ENVIROMENTAL CONSERVATION DEPT.
RECEIVED
JUN 12 1998
REGIONAL ENGINEER REGIONS
RAYBROOK, NY 12977

STATE OF NEW YORK: DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of the
Development and Implementation
of a Preliminary Site Assessment for
a suspected Disposal Site, Under
Article 27, Title 13 and Article 3,

Title 3 of the Environmental
Conservation Law of the State
of New York by

ORDER
ON
CONSENT

INDEX #
A5-0284-92-06

FFF Liquidation Trust
Respondent.

Site Code # 546036

WHEREAS,

1. The New York State Department of Environmental Conservation (the "Department") is responsible for the enforcement of and has authority to investigate inactive hazardous waste disposal sites pursuant to Article 27, Title 13 of the Environmental Conservation Law of the State of New York ("ECL"), entitled "Inactive Hazardous Waste Disposal Sites."

2. FFF Liquidation Trust ("Respondent") is the owner of the Van Raalte Knitting Mill Site, Site No. 546036, which is located in the Village of Saratoga Springs, Saratoga Co., New York (Figure 1).

3. The Department does not have sufficient information to reclassify or delist the Van Raalte Knitting Mill Site. Based on the potential for hazardous wastes, as defined by the New York State Hazardous Waste Regulations 6 NYCRR 371, to be present at the site and based on the potential for significant threat to human health and the environment, activities must be initiated to confirm or deny hazardous waste disposal and to assess whether the Site poses a significant threat to human health or the environment.

4. The Site has been listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 546036. The Department has given the Site a "2a" classification, a temporary classification which indicates that investigation is required to determine whether conditions at the Site constitute a significant threat to the public health or the environment as a result of hazardous waste disposal.

5. The Department and Respondent agree that the goal of this Order is the development and implementation of a Preliminary Site Assessment ("PSA") by Respondent which will gather data to enable the Department to characterize hazardous wastes which were or may now be present at the Site and to enable the Department to determine whether such wastes constitute a significant threat to public health or the environment.

6. Respondent has waived its right to a hearing herein as provided by law, and it has consented to the issuance and entry of this Order, and agrees to be bound by its terms. Respondent consents to and agrees not to contest the authority or jurisdiction of the Department to issue or enforce this Order, and agrees not to contest the validity of this Order or its terms.

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

I. Within 45 days after the effective date of this Order, Respondent shall submit to the Department:

A. A brief history and description of the Site, including the nature of operations (past and present) at the Site; the names and addresses of current and previous Site owners and operators; the types, quantities, physical state, location, methods and dates of generation, storage, and disposal, including spillage, of all hazardous wastes at the Site; and a description of current Site security (e.g., fencing, posting).

B. A concise summary of information held by Respondent and its consultants with respect to all persons responsible for such disposal of hazardous wastes, including but not limited to names, addresses, dates of disposal and any proof linking each such person responsible with hazardous wastes identified pursuant to subparagraph I.A;

C. A comprehensive list and copies of all existing relevant reports with titles, authors and subject matter, as well as a description of the results of all previous investigations of the Site and areas in the vicinity of the Site, including copies of all available topographic and property surveys, engineering studies and aerial photographs; and

II. Preliminary Site Assessment Contents and Submittals

A. (1) Within 60 days after the effective date of this Order, Respondent shall submit to the Department a detailed work plan for the implementation of a Preliminary Site Assessment ("PSA Work Plan") at the Site.

2) The PSA Work Plan shall describe the methods and procedures to be used in implementing a PSA.

B. (1) The PSA Work Plan shall include, but not be limited to, the following:

a. A chronological description of the anticipated PSA activities together with a schedule for the performance of these activities.

b. A Sampling and Analysis Plan that shall include:

(i) A quality assurance project plan that describes the quality assurance and quality control protocols necessary to achieve the initial data quality objectives. This plan shall designate a data validation expert and must describe such individual's qualifications and experience.

(ii) A field sampling plan that defines sampling and data gathering methods in a manner consistent with the "Compendium of Superfund Field Operations Method" (EPA/540/P-87/001, OSWER Directive 9355.0-14, December 1987).

c. A health and safety plan to protect persons at and in the vicinity of the Site during the performance of the PSA which shall be prepared in accordance with 29 C.F.R. 1910 and all other applicable standards by a health and safety professional. Supplemental items shall be added to this plan by Respondent as necessary to ensure the health and safety of all persons at or in the vicinity of the Site during the performance of any work pursuant to this Order.

(2) The PSA Work Plan shall follow, as practicable, the Department's Standby Contract Work Assignment Guidance which is used by the Department contractors (Attachment 1). Preliminary Site Assessment Scope of Work Section II appears most relevant to this specific site.

III. Performance and Reporting of PSA

A. Within 21 days after the Department's approval of the PSA Work Plan, Respondent shall commence the PSA.

B. Respondent shall perform the PSA in accordance with the Department-approved PSA Work Plan.

C. During the performance of PSA field work, Respondent shall have on-Site a full-time representative who is qualified to supervise the work done.

D. Respondent shall prepare a PSA Report that shall:

(1) include all data generated and all other information obtained during the PSA;

(2) provide all of the assessments and evaluations set forth in the guidance documents referred to in Subparagraph II.B(2);

(3) identify any additional data that must be collected; and

(4) include a certification by the individual or firm with primary responsibility for the day to day performance of the PSA that all activities that comprised the PSA were performed in full accordance with the approved PSA Work Plan.

E. Respondent's failure to comply with any term of this Order constitutes a violation of this Order and the ECL. Respondent shall be liable for payment to the Department of the sums set forth below as stipulated penalties for each business day or part thereof that it is in violation of the terms of this Order. All stipulated penalties begin to accrue on the first day that Respondent is notified in writing by the Department that it is in violation of the terms of this Order and continue to accrue through the final day of correction of any violation. Such sums shall be due and payable within 15 days after Respondent's receipt of notification from the Department assessing the stipulated penalties. Payment shall be made to the Department of Environmental Conservation, and shall be sent to the Director, Division of Environmental Enforcement, 50 Wolf Road, Albany, New York 12233-5500. Payment of the stipulated penalties shall not in any way alter or affect Respondent's obligation to complete performance under the terms of this Order. Stipulated penalties shall accrue pursuant to the following schedule:

Period of Non-Compliance	Penalty Per Day
First through 5th day	$ 100
6th through 30th day	$ 500
31st day and thereafter	$ 1,000

IV. Progress Report

Respondent shall submit to the parties set forth in paragraph IX one copy of written monthly progress reports that: (i) describe the actions which have been taken toward achieving compliance with this Order during the previous month; (ii) include

all results of sampling and tests and all other data received or generated by Respondent or Respondent's contractors or agents in the previous month, including quality assurance/quality control information, whether conducted pursuant to this Order or conducted independently by Respondent; (iii) identify all work plans, reports, and other deliverables required by this Order that were completed and submitted during the previous month; (iv) describe all actions, including, but not limited to, data collection and implementation of work plans, that are scheduled for the next month and provide other information relating to the progress at the Site; (v) include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of the Respondent's obligations under the Order, and efforts made to mitigate those delays or anticipated delays; and (vi) include any modifications to any work plans that Respondent has proposed to the Department or that the Department has approved. Respondent shall submit these progress reports to the Department by the tenth day of every month following the effective date of this Order.

