Niagara Falls, with the remainder of the sites boundaries located in the Town of Niagara. The site is bound by Packard Road and the Niagara Junction Railroad to the West, Niagara Falls Boulevard (Route 62) to the south and the New York State Thruway (I-190) to the north and eastern portion of the site. CECOS is a fully permitted facility pursuant to the New York State Department of Environmental Conservation Regulations of (6NYCRR 373-2.10) and the United States EPA Hazardous Waste Regulations (RCRA/HSWA). CECOS manages and operates a Wastewater Treatment Plant for the treatment of on-site generated leachate (FO39) from closed, secure and intermediate landfills.

1.2 Purpose and Implementation

This contingency plan has been prepared for the hazardous waste operations, to detail the designated course of actions to eliminate or minimize any potential hazards to human health and the environment in the event of fires, explosions, severe weather or release of a

hazardous waste.

The purpose of this plan is to familiarize the employees and designated emergency response groups with the procedures employed at the Niagara Falls Site in case of an emergency. Although the units have been designed and constructed so that the probability of a fire, explosion or unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, surface or groundwater is minimized, this plan explains the procedures to be followed should an emergency occur.

The provisions of the contingency plan will be implemented in accordance with the outline presented herein. The extents of the hazards associated with a particular emergency occurrence have been defined to clarify the situations, which will require the implementation of the plan.

1.2.1 Implementation of the Contingency Plan

The following table summarizes circumstances, which require the implementation of the contingency plan by the Emergency Coordinator or his alternate.

Emergency Situation	Extent of Hazard	Implementation of Contingency Plan
Fire	Contained	No
	Uncontained	Yes
Explosion	Potential Human Health, Property or Environmental Hazard	Yes
Spill	Confined	No
	Unconfined	Yes
Air Emission	Potential Human Health Hazard	Yes
Groundwater	Potential for Contamination	Yes
Surface Water	Potential for Contamination	Yes
Severe Weather Episode	Potential Human Health Hazard	Yes
Off-Site Emergency	Potential Human Health Hazard i.e., Spills, Fire Explosion, Air Emissions	Yes

Definitions:

Contained: Within specific bounds and unable to spread further; under control by utilizing site fire control equipment and personnel; poses no threat to human health or the environment as assessed by the emergency coordinator.

Uncontained: Out of control, could threaten human health or environment as assessed, by the emergency coordinator; implementation of the contingency plan utilizing all available site equipment and personnel is required.

Human Health, Property or Environmental Hazard:

Potential for extensive property damage; release of hazardous waste as a result of an explosion; variable chance of recurrence; poses threat to human health or the environment as assessed by the emergency coordinator; implementation of contingency plan based on assessment of emergency coordinator.

Confined: Within specific bounds, unable to spread further, under control using site spill control equipment, poses no threat to human health or the environment as assessed by the emergency coordinator.

Unconfined: Release of material able to spread uncontrollably; poses a threat to human health or the environment as assessed by the emergency coordinator; implementation of contingency plan utilizing all available site equipment and personnel.

Human Health Hazard:

Based on known composition and estimated quantity of released material, assessment by the emergency coordinator as being potentially hazardous or not (involving materials with high vapor pressures and potentially harmful constituents).

Severe Weather Episode:

Based on the intensity of the storm and the potential to cause a hazardous condition.

Off-Site Emergency:

Based on the extent of emergency and its ability to effect human health or the environment.

Potential for Contamination:

Release flows into waterway (river, stream), release seeps into a large area of soils, implementation of contingency plan based on assessment of emergency coordinator.

Although a fire may be "contained", the contingency plan will be implemented if:

1. The fire could cause the release of toxic materials.
2. The fire spreads and could possibly ignite materials at other locations on-site or could cause heat-induced explosions.
3. The fire could possibly spread to off-site areas.
4. Use of water or water and chemical fire suppressant could result in contaminated runoff.
5. An imminent danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.
6. An imminent danger exists that an explosion could ignite other hazardous waste at the facility.
7. An imminent danger exists that an explosion could result in release of toxic material.
8. An explosion has occurred.

Although a spill or material release is "confined", the contingency plan will be implemented if:

1. The spill could result in release of flammable liquids or vapors, with potential to cause a fire or gas explosion hazard.
2. The spill could cause the release of toxic liquid or fumes in quantities or amounts that would endanger human health or the environment.
3. The spill can be contained on-site, but the potential exists for groundwater contamination.
4. The spill cannot be contained on-site, resulting in off-site contamination and/or ground or surface water pollution.
5. Implementation of contingency plan based on assessment of hazard potential by emergency coordinator.

References listed below will be on-site and be used by the emergency coordinator to assess potentially hazardous situations:

1. Condensed Chemical Dictionary
2. Dangerous Properties of Hazardous Material, Irving Sax
3. NIOSH Pocket Guide to Chemical Hazards

1.2.2 Non-Critical Incidents

This plan will not be implemented for incidents that are non-critical in nature and pose little or no threat to human health or the environment. Non-critical situations, which occur, will be handled by routine operational procedures.

1.3 Contents of the Contingency Plan

To properly remedy an emergency situation at the Niagara Falls Site, the Contingency Plan details the emergency procedures and specific actions that site personnel must follow to implement the plan.

1.3.1 On-Site Personnel

The Niagara Falls Site Manager is responsible for all activities at the Niagara Falls Site. The Site Manager has primary responsibility for insuring that the Contingency Plan is implemented as described.

The Division Manager has the operating responsibility and authority to implement the provisions of the Contingency Plan and is the primary Emergency Coordinator. In the Division Manager's absence this responsibility is assigned to the Alternate Emergency Coordinators in the order listed in Table 1.

At all times, there will be at least one employee either at the facility or on call with the responsibility for coordinating all emergency response measures. The Emergency Coordinator or his Alternate is familiar with all aspects of the operational activities on-site, the location and characteristics of waste handled, the location of all records within the facility, the facility layout, and with all aspects of this plan. The Emergency Coordinator, as well as Alternates, has the authority to commit the resources necessary to implement the Contingency Plan. Refer to Table 1 for the listing of the Emergency Coordinator and Alternates.

TABLE 1

LIST OF EMERGENCY COORDINATOR AND ALTERNATES

Division Manager

Environmental Manager

Environmental Specialist

Environmental Specialist

LIST OF PERSONNEL FILLING POSITIONS

AS OF MAY 1, 2014

		Home	Office
1.	David Grenier, Division Manager 3468 Stevenson Ct. North Tonawanda, NY	693-9257	282-2676
2.	Ralph Larimore, Environmental Manager 2402 Lockport Olcott Road, Newfane, NY	778-7748	282-2676
3.	Jay Dojka, Environmental Specialist 6980 Walmore Rd, Niagara Falls NY	731-2015	622-3208
4.	Tim Clark, Environmental Specialist 2205 Linwood Ave Niagara Falls NY	550-2288	282-2676

The Division Manager is the Primary Emergency Coordinator, and is responsible for the implementation of the Contingency Plan.

Revision September 2014

a. Responsibilities of the Emergency Coordinator BEFORE the emergency include the following:

1. Ensure there is an Alternate Emergency Coordinator ready to take over in his absence (Alternate Emergency Coordinators are fully trained and are capable of assuming control in emergency situations);
2. Become familiar with the physical layout of the hazardous areas, and the operations carried out in them;
3. Develop an understanding of the emergency response organization.
4. Establish close cooperation with local fire departments, including briefing on potential hazards and facility emergency procedures.

b. Responsibilities of the Emergency Coordinator DURING an emergency include the following:

1. Direct and coordinate Emergency Personnel;
2. Determine and request assistance of the local fire department(s), or other emergency response organizations, if needed;
3. Coordinate the efforts of on-site Personnel with off-site emergency response agencies;
4. Supervise the evacuation of non-essential personnel from the area of the emergency;
5. The Emergency Coordinator will identify the character, source, volume and extent of the discharged materials by observation or review of facility records and manifests. The emergency Coordinator will communicate with the laboratory for suggested precautions, and if necessary, request analysis to be performed;
6. The Emergency Coordinator will assess possible hazards to human health and the environmental that may result from a release, fire or explosion. The assessment will consider both direct and indirect effects of the release, fire, or explosion. The assessment will include considerations on the effects of toxic, irritating or asphyxiating gases, hazardous surface run-off due to water or chemical agents used to control fires, etc.
7. The Emergency Coordinator will ensure that no waste is accepted for treatment,

storage, or disposal in or around the affected area until clean-up procedures are completed, emergency equipment restored to pre-accident condition and the affected area is declared safe by the appropriate individuals; and

8. The Emergency Coordinator will supervise emergency surveillance of the area for leaks, pressure build-ups, gas generation or ruptures in valves, pipes and other equipment if the facility stops operations in response to a fire or release.

c. Responsibilities of the Emergency Coordinator AFTER the emergency include the following:
   1. Assure that all aspects of the situation have been addressed (this includes an immediate and thorough examination of the entire emergency area, and all equipment which may have been involved in the incident);
   2. Supervise post emergency surveillance of the area to insure that an emergency situation does not re-develop;
   3. Supervise post emergency clean up and establish normal facility operations;
   4. Supervise the redevelopment of emergency equipment and materials back into a state of readiness (re-stock supplies which have been used in this emergency);
   5. Advise appropriate authorities when the emergency is over;
   6. Determine the cause of the emergency (employees who were near the scene should be questioned independently regarding their knowledge or observations of incidents preceding the emergency);
   7. Develop or modify operating procedures and equipment to prevent future emergencies from similar causes;
   8. Modify existing emergency response procedures, if required;
   9. Record all actions taken under the contingency plan in the facility operating record;
   10. Notify the appropriate regulatory agencies as required by regulation;
   11. Submit reports to the department as described in Section 1.10 of this plan; and
   12. The Emergency Coordinator will arrange for testing, storing, and/or disposing of recovered waste, contaminated soil/water used to mitigate the emergency situation

through the Environmental Department.

1.3.2 Off-Site Personnel

Fire Departments

In case of an emergency, or a major accidental discharge of hazardous material on the site, two (2) local fire departments are available on call for assistance. Cooperating fire companies are listed in Table 2.

TABLE 2

FIRE COMPANIES AND OFFICIALS

NIAGARA FALLS FIRE DEPARTMENT

911 or 286-4725

NIAGARA ACTIVE HOSE VOLUNTEER FIRE COMPANY

911 or 282-1776

Other Local Authorities

Other local agencies that may be called during an emergency include:

- Niagara County Fire Coordinator
- Civil Defense
- City of Niagara Falls Police
- Town of Niagara Police
- New York State Police
- Niagara County Sheriff

While there are numerous local authorities that might respond in the case of an emergency, all emergency responses in Niagara County are coordinated through the Technical Assistance Team (TAT) which is comprised of representatives of the Niagara County Health Department, police and fire agencies. Representatives of the Niagara County Health Department routinely inspect the site and provide the primary means of contact with the various emergency response units. Niagara County Health Department Officials are routinely copied on all correspondence relating to site operations.

In addition to the relationship with the Niagara County Health Department, the New York State Department of Environmental Conservation maintains a 24-hour emergency response capability.

Arrangements have been made with local police and fire departments, hospitals and local emergency response teams to ensure that each agent has received a copy of the Contingency Plan and agrees to participate in the mitigation of an emergency situation when the Contingency Plan is implemented and if so requested. Copies of responses from cooperating off-site groups are presented in Attachment B.

In addition, if State and Local Authorities decline to enter into emergency response arrangements, CECOS will attempt to document the refusal in the Niagara Falls Facility

Operating Record, and submit associated correspondence to the NYSDEC and EPA Region II.

1.4 Emergency Response Procedures

1.4.1 Notification

The plant is equipped with an emergency communication system consisting of remote electric alarms; telephones, cell phones/high band radios (base units) are located in the Scalehouses, Phase II Wastewater Treatment, and Maintenance Shop (several hand held High band radios available to key site personnel).

Remote electric alarms are used to indicate the existence of an emergency and are equipped with flashing lights to indicate the area of emergency involved.

The Emergency Coordinator or his alternate will be notified by telephone or radio in case of a potential emergency.

In case of an emergency, site personnel will be called as listed (see Table 1 in Section 1.3). If the listed individual cannot be reached, the next name on the list will be called. When called, the listed individual shall advise the Scalehouse what other personnel are to be called and in what order.

In case of an emergency situation at the Niagara Falls Facility, the following outside agencies will be notified by the Emergency Coordinator:

* Appropriate Local Authorities (Police, Fire Departments, Health Department, etc.)
* New York State Department of Environmental Conservation; and
* Environmental Protection Agency National Response Center

Table 3 provides a listing of telephone numbers of offices and agencies which may require notification, or which may provide aid or information in an emergency.

TABLE 3

NOTIFICATION TELEPHONE NUMBERS

MEDICAL	
NIAGARA FALLS MEMORIAL MEDICAL CENTER	278-4000
FIRE	
NIAGARA COUNTY FIRE COORDINATOR	433-4482
NIAGARA FALLS FIRE CHIEF	286-4725
NIAGARA ACTIVE HOSE VOLUNTEER FIRE DEPARTMENT	282-1776
POLICE	
NIAGARA FALLS POLICE DEPARTMENT	286-4711
TOWN OF NIAGARA POLICE DEPARTMENT	215-1480
NIAGARA COUNTY SHERIFF DEPARTMENT	438-3393
NEW YORK STATE POLICE	297-0755
MISCELLANEOUS	
NIAGARA COUNTY HEALTH DEPARTMENT	
BUSINESS HOURS:	439-7444
AFTER HOURS/ WEEKENDS:	439-7430
NYS DEPT. OF ENVIRONMENTAL CONSERVATION	851-7220
NYS DEPT. OF ENVIRONMENTAL CONSERVATION 24-HOUR OIL AND HAZARDOUS MATERIAL SPILL NOTIFICATION	518-457-7362
NYS DEPT. OF TRANSPORTATION	847-3232
CHEMICAL TRANSPORTATION EMERGENCY CENTER(CHEMTREC)	800-424-9300
US ENVIRONMENTAL PROTECTION AGENCY, REGION II OIL AND HAZARDOUS MATERIAL SPILL COORDINATOR	800-424-9346

NATIONAL RESPONSE CENTER	800-424-8802
US FOOD AND DRUG ADMINISTRATION (POISON CONTROL CENTER)	800-888-7655

In the event of a release, fire or explosion involving hazardous waste occurs at the site which could effect human health or the environment outside the boundaries of the site, the Emergency Coordinator or his designee will notify the NYS Department of Environmental Conservation using the 24-Hour spill notification number listed and the National Response Center.

The notification report includes the following:

* The name and telephone number of reporter;
* The name and address of the Facility;
* The time and type of incident (release, fire);
* The name and quantity of materials involved to the extent known;
* The extent of injuries;
* The possibility of affecting human health or the environment outside the facility.

1.5 Emergency Equipment

1.5.1 Alarm System and Location

Alarms are electrically operated. The indications are a flashing light and audio alarm simultaneously. Alarms are located in the following areas:

a. Phase II Wastewater Treatment single pole switch in the carbon building.

b. Modified push button alarm at Phase III tied into the Maintenance shop.

1.5.2 Location of Fire Extinguishers

TRAILER #1(Change)

#1 1 – 5 LBS ABC

#2 1 – 5 LBS ABC

OUTSIDE MAIN OFFICE

#3 1 – 10 LBS ABC

SAFETY TRAILER

#4 1 - 2-1/2 LBS ABC

#5 1 - 2-1/2 LBS ABC

ADMINISTRATIVE OFFICE

#6 1 – 5 LBS ABC

#7 1 – 5 LBS ABC

#8 1 – 5 LBS ABC

#9 1 – 5 LBS ABC

#10 1 – 10 LBS ABC

#11 1 – 5 LBS ABC

TRUCKS

#12 1 – 5 LBS ABC

#13 1 – 5 LBS ABC

#31 1 – 20 LBS ABC

#36 1 – 5 LBS ABC

#37 1 – 2.5 LBS ABC

#38 1 – 5 LBS ABC

MAINTENANCE SHOP

#14 1 – 20 LBS ABC

#15 1 – 10 LBS ABC

#16 1 – 10 LBS ABC

#17 1 – 20 LBS ABC

WASTEWATER TREATMENT PLANT #2

#23 1 – 20 LBS ABC

#24 1 – 20 LBS ABC

#25 1 – 20 LBS ABC

#26 1 – 10 LBS ABC

#27 1 – 11 LBS HALOTRON

#28 1 – 20 LBS ABC

#29 1 – 11 LBS HALOTRON

#30 1 – 20 LBS ABC

PHASE 3 DH/DT

#18 1 – 20 LBS ABC

#19 1 – 20 LBS ABC

#20 1 – 20 LBS ABC

#21 1 – 20 LBS ABC

#22 1 – 20 LBS ABC

002 BUILDING

#32 1 – 10 LBS ABC

ALLIED WASTE #2 MONITORING STATION

47A BUILDINGS

#33 1 – 10 LBS ABC

#34 1 – 20 LBS ABC

TANK T 201

#35 1 – 5 LBS ABC

1.5.3 Location of Base Station Radios

A. Front Scale House

1.5.4 Equipment and Materials

The number of potential combinations and possibilities of various chemical waste mixtures prevents the presentation of a uniform list of treatments. Similar wastes may require somewhat different treatment, depending upon the chemical and physical properties of the specific waste.

Below is a general list of equipment and materials available on-site for use in a minor spill cleanup:

EQUIPMENT	LOCATION
55-Gallon open-head drums with lids	Drum Handling Pad
Pitch Forks/rakes/shovels/etc.	Maintenance Shop
Sorbent Pads/blankets/booms	Maintenance Shop

1.6 General Control Procedures

1.6.1 Fire and Explosion Prevention Control and Countermeasure Plan

The emphasis of the Fire and Explosion Prevention Control and Countermeasure (FEPCC) plan is on the prevention of fires and explosions by:

1. Implementation of sound operating principles;
2. Proper facility design, including segregation of "active areas" from "inactive areas";
3. Training of operations personnel;
4. Adherence to the US Department of Labor rules and regulations;
5. Periodic inspections of all operations.

Adherence to the prevention techniques and operating procedures outlined in this report will substantially eliminate the possibility of a serious fire at the Niagara Falls Site. However, since the possibility does exist, remedial courses of action have been developed to minimize the potential for negative impacts.

This plan is maintained through:

1. Periodic review as conditions warrant, by CECOS management
2. Appropriate training of personnel and contracted personnel,
3. Scheduled inspections of operating areas and emergency equipment provided for fire control.

1.6.1 1 Potential Fire Hazards and Fire Prevention Measures

Prior to developing techniques for controlling fires or developing countermeasure action, a survey of potential fire sources is necessary. These are categorized according to site operations as follows:

1. Secure Chemical Management Facilities (Closed)
2. Wastewater Treatment System Phase II

1.6.1 2 Facilities Design and Arrangement

The design and arrangement of the CECOS facility provides for inherent fire safe operations. Specifically, such fire safe design is described below:

a. Secure Chemical Management Facility

1. These facilities are closed and inactive. The potential for fire is extremely remote. The only activities at these facilities involve the pumping of aqueous leachate, which is non-flammable.

b. Wastewater Treatment System

1. Closed carbon adsorption system for removing organic contaminants with outside venting of possible flammable organic vapors.

1.6.1 3 Operational Controls

In addition to the inherent fire safe design of the CECOS facility, additional measures are employed to substantially reduce the possibility of a fire or explosion. A listing of these measures is outlined below and divided into the following areas:

* Individual Operating Areas
* General Site

a. Wastewater Treatment

1. Smoking prohibited.
2. Hot work permit required for cutting and welding.
3. Atmospheric testing for flammable gases and vapors is performed.

c. General Site

1. Daily site-wide inspections by department personnel.
2. Hot work Permit system for all cutting, welding or other open flame work.
3. Smoking and open flames restricted to designated areas.
4. Special hazard areas identified by signs.
5. Monthly/annual preventive inspections of all fire protective equipment.
6. All flammable materials stored in OSHA flammable cabinets.

