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May 16, 2011 NY09-2480-22

Mr. Timothy Schneider
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

RE: Former Sperry Remington Site (#808043) (Site)
Remedial Investigation/Feasibility Study Work Plan Addendum #1
City of Elmira, Chemung County, NY

Dear Mr. Schneider:

On behalf of Unisys Corporation (Unisys), Advanced GeoServices Engineering P.C. (AGE) is submitting this Remedial Investigation/Feasibility Study (RI/FS) Work Plan Addendum #1 in response to the New York State Department of Environmental Conservation's (NYSDEC) April 28, 2011 letter requesting an expedited investigation of former oil skimmer #2 that may still be located on the Site and possibly connected to the existing concrete culvert. Due to the unknown location, condition, materials of construction and possible contents of oil skimmer #2, this investigation will be performed in accordance with the following three general steps:

- Step 1 – Perform a geophysical survey of the area to determine whether oil skimmer #2 exists and whether it or other possible connections to the concrete discharge culvert are present;
- Step 2 – Perform an exploratory test pitting program to confirm oil skimmer #2's location, if any, materials of construction and, if possible, collect a sample of the contents. If it is not possible to safely collect a sample, assess possible methods to sample the contents during Step 3;
- Step 3 – If necessary, develop a work plan addendum based on the results of Steps 1 and 2 that will allow Unisys to safely collect a sample of the contents of oil skimmer #2 and mitigate any potential release from oil skimmer #2 as a sample is collected.

This Addendum covers the activities in Steps 1 and 2. In addition, Attachment A to this Addendum includes Supplemental Health and Safety Procedures to address these new field activities.

BACKGROUND

Attachment B includes historical documentation from the 1950's and 1960's regarding the approximate location of oil skimmer #2. It appears to have been located on the north side of the existing concert culvert and near to the upstream side of the culvert. The size and depth of oil skimmer #2 are unknown. However, based on the recent topographic survey, oil skimmer #2 may be 8 to 10 feet below the existing ground surface (see attached photograph). The ground surface is relatively level and grass-covered in the area where oil skimmer #2 may be located.

STEP 1: GEOPHYSICAL SURVEY

The entire Site is 65 feet by 185 feet long with the concrete culvert aligned approximately down the middle of the Site in an approximate east-west alignment. The initial geophysical survey will concentrate on the northwest quadrant of the Site which represents the most likely location of oil skimmer #2. The northeast quadrant will be surveyed second. The southern half of the Site will be surveyed if necessary.

An electromagnetic (EM) survey using a Geonics EM-61 will initially be used to identify anomalies. The EM-61 is a high power, high sensitivity metal detector capable of detecting both ferrous and non-ferrous metal. The EM survey will be followed by a ground penetrating radar (GPR) survey. The combination of these two surveys provides a higher level of confidence of locating the former oil skimmer #2 then either method utilized alone.[1] Anomalies will be marked with paint and/or pin flags for further investigation in Step 2.

STEP 2: EXPLORATORY TEST PITS

Pre-Test Pit Activities

An excavated soil staging area shall be selected based on the number and location of the anomalies. The staging area shall be located within the Site, unless unavoidable. The staging area shall also be located in an area that is at least five feet outside of the anomaly to be excavated to minimize potential slope stability issues of subsequent test pits.

Oil skimmer #2 may be connected to the concrete culvert that discharges into the drainage swale on the east side of the railroad embankment. Therefore, to minimize any potential, unintended discharge to the drainage swale and Coldbrook Creek in the event oil skimmer #2 is connected to the culvert, a single line of protective, floating booms shall be placed immediately downstream

[1] Subsurface structures constructed of non-reinforced concrete, PVC and terracotta may not present a distinct signature for either methods or if oil skimmer #2 is small in size relative to the culvert and the culvert is reinforced. Ubiquitous buried metal and buried reinforced concrete (e.g., old floor slab) may also obscure the signature of the skimmer.

of the discharge side of the culvert prior to the start of the test pit activities. The specific location will be determined in the field but is anticipated to be within 10 to 20 feet of the culvert. Those booms shall be removed after the test pit activities have been completed and the no releases have occurred.

Dig Safely New York (1-800-962-7962) shall be called a minimum of three business days before the test pit operations commence.