V. Review of Submittals

A. (1) The Department shall review each of the submittals Respondent makes pursuant to this Order to determine whether it was prepared, and whether the work done to generate the data and other information in the submittal was done, in accordance with this Order and generally accepted technical and scientific principles. The Department shall notify Respondent in writing of its approval or disapproval of the submittal, except for

the submittals discussed in Paragraph II.B.(1)c, Paragraph IV, and Paragraph X.B., all Department-approved submittals shall be incorporated into and become an enforceable part of this Order.

(2) (a) If the Department disapproves a submittal, it shall so notify Respondent in writing and shall specify the reasons for its disapproval. Within 30 days after receiving written notice that Respondent's submittal has been disapproved, Respondent shall make a revised submittal to the Department that addresses and resolves all of the Department's stated reasons for disapproving the first submittal.

(b) After receipt of the revised submittal, the Department shall notify Respondent in writing of its approval or disapproval. If the Department disapproves the revised submittal, Respondent shall be in violation of this Order and the Department may take any action or pursue whatever rights it has pursuant to any provision of statutory or common law. If the Department approves the revised submittal, it shall be incorporated into and become an enforceable part of this Order.

B. The Department may require Respondent to modify and/or amplify and expand a submittal if the Department determines, as a result of reviewing data generated by an activity required under this Order or as a result of reviewing any other data or facts, that further work is necessary.

VI. Force Majeure

Respondent shall not suffer any penalty under this Order or be subject to any proceeding or action if it cannot comply with any requirement hereof because of war, riot, or an unforeseeable

disaster arising exclusively from natural causes which the exercise of ordinary human prudence could not have prevented, or any other condition, including but not limited to the act of a third party, as to which negligence or willful misconduct on the part of the Respondent was not a proximate cause. Respondent shall, within five days of when it obtains knowledge of any such condition, notify the Department in writing. Respondent shall include in such notice the measures taken and to be taken by Respondent to prevent or minimize any delays and shall request an appropriate extension or modification of this Order. Failure to give such notice within such five-day period constitutes a waiver of any claim that a delay is not subject to penalties. Respondent shall have the burden of proving that an event is a defense to compliance with this Order pursuant to this paragraph.

VII. Entry upon Site

Respondent hereby consents to the entry upon the Site or areas in the vicinity of the Site which may be under the control of the Respondent by any duly designated employee, consultant, contractor, or agent of the Department or any State agency for purposes of inspection, sampling, and testing and to ensure Respondent's compliance with this Order. Appropriate notice will be given to Respondent before entry upon the site or areas in the vicinity of the site under the control of the Respondent.

VIII. Department Reservation of Rights

A. Nothing contained in this Order shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights including, but not limited to nor exemplified by, the following:

1. the Department's right to bring any action or proceeding against anyone other than Respondent and/or any of Respondent's directors, officers, employees, servants, agents, successors, and assigns;

2. the Department's right to enforce this Order against Respondent and/or any of Respondent's directors, officers, employees, servants, agents, successors, and assigns if Respondent fails to satisfy any of the terms of this Order;

3. the Department's right to bring any action or proceeding against Respondent and/or any of Respondent's directors, officers, employees, servants, agents, successors, and assigns with respect to claims for natural resources damages as a result of the release or threatened release of hazardous substances or constituents at or from the Site or areas in the vicinity of the Site;

4. The Department's right to bring any action or proceeding against Respondent and/or any of Respondent's directors, officers, employees, servants, agents, successors, and assigns with respect to hazardous substances that are present at the Site or that have migrated from the Site;

B. Nothing contained in this Order shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.

IX. Communications

A. All written communications required by this Order shall be transmitted by United States Postal Service, by private courier service, or hand delivered to Daniel L. Steenberge, P.E., Regional Hazardous Waste Remediation Engineer, NYS Department of Environmental Conservation, Route 86, P.O. Box 296, Ray Brook, NY 12977. Carbon copies should be sent as follows:

1. G. Anders Carlson, Director, Bureau of Environmental Exposure Investigation
NYS Department of Health
2 University Place
Albany, New York 12203

2. Frank Bifera, Chief, Albany Field Unit
NYSDEC, Environmental Enforcement
50 Wolf Road
Albany, New York 12233-5501

3. Thomas Reamon, P.E., Chief, Central Investigation Section
NYSDEC
Division of Hazardous Waste Remediation,
50 Wolf Road
Albany, New York 12233-7010

B. Copies of work plans and reports shall be submitted as follows:

1. One copy to Daniel L. Steenberge, P.E.

2. One copy to the Director, Bureau of Environmental Exposure Investigation

3. One copy to Thomas Reamon, P.E.

C. Within 30 days of the Department's approval of any report submitted pursuant to this Order, Respondent shall submit two copies of the report to Daniel L. Steenberge, P.E. and to the Director, Bureau of Environmental Exposure Investigation. Also submit three copies and one computer readable magnetic media copy of the approved report in American Standard Code for Information

Interchange (ASCII) format on 3½ inch diskette format to Thomas Reamon, P.E.

D. Communication to be made from the Department to the Respondent shall be sent to:

1. FFF Liquidation Trust
P.O. box 78200-8200
Greensboro, North Carolina 27427

2. Charles S. Warren, Esq.
Berle, Kass & Case
45 Rockefeller Plaza, suite 2350
New York, NY 10111

E. The Department and Respondent reserve the right to designate additional or different addressees for communication or written notice to the other.

X. Miscellaneous

A. All activities and submittals required by this Order shall address both on-Site and off-Site contamination resulting from the disposal of hazardous waste at the Site.

B. Respondent shall retain professional consultants, contractors, laboratories, quality assurance/quality control personnel, and data validators acceptable to the Department to perform the technical, engineering, and analytical obligations required by this Order. The experience, capabilities, and qualifications of the firms or individuals selected by Respondent shall be submitted to the Department. The responsibility for the performance of the professionals retained by Respondent shall rest solely with Respondent.

C. The Department shall have the right to obtain split samples, duplicate samples, or both, of all substances and materials sampled by Respondent, and the Department also shall have the right to take its own samples. Respondent shall make available to the Department the results of all sampling and/or tests or other data generated by Respondent with respect to implementation of this Order and shall submit these results in the progress reports required by this Order.

D. Respondent shall notify the Department at least 10 days in advance of any field activities to be conducted pursuant to this Order.

E. Respondent shall obtain all permits, easements, rights-of-way, rights-of-entry, approvals, or authorizations necessary to perform Respondent's obligations under this Order.