1.6.2 Spill Prevention and Control Plan

The emphasis of the Spill Prevention is on the prevention of spills and subsequent environmental impacts by:

1. Implementation of sound operating principles.
2. Proper facility design, including segregation of "active areas" from "inactive areas".
3. Training of operations personnel.
4. Adherence to the United States Department of Transportation rules and regulations.

Adherence to the preventive techniques and operating procedures outlined in this report will substantially eliminate the possibility of a serious spill at the Niagara Falls Site. However, since the possibility does exits, remedial courses for action have been developed to minimize the potential for any negative environmental impacts.

This plan is maintained through:

1. Periodic review as conditions warrant, by CECOS management
2. Appropriate training of personnel and contracted personnel,
3. Scheduled inspections of operating areas and emergency equipment provided for spill prevention and control.

1.6.2 1 General Procedures for Containment and Clean-up of Spilled Materials

The potential for spills is a problem that must be dealt with each operating day. Detailed operating procedures are aimed at the prevention of spills. However, combinations of equipment failure and human errors can still lead to spill mishaps.

In case of an accidental discharge or spill of hazardous materials, the immediate and primary objective will be to contain the spill to the smallest possible area. Once a spill has occurred it must be properly cleaned up. A spill clean up is not considered complete until the entire spill area is policed including all the material which was utilized as an absorbing agent. Such contaminated material will receive proper disposal.

As is true with most other contingency situations, each spill must be handled on a case by case basis. However, general clean up of any spill materials includes the following:

a. Isolate the spill area in order to prevent further surface contamination. This includes preventing flow of surface waters from or into the spill area.
b. Collect the spilled material. This may be accomplished through the use of pumps in large episodes, or use of sorbing agents.
c. Clean-up the spill area. This includes the actual removal of absorbing or treating agents and contaminated soils from the site of the spill.
d. Fill out a spill report. This includes making a determination of the amount of material spilled for any necessary reporting as found in Section 1.6.2 4.

In all cases, contaminated absorbing agents and soils will be delivered to an approved disposal facility depending upon its hazardous properties and/or its magnitude of volume. Any and all heavy equipment on the site may be employed in spill clean up operations.

1.6.2 2 Spill Prevention Procedures

Maximum precautions are taken to prevent spills, or accidental discharge of hazardous materials, including thorough training of employees engaged in handling these materials, yet there is always a possibility that such an incident can occur. The following procedures have been developed to provide a routine for receiving, and unloading hazardous materials, which will reduce such possibilities and subsequent exposure to personal injury or property damage.

a. Unloading Precautions

An adequate supply of neutralization materials is stocked, and readily available for use in case of a spill or accidental discharge of a hazardous material.

The unloading vehicle will be parked on a level area prior to commencement of the unloading operation.

A suitable alarm device is located at the unloading station, so that aid can be summoned promptly in case of an emergency situation.

Employees are thoroughly instructed in the proper methods for handling drums, singly or on pallets, and the hazards involved in lifting, stacking, or rolling drums. When a forklift is used to assist in the unloading operation, special care must be taken to prevent the forks from accidentally puncturing the drums, thereby creating potential for an accidental discharge of hazardous material.

Any material leaking from a drum, or spill during the unloading operation, must be cleaned up immediately. A supply of absorbent materials are available at the unloading site for prompt control and containment of the spilled material.

Shovels and open-top over pack drums are available for clean up of absorbent materials, chemicals, and any soils contaminated in the area of a spill or leak.

1.6.2 3 Emergency Spill Control

Strict adherence to the spill prevention procedures detailed herein will minimize spills. The countermeasures developed provide guidelines for coping with accidental discharges resulting from tank rupture, vehicular accident, and the like.

a. Safety Precautions

1. Evacuate all unnecessary personnel from the immediate area of the discharge. Keep all people not involved in the emergency organization at a safe distance, and upwind of the discharged material.
2. (If injuries involved) make every effort possible to remove injured persons from the hazardous area. Move them only if they are, or may be exposed to life threatening hazard
3. If fumes or vapors are being emitted from the spilled material, work from the upwind side of the area as much as possible.
4. Do not enter the contaminated area unless properly equipped with protective clothing, boots, gloves, goggles, and the proper respirator protection.
5. If you or any other individuals have been splashed with hazardous materials, flush the splashed area with large quantities of water from a safety shower or eyewash. If face or eyes are involved, an eye wash station should be used (15 minute minimum).
6. Should any of the material get on your clothing, remove it as soon as possible to remove any contamination which may be on the skin or in the hair and report the incident immediately and seek medical attention as necessary.

b. Countermeasure

1. Prevent leaking liquids from spreading along roadways or draining into ditches or streams, by means of temporary dikes, or dams, or by temporary trenching.

2. Apply neutralizing chemicals to the spilled materials to reduce the hazard of toxicity of the material involved. Powdered materials should be covered with plastic, soil or other material to prevent blowing contaminated materials about.
3. If floating material such as oil has entered a body of water, or a stream, utilize a floating boom to restrict the spread of the hazardous material.
4. Any tipped containers, which may be involved in the incident, should be set upright.

c. Clean-Up Operation

As soon as the accidental discharge has been brought under control, and the spilled material contained, action will be initiated to clean up the area before there is any possibility for inadvertent spread of the hazardous material through seepage or wind action.

1. Liquids may be cleaned up by use of sorbent materials, or by pumping into drums or other tanks, which might be available.
2. Contaminated solid materials may be shoveled into drums, or other containers available for transport and disposal at an approved facility.
3. All soils in the contaminated area will be removed for subsequent disposal at an approved facility.
4. If a body of water, i.e.. Perimeter ditch, surface water, was involved; the water will be sampled and analyzed following clean up.
5. Soil and vegetation along the shoreline of the body of water will be removed, if contaminated by the discharge.
6. The Emergency Coordinator will ensure that all emergency equipment specified in the plan, including vehicles, pumps and temporary storage containers are cleaned and restored to pre-incident conditions and fit for use, prior to resuming operations.

1.6.2 4 Reporting

Proper reporting of a spill is needed to ensure that any necessary actions are taken (i.e.: in the form of maintenance or training) to prevent a reoccurrence. In addition, reporting of all spills will ensure that if agency notification is required it will be done in an expeditious manner.

Therefore, the following steps will be taken when a spill has occurred whether it is in secondary containment or not:

1. Follow the general procedures for containment and clean-up of a spill material found in Section 1.6.2 1.
2. Notify the area supervisor who in turn will contact the Environmental Department.
3. The supervisor will question the employees involved to determine what caused the spill and to obtain the necessary information to fill out a Spill Investigation Report (Attachment G). This should be done as soon as possible but no later than 24 hours after the spill had occurred (non-R.Q. only).

a. Review for Reportable Quantities (RQ)

If there is any question as to State reportability, contact The Environmental Manager, or his designee immediately for a thorough review of the spilled material to determine if any agency notification is required.

To aid in this review, a list of materials used at the site has been compiled and can be found in Table 4. If an incoming waste material was involved, the proper RQ value can be obtained from the manifest or from the label on the container itself.

If an RQ value has been exceeded the following agencies will be immediately contacted by telephone.

*	National Response Center	1-800-424-8802
*	New York State Department of Transportation	847-3232

TABLE 4

LIST OF MATERIALS USED AT SITE

SUBSTANCE		AVERAGE INVENTORY
HCl	6,400 Gal*	5000
SODIUM HYPOCHLORITE	1,000 Gal	100

* = Maximum gallons for permitted HCL tank (HS1)

1.7 Specific Process Control Procedures

1.7.1 Secure Chemical Management Facility

A. Fire

The possibility of fire is extremely remote, because all hazardous waste landfills are closed.

Dry chemical fire extinguishers are located throughout the facility. All personnel are instructed on the proper utilization of equipment to extinguish fires. All heavy equipment located on-site can be utilized to combat fires.

In order to prevent fires, the following precautions were engineered into the design of the Secure Chemical Management Facility (SCMF).

1. Waste Segregation

   A careful evaluation of types of wastes received resulted in a planned segregation of waste materials within the facilities based on physical and chemical properties. Segregation of waste streams prevents antagonistic reactions between two or more waste types producing an uncontrollable release of energy that may lead to explosion and fire.

2. Waste Placement

   Exposed waste is the most probable contributing cause of fires. Since the facilities are closed, this cause no longer exists.

B. Spill or Release of Material

The potential for a spill to occur during the leachate withdrawal process or while doing repairs on leachate lines exists. Leachate withdrawal is accomplished by use of a leachate removal system in secondary containment. Any non-routine maintenance requires personnel in attendance to initiate the proper spill response procedures.

C. Landfill Structural Failure

Severe structural failure of the various landfill operations would be an extremely remote possibility, however, some minor variations on the landfill surface may be expected to occur with time and will be corrected in accordance with normal post-closure maintenance.

If structural failure (unprecedented earthquake, etc.) were to occur, the following procedures would be implemented:

1. Continued removal of all leachates contained within the system via pumping to a point of near dryness. Pumping will continue to insure that low levels of liquid within the landfill are maintained.
2. Depending upon severity, an earthen berm may be constructed around the landfill in question.
3. If necessary, pumping operations at the surface of the landfill will be initiated to minimize infiltration of precipitation into the facility. Capping with appropriate soils or utilization of impermeable liners to assist in that process will be evaluated.
4. Once the system is under control, the New York State Department of Environmental Conservation and other expert opinions on repair would be solicited prior to initiation of corrective action.
5. Ground and surface water monitoring would be performed on a regular basis to permit immediate evaluation as it regards water quality.

D. Groundwater Contamination:

If groundwater contamination from any unit was detected via the detailed monitoring program in place, the program specified in 6NYCRR 373-2.6 would be followed.

E. Air Emissions

Closed landfills employ an approved gas venting system which discharge at point sources. To

date emissions from these systems have not been detected at these vents. If contaminants beyond permitted limits were emitted from these points air pollution control equipment would be installed to reduce

the levels of contaminants being discharged. The type of equipment employed would depend on the contaminants being emitted.

F. Electrical Power Failure

Loss of electrical power on the site will have little or no affect on landfill operations. Long duration electrical power failure would have to be evaluated on a case-by-case basis to determine the need for generators to power leachate removal systems.

G. Loss of Water Supply

Loss of city water supply to the site would not affect landfill operations.

H. Severe Weather Episodes

Severe weather episodes could impair the ability to remove leachate on a timely basis. It would be expected that the disruption would be for less than 24 hours.

It should be noted that the toe of slope for the landfills lies above the 100-year flood elevation. In addition, if floodwaters did exceed this elevation, landfill construction is such that infiltration would be minimal. Similarly, sidewall structure and slope specifications are designed for maximum stability.

I. Earthquake

Seismic activity in this area is very low. There is only a 10% probability that a horizontal acceleration greater than .04 g (1.29'/sec 2) will be exceeded in 50 years. For anticipated accelerations below .04 g, wind loading rather than earthquake acceleration is likely to govern the design of structures.

If a severe earthquake occurred and severe structural damage resulted, the plan (detailed under C. above) would be implemented.

1.7.2 Leachate Treatment Facility - Phase II

A. Fire

If a fire were to occur in the Wastewater Treatment Facility (which is a remote possibility due to the nature of the waste (single source) and the prevention methods adopted, fire fighting equipment employed will be dictated by the size of the fire and the material involved. Experience indicates that each fire has its own peculiarities to be dealt with, based upon an evaluation for combating of all fires. The actual fire fighting attack plan can only be drawn up after the situation has been carefully assessed. In general, however, any fire can be halted by eliminating one of the three (3) basic components that keep it in an active state: Oxidant supply, heat and fuel.

In most cases, it is not practical or possible to eliminate the fuel and as a result, elimination of oxidant supply and heat are generally the most effective methods for controlling and extinguishing fires. If a fire should occur, the following plan would be implemented:

1. Use of fire extinguishers at WWTS to cut off oxidant supply to the fire.
2. After the fire is extinguished, a damage assessment report will be prepared and remedial work initiated if required.
3. A fire watch will be established following extinguishment of the fire.
4. CECOS personnel have first responder status only, any fire that is to large for portable extinguisher use will be combated by the documented participating fire companies

B. Explosion

In the event of an explosion at the facility, alarms located at the adjacent Phase II treatment facility will be manually activated (if possible) and personnel will evacuate the area using the procedures outlined below in Section 7 of this appendix.

C. Release of Hazardous Materials

There are eight (8) tanks in the Water Treatment Process. They are as follows:

TANK NAME	TANK NO.	SIZE GALLON	CONTAINMENT	PURPOSE
SSMF Holding	T-201	12,000	Double Wall	Receiving of A,B,C leachate
Receiving Tank	T-101	6,000	Phase II	Receipt of leachate
Receiving Tank	T-102	6,000	Phase II	Receipt of leachate
Receiving Tank	T-104	275,000	Phase II	Mixing of leachate prior to treatment
Receiving Tank	T-105	275,000	Phase II	Mixing of Wastes Prior to Treatment
Mixing Tank	T-111	275,000	Phase II	Mixing of Wastes during Partial Treatment
Carbon Tank	CA-1	180 GPM	Carbon Sump	Removal of Organics
Carbon Tank	CA-2	180 GPM	Carbon Sump	Removal of Organics

C.1 The Phase II containment area is the secondary containment for all the treatment/storage tanks in Phase II Wastewater Treatment except for the carbon tanks. [The Phase II containment area is a reinforced concrete structure that meets the requirements of 6NYCRR 373-2.10 and 40 CFR 264 Subpart J (i.e.: 100% containment capacity of the largest tank (104,105,111) plus run-on from a 25-year 24-hour storm of 4.0 inches of rainfall). The gross area is 38,400 SF and with 4', high walls will contain approximately 805,000 gallons.] The area is sloped to a sump for collection and pumping of any spills, leaks, precipitation and general area washdowns. All the contained liquids are treated as hazardous wastes and are pumped back into the Phase II process.

The carbon tanks are located in the carbon building. The carbon treatment tanks are contained within the walls of the carbon building. The area drains via liquid trenches to the carbon sump

and meets the requirements of both 6NYCRR 373-2.10 and 40 CFR 264 Subpart J. The carbon sump is a concrete sump that holds approximately 8,000 gallons of liquid. All collected liquids are treated as hazardous wastes and are pumped to the Phase II treatment process. The carbon sump also collects potential spills, leaks or precipitation that may occur at the truck-unloading pad.

If a spill or release occurs, the feed to the specific tank in the Phase II system will be manually shut-off until the cause of the spill or release is determined. All the tanks at Phase II except for the carbon tanks have overfilling controls and automatic feed shutoffs. The carbon tanks are flow through tanks (i.e.: no storage function) and as such do not have overfilling controls but rather operate within specific pressure requirements. In the case of a spill or release from these systems, the feed pumps would be manually shut-off.

C.2 The T- 201 containment area is the tertiary containment for the double-walled T-201/storage tank and loading area. The loading area is sloped to a sump for collection and pumping of all spills, leaks, and precipitation. All the collected liquids are treated as hazardous wastes are pumped back into the T-201 tank.

If a spill or release occurs, the feed to the T-201 tank will be manually shut-off until the cause of the spill or release is determined.

In the event of a simultaneous release of hazardous wastes and failure of the secondary containment system, procedures outlined in the sites Spill Response Procedures would be implemented to prevent spilled materials from migrating off-site and contaminating surface waters (i.e., absorbent diking). Spilled materials will be cleaned up using appropriate measures (i.e., vacuum truck, and excavation). If necessary, actions will be implemented to assess potential groundwater contamination as the result of an uncontained spill by collecting samples from existing groundwater monitoring wells located around the facility and/or from new monitoring wells (if required).

D. Rupture of the Phase II waste water treatment system

The following procedure will be followed in the event any aboveground tank ruptures:

1. Prevent leaking liquids from spreading along roadways or draining into ditches or streams by means of temporary dikes, or dams, or by temporary trenching. The Water Treatment Facility is designed so that tank failures will be contained within the secondary containment system already in place.
2. Apply neutralizing chemicals to the spilled materials to reduce the hazard of toxicity of the material involved.
3. If material such as oil has entered a body of water or stream, utilize a floating boom to restrict the spread of the material.

If the cause of a spill is due to a leak or rupture of a tank, the tank will be removed from service as follows:

* Stop flow of receipts into the tank;
* Empty the tank. Contents may be pumped to a tank that contains compatible material or into tank trucks for shipment to another facility;
* Notify the NYS Department of Environmental Conservation and EPA Region II by telephone within 24 hours of the problem and provide written notification within seven days;
* Repair or replace the tank. Prior to placing the tank back in service, a registered professional engineer will certify the tanks structural integrity.

As soon as the accidental discharge has been brought under control and the spilled material contained, action will be initiated to clean up the area. Clean up procedures will include, but are not limited to the following:

1. Liquids may be cleaned up by the use of sorbent materials or by pumping into drums, or compatible tanks which might be available.

2. Solid materials may be shoveled into drums or other containers available for transportation to an approved facility for disposal.
3. Contaminated soil in the area will be removed and transported to an approved facility for disposal.
4. If a body of water or stream was involved, the water will be analyzed.
5. Soil and vegetation along the shore line of the body of water must be removed, if contaminated by the discharge and all equipment, clothing, or tools which have become contaminated will be thoroughly decontaminated before use in some other operation.

E. Groundwater Contamination

The possibility of contamination of groundwater as a result of the operation of the Wastewater Treatment Facility is of extremely low probability. The combination of engineering design and inspections, maintenance and monitoring programs at the facility significantly decreases the remote chance of groundwater contamination.

F. Air Emissions

Under normal operating conditions, air emissions are minor and result in no significant air quality impacts. All process air emissions points are permitted by NYS DEC. This does not imply that emissions are absent, but rather that permitted emissions are extremely low and undergo significant dispersion and diffusion due to the remoteness of the sources with respect to typical receptors. The great majority of air emission episodes are normally related to process upset rather than oversights in design.

If a significant air emission did occur, the following procedure would be implemented:

1. The source would be immediately identified both physically and chemically.
2. Concentrations at the property perimeter would be established in the event evacuation of portions of the community is necessary.
3. Access to the source will be permitted only to those equipped with the proper safety equipment.

4. Depending on the specific constituents involved, the emission will be terminated either through enclosing the source or through physical/chemical methods.
5. Once the episode is terminated, a complete investigation of the incident will be initiated. Recommendations will be issued. Pending outcome of the report, the waste product determined to be responsible for the problem will not be handled at the facility.

G. Electrical Power Failure

The various unit operations of the Water Treatment Facility are semi-continuous. No significant problems are anticipated in the event of a power failure. Pumps and piping have been designed to draw by gravity. Should an electrical failure occur, piping would drain back into the tank being pumped. Truck unloading is by pumps and thus will cease until portable pumps can be set up. The carbon adsorption unit will shut down and remain in a standby status ready for start-up. No overflows, reactions, or fumes will occur. Emergency portable lighting will be provided until power is restored.

H. Loss of Water Supply

Loss of city supply will not affect hazardous waste activities, except for the Hoyt System at WWTS Phase II. If that were to occur the system would be shut down until water was available. Portable sanitary facilities and bottled drinking water are available on the site.

I. Severe Weather Episodes

Severe weather episodes could affect operations to a great degree. It is understood that severe weather conditions relating to wind, various forms of precipitation, or electrical storms may require shutdown until the weather episode abates and conditions caused by the episode are returned to normal.

If unusual precipitation which impacts hazardous waste operations occurs, outside receipts into the system will be regulated. This will guarantee sufficient volume capacity to handle precipitation into this process area and all other process areas on-site.

B. Spill or Release of Material

All areas are provided with concrete floors and sloped toward sumps. Spilled materials are collected in the sumps and routed to the Phase II Wastewater Treatment System for treatment prior to discharge.

Depending upon the nature of materials resulting from a fire, explosion or release within Container Management, the materials will be managed in one or both of the following ways:

- water utilized for fire fighting and/or clean-up of the area will be collected and pumped to the Phase 2 Wastewater Treatment System; and
- Solid materials, such as clean-up debris and contaminated soils, will be placed in drums or other containers for disposal in an approved facility.

