

STATE OF NEW YORK : DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
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In the Matter of a Field Investigation to Identify Any Threat to the Environment Caused by the Disposal of Industrial and Hazardous Wastes by: ORDER ON CONSENT

MR. JOHN A. GLENZER, COUNTY EXECUTIVE  
CHAUTAUQUA COUNTY  
Gerace Office Building  
Mayville, NY 14757

Index  
No.  
File  
No. 84-164

Respondent

9-1316

-----X  
WHEREAS:

1. The New York State Department of Environmental Conservation (the "Department") is responsible for the enforcement of Article 27, Title 13, of the Environmental Conservation Law of the State of New York (the "ECL") entitled "Inactive Hazardous Waste Disposal Sites".

2. Chautauqua County, (the "Respondent"), is a County organized and existing under the laws of the State of New York, and is doing business in the State of New York.

3. Respondent owns property at Dinsbier Road in the Town of Chautauqua (the "Site"). A map of the Site is attached hereto and is hereby incorporated into this Order as Appendix "A".

4. Beginning approximately in 1978 and continuing through 1981, the Chautauqua County Department of Public Works operated a sanitary landfill on Dinsbier Road in the Town of Chautauqua. This landfill accepted industrial waste sludges as well as other industrial and municipal wastes.

5. The Site is an inactive hazardous waste disposal site, as that term is defined in ECL Section 27-1301(2).

6. The Department alleges that the hazardous and industrial wastes, hazardous waste constituents, and toxic degradation products thereof at the Site may constitute a significant threat to the environment.

7. Pursuant to ECL Section 27-1313(3)(a), whenever the Commissioner of the Department of Environmental Conservation (the "Commissioner") "finds that hazardous wastes at an inactive hazardous waste disposal site constitute a significant threat to the environment, he may order the owner of such site and/or any person responsible for the disposal of hazardous wastes at such site (i) to develop an inactive hazardous waste disposal site remedial program subject to the approval of the Department, at such site, and (ii) to implement such program within reasonable time limits specified in the Order."

8. The Department and Respondent acknowledge that the goals of this Order shall be that Respondent shall develop and implement a field investigation program to:

(i) determine the nature of the wastes and the areal extent and vertical distribution of the wastes disposed of at the Site;

(ii) identify any past, current and/or potential future releases or migration of hazardous waste, as that term is defined in ECL Section 27-1301(1), and/or industrial waste, from the site to other on-Site and off-Site areas; and

(iii) evaluate the on-Site and off-Site impacts of such migration upon the environment.

9. Respondent, having waived its right to a hearing herein as provided by law, and having consented to the issuance and entry of this Order, agrees to be bound by provisions, terms and conditions hereof.

NOW, having considered this matter and being duly advised,  
IT IS ORDERED THAT:

I. All investigations, proposals, reports, plans, remedial programs and supplements and revisions thereto required by this Order shall address both on-Site and off-Site contamination

caused by the disposal of hazardous and industrial wastes at and in the vicinity of the Site, and shall be prepared, designed and executed in accordance with Requisite Technology. As used in this Order, Requisite Technology means engineering, scientific and construction of principles and practices subject to the Department's approval, which (a) are technologically feasible, and (b) will most effectively identify any present or potential future threat to the environment posed by the disposal of hazardous and industrial wastes at and in the vicinity of the Site.

II. As used herein, "hazardous wastes" shall mean hazardous wastes, any hazardous constituents thereof, and any toxic degradation products of such wastes and of each constituents.

III. Respondent shall undertake a field investigation of the Site and of areas off-Site affected by the disposal of hazardous and industrial wastes (the "Field Investigation").

IV. On or before April 1, 1985, the Respondent shall submit to the Department a proposed written scope of work (the "Proposal") outlining the nature and extent of the work to be undertaken in conducting the Field Investigation. At a minimum, the Proposal shall meet the requirements of the generic workplan attached hereto as Appendix "B" and shall include the names of the consulting firm(s), contractor(s) and laboratory to be performing the work.

V. Within 30 days after receipt of the Proposal, the Department shall provide written notification to Respondent of its approval or disapproval of the Proposal. If the Department approves the Proposal, Respondent shall perform the Remedial Investigation in accordance with the Proposal.