F. Respondent and Respondent's officers, directors, agents, servants, employees, successors, and assigns shall be bound by this Order. Any change in ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall in no way alter Respondent's responsibilities under this Order.

G. Respondent shall provide a copy of this Order to each contractor hired to perform work required by this Order and to each person representing Respondent with respect to the Site and shall condition all contracts entered into in order to carry out the obligations identified in this Order upon performance in conformity with the terms of this Order. Respondent or Respondent's contractors shall provide written notice of this Order to all subcontractors hired to perform any portion of the

work required by this Order. Respondent shall nonetheless be responsible for ensuring that Respondent's contractors and subcontractors perform the work in satisfaction of the requirements of this Order.

H. All references to "days" in this Order are to calendar days unless otherwise specified.

I. The section headings set forth in this Order are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Order.

J. (1) The terms of this Order shall constitute the complete and entire Order between Respondent and the Department concerning the Site. No term, condition, understanding, or agreement purporting to modify or vary any term of this Order shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department regarding any report, proposal, plan, specification, schedule, or any other submittal shall be construed as relieving Respondent of Respondent's obligation to obtain such formal approvals as may be required by this Order.

(2) If Respondent desires that any provision of this Order be changed, Respondent shall make timely written application, signed by the Respondent, to the Commissioner setting forth reasonable grounds for the relief sought. Copies of such written application shall be delivered or mailed to Frank Bifera and Daniel L. Steenberge, P.E.

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

DATED: , New York

, 1992

THOMAS C. JORLING
Commissioner
New York State Department
of Environmental Conservation

by:

Michael J. O'Toole, Jr., P.E.
Acting Deputy Commissioner

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of this Order, waives its right to a hearing herein as provided by law, and agrees to be bound by this Order.

By: Judith Stern Peck
(TYPE NAME OF SIGNER)

Title: Trustee: Judith Stern Peck

Date: 7/24/92

STATE OF NEW YORK)
) s.s.:
COUNTY OF New York)

On this 29th day of July, 1992, before me personally came Judith Steen Peet, to me known, who being duly sworn, did depose and say that she resides in New York City; that she is the Trustee of the FEF Liquidation Trust ~~municipality~~ described in and which executed the foregoing instrument.

Charles S. Warren
Notary Public

PSAHWR.CO

CHARLES S. WARREN
Notary Public, State of New York
No. 4941594
Qualified in New York County
Commission Expires Aug. 29, 1994

Figure 1

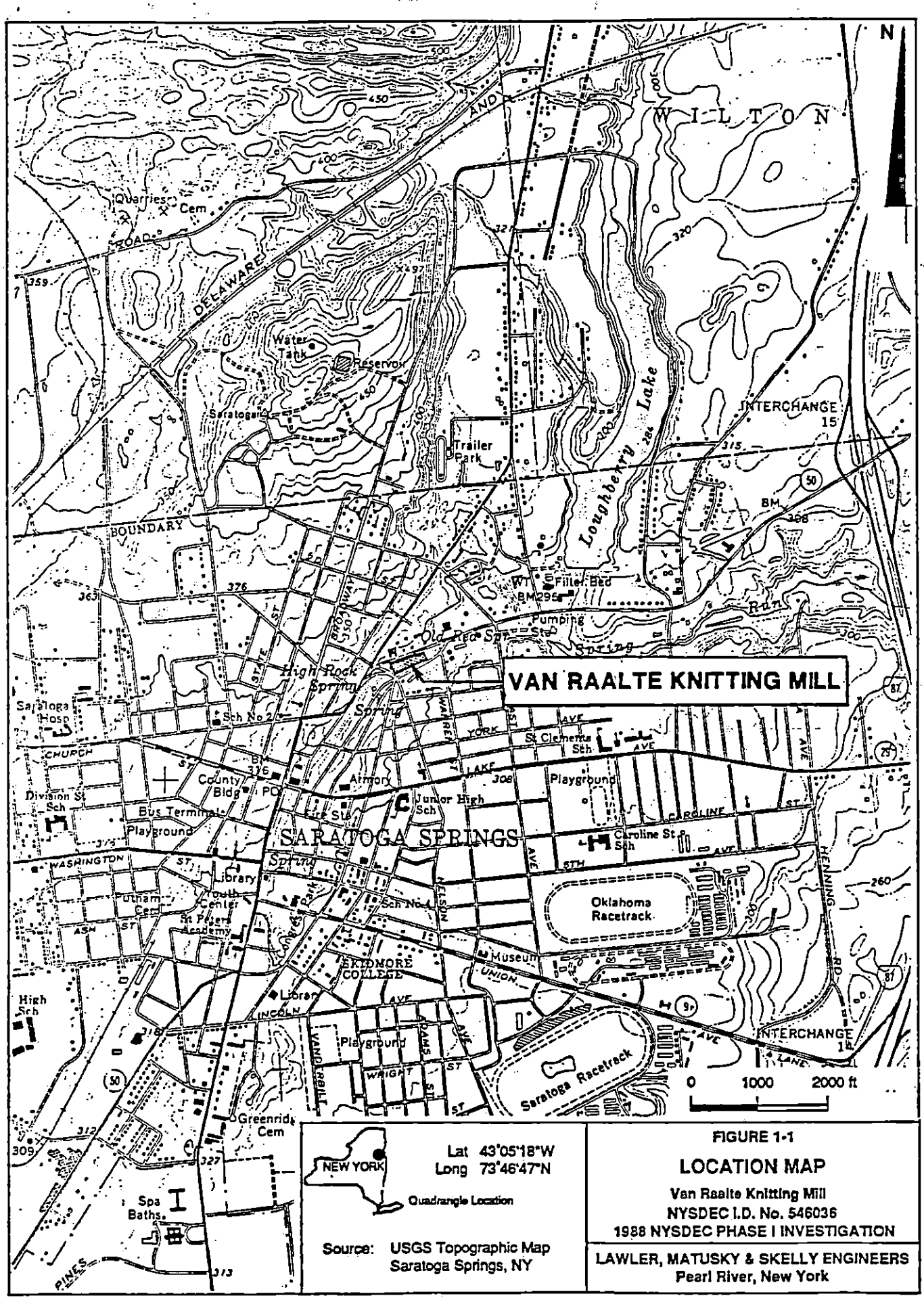


FIGURE 1-1

LOCATION MAP

Van Raalte Knitting Mill
NYSDEC I.D. No. 546036
1988 NYSDEC PHASE I INVESTIGATION

LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

ATTACHMENT 1

STANDBY CONTRACT WORK ASSIGNMENT
TYPE OF CONTRACT: ENGINEERING SERVICES

Site Name and Number:
NYSDEC Project Manager:

I. NARRATIVE

Consistent with the New York State Remedial Plan, the Bureau of Hazardous Site Control (BHSC), Division of Hazardous Waste Remediation (Division) has been assigned a schedule of confirmed and suspected inactive hazardous waste disposal sites which need to be characterized and classified into the respective site classifications as defined by Article 27, Title 13, of the Environmental Conservation Law (ECL). In order to classify the sites, a two-fold determination is necessary. This determination requires that: 1) hazardous waste disposal on-site as defined by 6 NYCRR Part 371 is documented and 2) the site's significance as to the threat to the public health and the environment due to presence of hazardous wastes is documented.