To ensure that fires, explosions or releases do not occur, recur or spread to other hazardous wastes at the facility, the following procedures are followed:

- Isolate the container(s) involved in the fire or release by moving containers not involved out of the area;
- In the case of fire or explosion, the area surrounding the container(s) involved should be wet down with water to prevent spread of fire;
- A release should be contained using sorbent materials or a containment boom to prevent spread of the spill; and
- Following clean up of the area, management will conduct a investigation of the incident to determine the cause. If necessary, procedures will be altered to prevent future emergencies.

1.7.3 Other Areas of Spill Control

A. Access Roads

Since all deliveries to the site enter from 56th Street, and this access road crosses the site's drainage ditch which subsequently discharges into the 47th Street sewer interceptor, the potential for a spill occurring at this location has been evaluated.

The bridge crossing the drainage ditch provides a 21.5 foot wide roadway. A small possibility for accidental discharge of hazardous solid or liquid waste into the drainage ditch does exist if material should fall from a truck, if trucks collide, or if a truck leaves the crossing surface and tips over into the ditch. However, the possibility for such an occurrence is greatly decreased by a 2' high concrete barrier on each side of the bridge.

The possibility of this occurring will be further minimized by adherence to the 20 mile per hour speed limitation on this portion of 56th Street and DOT packaging requirements for drummed shipments.

B. Mobile Sources

Since CECOS is no longer a commercial disposal facility the majority of vehicle traffic is non-hazardous receipts, product deliveries, and other units associated with sanitary landfill activities.

C. Hazardous Waste Trucks

Hazardous waste shipments will be shipped off-site for disposal. The Waste- water treatment plant may generate a small amount of material that will require such disposal. Some additional material may be generated from site sanitary cell expansion. All materials will be handled in accordance with the most current Hazardous Waste Regulations and 90 – day storage protocols. Waste will be characterized as sampling dictates, and disposed of accordingly at an approved facility.

D. Tanks (non-waste)

There is presently one (Of two total on-site) HCL stationary tank that CECOS utilizes in its Phase II operations.

TANK	APPROX. CAP IN GALLONS	PROCESS	MATERIALS
Acid Storage	6,400	W.W.T.	HCl

The maximum potential for accidental discharge of materials from one of these tanks will occur during the filling operation. Minor spillage and drippings can be contained or cleaned up by the use of absorbent pads available on the site.

Major spillage resulting from during the filling operation or through tank rupture will be handled in accordance with procedures outlined in Section 1.6.2.2 - Spill Response Procedures.

F. Roadways

Although the potential for accidental discharge or spillage of hazardous waste materials along the roadways on the site will be held to a minimum through control of traffic movement, there is always the possibility for such an occurrence.

There exists an opportunity for the detection of leaking tankers. By taking positive action when the leak is detected, the possibility for spreading hazardous materials along the roadways while the truck is proceeding to the unloading areas is minimized.

Vehicular collision or accidental tip-over into a drainage ditch could result in a spill of hazardous material. Such an occurrence will require prompt alarm and emergency action. Immediate action will be taken to contain the spilled material by erection of temporary dikes or booms surrounding the area of the spill, and blocking the flow of materials along ditches. The material will be treated if necessary. Once the spill is contained, the material will be collected by pumping, shoveling into drums, or by the use of absorbent materials. All contaminated materials will be disposed of in an appropriate manner.

1.8 Emergency Preparation

Due to the facilities design and operational controls employed, the possibility of a fire or spill or release of material is minimal. However, adequate provisions have been made in the event of a fire, spill or release of a hazardous material. The following identifies the emergency equipment available in the event of an emergency situation.

1.8.1 Fire Control Equipment

A detailed list of equipment can be found in Section 1.5.

1.8.2 Emergency Organization

Annual refresher training will be conducted to provide opportunity to test the site personnel's level of knowledge and understanding of their role in the emergency response organization, evaluate the effectiveness of the training programs, and site communications.

1.8.3 Spill Clean-up Equipment and Materials

The number of potential combinations and possibilities of various chemical waste mixtures prevents a uniform list of treatments from being presented here except in a very broad sense.

Similar waste may require somewhat different treatment, depending upon the chemical and physical properties of the specific waste.

A general list of Equipment and Materials for a basic incidental spill clean-up program is included in Section 1.5.6.

1.9 Evacuation Procedures

The following procedures will be followed in the event that evacuation is necessary.

1.9.1 Operating Areas

Whenever there is an emergency problem at any unit on the CECOS site, personnel in the affected area are to sound the alarm to warn others on-site of a problem. Details of the emergency will immediately be communicated via a telephone, verbal, or by site radio to the Emergency Coordinator. The Emergency Coordinator will assess the situation to determine if site-wide evacuation is necessary.

Upon hearing the emergency problem in another area of the site, personnel at other facilities (if applicable) will sound their alarms and listen for instructions on the site communications device(s). These instructions pertain to the necessity of evacuation and/or the route to be taken. See Attachment D for the evacuation routes.

All personnel in the affected areas, except the Emergency Coordinator and designees, will evacuate the area in an orderly fashion, and assemble at the predetermined **Rally Point** as follows: (unless communicated otherwise.

Phase II - WWTP	- CECOS Scalehouse
Closed Secure Chem. Mgmt. Facilities #1,2,3	- CECOS Scalehouse
Secure Sludge Management Facility	- CECOS Scalehouse

Emergency Coordinator will immediately take necessary measures to control the emergency until the back-up personnel and equipment arrive. The sounding of an alarm in one area of the site initiates the site emergency communication system, where personnel in other locations on-site will be alerted to an emergency situation. Each location upon notification of an emergency situation, is to await instruction as to the safest evacuation route to be taken.

The Emergency Coordinator makes all decisions regarding evacuation of the site, since situations vary on a case-by-case basis. Since all site operations have access to voice communication, the instruction to evacuate would come via this equipment.

1.9.2 Administrative Building

If the wind is blowing towards the Administrative Building, the Administrative Building/Scalehouse will be notified by telephone or verbal to evacuate the building. The occupants of the building should meet in the parking lot and proceed to the intersection of Pine Avenue and 56th Street or beyond as instructed by the Emergency Coordinator.

In case of a fire, all occupants should proceed to the nearest exit.

In the event that evacuation is necessary, all personnel will follow the evacuation procedures by leaving the affected area via the evacuation routes detailed in Attachment D. Personnel will assemble at the designated assembly points.

1.9.3 Site Rules

1. Personnel assigned radios will bring them to the assembly point. However, radio communication will be restricted..
2. Upon reaching the assembly point, NO ONE will leave. The group will be under the direction of the group leader, a foreman or supervisor, and all instructions given will be followed explicitly.
3. Using daily attendance records and the attached form (Attachment E), the foreman or supervisor will list personnel present and/or accounted for and communicate this information to the Emergency Coordinator.
4. At the command of "All Clear" via phone or radio, supervisors or foreman will verify the same with the Emergency Coordinator and unless orders are issued to the contrary, all personnel will return to their assigned areas.

1.9.4 Evacuation - Neighboring Industry and Residential Areas

The necessity to evacuate nearby businesses or residential areas is an extremely remote possibility. However, provisions have been made to assure action in the event of this unlikely possibility.

If the Emergency Coordinator or his alternate determines that the facility has had a fire or release which would impact on off-site receptors, the following will be notified:

A. Appropriate local authorities including:

1. Fire Department
2. Police Department
3. Emergency Management Office
4. Regional Director, NYS Department of Environmental Conservation

B. Emergency Coordinators from the neighboring plant including:

1. Durez - Plant Manager 278-7777
2. Dupont (Necco Park) - 278-5406

The Emergency Coordinator or his alternate will be available to assist local officials in assessing the situation and determining whether local areas should be evacuated.

1.10 Required Reports

Anytime there is a fire; there is the possibility for personal injury or property damage. Thorough investigation of each of these occurrences to identify the cause and to develop appropriate preventive measures will prevent, or minimize, reoccurrence of the incident.

As soon as possible after an emergency situation has been cleared up, all employees involved in the incident, or who were working in the vicinity, will be questioned individually to learn all available facts and to assure that the appropriate forms have been completed. Additional sheets may be required to record all pertinent information or to detail necessary corrective action.

Completion of this investigation does not supersede the requirements for notification to appropriate regulatory agencies.

The emergency coordinator will note in the operating record the time, date, and details of any incident that required implementation of the Contingency Plan.

Within fifteen (15) days after the incident, the Emergency Coordinator/Site Manager will submit a written report of the incident to the New York State Department of Environmental Conservation, which includes:

1. Name, address, and telephone number of the owner or operator;
2. Name, address and telephone number of the facility;
3. Date, time, and type of incident (i.e. fire, explosion);
4. Name and quantity of materials involved;
5. The extent of injuries, if any;
6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
7. The estimated quantity and disposition of recovered material that resulted from the incident.

CECOS will notify the appropriate authorities of the incident and the emergency equipment used to clean up any release, will be cleaned and fit for its intended use before operations are resumed.

In the event of a fire or spill, CECOS International, Inc., requires the reporting of all factors which may have affected, instigated, controlled or prevented the incident from occurring. The internal documents used for this purpose are the Fire Investigation Report (Attachment F) and the Spill Investigation Report (Attachment G).

2.0 Emergency Response Plan (E.R.P.) - ON SITE

2.1 Information Dissemination

In the event of an on-site emergency, all personnel have been trained in notification procedures that are to be taken to activate the E.R.P. These procedures are summarized as follows:

1. Activate the alarm in the affected area (if applicable)
2. Establish communications (Base, Portable, Telephone) with the emergency coordinator
3. Explain the nature and extent of the emergency
4. Secure all facility operations (if safe to due so)
5. Insure that all personnel are accounted for and clear of the area
6. Wait for the emergency coordinator to give further information as to the location and cause of the incident (non-evacuation situations only)

2.2 In House Response

Once the emergency coordinator has accessed the situation, a determination will be made as to the appropriate response procedures and units which are to respond.

The emergency coordinator or his designee will then instruct the personnel to assemble to mobilize the appropriate response equipment.

Each member will be assigned specific tasks to accomplish an effective response. These tasks include but are not limited to the following:

1. Radio Communications
2. First response, for situation assessment.
3. Perimeter security
4. Evacuation perimeter search

3.0 Contingency Plan Distribution List

Upon final approval, the Contingency Plan will be distributed as follows:

1. CECOS Site Office - 5600 Niagara Falls Blvd., Niagara Falls, New York 14304
2. U.S.E.P.A. - Region II Office, 26 Federal Plaza, New York, New York 10278
3. N.Y.S.D.E.C. - Region 9 Office - 270 Michigan Avenue, Buffalo, New York 14203-2999
4. Niagara County Sheriffs'Department – 5526 Niagara Street Ext,Lockport, NY
5. Niagara Falls Memorial Medical Center - 10th & Pine Streets, Niagara Falls, New York 14302
6. Niagara Falls Police Department – Public Safety Building , Niagara Falls, New York 14302
7. Town of Niagara Police Department, 7105 Lockport Road, Niagara Falls, New York 14305
8. Niagara County Emergency Management Office, 5526 Niagara Street Ext.,Lockport, NY 14095
9. New York State Police,6566 Dysinger Rd., Lockport, NY 14094
10. City of Niagara Falls Fire Department,Public Safety Building, Niagara Falls, NY 14302

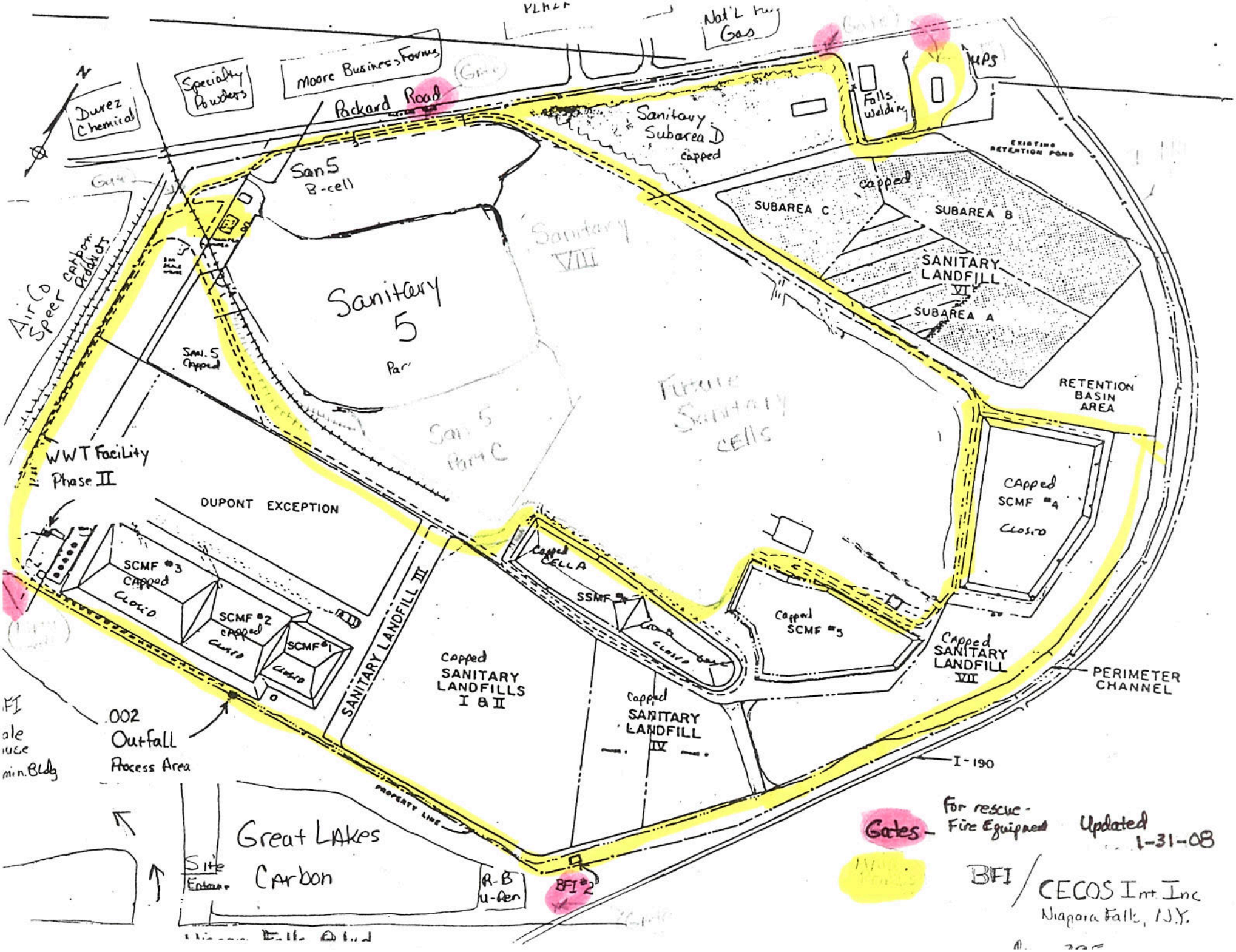
4.0 Contingency Plan Amendment

This Plan is a living document. It is the responsibility of the Environmental Manager, at the Niagara Falls Site, to keep this Plan up-to-date. The Plan will be amended when: the site permit is revised, the site changes in design or operation so that there may be an increase in the potential for adverse situations to occur, the list of Emergency Coordinators changes, the list of emergency equipment changes or the plan fails in an emergency. Amendments to the plan will be submitted and approved by the New York State Department of Environmental Conservation.

Copies of the plan are maintained at the Niagara Falls Site. If and when changes are made, either new copies of the plan or amended pages must be distributed to all agencies listed in the distribution.

APPENDIX A

SITE PLAN


Durez Chemical
Specialty Powders
Moore Business Forms
Packard Road
Nat'l Fuel Gas
Falls Welding
UPS
Sanitary Subarea D capped
EXISTING RETENTION POND
San 5 B-cell
Sanitary 5
Sanitary VIII
SUBAREA C
capped
SUBAREA B
SANITARY LANDFILL VI
SUBAREA A
RETENTION BASIN AREA
Air Co Speer carbon Additive
San. 5 Capped
WWT Facility Phase II
DUPONT EXCEPTION
Future Sanitary Cells
SCMF #3 Capped Closed
SCMF #2 Capped Closed
SCMF #1 Closed
Capped Cell A
SSMF #
Capped SCMF #4 Closed
Capped SCMF #5
SANITARY LANDFILL III
Capped SANITARY LANDFILLS I & II
Capped SANITARY LANDFILL IV
Capped SANITARY LANDFILL VII
PERIMETER CHANNEL
002 Outfall Process Area
I-190
PROPERTY LINE
Great Lakes Carbon
Site Entrance
R-B U-Acr
BFI #2
Gates - For rescue - Fire Equipment
Updated 1-31-08
BFI / CECOS Int Inc
Niagara Falls, N.Y.

APPENDIX B

COORDINATION AGREEMENTS

REPUBLIC SERVICES

August 7, 2015

Town of Niagara Police Department
7105 Lockport Road
Niagara Falls, NY 14305

Attention: Chief James Suitor

Dear Chief Suitor:

In accordance with CECOS' 6NYCRR Part 373 Permit and NYSDEC Regulations, the undersigned acknowledges receipt of a revised "Contingency Plan" and cover letter dated August 7, 2015. As stipulated in this document, your organization will be willing to be called upon for assistance in an emergency, if needed.

H. James Suitor

SIGNATURE

H. James Suitor

PRINT NAME

8-31-15

DATE

5600 Niagara Falls Blvd
Niagara Falls, NY 14304-1532
716.282.2676 • Fax 716.282.6073
www.republicservices.com

REPUBLIC SERVICES

August 7, 2015

Niagara County Emergency Management Office
5574 Niagara Street Ext.
PO Box 496
Lockport, NY 14095-0496

Attention: Jonathan Schultz – Fire Coordinator / Emergency Management

Dear Mr. Schultz:

In accordance with CECOS' 6NYCRR Part 373 Permit and NYSDEC Regulations, the undersigned acknowledges receipt of a revised "Contingency Plan" and cover letter dated August 7, 2015. As stipulated in this document, your organization will be willing to be called upon for assistance in an emergency, if needed.

