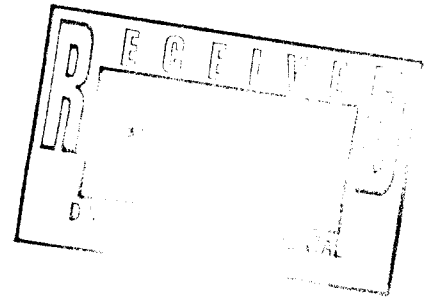




November 9, 2000

Mr. Robert Schick
Chief, MGP Remediation Section
NYSDEC
50 Wolf Road
Albany, NY 12233



Re: NYSEG Cortland/Homer former MGP Site

Dear Mr. Schick:

We have received and reviewed your October 27, 2000 letter and its Enclosure 1. As you are aware from NYSEG's August 30, 2000 letter, which responded to the Department's original July 21, 2000 letter, NYSEG has accepted that there are a number of data gaps relating to river sediment and groundwater impacts that require additional investigation work at the site. These gaps were represented in a supplemental Work Plan that NYSEG provided with its August 30th letter. As you noted in your October 27th letter, there remain several other key issues that compel NYSEG to expand the scope of supplemental work to be completed. On NYSEG's behalf, Stearns & Wheeler has prepared and attached a revised supplemental Work Plan to address the issues raised in the Department's recent October letter as well as the original July 21 letter.

Regarding a point-by-point response to specific elements of your October 27th letter, you presented four main categories of comments:

1. Revised Remedial Report Requirements
2. Site Characterization Data Gaps
3. Recommendations
4. Disputed SRI Conclusions

The attached Work Plan addresses the concerns relating to categories 2, 3, and 4. We further acknowledge the Department's comments relating to the revised report (category 1), and provide the following specific responses:

The silt/clay layer will be discussed in greater detail in the revised report, relying on additional information from the proposed work (attached) to delineate it and assess its role in contaminant transport.

As noted in your letter, the analytical results presented in the report summary tables reflected certain adjustments based on a review of ASP QA/QC. Specifically, an adjustment was made in

situations where the amount detected in a sample was less than ten times the amount detected in the method blank. In those specific cases the compound in question was qualified as non-detect ("U"). This adjustment is customary in the review and reporting of ASP data. Indeed, NYSEG contacted the QA Unit of the Bureau of Construction Services at NYSDEC, and the QA Unit concurred that the type of adjustment made to the analytical results was clearly allowable under ASP. Our position, therefore, is that the summary tables remain as originally presented in the SRI Report. The raw laboratory data is included as an appendix to the report, and may be referred to if the reader wishes to review data that has not undergone a usability assessment.

The tables were prepared to identify specific PAH and carcinogenic PAH compounds. However, the way in which they were graphically highlighted apparently did not clearly reproduce during the printing of the draft report. The graphic flags will be highlighted so that they are clear in future reports that are prepared.

You describe a comprehensive historical document that summarizes numerous previous investigations and analytical results. A comprehensive report will be prepared, following the completion of work described in the proposed scope, that includes such a historical and analytical summary.

We will review the analytical results presented in the RI report to determine that all of the sampling points and results for this ongoing SRI are included.

The revised RI report will include copies of field logs, reports, and observations as an appendix.

Also as requested, please find below our point by point responses to the comments provided by the Department's July 21, 2000 letter. As noted above, we believe that the attached Work Plan addresses the issues that have been raised. Thus, we have refrained from providing a detailed technical response to some comments, in cases where new data from the proposed work will help resolve the issue. Our intent is to collect the necessary information that will enable us to revisit those particular issues that, at present, cannot be easily resolved. The following responses are presented in the same numbering sequence as the comments in the July 21 letter.

1. We agree that local effects of the site are well defined in the sediment samples, recalling the figure attached to NYSEG's August 30th letter that clearly showed a spike of SVOC impacts adjacent to the site (SED-4). We further acknowledge that additional sediment sampling adjacent to, upstream, and downstream of the site will assist in determining an appropriate management strategy for sediment impacts. The proposed work plan we included with our August 30th letter set forth an approach to address the Department's concerns relating to the river sediments. NYSEG is agreeable to expanding that scope to account for comments included in your October 27, 2000 letter, and invites you to review the attached scope of work. After this work is completed, the new data can be assessed and previous site data can be reviewed, which will enable NYSEG and the Department to identify appropriate sediment cleanup remedies.
2. We generally agree that more site information would be needed to reliably assess natural attenuation capacity, which is what prompted us to include additional groundwater sampling

in the August 30th scope of work. In view of comments in your October 27th letter, we have modified the scope to better define the extent of impacts upgradient and cross gradient of the site. This would involve the installation of additional upgradient and cross gradient wells, followed by a site-wide round of groundwater sampling. Following the completion of the additional groundwater investigation, the Department's comments relating to the full extent of groundwater impacts can be addressed, and the possibility of natural attenuation can be further considered. Please refer to the attached work plan.

3. As above, we intend to revisit the possibility of natural attenuation capacity following the proposed supplemental monitoring well installation and groundwater sampling, and a thorough evaluation of all groundwater data generated at the site.
4. As discussed in response number 1 above, NYSEG has agreed to complete additional river sediment sampling to further investigate site related impacts to the river. The additional data will assist in developing an appropriate management strategy.