If the Department disapproves the Proposal, then within 15 days after receipt of the Department's objections to the Proposal, Respondent shall revise the Proposal in accordance with the terms, provisions and conditions of this Order and shall submit to the Department a Proposal which has been revised in accordance with the Department's objections (the "Revised Proposal").

Within 15 days after receipt of the Revised Proposal, the Department shall provide written notification to Respondent of its approval or disapproval of the Revised Proposal. If the Department approves the Revised Proposal, Respondent shall perform the Field Investigation in accordance with the Revised Proposal.

The approved Proposal or the approved Revised Proposal shall be attached hereto and shall be incorporated into this Order as Appendix "C". Such Proposal shall hereafter be referred to as the "Approved Proposal".

VI. On or before October 1, 1985, Respondent shall submit to the Department a Field Investigation report (the "Report"), founded upon its performance of the Field Investigation in accordance with the Approved Proposal. The Report shall include a copy of the Approved Proposal and all data generated, and all other information obtained, during the Field Investigation and completed site hazard ranking score sheets.

VII. Within sixty (60) days after its receipt of the Report, the Department shall determine if the Field Investigation was conducted, and the Report prepared in accordance with the terms, provisions and conditions of this Order, and shall provide written notification to Respondent of its approval or disapproval of the Report.

If the Department disapproves the Report, the Department shall notify Respondent in writing of the Department's objections. Within thirty (30) days or within a mutually agreed time after its receipt of notice of disapproval, Respondent shall revise the Report and/or reperform or supplement the Field Investigation in accordance with the terms, provisions and conditions of this Order and shall submit to the Department a Report which has been revised in accordance with the Department's objections (the "Revised Report").

Within fifteen (15) days after its receipt of the Revised Report, the Department shall determine if the Revised Report is in accordance with the terms, provisions and conditions of this Order and shall provide written notification to Respondent of its approval or disapproval of the Revised Report.

VIII. The Department reserves the right to require with mutual consent of the parties a modification and/or an amplification and expansion of the Field Investigation and Report by Respondent to address specific off-Site areas if the Department determines that further off-Site investigation is necessary, as a result of reviewing data generated by the Field Investigation or as a result of reviewing other data or facts. The Report shall be attached hereto and shall be incorporated into this Order as Appendix "D".

IX. The Department shall review the Report and shall use the Report as the basis of the development of the Site Hazard Ranking Score assigned to the Site for State (Federal) Superfund Site ranking purposes.

X. The Department shall have the right to obtain for the purpose of comparative analysis "split samples" or "duplicate samples", at the Department's option and expense, of all substances and materials sampled by Respondent pursuant to this Order. As used herein: "split samples" shall mean whole samples divided into aliquots; "duplicate samples" shall mean multiple samples, collected at the same time from exactly the same location, using the same sampling apparatus, collected into indential containers prepared identically, filled to the same volume, and thereafter identically handled and preserved.

XI. Respondent shall provide notice to the Department of any excavating, drilling or sampling to be conducted pursuant to the terms of this Order at least five (5) working days in advance of such activities.

XII. Respondent shall permit any duly designated officer, employee, consultant, contractor or agent of the Department to enter upon the Site or areas in the vicinity of the Site which may be under the control of Respondent, and any areas necessary to gain access thereto, for inspection purposes and for the purpose of making or causing to be made such sampling and tests as the Department deems necessary, and for ascertaining Respondent's compliance with the provisions of this Order.

XIII. Respondent shall obtain whatever permits, easements, right-of-way, rights-of-entry, approvals or authorizations which are necessary in order to perform the Field Investigation and all of Respondent's other obligations pursuant to this Order.

XIV. Respondent shall retain a third-party professional consultant, contractor, and/or laboratory to perform the technical, engineering and analytical obligations required by this Order. Said consultant, contractor, and/or laboratory shall have demonstrable experience, capabilities and qualifications in the type of work which they will be performing.



Or if a laboratory owned by Respondent is utilized, or professional scientists, engineers, or technicians in the employ of Respondent are utilized to fulfill the terms and conditions of this Order, said laboratory, laboratory staff, and professionals shall have demonstrable experience, capabilities and qualifications in the type of work which they will be performing.

XV. Respondent shall not suffer any penalty under any of the provisions, terms and conditions hereof, or be subject to any proceedings or actions for any remedy or relief, if it cannot comply with any requirements of the provisions hereof because of an act of God, war, riot, or other condition as to which negligence or willful misconduct on the part of Respondent was not a proximate cause, provided, however, the Respondent shall immediately notify the Department in writing when it obtains knowledge of any such condition and request an appropriate extension or modification of the provisions hereof.