Jonathan Schultz

SIGNATURE

PRINT NAME

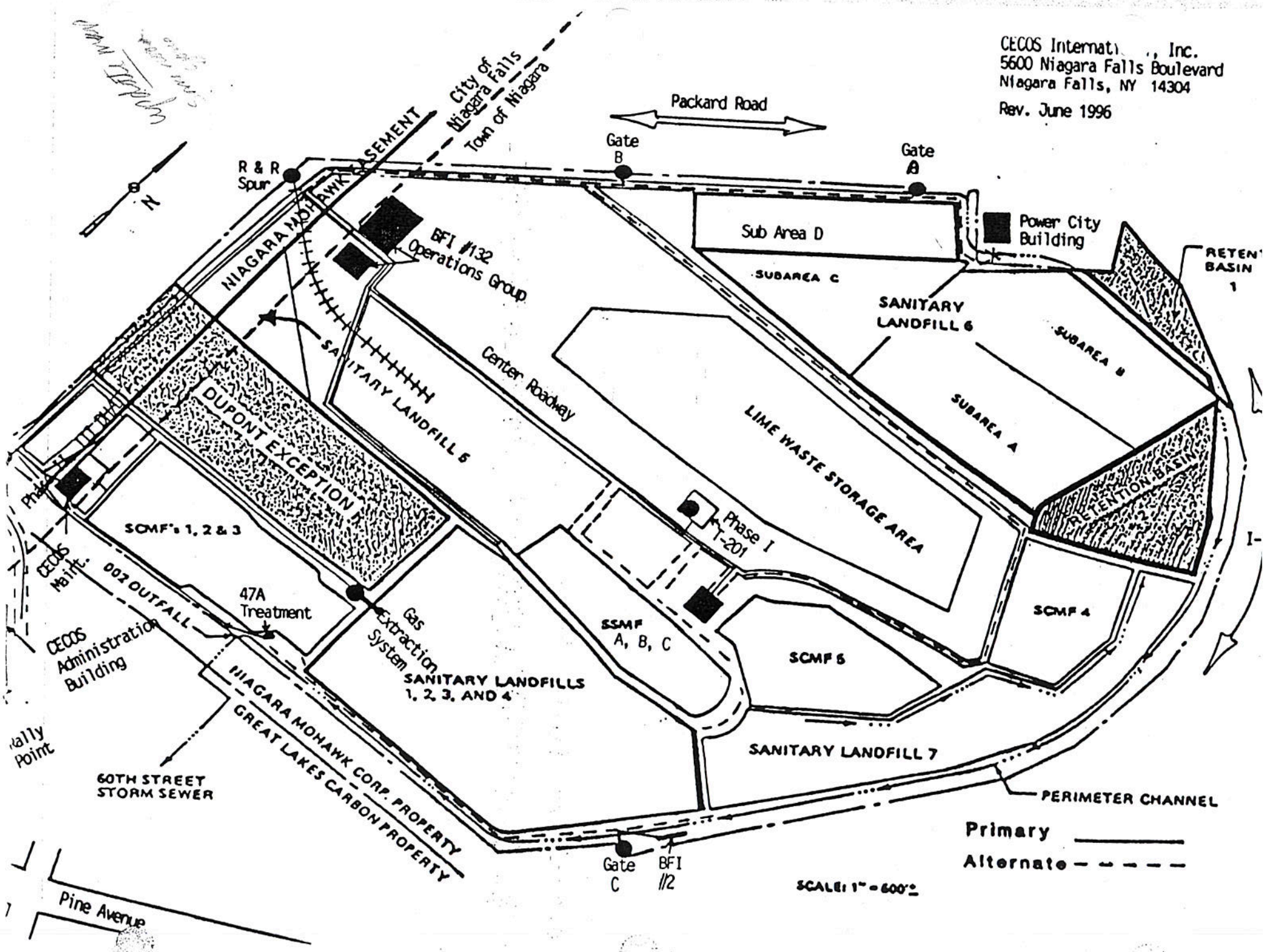
8/26/15

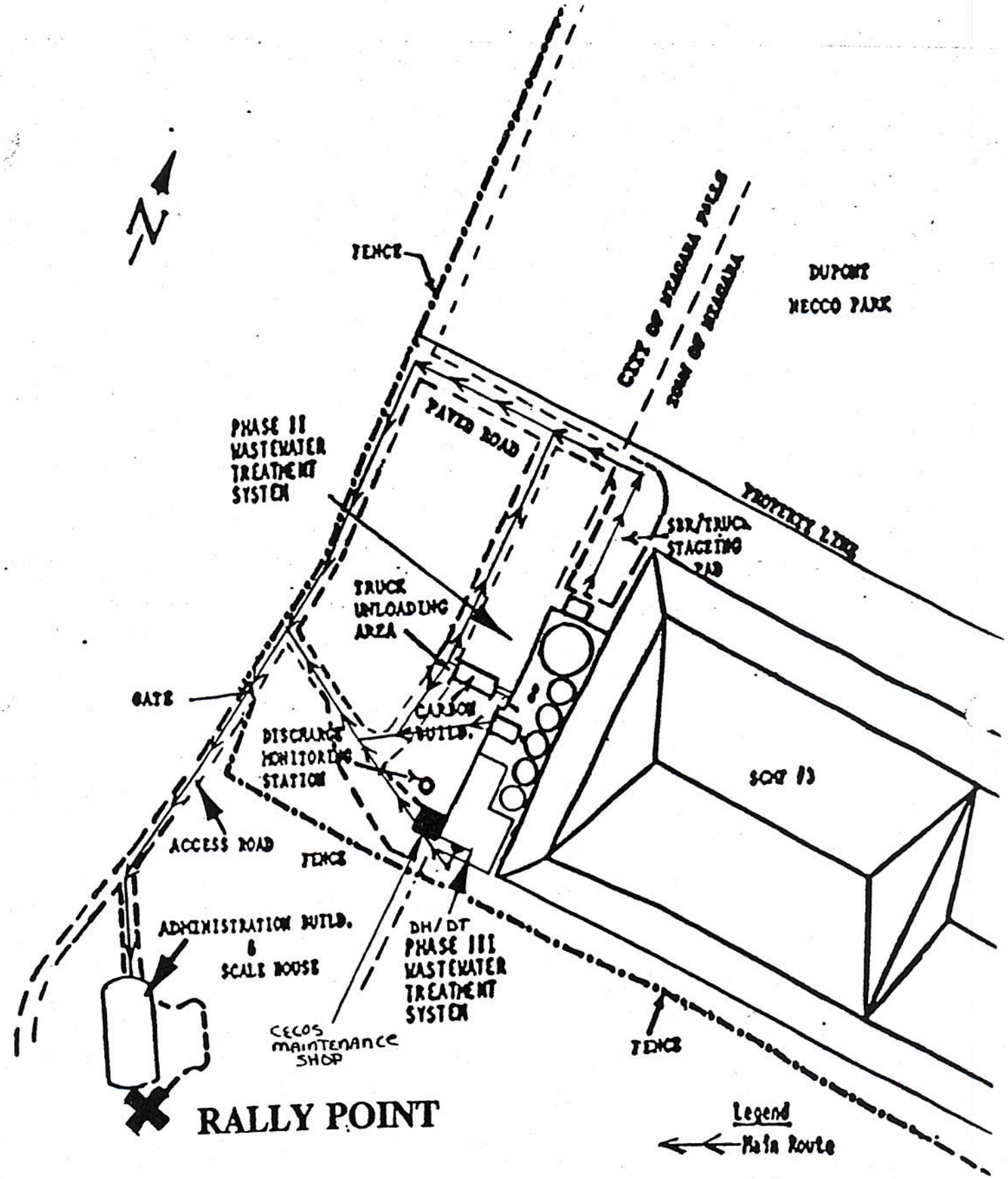
DATE

5600 Niagara Falls Blvd
Niagara Falls, NY 14304-1532
716.282.2676 • Fax 716.282.6073
www.republicservices.com

APPENDIX C

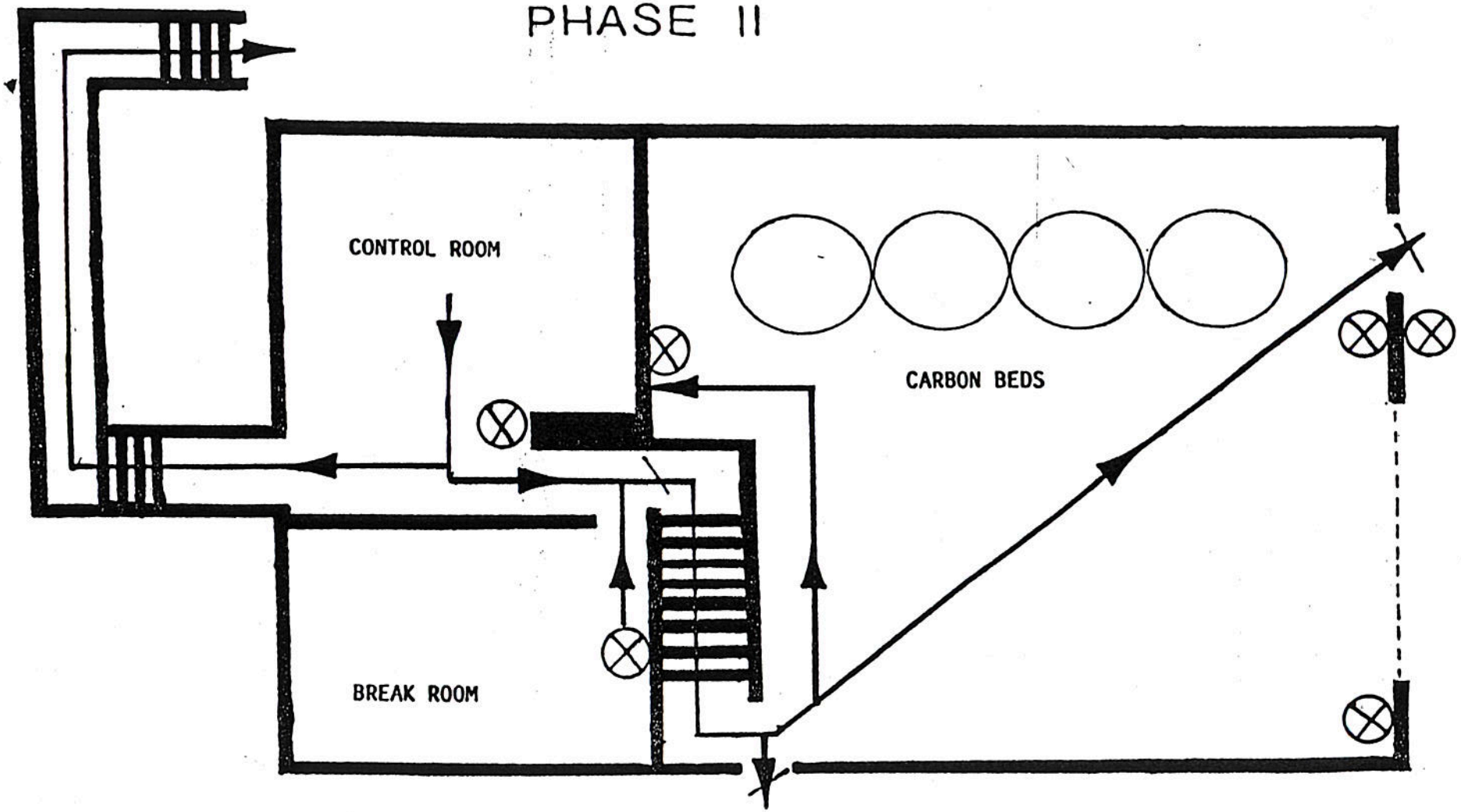
EVACUATION ROUTES


CECOS International, Inc.
5600 Niagara Falls Boulevard
Niagara Falls, NY 14304
Rev. June 1996
City of Niagara Falls
Town of Niagara
Packard Road
Gate B
Gate A
R & R Spur
NIAGARA MOHAWK EASEMENT
N
BFI #132 Operations Group
Power City Building
Sub Area D
SUBAREA C
SUBAREA B
SUBAREA A
SANITARY LANDFILL 6
SANITARY LANDFILL 5
Center Roadway
LIME WASTE STORAGE AREA
RETENTION BASIN 1
RETENTION BASIN 2
DUPONT EXCEPTION AREA
Phase I T-201
SCMF's 1, 2 & 3
CECOS Maint.
002 OUTFALL
47A Treatment
Gas Extraction System
SSMF A, B, C
SCMF 4
SCMF 5
CECOS Administration Building
SANITARY LANDFILLS 1, 2, 3, AND 4
NIAGARA MOHAWK CORP. PROPERTY
GREAT LAKES CARBON PROPERTY
SANITARY LANDFILL 7
PERIMETER CHANNEL
60TH STREET STORM SEWER
Gate C
BFI #2
Primary
Alternate
SCALE: 1" = 600'
Pine Avenue


N
FENCE
CITY OF NIAGARA FALLS
TOWN OF NIAGARA
DUPONT
HECCO PARK
PAVED ROAD
PHASE II
WASTEWATER
TREATMENT
SYSTEM
PROTECTIVE DIKE
SBR/TRUCK
STAGING
PAD
TRUCK
UNLOADING
AREA
GATE
CARBON
BUILD.
DISCHARGE
MONITORING
STATION
SCM #3
ACCESS ROAD
FENCE
ADMINISTRATION BUILD.
&
SCALE HOUSE
DH/DT
PHASE III
WASTEWATER
TREATMENT
SYSTEM
CECOS
MAINTENANCE
SHOP
FENCE
RALLY POINT
Legend
Main Route

EMERGENCY _SCAPE ROUTES

PHASE II

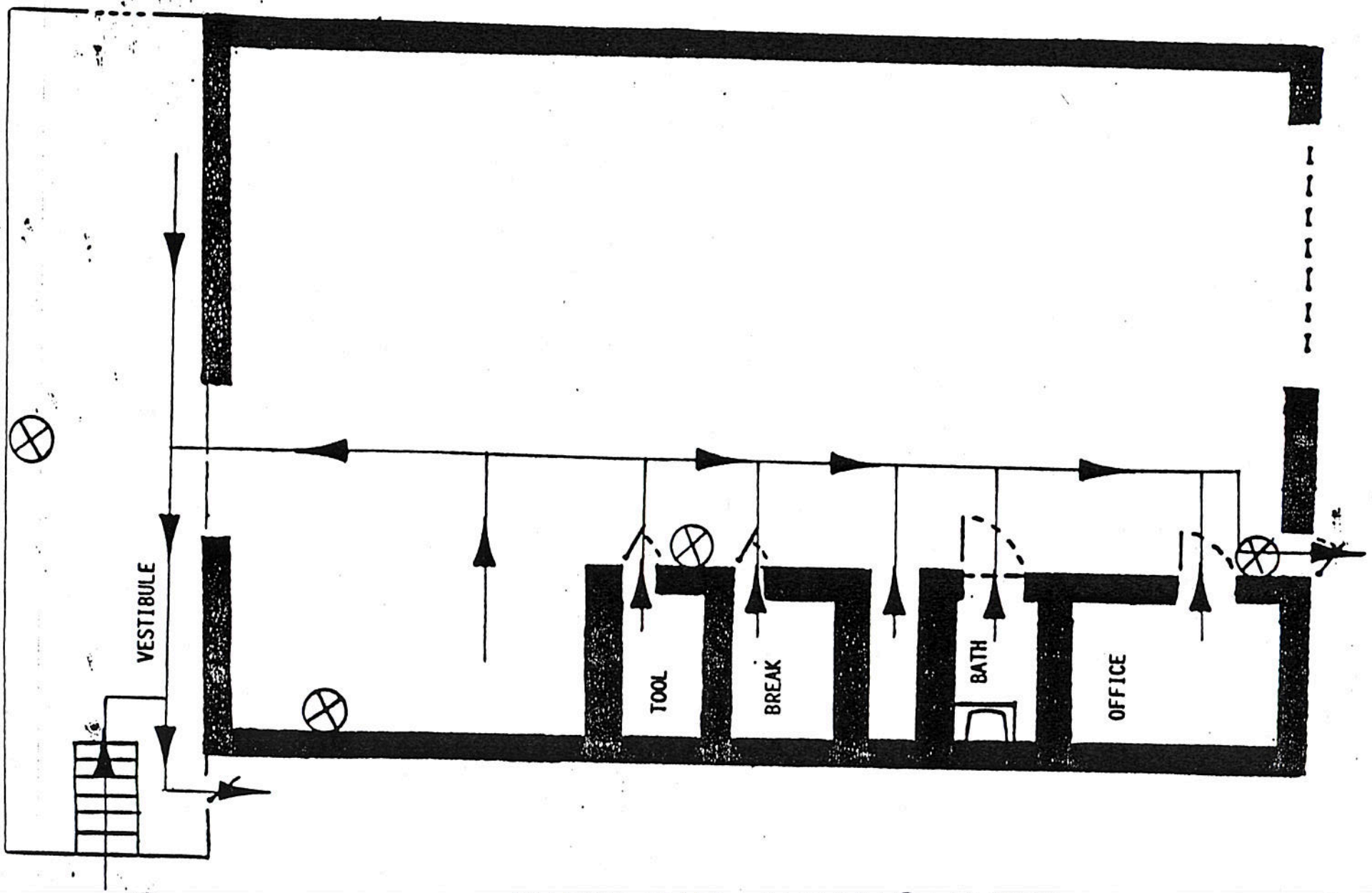


SECOND FLOOR

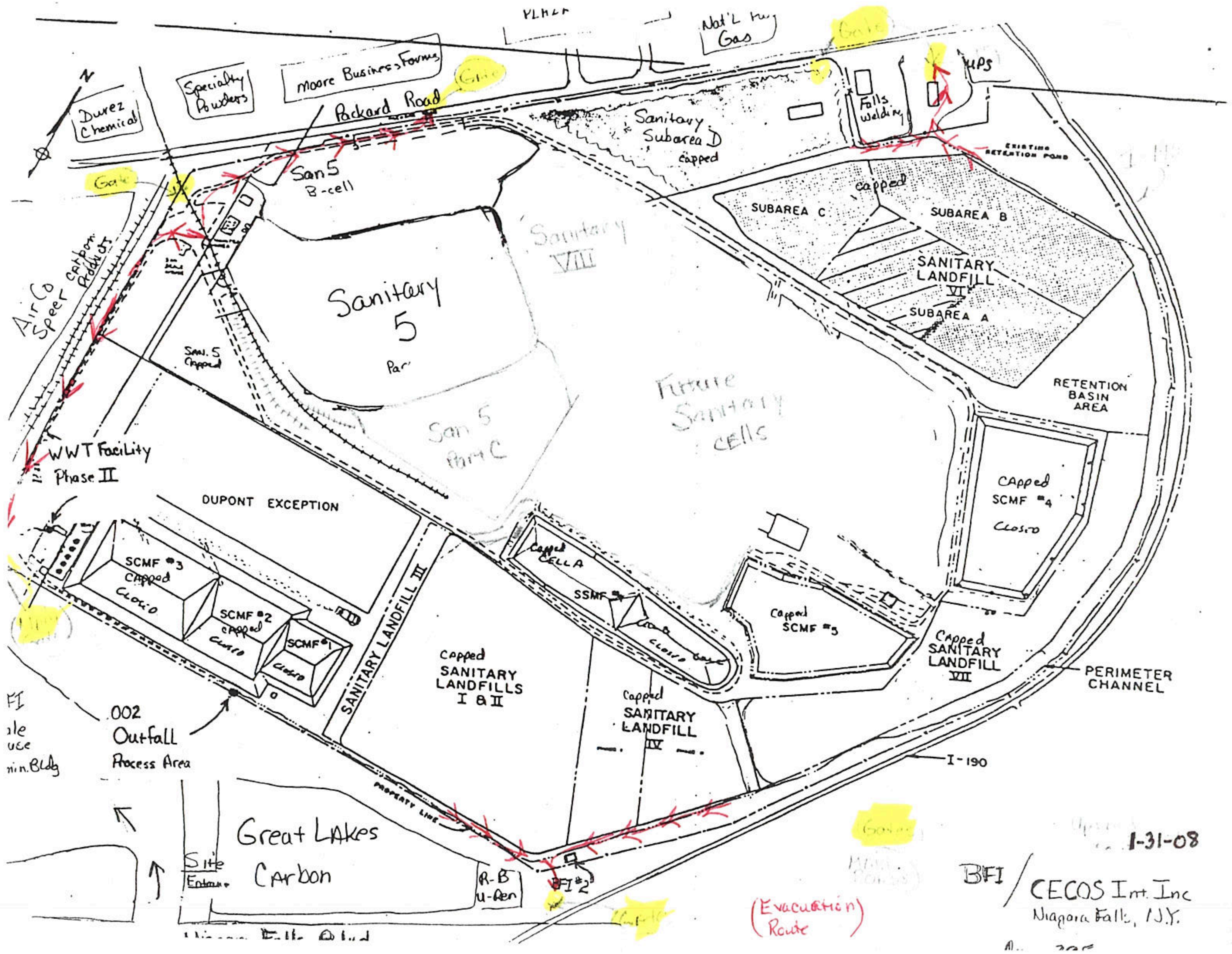
⊗= FIRE EXTINGUISHERS

EMERGENCY ESCAPE ROUTES

MAINTENANCE SHOP



= FIRE EXTINGUISHERS



Nat'L Fuel Gas
Moore Business Forms
Specialty Powders
Durez Chemical
N
Packard Road
Gate
Falls Welding
UPS
Sanitary Subarea D capped
EXISTING RETENTION POND
San 5 B-cell
SUBAREA C
capped
SUBAREA B
SANITARY LANDFILL VI
SUBAREA A
Sanitary VIII
Sanitary 5
Air Co Speer Carbon Products
San. 5 Capped
San 5 Part C
Future Sanitary Cells
RETENTION BASIN AREA
Capped SCMF #4 Closed
WWT Facility Phase II
DUPONT EXCEPTION
SCMF #3 Capped Closed
SCMF #2 capped Closed
SCMF #1 Closed
Capped CELL A
SSMF
Capped SCMF #5
Capped SANITARY LANDFILL VII
PERIMETER CHANNEL
SANITARY LANDFILL III
Capped SANITARY LANDFILLS I & II
Capped SANITARY LANDFILL IV
I-190
002 Outfall
Process Area
PROPERTY LINE
Great Lakes Carbon
Site Entrance
R-B U-Ren
BFI #2
(Evacuation Route)
1-31-08
BFI / CECOS Int. Inc
Niagara Falls, N.Y.

