REPORT

Construction Quality Assurance Plan
Soil Remediation Project

Maestri Site
Geddes, New York

Stauffer Management Company
Wilmington, Delaware

December 1995

O'BRIEN & GERE
ENGINEERS, INC.

5618.005

Report

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5000 Brittonfield Parkway
P.O. Box 4873
Syracuse, New York 13221

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1. Introduction

1.1. General

This report presents the Construction Quality Assurance Plan (CQAP) for the Soil Remediation Project at the Maestri Site in Geddes, New York (Figure 1). This CQAP describes the site-specific components of the quality assurance program related to the removal of soils containing volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) above the remedial action objectives (RAOs) from the northern side of the Maestri Site (Figure 2). This CQAP also describes the quality assurance provisions related to the construction of the bioremediation/soil vapor extraction piles and treatment system on the western side of the site. The purpose of the CQAP is to identify the procedures that will be followed to enable the Remedial Actions to be implemented in accordance with the Remedial Design.

The CQAP identifies the responsibilities of each entity involved with the remedial measures and includes the delineation of the appropriate lines of communication between the New York State Department of Environmental Conservation (NYSDEC), the Owner, the Engineer and the Contractor associated with the activities. In addition to personnel responsibilities, the CQAP provides a description of the protocols to be utilized for documenting construction activities and compliance with project specifications.

2. Responsibility and authority

2.1. General

This section presents the organizations involved in CQA for this project along with their responsibilities. The organizations involved are:

- New York State Department of Environmental Conservation (NYSDEC), as the regulatory agency
- Stauffer Management Company as the Owner of the Project
- Remedial Contractor
- O'Brien & Gere Engineers, as the Engineer

2.2. NYSDEC responsibilities

As the regulatory agency, the NYSDEC will perform the following functions:

- Review and approve the plans and other documents for compliance with the Order of Consent
- Issue approval to initiate construction once the plans have been submitted and approved
- Provide periodic oversight during construction and implementation of the remedial measures
- Review and approve the final engineering report submitted by Owner and Engineer after completion of the construction activities.

2.3. Owner

The Owner is responsible for the following:

- Review of CQA documentation demonstrating that the remedial measures have been completed as specified in the technical specifications and drawings and any approved modifications
- Accepting, requiring modification to, or rejecting design plans and specifications, CQA plan, reports and recommendations of the Engineer, and the materials and workmanship of the Contractor to meet site specific requirements
- Inform owner of the property of site activities and requirement not to enter construction zones
- Maintain required utilities during construction

2.4. Engineer's responsibilities

O'Brien & Gere Engineers is responsible for the following activities:

- Preparation of Remedial Design documents and project plans in accordance with the Remedial Design/Remedial Action (RD/RA) Work Plan dated July 1995
- Inspection of Contractor's construction activities in accordance with the Remedial Design
- Preparation of final engineering report and certification upon completion of the construction activities
- Coordination with the NYSDEC, owner and Contractor
- Confirm that regular calibration of testing equipment is properly conducted and recorded and that testing equipment, personnel, and procedures do not change over time. If changes are made, the Engineer will prepare and implement procedures to minimize disruption to the inspection processes.

- Verify that testing procedures are conducted consistently and in the prescribed manner approved by the NYSDEC.
- Report the results of the quality assurance activities to the Owner.
- Identify contingency actions that can be implemented when unforseen site conditions are encountered or when the requirements of the remedial design cannot be met.

2.5. Contractor's responsibilities

The Remedial Contractor will be required to:

- Complete the work of the project in accordance with the Agreement between Owner and Contractor and the technical specifications and drawings using appropriate construction procedures and techniques.
- Provide the construction quality control activities described in Section 4 to document achievement of the performance standards of the project.
- Notify the Engineer of unforeseen conditions or discovered discrepancies in the design.
- Submit required plans and results as specified in the technical specifications and drawings for distribution, review and approval.

2.6. Lines of communication

The lines of communication, shown in Figure 3, will be followed during implementation of the Remedial Action. Primary lines of communication are indicated by solid lines, while secondary lines of communication are indicated by dashed lines. Secondary lines of communication will be used when primary lines of communication are not available and site activities warrant implementation.

A pre-construction meeting will be held at the site with the Owner, the Engineer, and the Contractor prior to the commencement of work. The

meeting will allow for the review of site conditions, design considerations and requirements of the Remedial Design. Also, the responsibilities of the Contractor, and the lines of communication discussed herein, will be reviewed during the pre-construction meeting.

During the performance of work, progress meetings will be held to keep the involved parties apprised of the status of the project and to maintain awareness of the requirements specified herein and in the Remedial Design. These meetings will be attended by a representative of the Contractor, Engineer, Owner and NYSDEC. Minutes of these meetings will be kept and distributed by the Engineer. The Engineer will notify the Owner and the NYSDEC in advance of scheduled progress meetings to allow the Owner and NYSDEC the opportunity to attend.

3. Construction quality assurance personnel qualifications

3.1. Personnel qualifications

In order to complete the Remedial Actions in accordance with the approved design plans and specifications, it is important that organizations and personnel involved in implementing the Remedial Action possess suitable qualifications to perform the work.