Preliminary Site Assessments (PSA's) are required to develop the information necessary to classify inactive hazardous waste sites. Current staff and equipment needs limit the ability of the BHSC to investigate the assigned sites in a proper and timely manner. Consequently, work assignments for sites requiring reclassification, delisting or work plan preparation and implementation will be required to fulfill the needs of the Remedial Program through the Standby Contract Process (SCP).

It is the intent of the New York State Department of Environmental Conservation (Department) to assign work from the background search through work plan development and implementation to a single standby consultant engineering firm in order to maintain continuity throughout the PSA program. This will be accomplished through implementation of a series of work assignments. All routine assignments are presented in this document.

It should be understood that although a group of sites may be assigned to a consultant, each site is expected to be on its own track. Consequently, at any one point in time sites may be found in various tasking stages.

Preliminary site assessments are conducted to determine if hazardous wastes are present on a site and if a significant threat to health or environment exists due to their presence.

The PSA data and evaluations are also used to determine what actions may be necessary. Examples of these may be to initiate emergency response, to execute a consent order mandating responsible party cleanup, to nominate the site for the National Priorities List (NPL), conduct further investigation, reclassify or delist the site from the Registry.

The following is a summary of items that, depending upon site conditions, may be defined as a complete preliminary site assessment. Site-specific conditions may warrant reduction of work scope.

WORK ASSIGNMENT

TASK A Develop Detailed Project Work Plan

The consultant shall develop and submit for the Department's review and approval a proposed project work plan that includes, at a minimum: 1) the description of the major tasks and subtasks to be performed; 2) a detailed work assignment progress schedule with milestones and deliverables; 3) a staffing plan identifying management and technical staff to be assigned, along with their areas of responsibility; 4) an identification of areas of subcontracting and a list of proposed subcontractors, including an M/WBE-EEO Utilization Plan; and 5) a detailed work assignment budget. A detailed project work plan will be required for each tasking assignment.

TASK 1 Data and Records Search/Assessment

A. Data and Records Search

The Engineer shall gather and evaluate all available existing data. The information obtained in the background review shall be evaluated for reclassification or delisting of the inactive hazardous waste sites. Criterion required for reclassification of sites is listed in the attached (Attachment A) Standards and Guidelines for Classifying Inactive Hazardous Waste Sites. Information sources shall include but are not limited to the following:

i) The Department's records located in the central office (Albany) and the regional offices, including the Divisions of Solid Waste, Hazardous Waste Remediation, Water, Air, Natural Resources etc.

ii) - U.S. Geological Survey (USGS)

- Appropriate NYS Agencies

- Media articles

- Soil Conservation Service (USDA-SCS) (County Offices are recommended)

- NYS Geological Survey

- Municipal and county agencies, (county health department and environmental management councils

- U.S. Environmental Protection Agency (USEPA)

- Interviews with facility personnel (past and present), adjoining property owners, and persons familiar with past activities at the site. Interviews must be documented with the date and signature of the person granting the interview.

iii) When a telephone interview is conducted, the Engineer will send a typewritten transcript to that person for signature thus verifying the conversation.

B. Assessment

After a complete data and records search, the consultant shall assess the information obtained and compute a preliminary HRS. This assessment shall include but is not limited to the following.

i) Hydraulic Connection(s)

In evaluating the available data, the Engineer is required to determine if hydraulic connections between vertically separated aquifers exist:

Copies of the referenced data or literature must be included in the report. Consideration of the application of the HRS must be made when evaluating the available data on hydraulic connections.

ii) Demographic Data

Determination of human population must be made through a search of demographic records, and copies of summaries of such records must be included in the report. Special emphasis on demographic data obtained to determine the target population using groundwater and/or surface water as a source of potable water supply must be made.

iii) Site Inspection

The Engineer shall conduct an inspection of each site assigned to him. The Engineer must notify the Department sufficiently in advance so that Department personnel may be present during the site visit. No site inspections shall be conducted when there is snow or ice cover on the ground. There is a three-fold purpose for a site inspection:

a) To supplement and confirm the review and evaluations of data collected.

b) To aid in planning the next course of action. It is understood that a photoionization detector, at a minimum, will be used to conduct a preliminary air quality survey during each site visit. A scintillometer or mini-rad will be used to determine if radiation sources exist on-site.

c) A site inspection report must be prepared for each site assigned and must include the following:

- Updating of the New York Registry of Inactive Hazardous Waste Disposal Sites forms (obtained from BHSC)

- Completion of Site Inspection Report (EPA Form 2070-13)

C. Report Submission

At the completion of this task, a decision to reclassify, delist, or continue with the investigation of the inactive hazardous waste sites will be necessary. Therefore, a report of the data and records search and a preliminary evaluation of site conditions shall be submitted for Department review and approval, prior to further work.

TASK 2 Work Plan Development

If additional investigations are deemed necessary, the consultant shall prepare for review a Site Work Plan, Quality Assurance Project Plan, and a Health and Safety Plan, for the sites remaining after Task 1.

There are complexities involved in detecting contaminants at any given site. During work plan development, considerations should be given to what types of investigations should be performed to document the two fold determination for site reclassification. Where an investigative task (method) is needed, the consultant must determine and justify the best method given the site conditions and describe the techniques in the work plan. The work plans shall present the recommended locations and numbers of borings, wells, or other tests required at each site. Tasks 3 and 4 should be planned as sequential tasks unless it is determined that subsurface investigation will be required and that concurrent implementation would benefit the project schedule.

Draft Site Work Plan

The consultant shall prepare for review five copies of a draft site-specific PSA work plan for each site requiring further investigations.

Draft Quality Assurance Project Plan (QAPjP)

The consultant shall prepare for review three copies of a draft QAPjP for this work assignment. Each site must be evaluated for site-specific quality assurance/quality control needs. A chapter of this draft QAPjP shall consist of site-specific requirements for each site.

Draft Health and Safety Plan (HASP)

The consultant shall prepare for review three copies of a draft HASP. Each remaining site must be evaluated for site-specific health and safety needs which will be provided in the HASP for this work assignment.

Revise Work Plan, QAPjP, HASP

After the review period, the consultant shall revise the work plans, QAPjPs, and HASPs according to the Department's review comments and transmit ten copies of the final site-specific work plan for each of the remaining sites listed for future implementation along with three final copies of the QAPjP and HASP.

Upon final approval of the plans by the Department, the consultant will be issued a notice to proceed with subsequent tasks.