APPENDIX D

EVACUATION PROCEDURE

PERSONNEL ACCOUNTABILITY LISTING

CONTRACTOR EVACUATION PROCEDURES

The BFI/CECOS Facility in Niagara Falls, NY maintains an on site contingency plan, the purpose of which is to outline procedures which are to be followed in the event of an on-site emergency (fire, chemical spill, etc.) or off-site emergency (toxic vapor release from adjacent industries).

All BFI/CECOS employees are made aware of these procedures and/or amendments thereto during safety meetings. This training stresses awareness of contractors who may be on-site during an evacuation, and actions which are to be followed to insure their safe evacuation in the event of emergency.

In addition to this employee awareness, this document has been prepared for distribution to contractors, truckers and delivery personnel. Its intent is to insure that all non-BFI employees who are required to perform services on this site are aware of the proper safety and evacuation procedures currently in place at our Pine Avenue Facility.

Failure to adhere to these policies and procedures will result in denial of access to the facility. Failure to adhere to these policies will also release BFI/CECOS from all liability which may result from this neglect. Any questions regarding the provisions set forth in this document should be directed to the District Safety Manager at 282-2676.

NAME P/A SIGNATURE

ADMINISTRATION BUILDING

P. Scott

G. Vogel

J. Pawl

R. Capizzi

K. Iodice

D Hanson

D.Grenier

K. Tyrrell

M. DeGeorge

T. Clark

J. Dojka

R. Larimore

PHASE II,

T. Clark

J. Heppner

MAINTENANCE

S. Zasucha

J. Dojka

Temp/New Employees

APPENDIX E

FIRE INVESTIGATION REPORT

FIRE INVESTIGATION REPORT

CECOS INTERNATIONAL, INC.

FIRE PREVENTION CONTROL AND COUNTERMEASURE PROGRAM

FIRE INVESTIGATION REPORT

LOCATION OF FIRE _____

DATE FIRE OCCURRED _____ TIME _____

MATERIAL INVOLVED

_____

WHAT WORK WAS BEING PERFORMED WHEN FIRE OCCURRED

_____

_____

WHAT HAPPENED

_____

_____

_____

EMPLOYEES INVOLVED OTHERS INVOLVED

_____ _____ _____

_____ _____ _____

_____ _____ _____

WHAT ACTION WAS TAKEN TO CONTROL THE FIRE AND PREVENT PERSONAL INJURY OR ENVIRONMENTAL DAMAGE?

_____

_____

_____

WERE PROPER OPERATING PROCEDURES AND SAFETY REQUIREMENTS BEING FOLLOWED WHEN THE FIRE OCCURRED? _____

IF NO, EXPLAIN: _____

_____

WHAT OTHER FACTORS CONTRIBUTED TO CAUSE THIS INCIDENT:

_____

_____

RECOMMENDATIONS TO PREVENT A RECURRENCE OR SIMILAR FIRE:

_____

_____

_____

INVESTIGATED BY _____ DATE _____

APPENDIX F

SPILL INVESTIGATION REPORT

CECOS INTERNATIONAL, INC.
5600 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NY 14304

SPILL PREVENTION CONTROL AND COUNTERMEASURE PROGRAM

SPILL INVESTIGATION REPORT

Location of Spill _____

Date Spill Occurred _____ Time _____

Material Involved _____ Quantity _____

What work was being performed when the spill occurred? _____

_____

_____

What caused the spill? _____

_____

List All Employees Involved: List Any Others Involved:

_____ _____

_____ _____

_____ _____

_____ _____

What actions were taken to control the spill and prevent personal injury or environmental damage?

_____

_____

Were all the proper Operating Procedures and Safety Requirements being followed when the spill occurred? _____ Yes _____ No

If no, when not? _____

_____

_____

Were there any other factors that may have contributed to the cause of the spill?

_____

Recommendations to prevent a recurrence or a similar spill:

_____

_____

_____

_____

_____

Investigated by: _____ Date: _____

ES&H Manager: _____ Date: _____

Site Manager: _____ Date: _____

Remediation required: _____

_____

_____ Date Completed: _____

Reported to on-site DEC? _____ Date: _____

Is this spill and R.Q.? _____ Yes _____ No

If yes, when was it reported to the National Spill Response Center:

Date/Time _____

ATTACHMENT G

PERSONNEL TRAINING

NIAGARA FALLS
PERSONNEL TRAINING PROGRAM
SECTION

TABLE OF CONTENTS

LIST OF TABLES

TRAINING SECTION ATTACHMENTS

ATTACHMENT G
PERSONNEL TRAINING PROGRAM

A. Purpose and Objective

There is no part of our safety program that is more important than the complete and thorough training of our personnel. A properly trained employee is more likely to eliminate or at least minimize the potential for accidents and emergency situations. In the event of an emergency a properly trained employee can effectively evaluate and control a dangerous situation to reduce the hazards to human health and the environment.

CECOS is committed to having a work force that is trained to perform their jobs in a safe and efficient manner, to utilize all safe operating practices and procedures and to maintain a facility consistent with today's highest standards. Consequently, CECOS has developed a comprehensive personnel training program that has shown to be effective in maintaining these high standards.

There are three major objectives of the CECOS 0135 Personnel Training Program:

1. To provide every employee with the training and knowledge necessary to perform their jobs in a safe and efficient manner.

2. To ensure that all personnel are capable of recognizing and taking adequate precautions against potential hazards.

3. To keep personnel familiar with current policies and procedures and to implement additional training as regulatory and/or operational changes occur.

The CECOS Personnel Training Program is a combination of formal classroom training and demonstrations, and the effectiveness of on-the-job training. All training is facilitated by qualified CECOS management and/or industry professionals, e.g., American Red Cross, local fire department, or a recognized training academy. This training program is designed to give basic training to all employees who work at the facility and give increasingly specialized training to those individuals performing more complex or potentially hazardous tasks. Re-training or specialized training is administered upon individual or regulatory needs, or in response to preventable accidents and/or incidents.

B. Training Methodology

1. On-the-Job (OTJ)

One of the most effective and proven successful methods of personnel training is

on-the-job training. OTJ training provides individualized training with supervised "hands on" experience for detailed job specific equipment and processes.

2. Formal Classroom Training

Classroom training is primarily used to administer lengthy, more detailed subject matter that is not suitably addressed on the job. This training consists of audio, video and lecture presentations where all required and site specific subject matter can be emphasized. Classroom training may also include seminars or lectures facilitated by outside industry professionals.

3. Assurance of Quality Training

Assuring the highest quality of training is of primary importance to CECOS. CECOS management is able to draw upon the personnel and resources within the Allied Waste organization and corporate offices. The CECOS 0135 Safety/Training Manager is the primary facilitator of all required training. All training and programs are reviewed/updated annually based on changes in regulatory requirements or with company/corporate policies.

Site specific training is an integral part of all training sessions to provide the necessary support needed to implement various programs. For any specialty subjects, department managers or outside specialists are called upon to ensure the quality of training. All CECOS personnel are encouraged/required to attend outside seminars and training classes specific to their job descriptions and in return provide the company with additional resources to draw upon.

C. Record Keeping/Documentation

No training is considered to be complete until the proper documentation is in place. Every form must be filled out completely and signed by the appropriate parties. Anytime anyone performs training or instruction with the purpose of providing information to an individual or group it is to be documented using the following forms:

1. Employee Meeting Record (Appendix B)
2. Employee Development Record
3. Individual Training Record
4. Supplemental Training Form
5. On-The-Job Training Form

D. Training Program

CECOS International, Inc. District 5070/Personnel Training Program consists of various

core training modules. The subject matter available for training is in no way limited to the core training modules. The core modules identify training necessary for employees to work safely and efficiently and satisfy regulatory requirements. Required modules are dependent upon an employees individual job description(s). Additional training outside the core modules may be required for personnel as regulatory changes and/or operational changes occur. Training modules and job descriptions are provided in Tables 1 & 2.

E. Re-Training

At times it becomes necessary to re-train personnel due to preventable accidents or severe safety violations. Re-training is an effective way to re-instate policies, procedures and promote safe and environmentally compliant work ethics.

1. Post Accident/Injury - following accidents and injuries to prevent a re-occurrence. Can be employee specific or if necessary, as preventative training.

2. Annual (Non-Regulatory Required) - re-training of such topics as safe lifting, safe driving, etc. can be a useful tool in promoting safe work habits (refer to annual department training requirements).
3. Job Transfer/New Assignment - this training is required whenever an employee is transferred to another department or is given new tasks to perform.

4. As needed - re-training may also be needed based on the department supervisors' discretion.

    a. Employee performance deficiencies
    b. As conditions warrant

F. Core Training Subjects

Table 1 identifies the Core Training Subjects which form the base training for the Niagara Falls Facility. Specified subjects are required for every individual assigned to the site (Subjects 1 through 5). Specific subjects are required for site management and emergency response personnel, while other subjects are job description specified.

The subject matter available for training is in no way limited to the Core Training Subjects. Rather, the Core identifies subject matter necessary for employees to safely and efficiently operate the facility and meet regulatory requirements.

1. Basic Training

Each employee must satisfactorily complete training in the five basic subjects identified in Table 1 prior to working alone. This training must be completed within six months of their assignment to the facility irrespective of whether the individual will work alone. Basic Training is designed to:

- Familiarize the individual with the Niagara Falls Facility and the BFI/CECOS organization;

- Establish basic rules of conduct and expectations for the individual's job performance;

- Minimize the potential for accidents or injuries including conditions that may be unique to the Niagara Falls Facility;

- Ensure that the individual is able to respond properly to emergencies; and

- Familiarize the individual with the appropriate regulatory requirements.

Basic Training (excepting New Employee Orientation) is updated no less than annually. Updated training is intended for the introduction of new or changing information, and consists of the following:

a. New Employee Orientation

This orientation is designed to familiarize the new employee with the organization and administrative policies of the facility. Necessary insurance, payroll and taxation forms are completed.

b. Job Specific Duty Orientation

This orientation is intended to lay out in detail what an individual is expected to do. For new employees, supervisors will be going over the job description with the individual to ensure they understand what they will be expected to do. For new or unusual tasks, supervisors may go over pre-planned plans (e.g. Inspection Plan, Waste Analysis Plan) or Standard Operating Procedures. A mixture of classroom and on-the-job training will be utilized.

c. Overview Site Specific Safety Procedures

This discussion establishes:

(1) Every individual is expected to conduct themselves in a safe manner;

(2) Minimum required safety gear for their job assignment;

(3) Areas that are restricted which may only be entered when wearing prescribed levels of protective gear;

(4) Areas where individual may eat, drink, smoke and use toilet facilities, and areas where they may not;

(5) Locations of radios, telephones, alarms, lists showing names and phone numbers of Emergency Coordinators and response agencies, and other emergency equipment (e.g. fire extinguishers, eyewash/safety showers);

(6) Requirements for the individual to report all accidents, unusual events and unsafe conditions to their supervisor or Emergency Coordinator;

(7) That there are personnel responsible and procedures in place for inspection, maintenance and repair of all safety gear and emergency systems, and they will receive additional training if they are expected to perform these tasks;

(8) That there are various plans and procedures intended to minimize the potential for adverse reactions or incidents involving hazardous waste such as the Preparedness and Prevention Plan, the Waste Analysis Plan, the Ground Water Monitoring Plan and that they will receive additional training if they have additional responsibilities relative to these plans; and

(9) The disciplinary policy of the facility.

d. Individual Contingency Plan Responsibilities

This discussion presents a brief overview of the facility Contingency Plan and assures that the individual understands their particular responsibilities under the plan. In particular, individuals are told what they are expected to do in response to various emergency or test conditions. These emergencies and test conditions include:

(1) Fire,
(2) Spill of Hazardous Waste,
(3) Ground Water Contamination,
(4) Severe Weather Conditions, and
(5) Sounding of Emergency Alarm System.

Evacuation procedures and rally areas are discussed, including whether there are any equipment shutdown procedures or systems in their work area, or which they are responsible. In addition, "All Clear" signals and procedures for returning to their work areas are discussed.

e. Regulatory Requirements

It is important for everyone to appreciate and understand the regulatory environment in which the facility operates. This session presents an overview of the Resource Conservation and Recovery Act, and is most often an audio visual presentation which includes:

(1) Basic requirements for the regulated community (generators, transporters and treatment/storage/disposal facilities); and
(2) The cradle-to-grave concept of the manifest.

The relationship with Region II of the USEPA and the New York State DEC is discussed, as well as the names and titles of any representatives with whom they may be in contact.

2. Additional Training

Additional Training (see subject listing on Table 1) is provided to individuals on a need to know basis depending on the requirements of their job. Attachment E gives a brief summary of the subject matter and whether updated training is required. Section E, Facility Organization and Responsibilities, identifies what training is required for what positions. As stated previously, the Core Training subjects are the basis on which personnel may operate the facility safely and efficiently. Additional specialized subject matter may be administered as the need or opportunity arises.

G. FACILITY ORGANIZATION AND RESPONSIBILITIES

1. Organization

In order to work together effectively as a team, every individual must have specific duties. In this manner, the synergistic effect of individual tasks being completed in a cooperative manner creates an organization that is stronger and accomplishes more

than its parts.

Two departments coordinate activities at the facility, all reporting to the Vice President. The Vice President reports to the President of Operations for CECOS, and is responsible for all site activities and coordinates:

1. Administrative Department
2. Environmental Department

Table 2 shows the individual job titles as they relate to the different departments. Attachment G includes all the job descriptions for the Niagara Falls facility and describes duties, required qualifications and reporting responsibilities.

2. Required Training

As discussed in Section D, Training Subject Matter, the Core Training Subjects (Table 1) have been divided into two categories: Basic Training and Additional Training (content of the Core training is discussed in Section D). Basic Training is provided to every operations employee assigned to the facility and provides them with ground rules for their assigned tasks and performance expectations, as well as basic safety rules and means for responding to accidents, emergencies and alarms. Basic Training is updated no less than annually. Additional Training is provided to individuals on a need-to-know basis, depending on an individual's job description and other assigned duties (e.g. Emergency Coordinator for Contingency Plan) and is updated, as needed, for remedial purposes and in accordance with various regulatory requirements.

TABLE 1

Core of Training Subjects

Basic Training*

1. New Employee Orientation
2. Job Specific Duty Orientation
3. Overview Site Safety Procedures
4. Individual Contingency Plan Responsibilities
5. Regulatory Requirements

Additional Training**

6. Hazard Communication Part A
7. Hazard Communication Part B
8. Introduction to Personal Protective Equipment
9. Introduction to Respiratory Protection
10. Advanced Respiratory Protection
11. Introduction to Use and Maintenance of Fire Protection Equipment
12. First Aid
13. Cardio-Pulmonary Resuscitation (CPR)
14. Heat/Cold Stress Management
15. Hearing Conservation
16. Heavy Equipment Training
17. Fork Lift Training
18. Basic Chemical Concepts
19. Basic Toxicological Principles
20. Laboratory/QC Safety
21. Confined Space Entry
22. Lock-Out/Tag-Out Safety Procedures
23. Hot Work Procedures
24. Grounding and Bonding Safety
25. Safe Drum Handling
26. Placards, Labels and Marks
27. Training Methodology

Footnotes:

* All operations employees receive Basic Training within six months of assignment to the facility and prior to working alone. Training subjects 2 through 5 are updated no less than annually.

** Additional Training is provided on a need-to-know basis and is updated as required.

TABLE 2

Job Titles

Environmental Department

Environmental Manager

Finance/Administration

Administrative Assistant

Operations Department

Mechanic/Process Repairman
Electrician
Water Treatment Supervisor
Landfill Technician

TABLE 3

Required Training for Each Department

Department	New Hire Required Training Subject Number	Training Subjects Requiring Updates at Least Annually
Administrative	1-5	(2-5 as necessary)
Environmental	(1-9, 11, 14, (2-9, 11, 15, 18, 19, 20-23)	15, 18-27

TABLE 4

Outline for Preparation, Conducting and Evaluating
Effectiveness of Safety Meetings

1. Prepare an Agenda
   a. Outline meeting - plan presentation and list key questions to be asked during discussion part of meeting.
   b. Review visual aids in advance.
   c. Plan on how meeting is to be conducted.
   d. Make a timetable.
   e. Prepare employee meeting record and acknowledgements of training received.

2. Check Meeting Facilities
   a. Adequate seating arrangements.
   b. Good ventilation, lighting, acoustics.
   c. Visual aid ready for use.

3. Conduct the Meeting
   a. Have attendees' sign in on Employee Meeting Record.
   b. Explain purpose of meeting.
   c. Make sure group knows what is expected of them.
   d. Advise group to look for specific points during presentation of subjects.
   e. Hold a discussion on important points covered.
   f. Summarize the results.
   g. Have attendees sign Acknowledgement of Training Received.
   h. Deliver training documents to Safety/Training Manager.

4. Evaluate the Meeting
   a. What could have been improved?
   b. Did everyone participate?
   c. Was summary clear and accepted?
   d. Have improvements in safety thinking, attitudes and work habits been observed?

APPENDIX A

EMPLOYEE MEETING RECORD

BROWNING-FERRIS INDUSTRIES
LOSS CONTROL, OCCUPATIONAL HEALTH AND TRAINING
EMPLOYEE MEETING RECORD

DISTRICT _____ DISTRICT NUMBER ☐☐☐-☐☐ CITY _____

DATE _____ TIME _____ PLACE _____

CHAIRMAN _____ SUPERVISOR/INSTRUCTOR _____

GUEST(S) _____ _____

_____ _____

EMPLOYEES. (Number Attending Meeting)

Drivers _____ Helpers _____ Mechanics _____ Equipment Operators _____ Other _____

TYPE OF MEETING _____

General/Safety/Training/Awards/Departmental/Supervisors

PROCEEDINGS

_____ Signature of Secretary

_____ Signature of Chairman

NOTE: 1) Proceedings should be itemized 2) List items or subjects to be discussed prior to meeting - then have employees sign reverse side 3) Indicate specific type of meeting (general, departmental, training program, awards banquet, etc.)

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APPENDIX B

ACKNOWLEDGEMENT OF TRAINING RECEIVED

BROWNING-FERRIS INDUSTRIES

ACKNOWLEDGMENT OF TRAINING RECEIVED

I, _____, am an employee of _____, (the "Company"). I have received instruction in the _____ training program presented by the Company on the following date(s): _____. I have had the opportunity to ask questions and receive answers on the contents of this training presented by the Company.

I understand the training I have received and agree to abide by the standards presented therein.

_____
(Trainer's Signature)

_____
(Employee's Signature)

_____
(Trainer's Position)

_____
(Employee's Position)

_____
Employee Social Security #

_____
Total Time of Instruction

Date: _____

APPENDIX C

ON-THE-JOB TRAINING WORKSHEET

ON-THE-JOB TRAINING (OJT) WORKSHEET

NAME

JOB TITLE

Date assigned to this job

JOB (General)	TASK (Specific)	OJT GIVEN (Date)	TRAINER'S INITIALS

PROFICIENCY ASSESSMENT

COMMENTS

APPENDIX D

EMPLOYEE DEVELOPMENT RECORD

BROWNING-FERRIS INDUSTRIES

EMPLOYEE DEVELOPMENT RECORD

EMPLOYEE NAME _____ S.S.# _____ DISTRICT/BRANCH _____ DATE HIRED _____ JOB TITLE _____

SUBJECT	INSTRUCTOR	DATE(S) OF INSTRUCTION	O.J.T.	C.I.	M/S	OTHER	HOURS OF INSTRUCTION	COMMENTS

SLC 20[illegible] 1/81 O.J.T./ON THE JOB TRAINING C.I./CLASSROOM INSTRUCTION M/S MOVIE OR SLIDE PROGRAM

APPENDIX E

DESCRIPTION OF ADDITIONAL TRAINING

APPENDIX E

Description of Additional Training

Note: Training subjects 1 through 5 are considered Basic Training and are discussed in the text; section D.1.