The Project Supervisor for the Contractor will possess formal training in the associated discipline. In addition, the Project Supervisor will have:

- Knowledge of specific field practices relating to soil excavation and treatment techniques
- Knowledge of applicable codes and regulations for material and water handling, documentation and site safety procedures
- Good communication skills and sufficient practical, technical, and managerial experience to successfully oversee implementation of the Remedial Design.

3.2. Laboratory qualifications

The chemical testing laboratory will be an independent, qualified chemical testing laboratory accredited by a recognized laboratory accrediting agency. The laboratory will be experienced in soil chemistry testing and thoroughly familiar with USEPA SW-846 standards and be New York State Department of Health (NYSDOH) certified.

4. Construction quality assurance activities

4.1. General

This section details the test parameters, procedures, and criteria to be utilized during project execution to monitor construction quality. Additional details regarding the construction sampling and analysis are provided in the Sampling, Analysis, and Monitoring Plan.

4.2. Excavated soil sampling

Excavated soil sampling includes initial screening at the excavator bucket for the upper four feet to be performed during excavation using a photoionization detector (PID). Soils will be segregated based on PID concentrations and placed into 200 cubic yard (cy) stockpiles until more thorough testing can be performed. After the soil is placed in these stockpiles, four samples (three grab and one composite sample) per pile will be collected and analyzed for VOCs using EPA Methods 8010/8020. If the soils exceed the RAOs, the entire 200 cy soil stockpile will be processed through the mechanical screening/processing system. If the soil meets the VOC RAOs for the site, the four soil samples will then be analyzed for SVOCs using EPA Method 8240. If SVOC levels also meet the RAOs, the soil will not be treated further and eventually will be used as backfill for the excavation.

Soils which show PID readings of VOC concentrations above the preset limits or which come from excavations below four feet will be treated without initial sampling.

4.3. Mechanical screening verification sampling

Two samples (2 grab) will be collected for every 200 cubic yard stockpile batch processed. The treatment confirmation grab samples will be submitted by the Contractor to a NYSDOH accredited chemical testing laboratory for analysis for VOCs using EPA Method 8010/8020 and SVOCs using EPA Method 8240. The laboratory will be required to provide the analytical results within 48 hours of their receiving the samples.

Soils that exhibit concentrations of VOCs above the RAOs after initial processing by mechanical screening will be reprocessed and afterwards resampled. If the soils continue to exhibit concentrations of VOCs above the RAOs after the second pass through the mechanical screening, the Engineer will evaluate the situation and recommend either placement of the soil in the bioremediation/soil vapor extraction pile or reprocessing through mechanical screening. Soils that exhibit SVOCs above the RAOs will be placed in a bioremediation/soil vapor extraction pile.

4.4. Post-excavation sampling

Once the excavation has been completed to the approximate limits shown or directed by the Engineer, samples of soil will be obtained from the walls and floor of the excavation. The purpose of these samples will be to evaluate if and demonstrate that the RAOs have been achieved. It is proposed that samples be obtained for these purposes using a 30 ft. grid pattern presented as part of the Remedial Design. In addition, two samples from each side wall will be collected and analyzed for VOCs using EPA Method 8010/8020 and SVOCs using EPA Method 8240.

The Contractor will be responsible for collecting the grab soil samples from the walls and base of the excavation and will submit the samples to a NYSDOH accredited chemical testing laboratory for analysis for VOCs using EPA Method 8010/8020 and SVOCs using EPA Method 8240. The laboratory will be required to provide the analytical results within 48 hours of their receiving the samples.

In the event the soils at the base or sides of the excavation exhibit concentrations of VOCs or SVOCs above the RAOs based on the results of the post-excavation sampling, the Engineer will either instruct the Contractor to excavate further or recommend to the NYSDEC other actions

that could be implemented if further excavation is not practicable due to the presence of existing structures or other conditions on or off site.

4.5. Bioremediation/soil vapor extraction pile

The Contractor is required to submit shop drawings and lay-out plans in accordance with the technical specifications and general provisions of the contract documents and construction drawings ahead of actual construction. The Engineer will review the submittals for conformance with the contract documents and construction drawings. In addition, during construction the Engineer will inspect the construction of the bioremediation/soil vapor extraction pile for conformance with the contract documents and construction drawings for deformities, holes, cracks, defective parts and discrepancies in the materials of construction and physical size. Problems identified will be addressed in accordance with Section 5.3.

4.6. Bioremediation/soil vapor extraction treatment area

The Contractor is required to submit shop drawings and lay-out plans in accordance with the technical specifications and general provisions of the contract documents and construction drawings ahead of actual construction. The Engineer will review the submittals for conformance with the contract documents and construction drawings. In addition, during construction the Engineer will inspect the construction of the bioremediation/soil vapor extraction treatment area for conformance with the contract documents.

4.6. Ground water recovery and treatment system modifications

The Contractor is required to submit shop drawings and lay-out plans in accordance with the technical specifications and general provisions of the contract documents and construction drawings ahead of actual construction. The Engineer will review the submittals for conformance with the contract documents and construction drawings. In addition, during construction the Engineer will inspect the construction of the ground water recovery and treatment system modifications for conformance with the contract

documents and construction drawings. Problems identified will be addressed in accordance with Section 5.3.