Test Pit Operations

Anomalous areas shall be excavated using a backhoe, or similar equipment, starting at the center of the anomaly. A spotter will be used to assist the equipment operator in visually identifying when the top of the oil skimmer is located. The spotter will also manually probe the bottom of the test pit(s) on an ongoing basis to help avoid damaging the top of the oil skimmer. If the top of the skimmer is located, the backhoe will remove the remaining soil to completely uncover the top of the skimmer until the edges are located. A test pit along one side of the oil skimmer (preferably the side furthest from the culvert) shall also be excavated to determine the bottom of oil skimmer #2 if the structural integrity of the oil skimmer appears to be intact. The remaining three sides shall be exposed to the approximate mid-depth of the sidewall to allow soil sampling and evaluation of potential connections to the culvert. In the event multiple anomalies are identified, the largest anomaly will be investigated first, followed by the next largest, and so on until the oil skimmer #2 is found or determined to not exist.

The depth(s) of the test pit(s) are uncertain at this time. No personnel shall enter a test pit unless the slopes have been properly benched based on the slope type present (see HASP for further details). Upon completion, the excavated soil shall be placed back into the test pits in 12 to 18-inch thick, loose lifts and tamped with the backhoe bucket.

Temporary Soil Stockpiling

Excavated soil shall be placed directly into the staging location. Visually impacted soils, if any, shall be separated in a different staging location. In the event test pit activities extend beyond one day, all stockpiles shall be covered completely with plastic and the plastic secured with weighted objects (e.g., cinder blocks, sand bags, etc.).

Soil Sampling

Excavated soil shall be screened with a photoionization detector (PID) as it is excavated. A minimum of four (4) grab soil samples shall be collected directly from the four sides of the oil skimmer and within two (2) feet of the oil skimmer sidewalls if the excavation can be safely entered (a total of four samples). Samples shall be collected directing from the backhoe bucket if the test pit cannot be safely entered or an auger cannot be used to reach the area to be sampled.

Samples shall be tested for the following parameters and analyzed on a 72-hour turn-around time.

- Target Compound List (TCL) Semi-volatile organic compounds (SVOCs) by Method 8270C;
- TCL Volatile organic compounds (VOCs) by Method 8260B;
- Target Analyte List (TAL) Inorganics by Methods 6010B/7471A;
- TCL Pesticides by Method 8081A;
- PCBs by Method 8082;
- Hexavalent Chromium by Method 7196A; and,
- Total Cyanide by Method 9012A.

Sample handling, testing, documentation and decontamination protocols will be in accordance with the applicable sections in the Field Sampling Plan and Quality Assurance Project Plan.

Oil Skimmer #2 Contents Sampling

Historical documentation does not indicate if an access way or hatch exists to readily sample the inside of oil skimmer #2. In addition, to the extent that it exists, oil skimmer #2 is over 50 years old and buried. An access way into that skimmer may not be readily opened without destructive methods. If such a circumstance occurs, after completing the physical evaluation of the skimmer, including potential means of future sampling, the oil skimmer will be re-covered as previously described above. In addition, an estimate of the volume of any contents shall be made if possible.

If an access way exists that can be readily opened, a dip stick shall be used to collect a composite sample. The sample shall be tested for same the parameters listed above for soil samples and on a 72-hour turn-around timeframe. Sample handling, testing, documentation and decontamination protocols will be in accordance with the applicable sections in the Field Sampling Plan and Quality Assurance Project Plan.

Air Monitoring

Perimeter air monitoring shall be performed at the Site prior to the initiation of test pitting activities. Sampling will be performed in the upwind and downwind directions for VOCs and total particulates in accordance with RI/FS Work Plan Appendix D. In addition, worker safety air monitoring shall be performed at the test pit location for organics in accordance with the revised Supplemental Health and Safety Procedures in Attachment A to this document. Worker safety air monitoring data shall be used to assist in the determination of whether or how the oil skimmer may be sampled.

STEP 3: REPORTING

The results and findings of Steps 1 and 2 shall be presented, as necessary, in a letter report to NYSDEC. The report will include a geophysical survey report for Step 1, pictures of the uncovered oil skimmer, a plan view diagram of the oil skimmer configuration, tables of sample results and a summary of the field activities. Alternatively, the results of Steps 1 and 2 may be presented in a second work plan addendum (i.e., Addendum #2), along with further investigation steps in the event that contents of oil skimmer #2 could not be sampled during Step 2 described above.