XVI. The failure of Respondent to comply with any provision of this Order shall constitute a default and a failure to perform an obligation under this Order and under the ECL.

XVII. Nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting (1) any legal or equitable rights or claims actions, suits, causes of action or demands whatsoever that the Department may have against anyone other than Respondent, its directors, officers, employees, servants, agents, successors and assigns; (2) the Department's right to

enforce, at law or in equity, the terms and conditions of this Order against Respondent, its directors, officers, employees, servants, agents, successors and assigns in the event that Respondent shall fail to fulfill any of the provisions hereof; and (3) the Department's right to bring any action, at law or in equity against Respondent, its directors, officers, employees, servants, agents successors and assigns with respect to areas or resources that may have been affected or contaminated as a result of the release or migration of hazardous or industrial wastes from the Site or from areas in the vicinity of the Site. Nothing herein shall be construed as affecting the Department's right to commence any action or proceeding to which it may be entitled in connection with, relating to, or arising out of Respondent's disposal of hazardous or industrial wastes at the Site.

XVIII. The terms of this Order shall not be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers, either at common law or as granted pursuant to statute or regulation.

XIX. Respondent shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages and costs of every name and description by third parties arising out of or resulting from the fulfillment or attempted fulfillment of the provisions hereof by Respondent, its directors, officers, employees, servants, agents, successors or assigns.

XX. The effective date of this Order shall be the date this Order is signed by the Commissioner or his designee.

XXI. If, for any reason, Respondent desires that any provision of this Order be changed, Respondent shall make timely written application therefore to the Regional Director, Region 9, setting forth reasonable grounds for the relief sought.

XXII. Within 30 days after the effective date of this Order, Respondent shall file a Declaration of Covenants and Restrictions with the real property records of the Chautauqua County Clerk's Office, for the purpose of providing notice of this Order to all potential future purchasers of any portion of the Site. Said Declaration must indicate that any successor in title to any portion of the Site shall be responsible for implementing the provisions of this Order.

XXIII. In the event that Respondent proposes to convey the whole or any part of its ownership interest in the Site, Respondent shall, not less than 30 days prior to the consummation of such proposed conveyance, notify the Department in writing of the identity of the transferee and of the nature and date of the proposed conveyance. In advance of such proposed conveyance, Respondent shall notify the transferee in writing, with a copy to the Department, of the applicability of this Order.

XXV. A. All communication required hereby to be made between the Department and Respondent shall be made in writing and transmitted by United States Postal Service return receipt requested or hand delivered to the addresses in paragraph B hereinafter.

B. Communication to be made from Respondent to the Department shall be made as follows:

1. Two copies to the Regional Director, Region IX, 600 Delaware Avenue, Buffalo, New York 14202.
2. Two copies to the Division of Solid and Hazardous Waste, Room 209, 50 Wolf Road, Albany, New York 12233.
3. Two copies to the Director, Division of Environmental Enforcement, Room 618, Wolf Road, Albany, New York 12233.

C. Communication to be made from the Department to Respondent shall be made as follows:

Mr. John A. Glenzer Chautauqua County Executive Gerace Office Building Mayville, NY 14757	Mr. George Riedisel Department of Public Works 454 N. Work Street Falconer, NY 14733
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D. The Department and Respondent respectively reserve the right to designate other or different addresses on notice to the other.

E. No informal advice or guidance by the Department's officers or employees or representatives upon any plan, report, proposal, study or other document, or modifications or additions thereto, submitted by Respondent to the Department, shall relieve Respondent of any obligation it may have to obtain the Department's formal written approval of the same.

XV. The provisions of this Order shall be deemed to bind Respondent, its officers, directors, agents, servants, employees, successors and assigns.

XVI. Nothing herein shall be construed to bind any entity not specifically bound by the terms of this Order.

XVII. The provisions hereof shall constitute the complete and entire Order between Respondent and the Department concerning the Site. No terms, conditions, understandings or agreements purporting to modify or vary the terms hereof shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestions or comments by the Department regarding reports, proposals, plans, specifications, schedules or any other writing submitted by Respondent shall be construed as relieving Respondent to its obligations to obtain such formal approvals as may be required by this Order.