TASK 3 Geophysical Survey/Soil Gas/Initial Environmental Sampling

If required at a specific site, the consultant shall identify in his work plan appropriate methods of remote sensing (e.g., Geophysical survey, soil gas surveys, etc.) for each particular

site. All remote sensing data must be reduced by the consultant, analyzed and made available to the BHSC for review prior to location of monitoring wells. The findings of the remote sensing survey must be used to determine the best location of wells, i.e., in the contaminated plumes, and the selection of other environmental sampling locations and to protect workers from the hazards of drilling through filled areas. A report summarizing this information shall be submitted for Department review and approval prior to finalizing well locations.

Geophysical Survey/Soil Gas Survey

Generally, the goals of the geophysical survey and/or the soil gas survey are:

- to determine existence of contaminant plumes
- to optimize location and number of monitoring wells
- to reduce risks associated with drilling into unknown terrain and waste
- to reduce overall project time and cost, and to improve accuracy of confidence in the project
- to determine thickness and depth of layers
- to determine existence of buried waste and its vertical and horizontal boundaries.

Initial Environmental Sampling

In conjunction with the appropriate geophysical techniques, initial environmental analytical work shall be obtained to adequately assess the site. The number of samples, sample matrices, analytical methods, and projected locations shall be made part of the work plan. At least one round of complete analyses (Target Compound List) shall be conducted unless information exists to allow the consultant to modify the TCL in a downward fashion. This initial environmental sampling should primarily be collected from surficial contaminated areas (i.e., wastes, air, soil, surface water, sediments and biota) of the site or from existing groundwater wells. The data obtained from this initial sampling round shall be validated and interpreted by the consultant.

All data obtained will be used for hazardous waste deposition and significance determinations, and shall be evaluated for NPL nomination, reclassification or delisting purposes. If the documents indicate that the site should be reclassified the supporting documentation shall be provided to the Department and upon NYSDEC direction, a draft and then final report, following the format of Task 6, documenting the findings shall be prepared with a recommendation made by the consultant regarding a decision for reclassification or delisting. If a

decision for reclassification cannot be documented, the investigation will proceed to Task 4 upon direction of the Department after review by the Department of the supporting documentation.

New York State Groundwater Standards, TOGS, and NYSDOH Drinking Water Standards shall be used as the data water quality objectives. These objectives along with useability objectives (i.e., site classification) for site specific projects will be required to be summarized in each work plan. Appropriate protocols (i.e., 1987 CLP, SW846, etc.) to meet these objectives for each site must be included in the Quality Assurance (QA) Project Plan and accepted by the Division's QA Officer prior to sampling. It will be necessary for the consultant to meet with Department project and QA staff to set these protocols early in the project.

The Department will expect as a result of a preparatory site visit, that the investigation will include appropriate air, groundwater (see Task 4), radiation, surface water, soil, sediment, biota, and waste sampling:

a. Air, protocol for monitoring will at a minimum account for:

   i) Weather conditions during monitoring to include but not limit to: temperature, precipitation, and wind direction. Also, the date, time, location of samples for plotting on a site map, and person's name among other details must be recorded.

   ii) Mitre model requirements, i.e., up and downwind monitoring points measured in the average breathing zone (not downgradient of newly disturbed areas).

   iii) Depressions and existing vent pipes for on-site safety plan.

   iv) Sketch showing grid sampling format and background location.

   vi) Method of calibration and statement that it will be performed immediately prior to use in the field.

   vii) Ambient air monitoring for human health and other concerns, as determined by the New York State Department of Health and the Department should be considered on a site-specific basis.

b. Surface water, sampling program should as a minimum include the following considerations:

   i) Sampling locations indicated on a site map.

ii) Include an upgradient sampling point for HRS scoring.

iii) Measurement of the elevation of significant surface water bodies must be recorded whenever the piezometric levels of wells are measured. "Significant surface water body" means any standing or flowing water body which may affect the flow of groundwater in the aquifer or water-bearing zone (or zones).

Measurements of tidal or other periodic or occasional fluctuations in the surface/groundwater system, which could affect the direction or the rate of flow.

iv) Vertical and horizontal sampling points will vary depending on nature of surface water body; river, stream, lake, pond, lagoon, etc. Full descriptions and justification must be provided for each sampling location.

v) Equipment requirements (calibration, cleaning).

vi) Recommended analysis for each sample with justification conforming with the Section 3b of the Phase II Investigation Generic Work Plan.

c. Soil, the following considerations must be addressed in the work plan as a minimum:

i) Sampling locations indicated on a site map.

ii) Background sample accounted for, selection of location based upon a prior site visit.

iii) Depth, sampling method, and discussion/justification for composite samples, if recommended.

iv) Equipment requirements.

v) Recommended analysis for each sample with justification, conforming with Section 3b of the Phase II Investigation Generic Work Plan.

d. Sediment, the following points as a minimum must be addressed in the work plan:

i) Sampling locations indicated on a site map.

ii) Include upgradient and downgradient sampling points at a minimum.

iii) Recommended analysis for each sample with justification conforming with Section 3b of the Phase II Investigation Generic Work Plan.

e. Radiological Surveys

At the time air monitoring is conducted, a companion radiological survey will be completed as well. The same grid spacing will be utilized in both surveys.

Either a scintillometer or mini-rad will be utilized for radiation detection. Values of concern are those which are twice background.

Should radiation levels of concern be determined, all monitoring well cuttings and development water will be collected and sampled, and upon approval by the Department, appropriately disposed.

f. Biota, it may not always be possible to characterize a site through groundwater, surface water, soil, sediment and air sampling. Make note during the reconnaissance visit of visually stressed and/or available/appropriate biota (flora and fauna) specimens for potential sampling. If Biota sampling is proposed in the work plan, it should be accompanied with a detailed description of method and purpose adequate to illustrate the consultant's ability to perform such work (field processing preserving, capture methods, adequate sampling numbers for proper QA/QC, special permits, seasonal dependence, etc.). If samples are stationary, sampling points are to be indicated on a site map. All biota sampling and analytical plans must be in accordance with the Department protocols. All analytical needs are to be in conformance with the Department's Fish and Wildlife Sampling and Analytical Protocols.

g. Other Site Sampling, due to a lack of adequate knowledge of the characteristics of the hazardous waste present at a particular site, it may be necessary to perform tank or drum sampling, leachate sampling, hazardous waste pile sampling, and/or lagoon sampling. The following considerations must be addressed in the work plan at a minimum.

i) Sampling locations indicated on a site map.

ii) Techniques and justification which will be utilized to collect these samples.

iii) Equipment requirements.

iv) Recommended analysis for each sample with justification conforming to Section 3b of the Phase II Investigation Generic Work Plan.