Please contact Kevin Krueger at Unisys or myself if you have any questions regarding this work plan addendum. As previously discussed, implementation of Addendum #1 is tentatively scheduled to start on June 1, 2011 pending NYSDEC's approval and a grant of access by Southern Tier Commerce Center. This schedule will need to be changed if both approvals are not granted by May 20, 2011.

Sincerely,

ADVANCED GEOSERVICES ENGINEERING P.C.

for

Matthew Potter
Staff Professional

Stephen W. Kirschner, P.E.
Senior Project Consultant

MP:SWK:vm

Enclosures

cc: Kevin Krueger, Unisys
David Noble, Unisys
John H. Paul, Beveridge & Diamond
Micheal G. Murphy, Beveridge & Diamond

ATTACHMENT A

Supplemental Site Specific Health and Safety Plan

SUPPLEMENTAL SITE SPECIFIC HEALTH AND SAFETY PLAN

FORMER SPERRY REMINGTON SITE (#808043)
REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN
ADDENDUM #1
CITY OF ELMIRA, CHEMUNG COUNTY, NY

INTRODUCTION

On behalf of Unisys Corporation (Unisys), Advanced GeoServices Engineering, P.C. (AGE) developed a Remedial Investigation/Feasibility Study (RI/FS) Work Plan Addendum #1 in response to the New York State Department of Environmental Conservation's (NYSDEC) April 28, 2011 letter requesting an expedited investigation of the former oil skimmer #2 that may still be located on the referenced Site and possibly connected to the existing concrete culvert (see attached Figure 8). Site is a 185' X 65' rectangle (0.28 acres) which includes a 12' covered concrete culvert which extends from the former holding pond, beneath the Pennsylvania Line LLC Railroad track owned by Norfolk Southern and discharging into a drainage swale. Adjacent off-site area consists of approximately 5.5 acres of wetlands with a drainage channel and two outfalls to Coldbrook Creek. The drainage channel varies in width from 2' to 30' wide and depth from 1' to 3' deep. Coldbrook Creek is about 10' wide and 3' deep on average.

Due to the unknown location, condition, materials of construction, and possible contents of oil skimmer #2, the investigation will be performed in accordance with the following three general steps:

- Step 1 – Perform a geophysical survey of the area to locate oil skimmer #2 and other possible connections to the concrete discharge culvert;
- Step 2 – Perform an exploratory test pitting program to confirm oil skimmer #2's location, materials of construction, and if possible collect a sample of the contents. If it is not possible to safely collect the sample, assess possible methods to sample the contents during Step 3;
- Step 3 – If necessary, develop a work plan addendum based on the results of Steps 1 and 2 that will allow Unisys to safely collect a sample of the contents of oil skimmer #2 and mitigate any release from oil skimmer #2 as a sample is collected.

The above referenced activities will be conducted in accordance with the RI/FS Work Plan Site Specific Health and Safety Plan dated November 11, 2011 and the supplemental health and safety procedures described below.

STEP 1 SUPPLEMENTAL HEALTH AND SAFETY PROCEDURES

No supplemental health and safety procedures are necessary when conducting the Step 1 field activities.

STEP 2 SUPPLEMENTAL HEALTH AND SAFETY PROCEDURES

Underground Utilities

Dig Safely New York (1-800-962-7962) shall be called a minimum of three business days before the test pit operations commence.

Excavation and Shoring

The following minimum procedures shall be followed when excavation activities are performed.

- The main concerns of excavation are ground control and fall prevention. Before an excavation is made, a thorough effort should be made to determine whether underground obstructions (such as sewer, telephone, fuel, water, or electrical lines) or above ground hazards may be encountered. Utility lines should be properly supported during excavation. The appropriate utility personnel should be contacted to inform them of the proposed Site excavation work and to receive any additional advice based on their experience if excavations may reduce the support of the utilities. Natural hazards such as boulders and trees should be removed or controlled before excavation begins if they might create a hazard to workers.