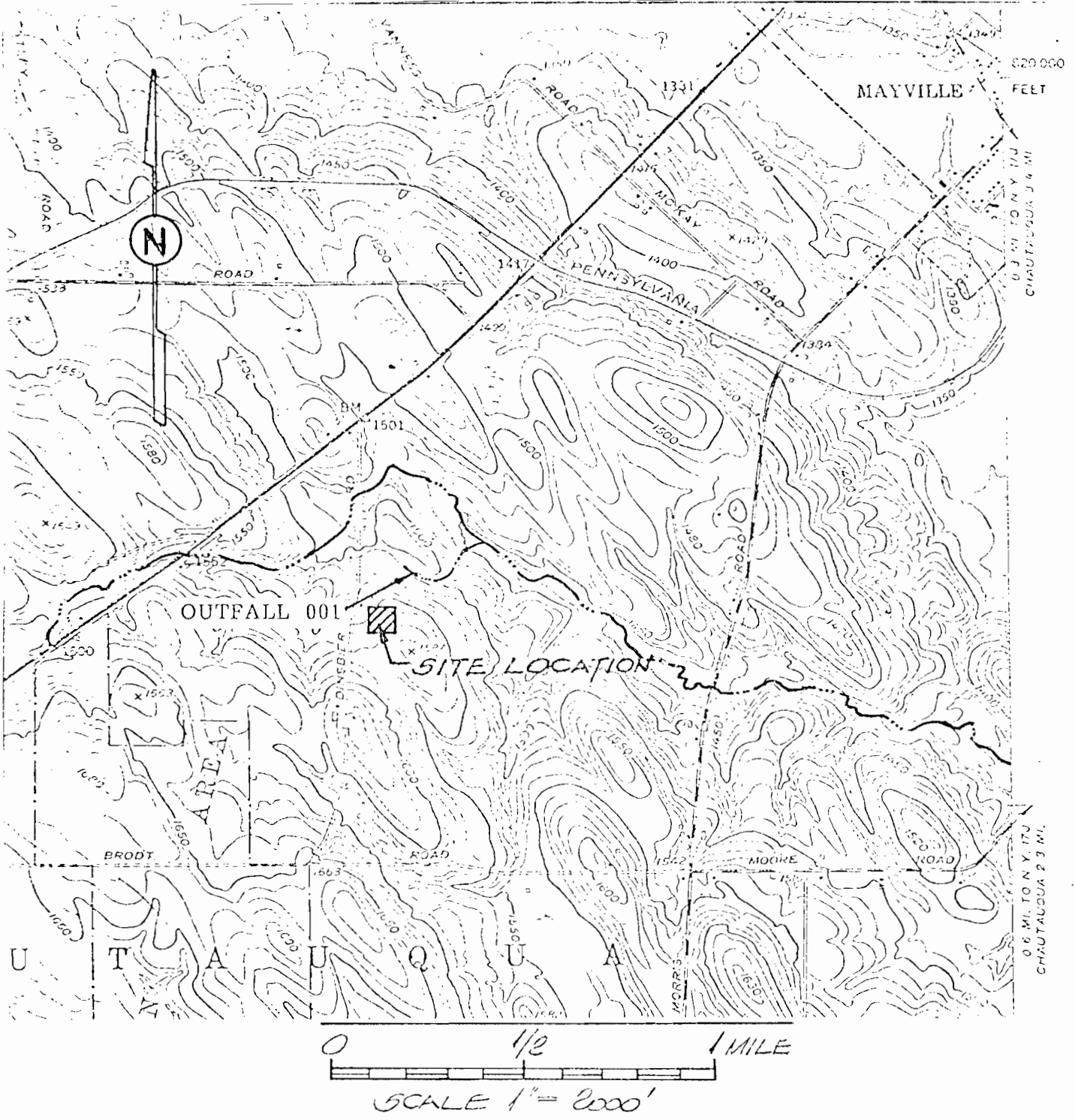
DATED:

, New York  
, 1985

HENRY G. WILLIAMS  
Commissioner  
New York State Department of  
Environmental Conservation

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APPENDIX 'A'  
DINSBIER RD LANDFILL



Consent by Respondent

Respondent hereby consents to the issuing and entering of the foregoing Order, waives its right to a hearing herein as provided by law, and agrees to be bound by the provisions, terms and conditions contained therein.