TASK 4 Subsurface Investigation/Additional Environmental Sampling and Implementation

Well Drilling/Development

The consultant shall provide a drilling work plan that shall include, but are not limited to:

a. Number of wells (nested or single) and provide a site location map.

b. Estimated depth of wells to the nearest foot based on available data.

c. Well specifications, i.e. materials needed to properly construct wells, seal annular space and secure wells with a steel protective casing and padlock. Note: Boreholes, casings and augers must be large enough to enable the efficient use of a tremie for placing down-hole materials in construction of the monitoring wells.

d. Split spoon sampling must be done from grade elevation at 5 feet intervals or at significant change in materials. A grain size analysis or Atterberg limits for non-cohesive materials or cohesive materials, respectively, must be done at every change in subsurface lithology, as well as one analysis in the screened interval. If conditions are such that a mixture of cohesive and non-cohesive materials is encountered, perform only grain size analysis. Hydrometer analysis must also be done if 20 percent of the sample is less than a No. 200 sieve size.

e. Permeability testing of each well. Evacuation of the well for this determination may be accepted only after examination and approval by Department of the rationale for not utilizing a variable head borehole permeability slug test. (This shall be an optional task subject to the consultants recommendation and Department approval.)

f. Groundwater elevation readings in each well before and after development. These readings must be accomplished for normally recovering wells before the drill rig leaves the site, since if data is unable to show direction of groundwater flow, additional wells should be placed.

It is required that a well not be developed until 24 hours after its construction or until its recovery is completed (whichever is later) and as soon as practically possible before or during the drilling operations of the next well.

g. Development of each well to the point that the turbidity of the recovered well water is 50 Nephelometric Turbidity units (NTU). A portable nephelometric turbidity meter must be brought to the field for making this measurement.

h. Description of the split spoon samples by a geologist in the field using the New York State Department of Transportation Soil Description Procedure.

i. Shallow soil samples, if required, may be obtained with a hand auger.

j. The standard operating procedures anticipated to be used in drilling and installation of borings and wells. Guidelines have been developed by the Division and may be obtained from the BHSC.

It must be noted that in moving from one well to another on-site location for constructing a new well, all drilling equipment, including drilling tools for the entire drill rig, used in construction of a well must be cleaned of foreign matter and sanitized with a steam cleaner. Any alteration to the method of cleaning is to be determined for each site by Department personnel. Similarly, in conducting split spoon sampling, the split spoon must be cleaned after each sample and before introduction in a new bore hole.

It is also required that a HNu detector, Photovac photoionization detector, or OVA analyzer (all instruments calibrated daily) be used to monitor the gases emitted from the borehole and from each split spoon sample as soon as the sampler is opened.

When an OVA analyzer is used, special precautions must be taken in using a filter by which methane concentrations are recorded. Both filtered and unfiltered samples must be taken to show the difference for methane.

Disposal of wash water, drilling fluids and wastewater may be handled in accordance with the Department's Division of Water Technical and Operational Guidance Series (TOGS) (1.6.1). If conditions require a departure from TOGS (1.6.1), then all wastes must be collected in drums until analytical data of a sample(s) is obtained. Disposal of such wastes will be contingent on the results of the analysis.

Prior to leaving a site, all equipment that was used in constructing the well, i.e., augers, split spoons, tools, accessories and other items such as vehicles and drill rigs must be cleaned as described above.

Recommended Well Sampling and Analysis

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

a. number of groundwater samples recommended

b. recommended analyses for each sample. At least one round of complete analyses (Target Compound List) shall be conducted unless information exists to allow the consultant to modify the TCL in a downward fashion.

All analytical data generated in support of PSA's carried out under the supervision of the Department must be generated by laboratories acceptable to the Department. See attachment E for guidance on laboratory selection.

All analytical data will be generated utilizing the most recent version of the Departments Contract Laboratory Protocols (CLP). Complete CLP data packages will be submitted for each project. The laboratory shall perform an adequate level of validation to ensure data useability. The Department, at its option will validate all or a portion of the data dependent upon the level of concern at each site.

Data interpretation will be provided by the consultant.

New York State Groundwater, TOGS, and NYSDOH drinking water standards shall be used as the data water quality objectives. These objectives along with useability objectives (i.e., site classification) for site specific projects will be required to be summarized in each work plan. Appropriate protocols (i.e., 1989 or most recent ASP, etc.) to meet these objectives for each site must be included in the Quality Assurance Project Plan and accepted by the Division's QA Officer prior to sampling.

In developing and extracting samples from wells, the Division will require proper decontamination of bailers, including line and other sampling equipment prior to use at 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, distilled water rinse, methanol rinse and hexane rinse in that order.

Environmental Sampling

All available documentation shall be capable of being used in determining additional environmental sampling needs to reclassify/or delist the site or to nominate the site to the NPL. Sampling of wastes, groundwater, surface water, soil, air, and other sampling in addition to that accomplished in Task 3 should be provided if the site conditions warrants analysis.

Sites completing Task 4 should be sufficiently supported by data to finalize determinations on reclassification/delisting, or the HRS. A draft report shall then be prepared as specified in Task 5 with conclusions and recommendations for each site.

TASK 5 Draft Reports

The consultant shall prepare for review five copies of a draft site-specific preliminary site assessment report for each of the sites remaining after Task 4.

TASK 6 Final Reports

After the review period, the consultant shall revise the reports according to the Department's review comments and transmit one draft final for review prior to printing ten final reports for each site. One final report shall be unbound to facilitate photocopying.

II. GENERAL CONDITIONS

During the preliminary site assessments, the consultant will be required to submit specific outputs at preselected milestones for each site. Each output shall be completed in a timely manner and submitted to the Department with the associated findings and recommendations. During the investigation, information on the presence of "RCRA"-defined hazardous waste and reclass/delist documentation will be continually revised, as necessary, incorporating newly developed data. At the conclusion of the evaluation of each site, the consultant shall recommend an appropriate course of action to be followed. If the data obtained at any task can satisfy the reclassification goals of the investigation, then further investigative work shall cease and the required reports drafted and finalized. HRS scores will be calculated and documentation prepared once a site has been recommended for a Class 2 designation unless otherwise directed by the Division of Hazardous Waste Remediation.

The following is a listing of the outputs necessary for this work assignment:

1. Data Records Search and Assessment summary report. The format must follow the format presented below.

   Title Page:

   Indicate: name of project (i.e. "Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York"; the site name, location (i.e. municipality and county) and NYSDEC site identification number; prepared for (i.e. Division of Hazardous Waste Remediation, Michael J. O'Toole, Jr., P.E., Director New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-7010); prepared by (i.e. contractor's name and address); and date submitted; professional engineer's stamp and signature.

Table of Contents:

List all sections and subsections of the report.

Site Evaluation Report Format:

Executive Summary: Briefly describe the site, data evaluation effort, and site assessment. A statement as to the presence and impact of hazardous waste and the proposed site reclassification shall be made. Include a portion of the USGS 7.5 minute Quadrangle Sheet (8 1/2" x 11") with site located, the name of the quadrangle, north arrow, scale bar, and the Universal TransMercator Coordinates of the site identified as well as a detailed sketch map of the site including north arrow and all appropriate information (leachate outbreaks, buildings, drums, slopes, lagoons, streams, etc).