6. Hazard Communication - Part A

This program provides a basic understanding of the dangerous properties of chemical and hazardous substances and of the work place hazards that can result from improper use. The terms toxicity dose and route of entry are defined in common sense terms. Examples of potential hazards and chemical exposures are drawn from common place ALLIED WASTE/CECOS operations.

7. Hazard Communication - Part B

This program describes the means available to workers to identify and prevent work place hazards involving chemicals used at a ALLIED WASTE/CECOS District. Engineering controls, personal protective equipment, container labeling, and material safety data sheets are addressed as key components in better assuring the safe handling and use of chemical products. The OSHA Hazard Communications Standard and a summary of state "Right-to-Know" laws are presented to inform workers of their rights and the requirements of these laws.

8. Introduction to Personal Protective Equipment

The use of appropriate personal protective equipment while on the job is essential, especially in potentially hazardous working environments. This program is designed to make employees aware of the potential hazards that may be present in their working environment; to identify and describe appropriate personal protective equipment; and to outline procedures for use, handling and care of this equipment. Discussed are eye, head, foot, hearing, skin and respiratory protection.

9. Introduction to Respiratory Protection

This program is designed to provide a basic understanding of why respiratory protection is necessary, the types of respiratory protection devices (RPD) that are available, the proper selection criteria and limitations of each type of RPD, and why training is necessary to assure maximum protection. Where appropriate training in the proper application and use of emergency escape respirator(s) will be included. The sites' respiratory protection policy will also be discussed as it applies to emergency egress. Updated not less than annually for individuals assigned respiratory gear.

10. Advanced Respiratory Protection

This program is designed to provide detailed instructions on the inspection, use, and maintenance of the respiratory protective devices in use at the work site. The site's written respiratory protection policy will be discussed in depth. Where appropriate, fit testing will be provided to assure proper selection and fit.

11. Introduction to Use and Maintenance of Fire Protection Equipment

Designed to familiarize employees on the various types of fire extinguishers, how they work and how to use them effectively in an emergency situation. Includes demonstration of dry-chemical fire extinguishers.

12. First Aid (voluntary)

This course, provided by outside certified agencies, will enable the individual to provide immediate and temporary care to a victim of an accident or sudden illness in order to preserve life, assist in recovery, and decrease or prevent serious permanent effect until medically trained personnel can be obtained. Updated every three years.

13. Cardio-Pulmonary Resuscitation (CPR) (voluntary)

Also provided by certified agencies, this course enables individuals to recognize signs and symptoms of pulmonary/cardiac distress and/or arrest. It also teaches the basic life support skills necessary to properly respond to these situations. Updated no less than annually.

14. Heat or Cold Stress Management

This training program is designed to alert employees to the potential harmful health effects associated with heat stress, and to instruct them in the proper procedures to follow when working in hot environment. Alternatively, safety concepts for working in the cold are discussed, including recognition and prevention of frost bite and hypothermia.

15. Hearing Conservation

Operations requiring use of hearing protection are discussed, as well as how noise is measured and its effects from prolonged exposure. ALLIED WASTE/CECOS' Hearing Conservation Program is discussed, including audiometric testing, noise abatement programs, selection, care, use and maintenance of hearing protection gear. Updated no less than annually for those individuals required to wear hearing protection.

16. Heavy Equipment Training

A discussion of proper procedures for operation of on-site equipment, including inspection of vehicles, traffic patterns and control devices on-site, and malfunctions of equipment. Training may include off-site schooling with factory representatives and hands-on use of

equipment.

17. Fork Lift Training

This program consists of classroom and "hands-on" instructions, designed to train an employee in the safe and proper operation of a fork lift truck. The program is completed with a drivers test on a prepared driving course.

18. Basic Chemical Concepts

General principles of chemistry which render substances hazardous are covered in this session. The first portion covers flammable chemicals and possible fire hazards. The characteristics of a fire and handling procedures for flammable materials are discussed. The second portion covers characteristics and procedures for the handling of reactive materials.

19. Basic Toxicological Principles

Covers the principles which govern an individual's response to toxic materials and risks associated with each class of toxic chemicals.

20. Laboratory/QC Safety

A presentation of safety procedures utilized in the lab and sampling station. Includes demonstration of sampling techniques, handling of samples and required forms, personnel protective equipment, and storage and handling of laboratory supplies.

21. Confined Space Entry

Informs employees of hazards inherent in any confined space entry. Awareness level training to familiarize personnel with the site evaluations, labeling, PRCS program requirements.

22. Lock-Out/Tag-Out Safety Procedures

Awareness level - This level of training is to familiarize the affected employees with the site LO/TO program and precautions.
Authorized Level - This training program is designed to inform an employee of the essential lock-out/tag-out procedures required to ensure safety while repairing or maintaining equipment. An audiovisual program as well as “hands-on” training to fully prepare the trainee to recognize potential hazards and to perform repair and maintenance activities in a safe manner will augment this program.

23. Hot Work

The sites hot work permit procedure will be discussed in detail along with the preventive measures that should be taken to minimize the potential for fire, explosion, adverse health effects and electrical shock.

24. Grounding and Bonding Safety

This program has been developed to alert employees to the hazards of improper Grounding and Bonding of containers during liquid transfer. It shows the trainee what has to be accomplished to safely handle these transfer procedures by the use of proper Grounds and Bonds. This is a classroom and "hands-on" training program.

25. Safe Drum Handling

This course addresses proper drum handling procedures and includes specific information on the facility's drum storage requirements. Proper lifting and sampling are discussed.

26. Placards, Labels and Marks

Designed to familiarize the employee with DOT placards and labels, and EPA hazardous waste and PCB container markings.

27. Training Methodology

This course will enable the trainer to plan and conduct effective training sessions as well as become a more competent trainer. Course content includes:

The Training Process
Planning and Scheduling
Trainers Responsibilities
Organizing the Training Session
Developing Training Plans
Use of Training Aids
Preparing Training Area
Conducting the Session
Tips for Effective Training and
Evaluating and Reporting

APPENDIX F

JOB DESCRIPTIONS

POSITION DESCRIPTION

Position: Electrician

Department: District Maintenance or District Operations

Reports to: District Maintenance Supervisor, District Operations Manager or District Manager

Qualifications:

1. High school graduate.
2. Satisfactory completion of Journeyman Apprenticeship Training.
3. Previous experience or vocational training in general maintenance with emphasis on electrical maintenance.
4. Good mechanical aptitude and abilities.
5. able to work out-of-doors in all kinds of weather.
6. Ability to read and interpret schematics blueprints and prepare bill of materials.
7. Experience in 110, 220 and 440 volt systems.
8. Experience in troubleshooting and performing diagnostics.

Duties/ Responsibilities:

1. Perform basic electrical maintenance and repairs to all facility buildings and electrical systems in a safe manner.
2. Regularly check and maintain backup generator(s) for proper function, both mechanically and electrically.
3. Perform basic facility maintenance and appropriate preventative maintenance.
4. Install power within buildings, to pumps, controllers, and other electrical devices in accordance with local building and underwriter electric codes.
5. Perform other duties as directed by supervisor.

POSITION DESCRIPTION

Position: Mechanic/Process Repairman

Department: As assigned

Reports to: Environmental Manager or the District Manager

Qualifications:

1. Valid in-force motor vehicle operator's license.
2. No violation on operator's license exceeding established company standard.
3. High school diploma.
4. Demonstrated ability to repair equipment in a safe and efficient manner.
5. Able to work out-of-doors in all weather.
6. Must be able to tolerate respirator.

Duties/ Responsibilities:

1. Repair Process equipment (Pumps, Meters, Plumbing,welding etc.) to do one or all the following:
   a. Pump rebuilding, meter calibration
   b. Minor welding, carpentry.
   c. Minor vehicle repair
2. Regularly perform inspections and simple daily maintenance on equipment.
3. Be constantly aware of safety precautions and operate process equipment in a safe manner.
4. Operate assigned equipment consistent with environmental procedures and regulations.
5. Notify supervisor of any problem in equipment operation or unusual circumstances of work environment.
6. Perform other duties as assigned by Manager.

POSITION DESCRIPTION

Position: Environmental Manager

Department: District management (Operations)

Reports to: Area Environmental Manager

Qualifications: BS in Chemical, Civil or Industrial Engineering or related scientific or management field; five years demonstrated and effective experience as a supervisor in at least four of the following positions: heavy equipment operators, laborers, maintenance personnel, engineers, managers, administrative staff or:

Ten years of direct experience in related areas including management, environment, wastewater treatment, chemical process.

Experience in handling hazardous materials or waste; experience in project management and personnel supervision; some knowledge of heavy equipment operation; ability to make budget recommendations and control costs.

Duties/ Responsibilities: Responsible for overall disposal operations at facility which will include:

1. Insure that the facility is run in an efficient, safe and environmentally sound manner, and that the facility is in compliance with all applicable permits.

2. Direct and evaluate the activities of facility supervisors reporting to them.

3. Make recommendations to the Regional Engineer relative to changes in operational modes, personnel staffing and equipment purchases.

4. Other duties as assigned by the Area Environmental Manager.

POSITION DESCRIPTION

Position: Landfill technician

Department: As assigned

Reports to: Manager of Department where assigned or the Environmental Manager.

Qualifications:

1. Valid in-force motor vehicle operator's license if assigned to operate vehicular equipment; no operator license violation exceeding established company standard (if operating a vehicle).
2. High school diploma.
3. Demonstrated ability to operate assigned equipment in a safe and efficient manner.
4. Able to work out-of-doors in all weather.

Duties/ Responsibilities:

1. Operate the leachate transfer systems and perform the tasks assigned.
2. Regularly perform inspections and simple daily maintenance on equipment.
3. Be constantly aware of safety precautions and operate assigned equipment and handle chemical products in a safe manner.
4. Perform other duties as directed by supervisor.

Typical Assignment:

1. Leachate pumping operations
2. Vac-truck
3. Daily-Inspections

POSITION DESCRIPTION

Position: Administrative Assistant

Department: As assigned

Reports to: Environmental Manager

Qualifications:

1. High school graduate preferred.
2. Should have some typing ability.
3. Should possess basic secretarial and office skills.
4. Must have the ability to record and file in a neat and orderly manner.

Duties/ Responsibilities:

1. Answer the telephone and take messages.
2. Perform filing and typing as assigned.
3. Copy and record material as directed.
4. Perform errands and assignments as needed.
5. Maintain records of inventories and supplies as directed.
6. Perform other clerical duties as assigned by supervisor.

*Does not include various Finance and Accounting Department Clerks which are recorded under specific Job Codes with specific Position Descriptions.

ATTACHMENT H

POST-CLOSURE PLAN

ATTACHMENT H

POST-CLOSURE PLAN [6NYCRR 373-1.5(a)(2)(xiii)]

The Permittee shall comply with the following conditions and comply with the Post-Closure Plan throughout the post-closure care period. This plan applies to the following units which require post-closure care for a minimum of thirty (30) years:

-Secure Landfill SCMF #1
-Secure Landfill SCMF #2
-Secure Landfill SCMF #3
-Secure Landfill SCMF #4
-Secure Landfill SCMF #5
-Secure Sludge Cell B
-Secure Sludge Cell C
-Standpipe 47A
-PCB Oil/Water Separator
-Underground Hazardous Waste Leachate Transfer Lines

A. GROUNDWATER MONITORING

Schedule I of Module I - Exhibit C of this permit addresses how the requirements for groundwater monitoring during post-closure will be met.

B. LEACHATE COLLECTION SYSTEM

1. The estimated volume to be collected and treated during post-closure and perpetual care is as follows:

Cell	Monthly Volume
SCMF #1	1,500 gallons
SCMF #2	6,000 gallons
SCMF #3	3,800 gallons
SCMF #4	6,000 gallons
SCMF #5	1,800 gallons
SSMF B/C	45,000 gallons

2. Actual leachate volumes pumped from landfills SCMF

No's 1-5 and Cells B and C shall be measured and recorded on a monthly basis. This volume will be used to evaluate the effectiveness of the cover system and detect potential cover failure.

C. Maintenance Activities

1. Facility Inspections

Items to be inspected in this section are further described in the Post-Closure Inspection Schedule. The following is a brief description of the items found in **Attachment B**.

a. General Structures and Facilities to be Inspected:

i. Security Devices

The perimeter fencing, entrance gates, locks and signs used to prevent unauthorized access to the closed facility will be inspected on an annual basis for evidence of damage, including: holes and tears in the fencing, defacing of signs, damaged locks, etc.

ii. Site Vegetation

Cover vegetation and surrounding on-site vegetation will be inspected for continuity (presence of bare spots), presence of species detrimental to cover integrity (burrowing animals such as the groundhog and gopher), and evidence of vegetation stress (deep-rooted vegetation) once per year in the spring.

iii. Perimeter Drainage System

The drainage ditches around individual landfills will be inspected for evidence of erosion and obstruction of flow on an annual basis.

iv. Final Cover Integrity

All areas receiving final cover will be inspected for evidence of dehydration cracking, ponding of rainwater, erosion, presence of burrowing animals or deep-rooted vegetation, continuity of vegetation, and slope integrity once per year in the spring.

v. Leachate Collection Systems and Transfer Lines

The leachate collection systems and underground transfer lines will be inspected for integrity and amount of leachate produced as described in **Attachment B. Attachment B** also includes the list of lines that are required to be tested and the schedule for testing these lines. **Attachment B** provides the SOP for leachate high level alarms going off and includes emergency procedures for other leachate transfer line malfunctions. All leachate collection systems and their inspection schedules are further discussed in **Attachment B.**

vi. Cover Elevation Reference Points

These reference points will be resurveyed every three-(3) years during the post closure period to assess the degree of subsidence and/or differential settlement, which may occur during post closure. Differential settlement will be deemed to have occurred with evidence of a 6-inch drop in the elevation of the landfill. The professional judgement of the survey team and consultants for the site will be used in determining whether any remedial actions need to be taken.

vii. Groundwater Monitoring Wells

The groundwater monitoring wells will be inspected annually. The inspection will check for the proper working order of protective equipment, the physical appearance of the well and the appearance of the surrounding area as presented on the Well Inspection Chart in **Exhibit C, Appendix C-1**

viii. Groundwater Contours

Groundwater contours will be mapped on a semi-annual basis to determine the height of the groundwater under the individual landfills and the entire CECOS parcel.

ix. Leachate Analysis/Sampling

Leachate analysis/sampling will be conducted every fourth

groundwater sampling episode for the same parameters as the groundwater monitoring program.

b. Frequency of Inspections

All structures and facilities will be inspected as identified within the unit descriptions found in **Attachment B**, (Post-Closure Inspection Schedule) and the inspection schedules.

2. Monitoring Final Cover Systems and Vegetation

a. Cover Maintenance Activities and Schedule

The majority of the routine maintenance activities are directed at maintaining the integrity of the final cover systems, the vegetation and the control of erosion. Based on extensive experience over the term of the permit it is noted that vegetation has been well established on the cover systems and that maintenance activities are minor. Generally maintenance is done following the spring inspection and consists of placement of small amounts of topsoil and seeding.

b. Mowing Schedule:

Cover vegetation will be mowed at least once per year. In no event, shall the vegetation be cut at a length less than 2 inches.

c. Reseeding and Mulching Schedule:

As a result of cover maintenance activities and localized failures of cover vegetation, it is expected that periodic reseeding and mulching may be required to maintain uniform vegetation. Reseeding and mulching shall be performed within 30 days of the inspection which deems this maintenance activity is necessary.

i. If large areas (approximately 1/2 acre or larger) require reseeding and mulching, the process will be performed by a hydro mulch unit supplied by a contractor. If small areas require reseeding and mulching, the process will be performed by laborers. It is estimated that during post-closure and perpetual care approximately 800 square feet per landfill per year will require reseeding.

ii. A balanced fertilizer, as discussed below, and straw mulch

will be employed to assist in establishing vegetation. In both instances the grass seed used for revegetation will be a mixture of creeping red fescue, Kentucky bluegrass, perennial ryegrass, annual ryegrass, and white clover at a rate of 200 lbs./acre. For late fall planting, CECOS will use a mixture that consists of Kentucky 31 tall fescue, perennial ryegrass, annual ryegrass, white clover and climax timothy.

d. Soil Replacement:

Based on experience during the last five years, soil replacement requirements have been minimal. If required, soil replacement will be performed using equipment and labor from a contractor. It is anticipated that for routine soil replacement activities soil will be purchased off-site and delivered to the approximate location on-site at which it will be placed. The soil will then be placed, compacted, and graded using appropriate equipment.

e. Fertilizing Schedule:

Every five (5) years, a representative soil sample from each landfill, shall be separately analyzed for pH and nutrient status (nitrogen, phosphorus and potassium). The Permittee shall confer with the local Soil Conservation Service as to the recommended amounts of lime (if necessary) and amount and type of fertilizer necessary for each landfill in order to maintain and promote adequate growth of the existing vegetative cover. A record of the person(s) talked to at the Soil Conservation Service and their recommendation shall be maintained at the facility throughout the post-closure care period. This recommendation shall be carried out within thirty (30) days and verification shall be maintained at the facility.

f. Rodent Control Program:

Through regularly scheduled site inspections, burrowing animals may be detected on the facility premise. If so, any damage to facility structures such as drainage channels or final grading patterns will be repaired by replacement and compaction of the damaged area with clay soil within one month of detection. A continued presence of these burrowing animals may lead to consultation with a wildlife pathologist to determine the most appropriate way to control these animals.

3. Erosion Control

a. Maintenance of Perimeter Drainage System:

The site drainage system serves to intercept surface water runoff and direct it to outfall ditches or natural drainage pathways.

Although the drainage system will occasionally be exposed to significant volumes of run-off there has been little to no maintenance required except occasional removal of sediment which is carried into the ditches by run-off.

Maintenance of portions of the drainage ditches in which accumulations of debris or sediment occur will consist of removal of debris followed by removal of accumulated sediment either manually or using a "Gradall" or similar type machine. The greatest amount of drainage ditch maintenance is expected to be required during the first two years while final cover vegetation is becoming established. During this period of time the amounts of sediment and debris which accumulate in the ditches will be greater than in later stages following establishment of cover vegetation. For the first two years, it is anticipated that drainage ditches will require maintenance twice annually. After the first two years, annual maintenance will be adequate.

b. Cover Replacement:

Clay soil utilized for erosion repair on final cover and drainage ditches will be purchased from off-site sources on an as-needed basis. All soil utilized for cover repair will be of a quality consistent with the original cover material it is designed to replace.

4. Contingency Plan

a. Cover Failure

Final cover failure may result from severe erosion, cracking caused by differential settling, or penetration by deep-rooted vegetation or burrowing animals. In the event that final cover failure results in the migration of contamination to surface water, the following response will be initiated immediately upon discovery:

i. If contaminant migration is still occurring, such migration will be contained as close to the source as possible. Containment will consist of the placement of soil dikes around the source to inhibit the movement of contamination to site drainage systems.

ii. Discharge point(s) for site drainage will be blocked, if necessary, to prevent off-site discharge of potentially contaminated run-off.

iii. The NYSDEC and EPA Region II will be notified of the discovery of final cover failure verbally within 24 hours, and in writing within seven days.

iv. Following containment of run-off, on-site water contained in site diversion and drainage systems will be sampled sequentially from the source of contamination to determine the extent of contamination. All water found to exhibit hazardous waste characteristics will be removed to the Phase II facility or an off-site treatment facility.

v. The failing portion of final cover will be repaired by excavation and off-site disposal at a properly permitted facility of all contaminated cover materials. The excavated area will then be repaired by replacement of the compacted clay layer, the drainage layer, and the vegetative layer. The replaced materials will be tied into the remaining cover in such a manner as to produce a continuous impermeable cover at the location of the repair.

b. Storm Erosion:

Facilities at the closed site which may experience substantial erosion as a result of severe storms include the final cover and the drainage system. The following responses will be employed in the event that such erosion is detected:

i. Final Cover
Sand bags will be positioned over the final cover in a manner which diverts the flow of run-off which is responsible for erosion.

ii. Drainage Ditches

Sand bags will be positioned at eroding areas to prevent further erosion and to contain run-off within the ditches.