Respondent Chautauque County  
By John A. Glenn Jr  
Title County Executive  
Date April 3, 1985

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(Seal)

Corporate

State of New York )  
County of Chautauque ) ss.:

On this 3<sup>rd</sup> day of April, 1985, before me personally came John A. Glenn Jr to me known, who being by me duly sworn did depose and say that he resides at Fredonia, New York, that he is the County Executive of Chautauque County, the corporation described in and which executed the foregoing instrument; and that he signed his name as authorized by said corporation.

Donald S. Whitney  
NOTARY PUBLIC  
DONALD S. WHITNEY, #4765055  
Notary Public, State of New York  
Qualified in Chautauque County  
My Commission Expires March 30, 1986

Individual

State of )  
County of ) ss.:

On this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, before me came \_\_\_\_\_, to me known and known to me to be the individual described in and who executed the foregoing consent and he duly acknowledged to me that he executed the same.

\_\_\_\_\_  
NOTARY PUBLIC

STATE OF NEW YORK : DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of a Modification to Schedule A of a  
Consent Order Entered into by:

Mr. John A. Glenzer, County Executive  
Chautauqua County  
Gerace Office Building  
Mayville, NY 14757

INDEX NO.  
R9-1316-84-11

Respondent

WHEREAS:

1. The above parties having entered into Consent Order No. R9-1316-11-84 on July 3, 1985 which Order contained certain work to be performed on or before specified dates and
2. The Respondent seeks to change one of those dates and
3. The Respondent has made a proper showing as to why this date should be changed.

NOW THEREFORE:

The following change shall be made in Consent Order No. R9-1316-11-84:

<u>Paragraph Number</u>	<u>Step</u>	<u>Old Date</u>	<u>New Date</u>
VI	Submit Field Investigation Report (Phase II Study)	March 1, 1986	December 1, 1986

Dated:

HENRY G. WILLIAMS, Commissioner  
New York State Department of  
Environmental Conservation



00-17-1 (5/76)  
Formerly GA-4

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

TRANSMITTAL SLIP

*Jim Juro*

TO P. Buechi  
FROM P. J. Burke DATE 8/5/86  
RE: Modification to D.O.C. # 84-164

FOR ACTION AS INDICATED:

- Please Handle
- Prepare Reply
- Prepare Reply for \_\_\_\_\_  
Signature
- Information
- Approval
- Prepare final/draft in \_\_\_\_\_ Copies

- Comments
- Signature
- File
- Return to me
- \_\_\_\_\_
- \_\_\_\_\_

STATE OF NEW YORK : DEPARTMENT OF ENVIRONMENTAL CONSERVATION

-----X  
In the Matter of a Field Investigation to Identify Any  
Threat to the Environment Caused by the Disposal of Industrial  
and Hazardous Wastes by:

MR. JOHN A. GLENZER, COUNTY EXECUTIVE  
CHAUTAUQUA COUNTY  
Gerace Office Building  
Mayville, NY 14757

MODIFICATION  
TO ORDER  
ON CONSENT

Index No.  
File  
No. 84-164

Respondent

-----X  
WHEREAS:

1. The New York State Department of Environmental Conservation (the "Department") issued an Order on Consent to Chautauqua County (the "Respondent") on July 3, 1985, requiring Respondent, among other things, to develop and implement a field investigation of property owned by Respondent at Dinsbier Road in the Town of Chautauqua and of areas off-site affected by the disposal of hazardous and industrial wastes, including evaluating the on-site and off-site impacts of migration of hazardous waste and/or industrial waste upon the environment.

2. Under the terms of the Order, Respondent is required to complete certain measures on or before specified dates.

3. By a letter dated February 27, 1986, which is attached hereto, Respondent has requested that the Order be modified to provide for an extension of one of the dates

specified therein.

4. The Department finds that the Respondent has provided reasonable grounds for the requested modification.

NOW, having considered this matter and being duly advised,  
IT IS ORDERED THAT:

I. The schedule requiring the Respondent to submit the field investigation report is hereby modified to the extent that Respondent shall submit such report to the Department on or before December 1, 1986.

II. The modification set forth in Paragraph I hereof shall become an enforceable part of the Order on Consent issued to Respondent.

III. The modification set forth in Paragraph I hereof shall in no way impair or otherwise affect the validity or enforceability of any of the terms or conditions of the Order on Consent issued to Respondent, and all other of such terms and conditions shall remain in full force and effect.