Once modified the influent and effluent water streams to the granular activated carbon system will be sampled and analyzed for the parameters required by the SPDES permit included in Appendix A. If the data indicates that the effluent does not comply with the discharge limits, the system will be immediately shut-down until corrective actions can be taken or waivers obtained.

Water collected by the Contractor in association with making the excavations will be treated through the existing ground water treatment system. Following treatment the effluent will be tested for compliance with the SPDES fact sheet as required by the permit. Should construction water treatment sample results exceed the criteria established by the SPDES fact sheet or specified in the Remedial Design, corrective measures will be implemented, if necessary.

4.7. Demobilization and Restoration

Once the treated soils have been backfilled into the excavation the soil stockpile and mechanical screening processing area will be restored. As part of the restoration effort, the surface of the stockpile area would be scraped to remove up to two inches of soil that had come into contact with the untreated excavated soil. This material would then be treated using the mechanical/screening and bioremediation/soil vapor extraction piles, if required, and subsequently spread on site.

After the soil stock pile area has been restored, the mechanical screening and other equipment will be decontaminated and removed from the site.

5. Documentation

5.1. General

Documentation developed and maintained by the project personnel during construction will include a daily construction log including inspection and testing reports, problem identification and corrective measures report, as-built drawings, and daily operating logs.

5.2. Daily construction activities forms

The daily log presented in Appendix B will be completed by the Contractor during Remedial Action activities. The daily log will be completed in sufficient detail to supply the Owner/Engineer with sufficient data including work performed, inspection activities and results, types and results of testing performed and any other significant events of the day.

5.3. Problem identification and reporting

The Contractor will notify the Engineer and Owner of unforseen site conditions or discovered discrepancies in the design. The Owner will subsequently apprise the NYSDEC about the conditions encountered, impacts to the schedule for completion of the remedial design, and contingency actions that will be taken to remedy the condition.

5.4. Record drawings and certification

Upon completing construction and initiating operation of the ground water recovery and treatment system, a set of Record Drawings depicting the ground water recovery and treatment system and limits of the soil excavation will be prepared and submitted to the Owner and NYSDEC. The Record Drawings will accompany a letter, signed and stamped by an engineer licensed to practice in New York State, certifying that the ground water recovery and treatment system and soil remediation activities were completed in accordance with the NYSDEC approved remedial design, and the NYSDEC approved modifications thereto.

5.5. Remedial actions summary report

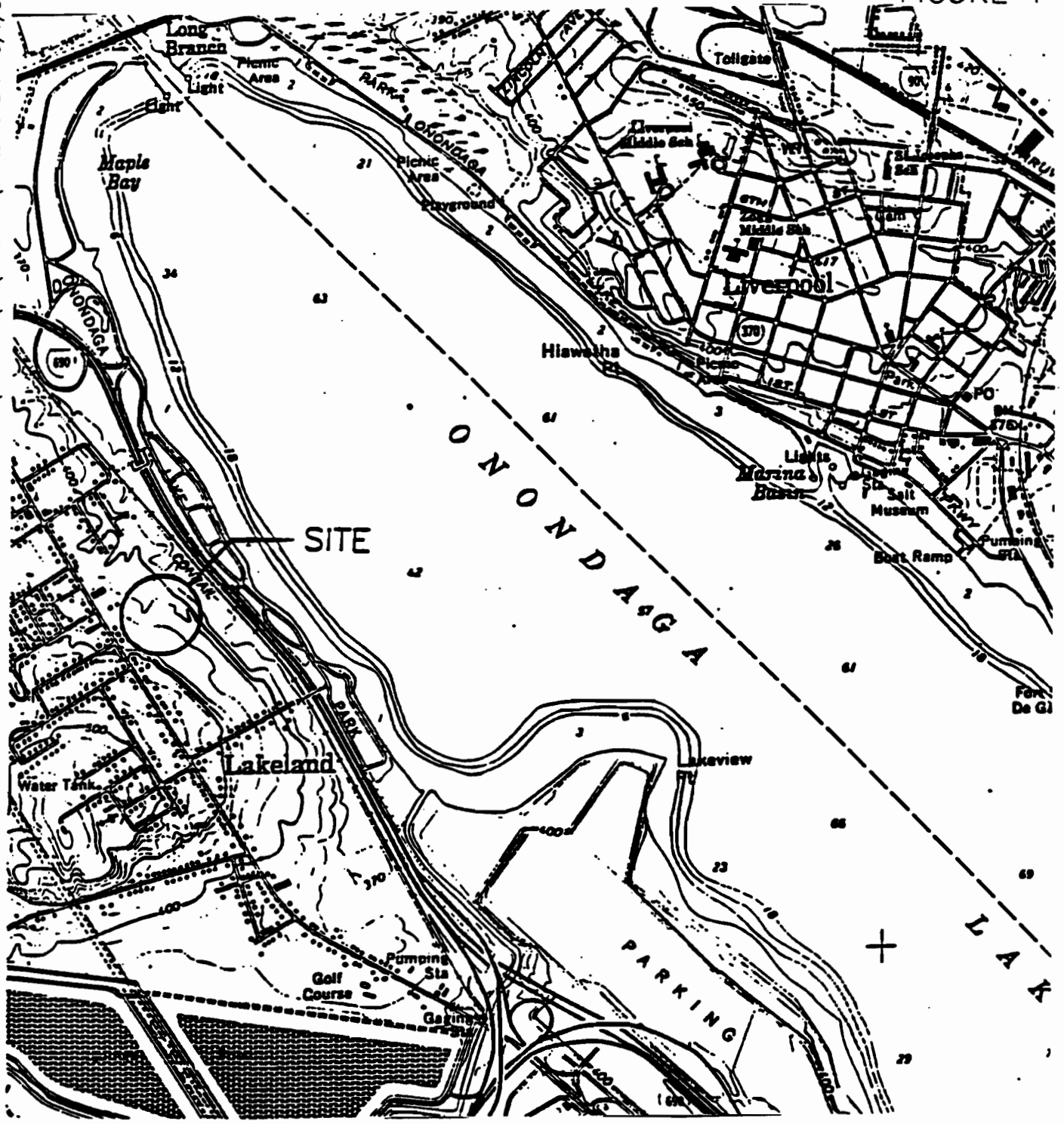
Upon completing the remedial actions described within the Remedial Design/Remedial Action Work Plan (O'Brien & Gere, July 1995), a Remedial Actions Summary Report will be submitted to the Owner and NYSDEC. The Remedial Actions Summary Report will present an overview of the remedial actions completed by the Contractor at the Site to implement the NYSDEC approved design.