Scope of Work: Describe in detail the scope of the data evaluation effort. This section must note all the sources contacted and what information was gathered from each source. (Give names of locations, offices or agencies, date(s) of visit or phone conversations and name(s) and telephone number(s) of individuals contacted).

Site Assessment - From the information available, the following must be provided:

i) A detailed site history noting all past operations at the site. A description of waste disposal, operation of the site, change in ownership and significant events such as, boil water notices issued by a health agency, reports of leachate outbreaks, fish kills and any remedial action taken, should be included.

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

iii) Description of hydrology of the site, including data from geophysical studies (plots), boring logs, monitoring well data, soil test data and water supply data as available. (Depth to groundwater, aquifers of concern, depth to bedrock, soil and bedrock permeabilities, and any unique geological characteristics should be noted.

iv) Assess site contamination. Summarize the results of any past sampling programs. Indicate the waste quantities on site, if known, the presence of tanks or drums, and the extent or likelihood 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.

Assessment of Data Adequacy and Recommendations

The consultant shall evaluate all available documentation for data gaps needing to be filled in making a recommendation for site classification, and nomination to the National Priorities List (NPL). Efforts made to document the presence of hazardous waste and environmental threat shall be detailed. The report for Task 1 shall include a summary chapter which will document the two-fold reclassification requirements as defined by the ECL. The documentation supporting reclassification or delisting shall be provided to the Department and, unless otherwise advised by the Department, the work assignment will be complete for that site. Those sites where data is incomplete and the Department agrees that additional information is necessary will be assigned to the contractor for Task #2.

2. Draft work plan for each site.

The guidelines for the draft work plan format is provided as a guide for work plan preparation. The consultant should not be limited to only these requirements and is expected to include additional points in the proposed work as needed to evaluate a given site.

i) Title: Preliminary Site Assessment
Work plan
(Name of Site)
(Town) (T), County (Co.)
(Site No.)

ii) Introduction: Narrative describing the basis of the proposed study, e.g., results of a Phase I study or concern of the Department based on the history of operations of a facility or site. Further literature search or any other needs should also be addressed.

iii) Objective: Narrative describing in general terms the tasks to be undertaken and expected use of data.

iv) Site Reconnaissance: Narrative describing the survey of the site for aid in gaining access, placement of wells, collection of surface samples, determination of ambient air concentrations for contaminants and for obtaining information upon which a proper Preliminary Site Assessment can be based.

v) Remote Sensing (Geophysics, Soil Gas): Narrative describing how required methods of surveying will be employed and spacing and number of stations. The methods and the purpose of their use, e.g., detection of contaminated plumes, bedrock, stratigraphy, lateral and/or vertical extent of fill or garbage specified must be outlined. A discussion of

the proposed applicability of the collected data especially when used to determine the most strategic location of monitoring wells must be included.

vi) Test Borings and Observation Wells: Narrative describing the justification, location, proposed depth and the equipment to be used in the installation of test borings/observation wells must be provided. A description of the consultant's standard operating procedures for the drilling of well borings, and means of safeguarding them (completed and sub-completed must be included). It must also discuss the type(s) of sampling that will be conducted during this phase, quality assurance and control to be adopted, expected depth of wells and their construction materials.

vii) Sampling and Analysis: Locations and types of sampling should be described in a narrative; likewise, the proposed instrumentation and analyses for the samples should be described. A table denoting recommended type and number of samples and analyses must be submitted.

viii) Map: a map will be prepared by a licensed land surveyor showing location (horizontal control) and elevation (vertical control) for each boring, monitoring well, sampling location and other key contour points as determined by the consultant. In addition the map shall contain north arrow, scale, a legend that shows designations (wells, borings, sample locations, etc.) that agree with the Preliminary Site Assessment Report, and a title block containing the Department's official site name and site number.

- Vertical Control - Elevations (0.01') will be established for the ground surface at the well, the top of monitor well casing (T.C.), and at least one other permanent object (ex:property corner markers, corner of buildings, bridges, etc.) in the vicinity of the boring well. Elevations will be relative to a regional, local or project specific datum. USGS benchmarks will be used whenever possible and take precedence over project specific datum.

- Horizontal control - Exploratory borings and monitor wells will be located by ties (direction and distance) to or from at least two nearby permanent objects. USGS benchmarks maybe used if needed.

- Unsurveyed data - Approximate site and property boundaries, developed through the use of current tax maps and initial site visit, are to be shown on the survey map (make note of that data that was obtained from tax map and sketched from site visit on survey map). The name of current property owners are to be show on the map

(obtained from a current tax map). Location and extent of filled areas, buried tanks or drums or other items pertinent to site usage should be indicated on the map based on best available data.

ix) Task Presentation: Construct and include a table which states the proposed tasks in the left column and a brief description of each task in the corresponding right column.

x) Project Team: There are various disciplines involved in a site investigation. It is required that a project team be selected by the consultant to conduct the tasks of the contract.

3. Draft Quality Assurance Project Plan (QAPjP).

4. Draft Health and Safety Project Plan (HASP).

5. Final QAPjP, HASP, and site specific work plans.

6. Geophysical survey/soil gas survey summary reports.

7. Initial environmental sample results with data validation.

8. Evaluation report of initial data.

   This report to include information gathered to date and will follow the format of the Task 1 Report. A preliminary application of the HRS (Section V of final report) using the existing data gathered must be included in the assessment section.

   The report must document the two-fold reclassification requirements as defined by the ECL and also must include a review of the information necessary to support reclassification or delisting and develop an HRS package. The documentation supporting reclassification or delisting shall be provided to the Department and, unless otherwise advised by the Department, the work assignment will be complete for that site. If a decision cannot be documented, the investigation shall proceed to Task 4 upon the direction of the Department. (Note that on a site specific basis Task 4 may proceed concurrently with Task 3 if it can be determined during Work Plan development that subsurface investigation will be required to meet the goals of the investigation.)

9. Well drilling logs.

10. Groundwater/Sampling data with data validation.

11. Environmental sampling data with data validation.

12. Final HRS per Task 5 and 6.

13, 14. Draft and Final Engineering Report. The format shall be as follows:

Cover:

The report cover shall be in accordance with the sample attached hereto as Attachment D and shall be printed on 65 lb. Atlantic Pastel uncoated cover, Nekoosa green or equivalent. The back cover shall be of the same material as that of the front cover.

Title-Page:

Indicate: name of project (i.e., "Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York, Preliminary Site Assessments"); the site name, location (i.e., municipality and county) and Department site number; prepared for (i.e., Division of Hazardous Waste Remediation, Michael J. O'Toole, Jr., P.E., Director, New York State Department of Environmental Conservation, 50 Wolf Road, Albany, New York, 12233-7010); prepared by (i.e., contractor's name and address); and date submitted.

Table of Contents:

List all sections and subsections of the PSA Report.