Dated: Albany, New York

*July 17, 1986*

HENRY G. WILLIAMS, Commissioner  
New York State Department of  
Environmental Conservation

*Henry G. Williams*

Generic Work Plan  
Phase II Investigations

The Division of Solid and Hazardous Waste, requires that certain aspects be addressed in any investigative work (Phase II) undertaken to determine the hazardous nature of a site. This document describes generally the minimum amount of work and reporting that must be done by the owner, who chooses to perform a Phase II investigation; the requirements by the Division of the owner in performing a satisfactory Phase II investigation is not limited to the items described herewith, but may include other needs to satisfy unanswered questions on a site-specific basis.

The term owner shall include the owner(s) of the site under consideration and his/their consultant through whom the Phase II investigation will be done.

This generic work plan will be divided into five main areas:

1. geophysical survey
2. well drilling
3. well sampling and analyses
4. other sampling and analyses
5. QA/QC protocols

1. Geophysical Survey

Because of complexities involved in detecting hazardous waste at a given site, with added complications of geologic anomalies, the Department requires that specific geophysical studies be done during each investigation. Generally, the broad considerations are:

1. Location of Buried Materials
2. Determination of the Presence of Contaminated Plumes
3. Characterization of Subsurface Conditions

Table 1 specifies techniques, which have been proven at hazardous waste sites, and their application for various categories of a Phase II investigation.

The preferred method must be employed to characterize to the maximum extent possible the subsurface stratigraphy of an inactive hazardous waste site. A survey must also be conducted to define an area where it is suspected that wastes are buried. The findings of the geophysical survey must be used to enhance the location of wells for obtaining samples, from leachate plumes or affected groundwater regimes.

## 2. Well Drilling

These shall include, but are not limited to:

- a. number of wells (nested or single) and located on a map of the site.
- b. depth of wells to the nearest foot.
- c. materials needed to properly construct wells, seal annular space and securing wells with a steel cover and padlock.
- d. split spoon sampling from grade elevation to the water table at every 5 ft., then continuously through the aquifer.
- e. analysis of three selected samples for grain size, Atterburg limits and moisture contents in the proposed screened interval(s). Likewise representative samples from each well must be secured by the consultant for future reference.
- f. slug testing (permeability) of each well. Evacuation of the well for this determination will not be accepted due to water disposal at the surface.
- g. groundwater elevation readings in each well before and after development.
- h. development of each well.

- i. classification of the split spoon samples by a geologist in the field.
- j. Shallow soil samples, if required, may be obtained with a hand auger.

It must be noted that in moving from one well to another on-site location for constructing a new well, all drilling equipment as augers, must be cleaned of all foreign matter, washed with a detergent, rinsed properly with water, given an acetone wash, then followed with a final hexane wash, in that order, or cleaned of foreign matter and sanitized with a steam cleaner. The method of cleaning is to be determined for each site by New York State Department of Environmental Conservation. Similarly, in conducting split spoon sampling, the split spoon must be cleaned as above after each sample before reintroduction in the hole.

It is also required that the HNu detector be used to monitor the gases emitted from each split spoon sample as soon as the sampler is opened.

Prior to leaving a site, all equipment that was used in constructing the well, i.e., augers, split spoons and other items that has become contaminated must be cleaned as described above.

### 3. Well Sampling and Analytical Effort

The Division expects that a minimum of 1 groundwater sample will be taken from each well. The owner is therefore required to note in the work plan:

- a. number of groundwater samples planned.
- b. analysis for each sample, keeping in mind that:
  - i. if a determination on the type(s) of chemical(s) can be made from a foregoing Phase I study or other sources, then analysis shall be concentrated on those items.
  - ii. if there is a suspected multiplicity of chemicals, but no determination on their classification can be made, serious consideration will be given in analysing for:

- i) total metals
- ii) Identification and quantitation of compounds should be done in accordance with New York State Department of Environmental Conservation's Analytical, Quality Control and Reporting Requirements as adopted from the USEPA Caucus Protocol for the Contract Laboratory Program, with the requirement that all peaks greater than 10 percent of the nearest calibrating standard be included in the identification and quantitation.

In developing and extracting samples from wells, the Division will require that dedicated tubes, hoses, bailing and sampling equipment must be provided for each well. Groundwater elevation equipment may be used between wells, provided that after use in each well, the detector is cleaned with a detergent wash, water rinse, acetone rinse and hexane rinse in that order. A new string may be required for each well.