- Very specific guidelines exist to protect employees from moving ground during excavation. Those guidelines are based on ground type and excavation depth. Walls and faces of all excavations to which employees are exposed should be guarded by a shoring system, sloping of the ground or another equivalent means. All slopes should be excavated to a degree which accommodates the ground's unique ability to slide. Soil types, listed below from most likely to least likely to slide, include:

    - well-rounded loose sand,
    - compacted sharp sand,
    - average soils,
    - compact angular gravel, and
    - solid rock, shale, or cemented sand and gravels.

Not all excavations need to be shored or sloped. The purpose of these precautions is to prevent crushing injury or suffocation. Excavation less than five feet deep should also be protected if it appears that an injury may be caused by hazardous ground movement (e.g., sidewall collapse). Walkways, sidewalks, and runways should be free of excavated materials to prevent falls; planks used for raised walkways should be securely fastened at each end.

Additional precautions should be taken to prevent slides or cave-ins when excavations are made near backfilled excavations or where excavations are subject to external vibrations such as railway or highway traffic or machinery. Rain storms may seriously compromise the stability of excavation surfaces; a competent person[2] should ensure that no weather-related decrease in safety has occurred.

[2] A competent person is defined in 29 CFR 1926.650(b) as "one who is capable of identifying existing and predictable hazards in the surrounding, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them."

Diversion ditches, dikes or other suitable means should be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Water should not be allowed to accumulate in an excavation. If it is necessary to place or operate power shovels, derricks, trucks, materials or other heavy objects on a level above and near an excavation, the side of the excavation should be braced as necessary to resist the extra pressure from such loads. When mobile equipment is used next to excavations, substantial stop logs or barricades shall be installed. If possible, the grade should be away from the excavation.

Federal regulations on excavations and trenches are very specific. Refer to 29 CFR 1926.650-652 (Occupational Safety and Health Standards-Excavations; Final Rule) for complete details on excavation and trenching safety requirements.

Air Monitoring

Table 1 summarizes the air monitoring equipment which will be used during the exploratory test pitting program to confirm oil skimmer #2's location, materials of construction, and possible sampling of contents. These field activities may release organic vapors into the breathing space or cause contact with chemicals and contaminated soil and water. However, the hazard associated with these conditions is expected to be low.

Monitoring of airborne vapors using an organic vapor meter (OVM) with a flame ionization (FID) or photoionization detector (PID) will be performed during the intrusive activities of the exploratory test pitting program. Air monitoring within the breathing zone will be conducted at the initiation of each designated operation, then on an as-needed basis for each intrusive Site activity, as determined by the site safety officer.

Explosivity will be monitored during the exploratory test pitting program any time organic vapors exceed 250 ppm within the breathing space. Measurements obtained from the OVM and Combustible Gas Indicator/Oxygen meter will be used as criteria for institution of additional precautions, Site evacuation, and PPE selection.

Personal protective levels will be increased in the event organic vapors and/or explosivity are measured above the specified action levels presented in Table 2.

TABLE 1
AIR MONITORING EQUIPMENT
Former Sperry Remington Site, Elmira, New York

INSTRUMENT	HAZARD MONITORED	APPLICATION	DETECTION METHOD	GENERAL CARE AND MAINTENANCE	OPERATING DURATION
Organic Vapor Meter (OVA)	Organic vapors	Measures organic vapor concentration	Photo Ionization Detector (PID) or Flame Ionization Detector (FID)	Recharge battery Hydrogen gas Calibrate daily	4 to 10 hours
Explosive Meter	Lower Explosive Limit	Lower Explosive Limit	Provides real time measurements of flammable materials in the surrounding air	Calibrate, recharge or replace battery	8 to 10 hours

TABLE 2
AIR MONITORING METHODS, ACTION LEVELS AND PROTECTIVE MEASURES
Former Sperry Remington Site, Elmira, New York

Hazard	Monitoring Method	Action Level	Monitoring Schedule	Protective Measures
Total Organic Vapor	OVM	< 5 ppm	Optional during intrusive operations and hourly thereafter as identified in HASP	Level D
		5 - 250 ppm	At initiation of intrusive activities as identified in HASP	Level C
		> 250 ppm	Continuously during intrusive operations as identified in HASP	Level B
Combustible Gases	Combustible Gas Meter (% of LEL)	0-10%	Continuously during intrusive operations as identified in HASP	Continue Operations
		10-20 %	Continuously during intrusive operations with OVA readings over 250 ppm as identified in HASP	Proceed with caution extrinsically safe equipment and no ignition sources in the work area
		20% and above	Continuously during intrusive operations as identified in HASP	Evacuate area stop operations until <20%

Note 1

1. Monitoring frequency may be modified (increased/decreased) based on field conditions, SSO's observations and professional judgment (i.e., more monitoring on windy days - less monitoring on rainy days.