5. Leachate Collection System Maintenance

a. Repairs to the exposed portion of the surface access standpipes, associated security devices (e.g. locking caps), and standpipe grouting will be performed as necessary throughout the closure period. The inspection sheet entitled "Well Inspection Chart" in the Post-Closure Inspection Schedule shall be filled out for each landfill standpipe. Inspections shall be semi-annual.

b. Maintenance activities required during the post-closure period may consist of removal of sand or sediment from the standpipes or sumps, and removal or mowing of vegetation in the vicinity of the surface projection of the standpipes. Any sediment or sand removed from the leachate collection system will be handled as a hazardous waste and transported to an off-site permitted disposal facility.

c. Throughout the post-closure period, the collection systems within the secure cells will be checked regularly for the presence of leachate. Based on the amount of liquid found in each system, a determination will be made as to the integrity of the collection trenches. If a system is suspected of being clogged, an assessment by a contracted professional engineer will be made. All repairs will be made based on the professional engineer's assessment.

d. Standpipe bottom elevations for all landfills (see list below) shall be resurveyed every five years during the post-closure care period to evaluate and assess standpipe integrity and verify leachate management data.

(1) Within sixty (60) days of the resurvey, submit a report correlating standpipe bottom elevations with standpipe riser marks to ensure accurate standpipe depths. Should discrepancies arise in standpipe depths by more than 0.2 feet, the report must address this discrepancy and modify the permit if necessary.

(2) Should a deviation of 0.5 feet (positive or negative) occur from the standpipe bottom elevation (see list below) notification shall be given to the Department within ten (10)

days of discovery, and an assessment report by a professional engineer for the maintenance or repair of the standpipe shall be submitted to the Department within thirty (30) days. This report shall include a recommendation to restore the standpipe to its original bottom elevation and ensure proper leachate removal.

CECOS STANDPIPE BOTTOM ELEVATIONS TO BE USED FOR FUTURE REFERENCE

Landfill Cell	Standpipe No.	Standpipe Monitoring Point Elevation (Ft.)	Currently Measured Bottom of Standpipe Elevation (Ft.)
SCMF No. 1	SCMF-1-6	608.60	570.4
SCMF No. 1	SCMF-1-7	610.81	579.7
SCMF No. 2	SCMF-2-45	624.64	573.1
SCMF No. 2	SCMF-2-45A	626.08	571.2
SCMF No. 2	SCMF-2-46	625.27	572.3
SCMF No. 2	SCMF-2-46A	624.78	573.7
SCMF No. 2	SCMF-2-47A	622.59	575.1
SCMF No. 3	SCMF-3-58	627.78	574.6
SCMF No. 3	SCMF-3-58A	630.94	575.1
SCMF No. 3	SCMF-3-59	628.13	574.3
SCMF No. 3	SCMF-3-59A	630.84	573.6
SCMF No. 3	SCMF-3-60	627.64	574.1
SCMF No. 3	SCMF-3-60A	631.32	574.1
SCMF No. 3	SCMF-3-61	627.58	573.5
SCMF No. 3	SCMF-3-61A	629.09	575.8
SCMF No. 3	SCMF-3-62	631.25	575.8
SCMF No. 3	SCMF-3-62A	629.89	573.9
SCMF No. 4	SCMF-4-1	619.97	580.3
SCMF No. 4	SCMF-4-1A	616.08	579.9
SCMF No. 4	SCMF-4-2	622.11	579.3
SCMF No. 4	SCMF-4-3	621.12	582.8
SCMF No. 4	SCMF-4-3A	619.67	582.3
SCMF No. 4	SCMF-4-4	618.91	579.6
SCMF No. 4	SCMF-4-5	618.83	576.3
SCMF No. 4	SCMF-4-5A	618.61	576.7
SCMF No. 5	SCMF-5-1 PUMP CHAMBER	634.59	583.5
SCMF No. 5	(South Rim)	635.24	580.7

SCMF No. 5	SCMF-5-3	635.24	584.1
SCMF No. 5	SCMF-5-4	636.37	586.3
SCMF No. 5	SCMF-5-5	636.43	584.2
Intmdt. Cells A/B	SSMF-A-B	646.68	564.7
Intmdt. Cell C	Cell C Sump	585.12	563.6

D. POST-CLOSURE COST ESTIMATE [6NYCRR 373-1.5(a)(2)(xvi)]

A. Assumptions

1. Leachate Collection Systems

a. The leachate collection systems at the Niagara Falls facility will be operated as described in the Post-Closure Plan.

b. The cost of treatment, and disposal of the leachate will be $0.033 per gallon.

c. Leachate generation rates are as described above.

d. The cost for pressure testing leachate transfer lines is $1,500 per test.

e. Leachate analysis/sampling will be conducted every fourth groundwater monitoring episode.

2. Maintenance Activities

a. The post-closure maintenance activities at the Niagara Falls facility will be conducted in accordance with the description of activities contained in the post-closure plan for the site.

b. During the post-closure period, the site will receive regular annual cover (vegetation and integrity) inspections.

c. The site will be aerially surveyed every five (5) years.

d. Based on the previous five years experience, maintenance of cover vegetation will be minimal and cost approximately $500/landfill/year.

e. Cover vegetation will be mowed annually.

f. The grass seed used for re-vegetation will be a mixture of creeping red fescue, Kentucky bluegrass, perennial ryegrass, annual ryegrass, and white clover at a rate of 200 lbs. /acre. For late fall planting, CECOS will use a mixture that consists of Kentucky 31 tall fescue, perennial ryegrass, annual ryegrass, white clover and climax timothy.

g. The fertilizer used for seeding and revegetation will consist of lime being applied at a rate of 1 ton per acre and nitrogen being applied at a rate of 150 pounds per acre.

h. The mulch used for re-vegetation will be straw applied at a rate of 80 bales

per acre.

m. Soil required to maintain surface drainage and diversion systems has been included in the quantities required to maintain final cover.

n. Costs associated with unscheduled maintenance or inspection activities, and with responses to possible emergency occurrences (pump failure requiring replacement) will be funded from the 15% contingency included in this estimate.

o. All post-closure maintenance activities will be performed by contractors using work crews achieving the levels of production specified below.

i. Resurveying of final cover elevation will be via aerial survey.

ii. Seeding of portions of final cover which require re-vegetation will be performed by equipment capable of spreading approximately 4 acres of seed per day.

iii. Mulching of portions of final cover which require re-vegetation will be performed by equipment capable of spreading approximately 4 acres of mulch per eight-hour day.

iv. Fertilizing of the final cover will be performed by equipment capable of spreading approximately 4 acres of fertilizer per day.

p. Replacement to the chain link fence, surrounding the entire site, will require approximately 1% (85 feet) replacement per year.

q. Security/site-wide inspections will be conducted on an annual basis. These inspections will include:

i. Inspecting the integrity of the perimeter fence.
ii. Inspecting the drainage ditches for blockage and washouts.
iii. Verifying the location of bench marks.

r. Pump repair will be conducted on an "as needed" basis throughout the post-closure period.

s. Monitoring well maintenance and repair costs will include an annual painting of well caps and the replacement of well caps and locks on an "as needed" basis.

3. Unit Costs for Maintenance Activities

Unit costs are shown on the tables for each unit.

FINANCIAL ASSURANCE COST ESTIMATE

Unit	Annual Care Cost	Perpetual Care Cost
SCMF #1	$5,374	$139,584
SCMF #2	$19,066	$495,221
SCMF #3	$22,413	$582,156
SCMF #4	$27,196	$706,390
SCMF #5	$24,865	$645,844
SSMF	$130,360	$3,385,974
Phase 1	$12,140	$315,325
Corrective Measures	$19,680	$511,169
Perimeter/Site-Wide	$19,532	$507,325
Subtotal Perpetual Care		$7,288,987
Closure Cost		$80,000
Replacement Cost		$67,940
Subtotal		$7,436,927
Administrative @ 5%		$371,846
Contingency @ 15%		$1,115,539
TOTAL		$8,924,312

Note: The above utilizes a discount rate of 3.85%

Summary Cost Sheet

Closure Costs

Annual Post Closure Costs		**Annual Perpetual Care Costs**	
SCMF #1	$ 5,374.00	SCMF #1	$ 5,374.00
SCMF #2	$ 19,066.00	SCMF #2	$ 19,066.00
SCMF #3	$ 22,413.00	SCMF #3	$ 22,413.00
SCMF #4	$ 27,196.00	SCMF #4	$ 27,196.00
SCMF #5	$ 24,865.00	SCMF #5	$ 24,865.00
SSMF	$ 130,360.00	SSMF	$ 130,360.00
Phase I	$ 12,140.00	Phase I	$ 12,140.00
Perimeter/Site-Wide	$ 19,532.00	Perimeter/Site-Wide	$ 19,532.00
Corrective Measures	$ 19,680.00	Corrective Measures	$ 19,680.00

TOTAL	$ 280,626.00

Unit: **SCMF #1**

Year of Closure **1978**

End of Post-Closure **2008**

Surface Area **3.5 Acres**

Item	Frequency Post Closure	Unit Cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Leachate (gal/month)	1500	$0.033	$594	1500	$594
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Included in SCMF #3 Estimate		$0		$0
Leachate Monitoring			$3,510		$3,510
Transfer Line Testing	1 every 3 years	$1,500	$300	1 every 5 years	$300
Mowing	2 per year	$200	$700	1 per year	$700
Leachate Level Monitoring					$0
Fertilizing per acre	1 per 5 years	$100	$70	1 per 5 years	$70
TOTAL			$5,374		$5,374

Unit: **SCMF #2**

Year of Closure **1979**
End of Post-Closure **2009**
Surface Area **6.5 Acres**

Item	Frequency Post Closure	Unit Cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Leachate (gal/month)	6000	$0.033	$2,376	6000	$2,376
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Included in SCMF #3 Estimate		$0		$0
Leachate Level Monitoring/Hauling	Annual		$7,560		$7,560
Transfer Line Testing	Included with SCMF #1		$0		$0
Leachate Level Monitoring					
Mowing		358	1300		$1,300
Fertilizing	1 per 5 years	$100	$130	1 per 5 years	$130
47A Costs			$7,500		$7,500
TOTAL			$19,066		$19,066

Unit: **SCMF #3**

Year of Closure **1981**

End of Post-Closure **2011**

Surface Area **11 Acres**

Item	Frequency Post Closure	Unit Cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Leachate (gal/month)	3800	$0.033	$1,505	3800	$1,505
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Semi-Annual	6750	$13,500	Annual	$13,500
Leachate Monitoring/Site Hauling	Annual		$4,788		$4,788
Transfer Line Testing	Included with SCMF #1		$0		$0
Leachate Level Monitoring					
Mowing		605	2200		$2,200
Fertilizing	1 per 5 years	$100	$220	1 per 5 years	$220
TOTAL			$22,413		$22,413

Unit: SCMF #4

Year of Closure 1984
End of Post-Closure 2014
Surface Area 14 Acres

Item	Frequency Post Closure	Unit cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Leachate (gal/month)	6000	$0.033	$2,376	6000	$2,376
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Semi-Annual	$3,600	7,200	Annual	$7,200
leachate monitering/ site hauling	annaul		14,040		$14,040
Transfer Line Testing	1every 3 years	$1,500	$300	1every 5 years	$300
Leachate Level Monitoring					
Mowing		$770	$2,800		$2,800
Fertilizing	1 per 5 years	$100	$280	1 per 5 years	$280
TOTAL			$27,196		$27,196

Unit: SCMF #5

Year of Closure 1991
End of Post-Closure 2021
Surface Area 12 Acres

Item	Frequency Post Closure	Unit cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Leachate (gal/month)	1800	$0.033	$713	1800	$713
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Semi-Annual	$8,550	17,100	Annual	$17,100
Leachate Monitering / site hauling	annual		4,212		$4,212
Transfer Line Testing	No underground line		$0		$0
Leachate Level Monitoring					
Mowing		$660	$2,400		$2,400
Fertilizing	1 per 5 years	$100	$240	1 per 5 years	$240
TOTAL			$24,865		$24,865

Unit: SSMF B/C

Year of Closure 1985
End of Post-Closure 2015

Surface Area 7 Acres

Item	Frequency Post Closure	Unit cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Leachate (gal/month)	45000	$0.033	$17,820	45000	$17,820
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Semi-Annual	$2,250	4,500	Annual	$4,500
Leachate Monitering / site hauling	annual		105,300		$105,300
Transfer Line Testing	When required	$1,500			
Leachate Level Monitoring **			$1,000		$1,000
Mowing		$385	$1,400		$1,400
Fertilizing	1 per 5 years	$100	$140	1 per 5 years	$140
TOTAL			$130,360		$130,360

** Includes two recharge tests/year

Unit: Phase I

Year of Closure 1990
End of Post-Closure 2020
Surface Area 5 Acres

Item	Frequency Post Closure	Unit cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Inspection	1 per year	$200	$200	1 every 5 years	$200
Groundwater Monitoring	Semi-Annual	$5,750	$11,500	Annual	$11,500
Mowing		$200	$400		$400
Fertilizing	1 per 5 years	$100	$40	1 per 5 years	$40
TOTAL			$12,140		$12,140

Corrective Measures

Item	Frequency Post Closure	Unit cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Groundwater Treatment (gallons/month)	475,000	$0.0024	$13,680	475,000	$13,680
System Maintenance	1 per month	$500	$6,000	1 per month	$6,000
Monitoring					
Total			$19,680		$19,680

Unit: Perimeter & Sitewide

Year of Closure N/A
End of Post-Closure N/A
Surface Area N/a

Item	Frequency Post Closure	Unit cost Post Closure	Annual Cost Post Closure	Frequency Perpetual Care	Annual Perpetual Care
Sitewide Security Inspections	4 per year	$489	$1,957	1 every 5 years	$1,957
Groundwater Monitoring	Annual	$5,625	$5,625	Annual	$5,625
Fence Repair	85 feet/year	$13/foot	$450	85 feet/year	$450
Monitoring well repair	1 per year	$700	$700		$700
Drainage Maintenance	1 per year	$6,000	$6,000	1 per year	$6,000
Monitoring well elevations *	Every 5 years	$5,000	$1,000	Every 5 years	$1,000
Survey Cover *	Every 5 years	$6,000	$1,200	Every 5 years	$1,200
Groundwater Contours *	2 per year	$1,300	$2,600	2 per year	$2,600
Leachate transport SCMF #4,#5 SSMF					
TOTAL			$19,532		$19,532

*Covers all cells

Source of Cost Estimates

	Activity	Estimate	Source
A.	Groundwater Countours	$1,300	Current cost for external consultant
B.	Mowing	$55/Acre	Current average cost from BFI Closed Site Program
C.	Leachate Treatment/POTW disposal	0.033/gal	Current price for direct discharge to city
D.	Inspection	$120	2 hrs./landfill inc. Report @ $60/hr.
E.	HSL Volatiles	$100	Current cost for external consultant
F.	Sampling	$125	Current cost for external consultant
G.	Pressure Testing SCMF 1,2,3	$1,500	Estimate based on current time required at outside rates
H.	Pressure Testing SCMF4	$1,500	Estimate based on current time required at outside rates
I.	Pressure Testing SSMF	$1,500	Estimate based on current time required at outside rates
J.	Pressure Testing SCMF #5	$0	90 day tank/ above ground line
K.	Well Survey via GPS	$6,000	Cost for entire site survey
L.	Cap survey	$6,000	Cost for aerial survey of site
M.	Leachate level alarm maintenance	0.105/gal	Cost /gal./ year(unshared costs with BFI) URS 3rd party rate
N.	Fertilizing	$100	Fertilizer cost of $100/acre every 5 years
O.			
P.	Corrective Measures Maintenance	$500	10 hours/month @ $50/hr.
Q.	Cell A recharge monitoring	$500	2 events/year
R.	47A costs	$7,300	2 drums/yr. @ $650 T&D. $500/mth. Maintenance.
S.	On site leachate transport	0.09/gal	BFC quote haul on-site 2x/week (only cells 1,4,5&Int A,B,C
T.	HSL Metals	$150	Current cost for external consultant

Cost Estimate
SCMF #1,2,3

Well ID	UP/DOWN	Pre-30 Frequency	Pre-30 Parameter	Post-30 Frequency	Post-30 Parameter	Cost per analysis	Cost for Sampling	Cost per Year Pre-30	Cost per Year Post-30
Vf	Remove from program								
356	Remove from program								
D-18	Remove from program								
Vd	Remove from program								
VD	Remove from program								
D-19	Remove from program								
D-20	Remove from program								
357R	Remove from program								
74	Remove from program								
75	Remove from program								
76	Remove from program								
71	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
83	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
1S2R	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
55R	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
63	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
26SR	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
358	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
359	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
360	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
19ASR	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
19SR	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
95	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
8	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
351	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
352	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
51	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
82	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
50SR	Down/PL	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
31SR	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
20SR	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
350	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
355	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
18ASR	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
18SR	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
53	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
52SR	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
56SR	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
10	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
354	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
353	Down/DuPont	semi-annual*	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
TOTAL								**$13,500**	**$6,750**

*Wells monitored semi-annual when PuPont is not effecting capture
Wells monitored bi-ennially when DuPont is effecting capture

Cost Estimate
SCMF #4

Well ID	UP/DOWN	Pre-30 Frequency	Pre-30 Parameter	Post-30 Frequency	Post-30 Parameter	Cost per analysis	Cost for Sampling	Cost per Year Pre-30	Cost per Year Post-30
400	Remove from program								
401	Remove from program								
402	Remove from program								
RB-51I	Remove from program								
RB-51S	Remove from program								
RB-53D	Remove from program								
403	Remove from program								
404	Remove from program								
79	Remove from program								
406	Remove from program								
407	Remove from program								
409	Remove from program								
410	Remove from program								
411	Remove from program								
172	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
171	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
173	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
413	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
169	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
170	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
414	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
415	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
416	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
417	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
418	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
419	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
420	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
421	Down/POC	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
422	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
423	Not in Current Program								
424	Upgradient	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
425	Not in Current Program								
TOTAL								**$7,200**	**$3,600**

316	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
317	Replace with SanVII underdrain Monitoring								
318	Down/BR/	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
319	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
309	Down/BR/	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
310	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
320	Replace with SanVII underdrain Monitoring								
321	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
322	Down/BR/	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
323	Replace with SanVII underdrain Monitoring								
324	Down/BR/	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
325	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
98	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
99	Down/BR/	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
100	Replace with SanVII underdrain Monitoring								
85AR	Down	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
87AR	Down/BR/	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
273	Replace with SanVII underdrain Monitoring								
88-137-2	Move to Perimeter Monitoring System								
88-138-2	Move to Perimeter Monitoring System								
San Underdrain	Down / POC @MH5	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
TOTAL	TOTAL							**$17,100**	**$8,550**

SSMF						Cost per	Cost for	Cost per	Cost per
		Pre-30	Pre-30	Post-30	Post-30	analysis	Sampling	Year	Year
Well ID	UP/DOWN	Frequency	Parameter	Frequency	Parameter			Pre-30	Post-30
329	UP	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
339	UP	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
340	UP	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
96A	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
273	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
85AR	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
299R	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
2R	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
87AR	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
81R	DOWN	semi-annual	HSL	annual	HSL	$100	$125	$450	$225
TOTAL								**$4,500**	**$2,250**

Phase I

WWTS Ph I						Cost per	Cost for	Cost per	Cost per
		Pre-30	Pre-30	Post-30	Post-30	analysis	Sampling	Year	Year
Well ID	UP/DOWN	Frequency	Parameter	Frequency	Parameter			Pre-30	Post-30
L-1	DOWN								
87-112-1	DOWN	Quarterly	HSL Volatile & Annual Appendix 33	annual	HSL Volatile	$100	$125	$1,150	$225
87-142-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
88-146-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
88-147-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
88-148-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
88-149-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-152-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-153-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
94	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
86-112-1	DOWN	Quarterly	HSL Volatile & Annual Appendix 33	annual	HSL Volatile	$100	$125	$1,150	$225
87-142-1	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
88-148-2	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-149-2	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-151-2	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-152-2	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
PELA-4	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
86-112-3	DOWN	Quarterly	HSL Volatile & Annual Appendix 33	annual	HSL Volatile	$100	$125	$1,150	$225
87-142-3	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-149-3	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-151-3	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
89-167-3	DOWN	semi-annual	HSL Volatile	annual	HSL Volatile	$100	$125	$450	$225
TOTAL								**$11,550**	**$4,725**

Cost Estimate
Perimeter Perpetual Care Monitoring

Well ID	Program			Annual Sampling	Annual HSL VOL	Annual HSL MET
	Perimeter	Zone	Frequency	Cost	Cost	Cost
273	DOWN	TOC	Annual	$125	$100	$150
88-138-2	DOWN	TOR	Annual	$125	$100	$150
299R	DOWN	TOR	Annual	$125	$100	$150
88-139-2	DOWN	TOR	Annual	$125	$100	$150
2R	DOWN	TOR	Annual	$125	$100	$150
88-140-2	DOWN	TOR	Annual	$125	$100	$150
88-141-2	DOWN	TOR	Annual	$125	$100	$150
50SR	DOWN	TOR	Annual	$125	$100	$150
33A	DOWN	TOR	Annual	$125	$100	$150
405	DOWN	TOR	Annual	$125	$100	$150
78	DOWN	TOR	Annual	$125	$100	$150
408	DOWN	TOR	Annual	$125	$100	$150
412	DOWN	TOR	Annual	$125	$100	$150
98	DOWN	TOR	Annual	$125	$100	$150
88-137-2	DOWN	TOR	Annual	$125	$100	$150
Subtotal				**$1,875**	**$1,500**	**$2,250**

Total **$5,625**

ATTACHMENT I

CLOSURE PLANS and COST ESTIMATES

TABLE OF CONTENTS

List of Tables

General Discussion of
CLOSURE PLANS AND COST ESTIMATES

Hazardous waste units at the CECOS International Niagara Falls, New York facility require closure plans and cost estimates pursuant to the requirements of 6NYCRR 373-2.7(a)-(f) and 373-2.8(c).