In accordance with the Consent Order, the Remedial Actions Summary Report will be signed and stamped by an engineer licensed to practice in New York State, and will include a statement certifying that the remedial actions were completed at the site in accordance with the NYSDEC approved work plans and the NYSDEC approved revisions thereto.

Figures

FIGURE 1

MWH H:\DIVISION\71\MAESTRI\04F.DWG SF:1 6/1/95



ADAPTED FROM 7.5 MIN. U.S.G.S. SYRACUSE WEST QUAD MAP, SYRACUSE, NEW YORK

MAESTRI SITE
GEDDES, NEW YORK

SITE LOCATION PLAN

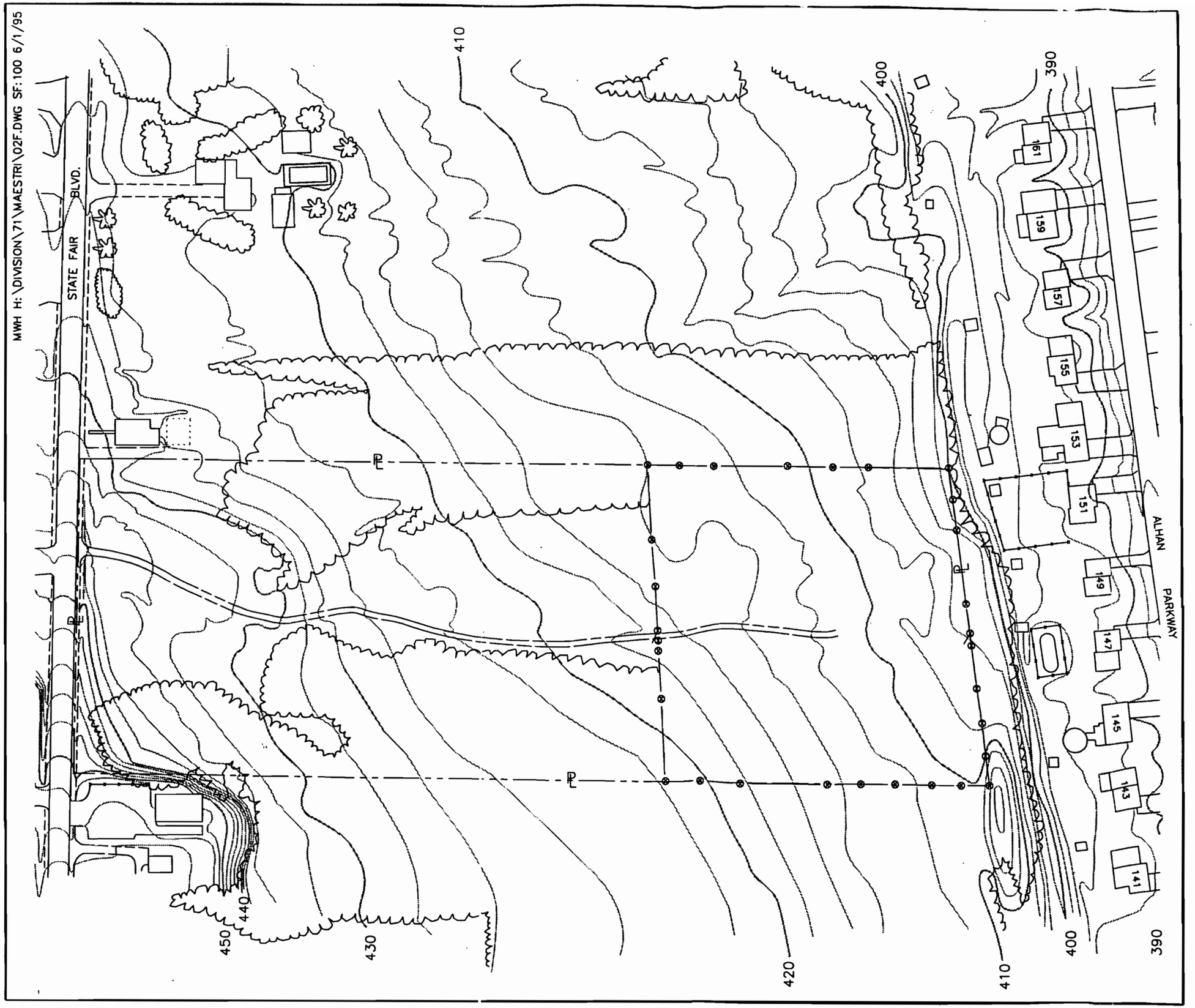
0 2000 4000

APPROX. SCALE IN FEET

FILE NO. 5618.005-04F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 2



LEGEND

- TREE LINE
- ACCESS ROAD
- FENCE
- 8' HIGH SECURITY FENC
- PL MAESTRI SITE PROPERT BOUNDARY
- 150 RESIDENCE

MAESTRI SITE
GEDDES, NEW YORK

SITE TOPOGRAPHIC MAP

0 100 200

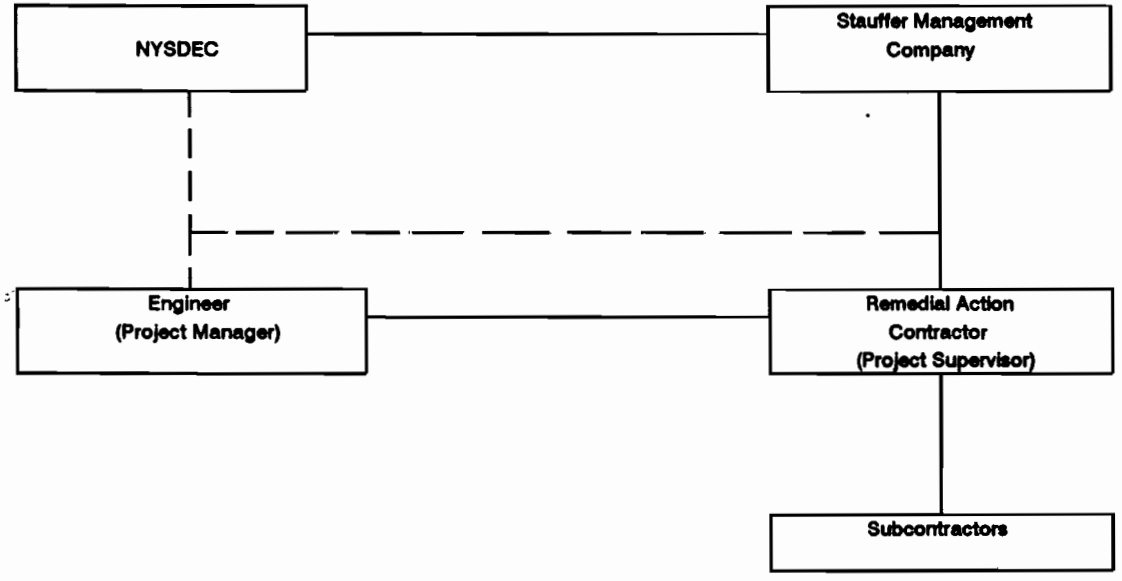
APPROX. SCALE IN FEET

FILE NO. 5618.005-02F

O'BRIEN & GERE ENGINEERS INC.

FIGURE 3

CONSTRUCTION QUALITY ASSURANCE
LINES OF COMMUNICATION



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Appendices

APPENDIX A

SPDES FACT SHEET

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

July 23, 1992

Mr. Vincent A. D'Ippolito
Environmental Services & Operations
ICI Americas Inc.
Wilmington, DE 19897

Re: Maestri Site
Groundwater IRM

Dear Mr. D'Ippolito:

Per our discussion, please find enclosed a corrected set of Effluent Limitations and Monitoring Requirements for the Maestri Site groundwater treatment system.

Sincerely,

Gary E. Kline, P.E.
Project Manager
Maestri Site
Div. of Hazardous Waste Remediation

GEK/slh

Enclosure

cc, w/enc.: C. Branagh - DEC Region 7

SPDES PERMIT FACT SHEET

Prepared by: Robert Wither Date: 01/28/92

Company: ICI Americas Inc. Site No.: 7-34-025

Location: Geddes (T), Onondaga County Industrial Code No.: 9511

Industrial Segment: N/A Part No.: N/A

Type of Processing & Production Rate:

Groundwater Remdiation

Basis for Technology Effluent Limitations:

N/A

PARAMETER	BASIS FOR PERMIT CONDITION
Outfall No.: 001 ; Treated Groundwater Discharge; Nominal Flow: 8 gpm	
Flow	Monitor
Benzene	6NYCRR Part 703.6
Methylene Chloride	6NYCRR Part 703.6
Toluene	6NYCRR Part 703.6
1,2-(trans)-Dichloroethylene	6NYCRR Part 703.6
Vinyl Chloride	6NYCRR Part 703.6
Ethylbenzene	6NYCRR Part 703.6
o-Xylene	6NYCRR Part 703.6
m-Xylene	6NYCRR Part 703.6
p-Xylene	6NYCRR Part 703.6
Phenolics, Total	6NYCRR Part 703.6/Detection Limit
Bis (2-Ethylhexyl) Phthalate	6NYCRR Part 703.6
Di (N-Butyl) Phthalate	6NYCRR Part 703.6
Aluminum, Total	6NYCRR Part 703.6
Arsenic, Total	6NYCRR Part 703.6
Barium, Total	6NYCRR Part 703.6
Cadmium, Total	6NYCRR Part 703.6
Chromium, Total	6NYCRR Part 703.6
Copper, Total	6NYCRR Part 703.6
Iron, Total	6NYCRR Part 703.6
Manganese, Total	6NYCRR Part 703.6
Nickel, Total	6NYCRR Part 703.6
Silver, Total	6NYCRR Part 703.6
Zinc, Total	6NYCRR Part 703.6

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start up of groundwater remediation and treatmen system and lasting until 5 years from date of startup of groundwater remediation and treatment system. The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
001 - Treated Groundwater					
Flow	Monitor	Monitor	gpd	Continuous	Recorder
Benzene	Monitor	0.7	ug/l	Weekly	Grab
Methylene Chloride	Monitor	5.0	ug/l	Weekly	Grab
Toluene	Monitor	5.0	ug/l	Weekly	Grab
1,2-(trans)-Dichloroethylene	Monitor	5.0	ug/l	Weekly	Grab
Vinyl Chloride	Monitor	5.0	ug/l	Weekly	Grab
Ethylbenzene	Monitor	5.0	ug/l	Weekly	Grab
o-Xylene	Monitor	5.0	ug/l	Weekly	Grab
m-Xylene	Monitor	5.0	ug/l	Weekly	Grab
p-Xylene	Monitor	5.0	ug/l	Weekly	Grab
Phenolics, Total	Monitor	2.0	ug/l	Weekly	Grab
Bis(2-Ethylhexyl) Phthalate	Monitor	4.2	mg/l	Weekly	Grab
Di-(N-Butyl) Phthalate	Monitor	0.77	mg/l	Weekly	Grab
Aluminum, Total	Monitor	2.0	mg/l	Monthly	Grab
Arsenic, Total	Monitor	0.05	mg/l	Monthly	Grab
Barium, Total	Monitor	2.0	mg/l	Monthly	Grab
Cadmium, Total	Monitor	0.02	mg/l	Monthly	Grab
Chromium, Total	Monitor	0.1	mg/l	Monthly	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start up of grundwater remediation and treatment system and lasting until 5 years from date of startup of groundwater remediation and treatment system. The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations Daily Avg.	Daily Max.	Units	Minimum Monitoring Requirements Measurement Frequency	Sample Type
001 - Treated Groundwater:					
Copper, Total	Monitor	1.0	mg/l	Monthly	Grab
Iron Total[1]	Monitor	0.6	mg/l	Monthly	Grab
Manganese, Total[1]	Monitor	0.6	mg/l	Monthly	Grab
Nickel, Total	Monitor	2.0	mg/l	Monthly	Grab
Silver, Total	Monitor	0.1	mg/l	Monthly	Grab
Zinc, Total	Monitor	5.0	mg/l	Monthly	Grab

1. The combined concentration of iron, total and manganese, total shall not exceed 1.0 mg/l.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPENDIX A

GENERAL CONDITIONS (Consent Orders)*

* This version of General Conditions is intended to be incorporated as Appendix A of all Consent Orders for site remediation projects where a State Pollutant Discharge Elimination System permit is not required but where the order authorizes the treatment and discharge of wastewaters to the surface or groundwaters of New York State.

1. GENERAL PROVISIONS

a. This order, or a true copy, shall be kept readily available for reference at the wastewater treatment facility.

b. A determination has been made on the basis of a submitted plans, or other available information, that compliance with the provisions specified in this order will reasonably protect classified water use and assure compliance with applicable water quality standards. Satisfaction of these provisions notwithstanding, if operation pursuant to the order causes or contributes to a condition in contravention of State water quality standards, or if the Department determines, on the basis of notice provided by the operator and any related investigation, inspection or sampling, that a modification of the order is necessary to prevent impairment of the best use of the waters or to assure maintenance of water quality standards or compliance with other provisions of ECL, the Department may require such a modification and may require abatement action to be taken by the operator and may also prohibit the noticed act until the order has been modified.

c. All discharges authorized by this order shall be consistent with the terms and conditions of this order. Facility expansion or other modifications, treatment and disposal system changes which will result in new or increased discharges of pollutants into the waters of the state must be reported by submission of a formal request for modification of this order. The discharge of any pollutant, not identified and authorized, or the discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this order shall constitute a violation of the terms and conditions of this order. Facility modifications which result in decreased discharges of pollutants must be reported by submission of written notice to the Department.

d. Where the operator becomes aware that he/she failed to submit any relevant facts or submitted incorrect information prior to or in pursuit of this order or in any report to the Department, the operator shall promptly submit such facts or information.

e. It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of this order, unless directed by the Department to continue the activity.

f. The filing of a request for a modification of this order, or a notification of planned changes or anticipated noncompliance, does not stay any condition of this order.

g. The operator shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, suspending, or revoking this order, or to determine compliance with this order. The operator shall also furnish to the Department, upon request, copies of records required to be kept by this order.