Section I:

Executive Summary -

Briefly describe the site, PSA effort, site assessment (presence and impact of hazardous waste along with proposed reclassification) and HRS score. Include a portion of the USGS 7.5 minute Quadrangle Sheet (8 1/2" x 11") with site located, name of the quadrangle and the coordinates of the site, identified on it. Also include a detailed sketch map of the site including north arrow and all appropriate information (leachate outbreaks, buildings, drums, slopes, lagoons, streams, property lines, etc.)

Section II:

Purpose -

Describe the goal of the PSA effort at the specific site.

Section III:

Scope of Work -

Describe the scope of the investigation effort including, but not necessarily limited to: geophysical studies, boring and monitoring well placement and installation, sampling and sampling station selection (soil, surface water, groundwater, air, sediment and liquid or solid waste sample).

Give reasons for the location chosen for monitoring wells and sampling stations. Also include details of monitoring well installation and environmental sampling techniques used.

Section IV:

Site Assessment -

i) A detailed site history noting all past operations at the site. A description of waste disposal, operation of site, change in ownership and significant events such as boil water notices issued by a health agency, reports of leachate outbreak, fish kills and remedial actions taken should be included.

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

iii) 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.)

iv) Describe the observations of the site inspection, e.g., was leachate flow noted, were drums observed and were they full or empty. Assess site contamination. Summarize the results of both past and current 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. Compare sampling results to appropriate State and Federal environmental quality or effluent standards.

For soil samples, compare to well documented ranges of concentrations in non-contaminated or background soil levels. (The applicable State standards are 6NYCRR Part 700 series. Appropriate guidelines are New York State Air

Guide-1, Guidelines for the Control of Toxic Ambient Air Contaminants and the NYSDEC Solid Waste Management Facility Guidelines, Land Application of Sewage Sludge Table 1.).

Include a report of how the QAPjP plan was applied to the site, noting any deviations from the QAPjP plan and explaining the reasons for any deviations.

v) Discuss future studies or actions of the site that may be required. This will include an evaluation of the two-fold requirement of Article 27, Title 13 of the Environmental Conservation Law as it pertains to the site; i.e., whether there is documented hazardous waste deposition on-site and whether its presence causes a significant threat to the public health and environment. Discuss the efforts taken to document hazardous waste disposal.

Section V:

Final Application of the Hazard Ranking System - For all sites where a Class 2 designation is recommended, or as otherwise directed by the Division of Hazardous Waste Remediation, the final application of the HRS must incorporate all information collected in the data search and engineering investigations of the site. This section of the report is to include:

i) Narrative Summary - Limit each narrative summary to one page (DOUBLE SPACED) and address the following:

a. Site name (including origin of name)
b. Site location - town or 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 action, 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, proximity of groundwater wells and surface water intake)
i. Important geographic information (nearby surface water, aquifers, wetlands, etc.)
j. Cleanup actions (completed or scheduled)
k. Enforcement actions

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

iii) Updated HRS Worksheets

All applicable data collected in an existing Phase I investigation and the PSA will be used to complete these worksheets.

iv) Updated HRS Documentation Records

All applicable data collected in the data search and engineering 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, professional papers and reports. A numbered reference list must be included with copies of the references also numbered accordingly. Copies of references must appear in the order they are used in the documentation records. 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. Copies of references included in the HRS documentation section do not need to be included in the appendices.

Updated EPA Form 2070-13 "Potential Hazardous Waste Site, Site Inspection Form," or any revision of such forms shall be used.

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

Appendix:

All raw data collected from the field, laboratory, literature search or any other source (i.e., geophysical, analytical, QA/QC, etc.) shall be presented in the appendix. This shall be in addition to any reduction of data presented elsewhere in the report.

III. SPECIAL CONDITIONS

The consultant is required to observe certain conditions during the conduct of the PSA. These are:

a. Site visit must be made prior to completion of the Task 2 work plans for reconnaissance and especially for determining access problems.

Those of concern should include: is physical access possible, is auxiliary equipment required, can wells be located on or off the site, is off-site access permitted, are easements necessary, should the site be fenced and/or posted to limit trespass, etc. Consultant recommendations as to these concerns shall be made in writing immediately following the site visit. Site visits should be coordinated with the Department.

If during the actual field activities of an engineering investigation, the consultant should require a tractor to locate the drill rig, or determine that access through an adjacent property is needed and such requirements are not mentioned in the work plan, the Department will conclude that a reconnaissance was not done. The Department will not be responsible for costs incurred, which are not the result of carrying out an approved work plan.

b. The following documents developed by the Division of Hazardous Waste Remediation deal with the construction of overburden and rockwells. These are entitled:

1. Guidelines for Exploratory Boring, Monitor Well Installation and Documentation of these activities.

2. Guidelines for rock wells.

3. Oversight Checklist (DHWR personnel).

ATTACHMENT A

Standards and Guidelines for the
Classification of Suspected Inactive
Hazardous Waste Disposal Sites as Class 2 Sites

A. Determination of the presence of hazardous waste or deposition of hazardous waste, as defined in 6NYCRR 371.1(d), which has been disposed of at site, includes:

1. Listed hazardous waste under RCRA - show presence by documentation, analytical data or combination of both (refer 6NYCRR 371.4).
2. Characteristic Hazardous Waste - run tests for the characteristics: Toxicity (EP Tox), Ignitability, Corrosivity and Reactivity, 6NYCRR 371.3, b, c, d & e.
   Ignitability: to determine whether a waste will ignite and cause hazard (refer 6NYCRR 371.3b).
   Corrosivity: to determine the relative corrosive property of the waste due to its highly alkaline or acidic nature (refer 6NYCRR 371.3c).
   Reactivity: to determine the violent reactive nature of a waste which will generate toxic gases or explosive reaction etc. (refer 6NYCRR 371.3d).
   EP Toxicity: To assess the leachability of certain contaminants from a waste matrix (refer 6NYCRR 371.3e).
3. PCB - defined as hazardous waste if level exceeds 50 ppm or it can be shown that the source contained PCBs at above 50 ppm. (refer to 6NYCRR 371.4e).

B. Determination of Significant Threat - Significant threat to environment or health caused by the release of hazardous substances which includes but is not limited to the following violations of environmental or health standards:

1. Ambient Surface Water Standards set by the Division of Water.
2. Ambient Groundwater Standards set by the Division of Water.
3. Drinking Water Standards set by the Department of Health.
4. Ambient air quality standards set by the Division of Air Resources.
5. Guidance values or standards for contaminants in soil which will be of environmental or health concern.
6. Damage to Natural Resources, Fish and Wildlife.

NOTE: Often there are situations where in it will be difficult to document the presence of deposition of hazardous waste. Example: A Landfill - In this case one needs to compare the concentration in leachate with the expected concentration from a municipal landfill (based on literature information) and should try to determine whether hazardous waste dumping has taken place in order to see such a concentration of contaminants in the leachate. In other words, one needs to prove, based on indirect evidence resulting form leachate and on-site sampling data, that hazardous waste has been disposed at the site. This approach may or may not be successful based on the specific situation.