With the implementation of perpetual care, the need for closure activities is modified to incorporate replacement of certain key units in perpetuity.

Certain units which comprise the treatment component of site hazardous waste activities will require actual closure. Since none of the units are "disposal" units where waste will remain after closure the closure activities will consists of two components.

These components are:

1. Removal and/or treatment of any hazardous waste in tanks or containers.

2. Decontamination of tanks and appurtenant structures and disposal of empty containers

Table I presents maximum volume of waste that could be present in hazardous waste storage units on site and that would require treatment and/or disposal.

Table II presents a summary of the decontamination costs for all on-site tanks and sumps.

Table III presents the projected disposal costs for solids residues that would be present in the various tanks as a result of ongoing treatment activities.

SUMMARY OF KEY ASSUMPTIONS RELATING TO CLOSURE OF HAZARDOUS WASTE STORAGE UNITS AT THE CECOS NIAGARA FALLS, NY SITE

Basic Assumptions:

1. Secondary containment structures are not utilized for waste storage. Spills within secondary containment are infrequent and routinely cleaned up to remove hazardous waste or hazardous waste constituents. Because of this decontamination of secondary containment structures is not required.
2. Based on past experience at the site with the closure of numerous tanks in accordance with the procedures specified herein it has been found that tanks can be "clean-closed". In view of this it is assumed that removal and disposal of tanks will not be required since they will not be regulated after clean closure.
3. No credit is assumed for the scrap value or re-use of equipment that has been closed.
4. Cost to treat waste is based on price CECOS charges to an outside customer that ships waste to CECOS via pipeline.
5. The inventory of waste at the site will be processed through the on-site facilities and discharged to the Niagara Falls wastewater treatment plant.
6. Residues from treatment will be shipped off-site for disposal.
7. Closure cost estimates are based on the maximum permitted waste volume.
8. During closure of the Redesigned Phase II Wastewater Treatment System, security for the entire CECOS site will still be in effect. No special security for the closure operations will be needed.
9. The following 2005 rates were used for equipment/labor required in various stages of the Closure Plan:

Material handler/laborer	$24.00/hour
Vacuum truck (with operator and mileage included)	$116.00 /hour
Hydroblaster (with mileage and operator included)	$67.00/hour

10. The amount of rinse water generated by hydroblasting of the treatment and storage tanks has been calculated as 0.3 gallons/sq.ft. of the tank surface area.
11. Analytical testing costs per sample are as follows: $750

12. The unit cost for disposal of hazardous solid material at an approved facility is $275 per ton including transportation.

At the time of closure of the hazardous waste storage units at the Niagara Falls site it is anticipated that the remaining storage tanks in service, are filled to their maximum capacity. Closure will consist of processing of all stored wastes through the treatment plant. Subsequent to processing all stored wastes any settled solids will be removed from the tanks starting at the upstream end. Solids will be processed through a Contractors' portable filter press. It is assumed that the total volume of solids present will be approximately 80 tons (see table III).

Subsequent to removal of all stored waste all tanks and appurtenant structures will be decontaminated utilizing high-pressure water. Decontamination will be performed by a hydroblast unit.

Closure Process and Schedule:

Upon cessation of waste receipt the following will occur in sequential order:

Processing of waste inventory:

1. All 90 – day storage drummed waste will be sent off-site to an approved disposal location.
2. All wastes will be processed from T-104/T-105 through the static mixers to T-111.
3. Wastes from T-111 will be processed either through aqueous carbon or discharged directly to the city WWTP depending on waste characteristics.
4. All spent carbon will be disposed/recycled. One fresh bed of carbon will remain in one carbon adsorber to be used to process decontamination rinse water.
5. At this point, all waste inventory will have been processed and the cleanout/decontamination process will begin.

Tank Cleanout:

1. Solids will be removed from the following tanks and processed through a filter press, or if a small enough quantity, solidified. (T-101, T-102, T-104/T-105, T-111). Disposal of these solids will be to an approved facility.

2. As part of the sludge removal all tanks in the system will be rinsed to remove all easily removed solids clinging to the tanks.

Tank Decontamination:

1. Tanks and associated piping will be decontaminated using a hydroblast unit.
2. Rinsate from tank decontamination will be processed through the remaining carbon bed.
3. After completion of all decontamination activities the carbon in the remaining adsorber will be sent off site for disposal.
4. The empty carbon adsorber will be charged with fresh carbon to use for ongoing leachate processing.

Replacement/Maintenance cost summary for items required for perpetual care.

It is assumed that transfer lines and tankage will need to be replaced and/or maintained on a regular basis after the useful life of the existing tankage has been exhausted. For purposes of perpetual care it is assumed that the wastewater treatment system is fully functional at the time of closure and that all tankage is in good repair. It is also assumed that the only treatment that will be required is for ongoing leachate generation since groundwater is piped directly to the City sewer. .
Based on the above, the useful life of the existing carbon adsorbers, at a life of 20 years per tank

for 4 tanks, is 80 years. The useful life of the leachate storage tanks utilized for SSMF (T-201), SCMF #4 (SCMF #4 UST) and SCMF #5 (90 day tank) is assumed to be 20 years. A replacement cost for tankage of $ 2.00 per gallon is assumed. Based on this, the replacement cost for these tanks is as follows:

T-201	20,000	$ 40,000
SCMF #4	3,000	$ 6,000
SCMF #5	800	$ 1,600
47A	2,670	$ 5,340
Carbon Adsorber	7,500	$ 15,000
Total Replacement Cost		$ 67,940

Summary Sheet: Aqueous Waste Inventory Processing and Disposal Cost

Wastewater Inventory Treatment Cost

	Volume	Cost@$.025/gal.
T-101	6,000	$150
T-102	6,000	$150
T-104	275,000	$6,875
T-105	c/c	
T-108	c/c	
T-110	c/c	
T-111	275,000	$6,875
T-119 (Note 5)	c/c	
CA-1 (Note 5)	7,500	
CA-2 (Note 5)	7,500	
CA-3 (Note 5)	7,500	$2,688
CA-4	7,500	
SF-1	500	
SF-2	500	
Phase III Process Sump	1,000	
Sludge Storage Tank No. 1	c/c	
Sludge Storage Tank No. 2	c/c	
Phase III Reactor	3,000	
Phase III Filtrate Tank	c/c	
Acid Vat 1	800	
Acid Vat 2	800	
Acid Vat 3	800	
Phase III Washwater Tank	c/c	
S-106 (stripper)	c/c	
S-107 (stripper)	c/c	
Total Tank Processing Cost		$16,738

Note: $0.025/gal. cost includes labor,utilities, monitoring and discharge costs

Drum Storage Inventory Treatment Cost

No Hazardous drums treated, only 90 storage

Drum disposal @$1.00/drum

Total Drum Waste Disposal Cost $0

Total Aqueous Waste Inventory Processing and Disposal Cost:

$16,738

CECOS WWTS

TABLE II
Closure Cost Estimate

Tank	Capacity Gallons	Status as of 10/2005	*Dimensions (feet)* Diameter	Height	Inside Surface Area	Gallons to Decon	Disposal Labor Cost	Disposal Cost gx $.025	Decon Labor Cost	Wash water Cost	Testing Cost	Total Cost
						Note 4	*Note 2*		*Note 3*	*Note 3*		
T-201	12,000	Active	10	30	1,100	330			$224	$8	$750	$982
T-202	25,550	Clean Closed										
R-1	3,000	Clean Closed										
L-R	57,500	Clean Closed										
T-4	10,000	Clean Closed										
L-13	600,000	Clean Closed										
T-101	6,000	active	10	10	471	141	$26	$150	$96	$4	$750	$1,026
T-102	6,000	active	10	10	471	141	$26	$150	$96	$4	$750	$1,026
T-104	275,000	Clean Closed										
T-105	275,000	Active	38	34	6,327	1,898	$1,210	$6,875	$1,287	$47	$750	$10,169
T-108	275,000	Clean Closed										
T-110	275,000	Clean Closed										
T-111	275,000	Active	38	34	6,327	1,898	$1,210	$6,875	$1,287	$47	$750	$10,169
T-119 (Note 5)	5,000	Clean Closed										
CA-1 (Note 5)	7,500	Active	10	12	534	160	$33	***$2,688***	$109	$4	$750	$3,583
CA-2 (Note 5)	7,500	Active	10	12	534							
CA-3 (Note 5)	7,500	Clean Closed	10	12	534							
CA-4	7,500	Clean Closed	10	12	534							
SF-1	500	Clean Closed	5	7	149							
SF-2	500	Clean Closed	5	7	149							
SCMF#4 UST		Clean Closed										
SCMF#5 UST		Clean Closed										
SCMF #4 UST	3,000	Active			250	75		*Note 1*	$51	$2	$750	$803
T-01	75	Active	2.5	2	26	8		*Note 1*	$5	$0	$750	$755
T-02	95	Active	(2X2.5X2.5)		33	10		*Note 1*	$7	$0	$750	$757
S-A	500	Active	5.5	3	99	30		*Note 1*	$20	$1	$750	$771
S-B	1,000	Active	5.5	6	151	45		*Note 1*	$31	$1	$750	$782
S-C	1,000	Active	5.5	6	151	45		*Note 1*	$31	$1	$750	$782
Phase III Process Sump	1,000	Active(pad only)			300							
Sludge Storage Tank No. 1	10,000	Clean Closed										
Sludge Storage Tank No. 2	10,000	Clean Closed										
Phase III Reactor	3,000	Clean Closed										
Phase III Filtrate Tank	10,000	Clean Closed										
Acid Vat 1	800	Inactive										
Acid Vat 2	800	Inactive										
Acid Vat 3	800	Inactive										
Phase III Washwater Tank	50	Clean Closed										
S-106 (stripper)	500	Clean Closed										
S-107 (stripper)	500	Clean Closed										
Totals					17,041	4,782	$2,506	$16,738	$3,241	$119	$9,000	***$31,604***

Total less inventory disposal cost $14,866

Note 1: Disposal cost covered in associated landfill cost

Note 2: Disposal labor based on processing rate of 5,000 gallons/hour

Note 3: Decontamination rate at 5sq.ft./min

Note 4: Decon gallons based on surface area/5sq.ft. per minute x 1.5 gpm

Note 5: Disposal cost in italics include cost for disposal of carbon or cost for disposal of recovered organics

Sludge/Solids Disposal Cost

Annual solids disposal volumes from Manifest Information

Year	Tons
2002	170
2003	105
2004	192

Average 155.6666667

Note: As of 1/1/05 facility not a CWT, only treating on-site generated leachate.)
Sludge projected to be much less than averaged.

Project sludge for remaining tanks:
~80 Tons Total

Mobilize Portable Press	16798	
Disposal &Transportation	16798	(4.5 roll-offs @$3800 each
Engineering Fees & Sampling	14800	(8 units @ 1850/unit)
Total	$48,396	

revised 5/2014

TABLE IV

CECOS INTERNATIONAL, INC.

Closure/Perpetual Care Cost Summary

FINANCIAL ASSURANCE COST ESTIMATE

Unit	Annual Care Cost	Perpetual Care Cost
SCMF #1	$5,374	$139,584
SCMF #2	$19,066	$495,221
SCMF #3	$22,413	$582,156
SCMF #4	$27,196	$706,390
SCMF #5	$24,865	$645,844
SSMF	$130,360	$3,385,974
Phase 1		$0
Corrective Measures	$19,680	$511,169
Perimeter/Site-Wide	$19,532	$507,325
Subtotal Perpetual Care		$6,973,662
Closure Cost		$80,000
Replacement Cost		$67,940
Subtotal		$7,121,602
Administrative @ 5%		$356,080
Contingency @ 15%		$1,068,240
TOTAL		$8,545,922

Note: The above utilizes a discount rate of 3.85%

Adjust for inflation = $9,271,915 total

ATTACHMENT J

Air Facility Registration Certificate

New York State Department of Environmental Conservation

Registration ID: 9-2911-00110/02000 **Facility DEC ID:** 9-2911-00110

AIR FACILITY REGISTRATION CERTIFICATE
in accordance with 6NYCRR Part 201-4

Registration Issued to:
CECOS INTERNATIONAL INC
5600 NIAGARA FALLS BLVD
NIAGARA FALLS,NY 14304-1532

Contact:
PETER SCHMITT
CECOS INTERNATIONAL
5600 NIAGARA FALLS BLVD
NIAGARA FALLS,NY 14304
(716) 282-2676

Facility:
CECOS INTERNATIONAL INC
56TH ST & NIAGARA FALLS BOULEVARD
NIAGARA FALLS,NY 14304-0340

Description:
This is a facility of closed solid and hazardous waste landfills. There is no commercial hazardous waste activity on site; only stewardship of landfills in Post Closure. The treatment plant processes only hazardous cell leachate to POTW; no commercial receipts. The operating landfill accepts non-putrescible wastes. The two emission points are EP031, the main vent for 2 large receiving tanks, which has a carbon scrubber and is monitored monthly; and 00005, which is a vent process drum for 47A with a carbon scrubber that is monitored monthly.

Total Number of Emission Points: 2 **Cap By Rule:** No

Authorized Activity By Standard Industrial Classification Code:
4953 - REFUSE SYSTEMS

Registration Effective Date: 12/24/2008 **Registration Expiration Date:** (Not Applicable)

List of Regulations in Application:

6NYCRR 200	General Provisions
6NYCRR 201	Permits and Certificates
6NYCRR 211	General Prohibitions
6NYCRR 212	General Process Emission Sources

LARRY SITZMAN
REGION 9 AIR POLLUTION CONTROL ENGINEER
NYSDEC
270 MICHIGAN AVE
BUFFALO,NY 14203-2915

This registrant is required to operate this facility in accordance with all air pollution control applicable Federal and State laws and regulations. Failure to comply with these laws and regulations is a violation of the ECL and the registrant is subject to fines and/or penalties as provided by the ECL. If ownership of this facility changes, the registrant is required to notify the Department at the address shown below using the appropriate forms and procedures within 30 days after the transfer takes place. The present registrant will continue to be responsible for all fees and penalties until the Department has been notified of any change in ownership.

IMPORTANT AIR FACILITY REGISTRATION INFORMATION

ssuance of this registration does not verify that the information which you provided is accurate or complete. Please be advised that his registration is contingent upon you being the owner and/or having the legal authority to use the described location and site for urposes described in the application. In addition, you are responsible for obtaining any other permits and approvals that may be quired and for complying with all other applicable State and Federal laws, rules, and regulations and any other applicable local ordinances. We recommend that all facilities track and record annual emissions of air contaminants in order to verify continued eligibility for registration. Any future inspection of the facility by this Department may require a determination in this regard.

If the facility has indicated it is capping by rule, it must comply with all applicable provisions of 6 NYCRR section 201- 7.3 (hereafter referred to as this Section). It is strongly recommended that the facility become familiar with the details of this rule including the following:

Emission Limitations. Stationary sources must not emit more than the following quantities of emissions in every 12 month period: (1) 50 percent of the major stationary source thresholds for regulated air pollutants, (2) 5 tons of a single hazardous air pollutant, (3) 12.5 tons of any combination of hazardous air pollutants, (4) 50 percent of any lesser threshold for a single hazardous air pollutant that the Administrator may establish by rule and upon incorporation into state regulation, or (5) 5 tons of VOC for stationary sources seeking a cap to avoid Part 228 or Part 233 requirements.

Record-keeping Requirements. The owner or operator must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Emission Control Equipment. The owner or operator of any facility which meets the criteria given in subdivisions 201 - 7.3 (h), (i) and (j) and uses air pollution control equipment to comply with an emissions cap shall operate and maintain such equipment in a manner consistent with good engineering practices. If such control equipment is required under any Part of this chapter and would im missions to a greater degree than what the thresholds established in this Section would allow, then the more stringent mis on limitation applies. The owner or operator must monitor and record such process parameters as the Department requires, ncluding but not limited to the following:

1) Information on equipment type and description, make and model, and emission units served by the emission control unit;
2) Information on equipment design, including where applicable: pollutant(s) controlled; control effectiveness; maximum design or ated capacity; inlet and outlet temperatures, and concentrations for each pollutant controlled; catalyst data (type, material, life, olume, space velocity, ammonia injection rate and temperature); baghouse data (design, cleaning method, fabric material, flow te, air/cloth ratio); electrostatic precipitator data (number of fields, cleaning method, and power output); scrubber data (type, esign, sorbent type, pressure drop); other design data as appropriate; all emission unit test information; and
) A monthly log of hours of operation including notation of any control equipment breakdowns, upsets, repairs, maintenance and ny other deviations from design parameters.

odifications. The owner or operator must apply for and obtain all necessary permits prior to commencing any physical or erational change which will result in any increase to the actual emissions which would exceed the emission limitations under bdivision 201 - 7.3 (e). Should the proposed modification to the facility result in actual emissions exceeding the emission limits t forth in subdivision 201 - 7.3(e), the facility will become subject to all applicable requirements that the owner or operator was pable of avoiding by complying with the requirements of this Section, except where a new emission cap is subsequently obtained accordance with section 201-7.2 of this Title.

mpliance. A responsible official will verify annually through a review of required records and totaling of emissions information, t the facility is eligible under this Subpart and has operated in accordance with all applicable requirements of this Section. In any uation where the provisions of this Section have not or are not expected to be achieved the source owner or operator shall notify Department.

re to comply with any of the applicable provisions of this Section shall constitute a violation of this Part.
Commencing on the first day following every 12 month period, any facility subject to this Section is subject to all applicable uirements, when either of the following conditions occur:

(i) The facility exceeds any of the emission limits specified in subdivision 201 - 7.3 (e), or as applicable; or

(ii) the owner or operator of the facility cannot demonstrate, through the use of the limitations and requirements described in divisions 201 - 7.3 (e), (g), (h), (i) of and (j) that the facility-wide emission totals for any 12 month period are below the