2. SPECIAL REPORTING REQUIREMENTS

Dischargers must notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant (USEPA Priority Pollutants plus phenols, total) which is not specifically controlled in the order, pursuant to General Provision 1 (c) herein. For the purposes of this section, recurrent accidental or unintentional spills or releases on a frequent basis shall be considered to be a discharge.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the order, if that discharge will exceed five times the maximum concentration value reported for that pollutant in the information submitted prior to this order; or the level established by the Department.

c. That they will begin to use any toxic pollutant which was not reported prior to this order and which is being or may be discharged to waters of the state.

3. EXCLUSIONS

a. The issuance of this order by the Department and the receipt thereof by the operator does not supersede, revoke or rescind an order or modification thereof on consent or determination by the Commissioner issued heretofore by the Department or any of the terms, conditions or requirements contained in such order or modification thereof unless specifically intended by said order.

b. The issuance of this order does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations; nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the discharge authorized.

c. Unless specifically authorized in this order, the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters is not approved.

4. REPORTING NONCOMPLIANCE

a. Anticipated noncompliance. The operator shall give advance notice to the Department of any planned changes in the authorized facility or activity which may result in noncompliance with this order as soon as the operator becomes aware that non-compliance will be unavoidable.

b. Immediate and twenty-four hour reporting. The operator shall report any noncompliance which may endanger health or the environment. Any unusual situation, caused by a deviation from normal operation or experience (e.g. upsets, bypasses, inoperative treatment process units, spills or illegal chemical discharges or releases to the collection system) which create a potentially hazardous condition shall be orally reported immediately. Other information shall be provided orally within 24 hours from the time he or she becomes aware of the circumstances. A written noncompliance report shall also be provided within five (5) days of the time the operator becomes aware of the circumstances. The written noncompliance report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent the noncompliance and its reoccurrence.

(1) The following shall be included as information which must be reported within 24 hours under paragraph (b) above:

(i) any unanticipated bypass which violates any effluent limitation in the order;

(ii) any upset which violates any effluent limitation in the order;

(iii) violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the order to be reported within 24 hours.

(2) The Department may waive, at their discretion, the written report on a case-by-case basis if the oral report has been received within 24 hours.

(3) Reports required by this section shall be filed with the Department's regional office having jurisdiction over the facility. During weekends and holidays, oral noncompliance reports, required by this paragraph, may be made at (518) 457-7362.

c. Duty to mitigate. The operator shall take all reasonable steps to minimize or prevent any discharge in violation of this order which has a reasonable likelihood of adversely affecting human health or the environment.

5. INSPECTION AND ENTRY

The operator shall allow the Commissioner of the Department, the New York State Department of Health, the County Health Department, or their authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

a. enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this order;

b. have access to and copy, at reasonable times, any records that must be kept under the conditions of this order, including records maintained for purposes of operation and maintenance;

c. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this order, and

d. sample or monitor at reasonable times, for the purposes of assuring compliance with this order or as otherwise authorized by the Environmental Conservation Law, any substances or parameters at any location.

6. SPECIAL PROVISIONS - NEW OR MODIFIED DISPOSAL SYSTEMS

a. Prior to construction of any new or modified waste disposal system or modification of a facility generating wastewater which could alter the design volume of, or the method or effect of treatment or disposing of the wastes from an existing waste disposal system, the operator shall submit to the Department or its designated field office for review, an approvable engineering report, plans, and specifications which have been prepared by a person or firm licensed to practice Professional Engineering in the State of New York.

b. The construction of the above new or modified disposal system shall not start until the operator receives written approval of the system from the Department or its designated field office.

c. The construction of the above new or modified disposal system shall be under the general supervision of a person or firm licensed to practice Professional Engineering in New York State. Upon completion of construction, that person or firm shall certify to the Department or its designated field office that the system has been fully completed in accordance with the approved engineering report, plans and specifications and letter of approval; and the operator shall receive written acceptance of such certificate from the Department or designated field agency prior to commencing discharge.

d. The Department and its designated field offices review wastewater disposal system reports, plans, and specifications for treatment process capability only, and approval by either office does not constitute approval of the system's structural integrity.

7. MONITORING, RECORDING, AND REPORTING

7.1 GENERAL

a. The operator shall comply with all recording, reporting, monitoring and sampling requirements specified in this order and such other additional terms, provisions, requirements or conditions that the Department may deem to be reasonably necessary to achieve the purposes of the Environmental Conservation Law, or rules and regulations adopted pursuant thereto.

b. Samples and measurements taken to meet the monitoring requirements specified in this order shall be representative of the quantity and character of the monitored discharges. Composite samples shall be composed of a minimum of 8 grab samples, collected over the specified collection period, either at a constant sample volume for a constant flow interval or at a flow-proportioned sample volume for a constant time interval, unless otherwise specified in this order. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. At least 4 (rather than 8) aliquots or grab samples should be collected over the specified collection period. Grab sample means a single sample, taken over a period not exceeding 15 minutes.

c. Accessable sampling locations must be provided, maintained and identified by the operator. New sampling locations shall be provided if proposed or existing locations are deemed unsuitable by the Department or its designated field agency.

d. Actual measured values of all positive analytical results obtained above the Practical Quantitation Limit (PQL)[1] for all monitored parameters shall be recorded and reported, as required by this order; except, for parameters which are limited in this order to values below the PQL, actual measured values for all positive analytical results above the Method Detection Limit (MDL)[2] shall be reported.

e. The operator shall periodically calibrate and perform manufacturer's recommended maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements. Verification of maintenance shall be logged into the daily record book(s) of the facility. The operator shall notify the Department's regional office immediately if any required instrumentation becomes inoperable. In addition, the operator shall verify the accuracy of their measuring equipment to the Department's Regional Office annually.