#### 4. Other Sampling and Analyses

Aside from tasks which are dependent on the findings of a geophysical survey, the owner should delineate those that could be done on his immediate arrival on site. Examples include, but are not limited to:

- a. one each upgradient and downgradient water and sediment samples of a stream (surface water).
- b. where it is obvious that a spill has occurred over a significant area, one soil sample should be obtained; likewise lagoons, if in existence, should be sampled once. Significant area means a patch of ground approximately 250 sq. ft.
- c. analysis for each sample, keeping in mind that:
  - i. if a determination on the type(s) of chemical(s) can be made

from a foregoing Phase I study or other sources, then analysis shall be concentrated on those items.

- ii. if there is a suspected multiplicity of chemicals, but no determination on their classification can be made, serious consideration should be given in analysing for:
- extraction procedure toxicity
  - corrosivity
  - ignitability
  - reactivity
  - total metals
  - Identification and quantitation of compounds should be done in accordance with NYSDEC Analytical, Quality Control and Reporting Requirements as adopted from the USEPA Caucus Protocol for the Contract Laboratory Program, with the requirement that all peaks greater than 10 percent of the nearest calibrating standard be included in the identification and quantitation.

Reporting Requirements and Deliverables.

Obviously, the owner must be selective in applying the above four analyses to a sample. For example, EP toxicity, ignitability or reactivity would not be done on a water sample.

- d. air grab samples using HNU photoionizer and MSA explosimeter detectors. Organic vapour analyzers (OVA) are not acceptable). One upwind and one downwind samples must be taken on arrival at and prior to any other work at the site, and at any other time that releases of organic vapours and gases and methane are suspected. The date, time, location of samples for plotting on a site map, results, approximate wind direc-



tion, speed and temperature and person's name among other details must be recorded for inclusion in the report.

#### 5. QA/QC

QA/QC protocols for sample integrity from the field to the laboratory, as well as those employed in the laboratory must be submitted by the consultant.

Generally, the sampling QA/QC protocols should describe sampling techniques and methods used in ensuring sample integrity, as cleaning of equipment, dedicated samplers, chain-of-custody procedures, sample preservation, experience and capabilities of personnel and other factor associated with obtaining and delivering hazardous waste samples to the laboratory.

A quality assurance document providing for the committment to the implementation of quality assurance and quality control practices applicable to field and laboratory activities of the hazardous waste program must be provided. This document must be in accordance with the NYSDEC, Division of Solid and Hazardous Waste Quality Assurance Program Plan which contain "Guidance for Preparation of Combined Work/Quality Assurance Project Plans for Water Monitoring (OWRS QA-1), U.S. EPA, Washington, D.C., May 1983.

#### 6. Title Page

Indicate: name of project (i.e., "Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York, Phase II Investigations"); the site name, location (i.e., municipality and county) and NYSDEC site number; prepared for (i.e., Name of owner, address of owner); prepared by (i.e., contractor's name and address); and date submitted.

#### 7. Table of Contents

List all sections and subsections of the Phase II Report.

Section I:

Executive Summary - Briefly describe the site, Phase II effort, site assessment and HRS score. (Include a portion of the USGS 7.5 minute Quadrangle Sheet 8½" x 11") with site located, name of the quadrangle and the coordinates of the site, identified on it, as well as a sketch map of the site).

Section II:

Purpose - Describe the goal of the Phase II effort at the specific site.

Section III:

Scope of Work - Describe the scope of the Phase II effort including, but not necessarily limited to: geophysical studies, boring and monitoring well placement and installation, sampling and sampling station selection (soil, surface water and air samples). Give reasons for the locations chosen for monitoring wells and sampling stations. Also include details of monitoring well installation and environmental sampling techniques used.

Section IV:

Site Assessment -

i) Description of site topography indicating such items as general slope of the site and proximity to surface waters, wells, commercial buildings, dwellings and sensitive environments.

ii) Description of hydrology of the site, include data from geophysical studies (plots), boring logs, monitoring well data and soil test data. (Depth to groundwater, aquifers of concern, depth of bedrock, soil and bedrock permeabilities, and any unique geological characteristics such as, but not limited to, multiple aquifer systems and karst topography should be noted.)

iii) Assess site contamination. Summarize the results of both past and Phase II sampling programs. Indicate the waste types and quantities on site if

known, and the extent of contamination of soil, surface water, groundwater and air. Note when samples were taken and the location of samples on a map or sketch of the site. Include a description of how the QA/QC plan was applied to the site.