ATTACHMENT B

Historical Documentation

Remington OFFICE MACHINES
DIVISION OF SPERRY RAND CORPORATION

1051 SOUTH MAIN STREET
ELMIRA, NEW YORK 14904

August 15, 1966

Mr. James E. Barr
Director Environmental Health Services
Chemung County Health Department
203-209 William Street
Elmira, New York 14901

Subject: Alleged Violations of Public Health Law - Elmira Plant

Dear Mr. Barr:

In accordance with Section 3, Subparagraph A of an order by the Commissioner of Health of the State of New York, stipulated to by the Sperry Rand Corporation on February 17, 1966, the following preliminary report of a comprehensive engineering study of the industrial waste of the Corporation's Elmira Plant is made:

In a letter dated November 12, 1965, the Elmira Plant of the Sperry Rand Corporation was advised by James E. Barr, Director, Environmental Health Services, Chemung County Health Department, that test samples were made under a stream pollution survey of Miller's Creek to determine the effects of the plant's waste on this stream. Results of the analysis of the samples were attached to said letter and the following alleged violations of the D classification standards were set forth:

1. Excessive concentrations of zinc in the composite sample.

2. Excessive concentrations of cyanide in the composite sample.

3. The pH of one sample beyond acceptable range.

4. The observation of an oil slick, sludge, gassing and sludge deposits.

Company Action

The Company has conducted a complete investigation of it's processes and facilities connected with it's drainage systems carrying it's waste to Miller's Creek. This review revealed that wastes were carried over two obsoleted skimmers. These skimmers were found to be full of caked waste and sludge deposits that were obviously contaminating waste waters discharged from the plant. An inspection of the drainage lines themselves revealed them to be coated and caked with sludge deposits from years of use. Parts of the discharge system were in a state of disrepair. A complete inspection was made of all plumbing from the

various machinery, equipment, tanks, etc. containing materials which could become contaminants to determine their placement, condition and effectiveness. As a result of this study, the following program is planned and/or accomplished as noted:

1. A by-pass has been constructed across one of the obsoleted skimmers and drain lines from the skimmer eliminated to preclude the possibility of contamination from the caked waste deposits.

2. The main drainage line has been diverted around the other obsolete skimmer and all lines to and from the skimmer have been plugged off to eliminate any possibility of contamination of waters.

3. All drainage lines have been rebuilt and are repaired as required.

4. All main drain systems have been purged and cleaned of sludge deposits by a man crawling the lines, utilizing a pressurized fire hose.

5. All cutting oils both water soluble and petroleum base, when requiring a change, are pumped from the individual machine to a portable tank. This portable tank is then emptied into a tank truck for disposition.

6. All plating tanks containing zinc, cyanide, chromates, etc. when requiring disposal are pumped to barrels for disposition.

7. All tanks containing paint sludges, strippers and other contaminants are pumped into barrels for disposition.

8. Pursuant to a meeting with the Assistant City Manager of the City of Elmira and the City Facilities Supervisor, it has been agreed the necessary construction will be undertaken to furnish the plant the facilities to discharge and wash and rinse waters after preliminary handling in settling beds.

9. The Elmira Plant has now employed a chemist and will acquire the necessary test equipment to sample it's wastes. Tests will be made to determine the action necessary to meet the respective standards and to order the effectiveness of these actions.