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1 Practical Quantitation Limit (PQL) is the lowest level that can be measured within specified limits of precision and accuracy during routine laboratory operations on most effluent matrices.

2 Method Detection Limit (MDL) is the level at which the analytical procedure referenced is capable of determining with a 99% probability that the substance is present. This value is determined in distilled water with no interfering substances present. The precision at this level is +/- 100%.

7.2 SIGNATORIES AND CERTIFICATION

a. All reports required by this order shall be signed as follows:

(1) for a corporation: by a responsible corporate officer. For the purposes of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or a vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making function for the corporation, or

(ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars),if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) for a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) for a municipality, state, federal, or other public agency: by either a principal or executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or

(4) a duly authorized representative of the person described in items (1), (2), or (3). A person is a duly authorized representative only if:

(i) the authorization is made in writing by a person described in paragraph (a)(1), (2), or (3) of this section;

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(iii) the written authorization is submitted to the Department.

b. Changes to authorization: If an authorization under subparagraph (a)(4) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subparagrapph (a)(4) of this section must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

c. Certification: Any person signing a report shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision, in accordance with a system, designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the order or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

7.3 RECORDING OF MONITORING ACTIVITIES AND RESULTS

a. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this order, and records of all data used to complete the application for this order, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

b. Records of monitoring information shall include:

(1) the date, exact place, and time of sampling or measurements;

(2) the individual(s) who performed the sampling or measurements;

(3) the date(s) analyses were performed;

(4) the individual(s) who performed the analyses;

(5) the analytical techniques or methods used; and

(6) the results of such analyses.

7.4 TEST AND ANALYTICAL PROCEDURES

a. Monitoring and analysis must be conducted using test procedures promulgated, pursuant Part 136, except:

(1) should the Department require the use of a particular test procedure, such test proce specified in this order.

(2) should the operator desire to use a test method not approved herein, prior Departme is required, pursuant to paragraph (b) of this section.

b. Application for approval of test procedures shall be made to the Director of DEC's Divisio and shall contain:

(1) the name and address of the applicant or the responsible person making the identification of this particular order and the telephone number of applicant's contact

(2) the names of the pollutants or parameters for which an alternate testing procedu requested, and the monitoring location(s) at which each testing procedure will be uti

(3) justification for using test procedures, other than those approved in paragraph (a) of and

(4) a detailed description of the alternate procedure, together with:

(i) references to published studies, if any, of the applicability of the alternate test the effluent in question;

(ii) information on known interferences, if any; and

(5) a comparability study, using both approved and proposed methods. The study shall replicates of 3 samples from a well mixed waste stream for each outfall if less than involved, or from 5 outfalls if 5 or more outfalls are involved. Four (4) replicates from samples must be analyzed using a method approved in paragraph (a) of this sect replicates of each sample must be analyzed using the proposed method. This analyses per outfall up to a maximum of 120 analyses. A statistical analysis of the submitted that shall include, as a minimum:

(i) calculated statistical mean and standard deviation;

(ii) a test for outliers at the mean ± 3 standard deviations level. Where an outlie an additional sample must be collected and 8 replicates of the sample mus as specified above;

(iii) a plot distribution with frequency counts and histogram;

(iv) a test for equality among with-in sample standard deviation;

(v) a check for equality of pooled with-in sample variance with an F-Test;

(vi) a t-Test to determine equality of method means; and

copies of all data generated in the study.

Additional information can be obtained by contacting the Bureau of Technical Service (NYSDEC, 50 Wolf Road, Albany, New York 12233 - 3502).

APPENDIX B

QUALITY CONTROL DAILY REPORT

QUALITY CONTROL DAILY REPORT

(CONTRACTOR)

Report No. _____ Contract No. _____ Date _____

Location of Work _____

Description _____

Weather _____ Rainfall _____ (inches) Temperature: Min _____ Max _____

1. Work performed today by Prime Contractor (include plant and labor breakdown and quantity):

2. Work performed today by subcontractors (include plant and labor breakdown and quantity):

3. List specific inspection performed and results of these inspections (include corrective actions):

4. List type and location of tests performed and results of these tests:

5. Verbal instructions received from engineer or deficiencies or re-testing required:

6. Remarks:

7. CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected the work performed this day by the prime Contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Contractor's Designated Quality Control Manager

Contractor's Superintendent

APPENDIX C

QUALITY ASSURANCE/QUALITY CONTROL CHECKLIST

QUALITY ASSURANCE/QUALITY CONTROL CHECKLIST

SUBJECT		JOB NO.	BY	DATE	SHEET
Ref.#	Description of Contract Requirement	Responsibility Assigned to: (Check all that apply)			Completion Date
		Owner	Engineer	Contractor	