Section V:

Final Application of the Hazard Ranking System - The final application of the HRS must incorporate all information collected in the Phase I and Phase II investigations of the site. This section of the report is to include:

i) Narrative Summary - Limit each narrative summary to one page (DOUBLE SPACED). Use active voice as much as possible and identify actors--that is, say "EPA erected a fence," not "a fence was erected," or "the State filed suit," not "a suit was filed." Be sure to tie the information to the response category/status codes you are assigning the site.

The following information should be included in each summary:

- a. Site name (including origin of name). Consult July 18, 1984 memo from Russ Wyer (attached) for guidance in naming sites
- b. Site location - city, county, and state
- c. Size
- d. Nature of operations (landfill, recycling, manufacturing, etc.)
- e. History of ownership/operations - private, public, bankrupt, permitted (by whom? to do what?) currently operating (how long), closed (how long). Name responsible parties if they have taken cleanup actions, either voluntary or negotiated

- f. Wastes present (types, amounts, in what form, buried, on surface, etc.)
- g. Media affected and with what (including source of analytical data)
- h. Important demographic information (population affected and how)
- i. Important geographic information (nearby surface water, aquifers, wetlands, etc.)
- j. Cleanup actions (completed or scheduled)
- k. Enforcement actions

A typical summary is outlined below. While no single example can cover the variety of conditions at hazardous waste sites, this one illustrates the types of information and form we want.

Name  
Location

The ABC/DEF (name) site covers (size) acres in (location, including county). ABC (describe operations) on the site (date), when it purchased the property from DEF (relationship of DEF to the site operation), until (date), when it (describe operations/ownership history).

The companies disposed of about (quantities of waste) of (types of waste) on the site by (describe disposal methods). According to tests conducted by (source of data), (media) are contaminated with (chemicals). The site is (important geographic information). About (population affected) are (affected how).

In (date), (who) filed (describe any legal action). In (date), (who) (describe any cleanup actions).

ii) Portion of USGS quadrangle with site located on it and the name of quadrangle identified as also required in Section I.

iii) Updated HRS Worksheets.

All applicable data collected in the Phase I and Phase II investigations will be used to complete these worksheets.

iv) Updated HRS Documentation Records.

All applicable data collected in the Phase I and Phase II investigations will be used to complete the HRS Documentation Records. All sources of information supplied in the documentation records must be clearly referenced on the same page where this information is presented. In addition, copies of all documents indicated as a source of information must be supplied.

This includes correspondence, sampling and analytical data (even if previously presented in the Phase I report), professional papers and reports. Information based on conversations with knowledgeable individuals must be confirmed in a memorandum or a letter, and a copy included with the HRS Documentation Records. Also, a copy of the site sketch or map indicating the location of samples (as required in Section IV) must also be included in this section.

v) Updated EPA Form 2070-13 "Potential Hazardous Waste Site, Site Inspection Form," or any revisions of such forms.

NOTE: Information presented on the HRS Documentation Records is to be typed and not handwritten or printed.

## 8. Appendix

All raw data (i.e. geophysical, analytical, etc.) shall be presented in the appendix. This shall be in addition to any reduction of data presented elsewhere in the report.

### Reference

Geophysical Techniques for Sensing Buried Wastes and Waste Migration: U.S. Environmental Protection Agency, Las Vegas, Nevada. 280 pp.

TABLE 1. APPLICATION OF GEOPHYSICAL METHODS TO HAZARDOUS WASTE SITES<sup>1</sup>

Application	Radar	Electromagnetics	Resistivity	Seismic	Metal Detector	Magnetometer
Mapping of Geohydrologic Features	1	1	1	1	-	-
Mapping of Conductive Leachates and Contaminant Plumes (ex. Landfills, Acids, Bases)	2	1	1	-	-	-
Locations and Boundary Definition of Buried Trenches with Metal	1	1	2	2	2	?
Location and Boundary Definition of Buried Trenches with Metal	1	1	2	?	-	-
Location and Definition (ex. Drums, Ordinance)	2	2	-	-	1	1

1. Primary Method - Indicates the most effective method
2. Secondary Method - Indicates and alternative approach