General Comments

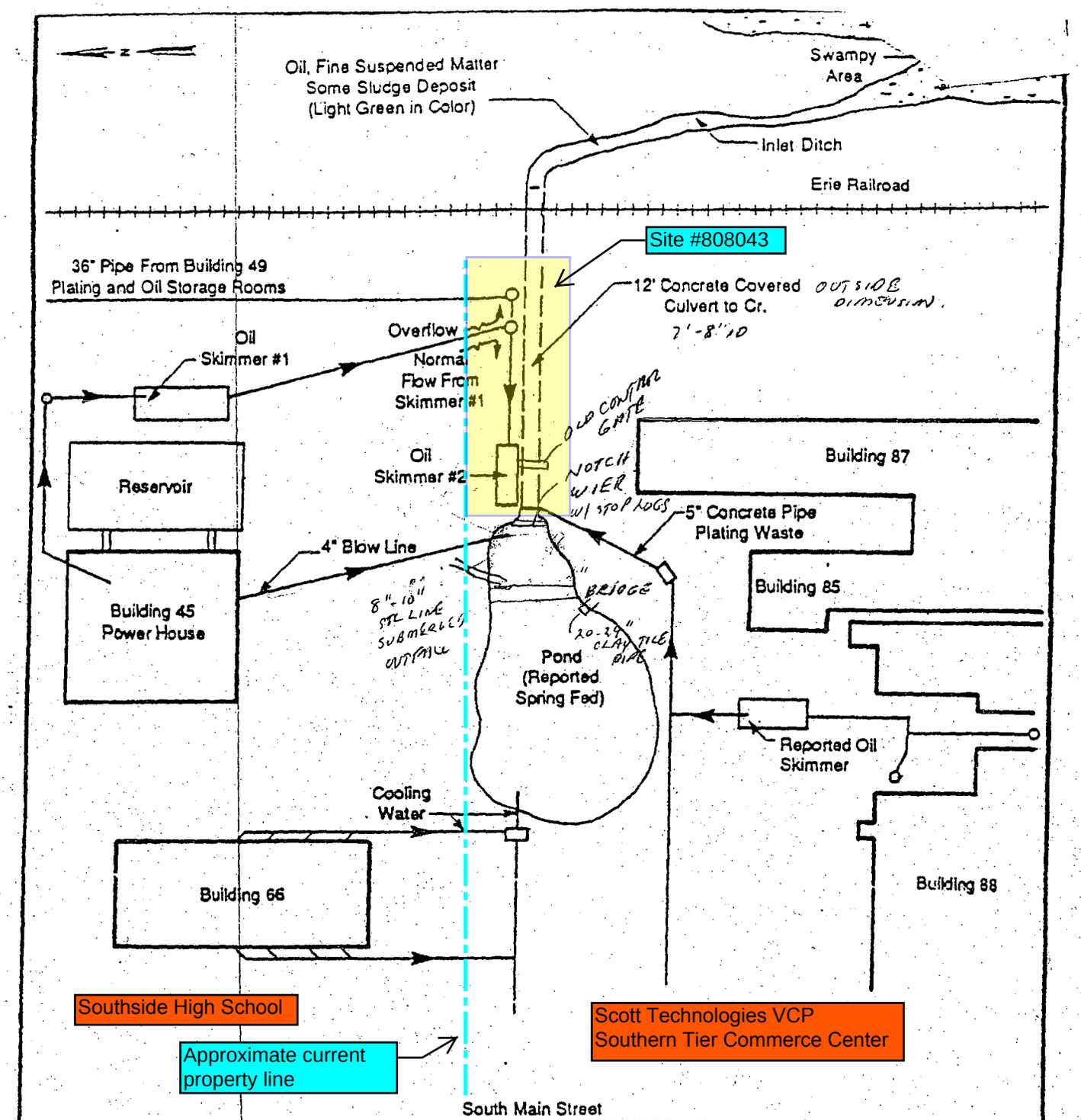
It is felt with the completion of the above program that all waste discharges from the plant will meet the respective standards.

It is respectfully requested, however, that any further samplings by the Department of Health be taken directly from the plant discharge system as opposed to the point of sampling utilized on September 21, 1965. This point was approximately 25 feet downstream from said point of discharge in Miller's Creek. During the engineering survey it was discovered that there is a large drainage system discharging upstream from the plant's discharge point. This system is not utilized by the plant in any way, although it passes under the plant.

Very truly yours,

George E. Morgenroth

GEORGE E. MORGENROTH
PLANT MANAGER
GEM/ma



NOT TO SCALE

REFERENCE: Schematic of waste streams redrafted from 1958 Industrial Survey Report.

REMINGTON RAND PLANT SITE
UNISYS CORPORATION

FIGURE 8
1958 SCHEMATIC OF PLANT
WASTE STREAMS

Dames & Moore, A Professional Limited Partnership | Job No. 15783-005


PROPERTY
BOUNDARY
FENCE
INFLUENT TO
CONCRETE CULVERT