Regarding the presence of metals and PAHs in surface soils, NYSEG noted in the August 30th letter that there is actually only a small area of soil, the lawn in front of the I.D. Booth building, that is not paved or covered by several inches of gravel. The lawn area is covered by grass so that there is no exposed soil. NYSEG will pursue a deed restriction with the owner of the I.D. Booth facility, to manage both soil and groundwater exposure issues.

5. As noted above, NYSEG will implement supplemental river sediment sampling to address the Department's concerns relating to defining and interpreting the impacts of the site upon the river, including ongoing sources and transport routes.
6. The surface soil sampling scope included a number of background locations, according to the approved work plan, and generally has established where site related impacts are present.
7. See response number 5.
8. See response number 5.
9. See response number 5.
10. The proposed monitoring well installation and groundwater sampling scope will help to address the Department's concerns regarding the extent of impact. Although we remain doubtful that migration could have occurred from the site to the west, which is hydraulically upgradient, we regard new upgradient wells as valuable for improving our understanding of background conditions and groundwater flow, which will ultimately help to define the true extent of site related impacts.
11. The main issues expressed in this comment, relating to possible transport of NAPL from the site to the river, and the quality of river sediments, will be addressed by components of the proposed work, including the soil boring program to establish the surface character of the

silty clay layer and the occurrence of NAPL, and also the river sediment boring program. These issues can be assessed following the collection of data from the proposed work.

12. The risk assessment will be revised to acknowledge future and potential exposure of utility/construction workers to subsurface impacts. NYSEG will pursue deed restriction with the owner of the I.D. Booth facility.
13. The text in the revised report relating to recreational exposure possibility will be reviewed and modified so that it is consistent.
14. Section 3.2 of the approved Work Plan did not set forth PID screening for soil samples, and consequently the Stearns & Wheeler field team did not complete it.
15. Pesticides and PCBs were not part of the approved analytical scope, nor are they considered to be target compounds associated with MGP sites.
16. NYSEG has been monitoring NAPL thickness and recovery from MW-24. Please refer to the attached page detailing the tar recovery study through the end of July.
17. The samples from sediment borings RB-1 and RB-3 were not analyzed, as these borings were advanced as a follow-up measure to delineate extent. Future sediment sampling work will address this issue.
18. The figure that shows the supply wells is Figure 4-13, not 4-9, and will be corrected in the revised report.

Regarding the implementation of the proposed work, NYSEG is seeking to complete the sediment investigation before the end of this calendar year. We look forward to meeting with you on November 17, at your office, in the interest of obtaining the Department's acceptance of that portion of the proposed work, and to discuss any other issues necessary. In the meantime please feel free to call with any questions.

Very truly yours,



Daniel P. Ours, C.P.G.
Project Hydrogeologist

DPO/lcj

Enclosures

PC w/ enclosure: Tracy Blazicek, NYSEG
John Helmeset - NYSDEC Albany
John Booth, I.D. Booth, Inc.

**WORK PLAN ADDENDUM
SUPPLEMENTAL REMEDIAL INVESTIGATION (SRI)
PHASE 2
NYSEG – CORTLAND/HOMER FORMER MGP
November 8, 2000**

INTRODUCTION

NYSEG recently conducted a Supplemental Remedial Investigation (SRI) at its former Cortland/Homer MGP facility. Although the SRI fulfilled the requirements of the Work Plan for the project, data gaps were identified that require additional field investigation. NYSEG proposes to complete a second phase of SRI at the site. The intent of this second phase will be to:

1. further address issues relating to possible MGP impacts to sediment in the Tioughnioga River;
2. improve understanding of chemical conditions of site groundwater as they relate to natural attenuation and the extent of groundwater impacts upgradient and cross gradient;
3. further investigate the source area, near the I.D. Booth building, for the possible presence of residual NAPL;
4. better define the underlying silty clay layer, which behaves as a confining unit.

The remainder of this document describes the field activities necessary to address the identified data gaps. It is intended to be an addendum to the approved Work Plan for the SRI, dated August 1999. All aspects and requirements of the Work Plan, including the Health & Safety Plan and the Site Sampling Plan will be observed and followed during this phase of field work.

METHODS

A. RIVER SEDIMENTS & WATER

River sediment borings were completed as part of the previous phase of the supplemental investigation. The purpose of those borings was to verify whether coal tar was present below the sediment/water interface, and to what depth. Generally, the borings indicated that coal tar was only visually present in the top few inches of sediment, directly below the interface. No coal tar was observed at 2 feet below the interface, which was the maximum depth of the sediment borings. However, laboratory analysis of sediment from the borings at that depth interval was not included in that previous scope, because the borings were intended to provide only visual confirmation of coal tar.

In order to finalize the delineation of the extent of coal tar impacts to Tioughnioga River sediments, NYSEG proposes to complete additional river sediment borings. The boring effort will include two general types of borings, which are intended to address near-site,

and downstream issues, respectively. There will be a minimum of sixteen (16) near-site borings. We anticipate that 5 of these locations would be upstream of the site, 5 would be downstream, and 6 would be adjacent to the site. The objectives of the near site boring program are to:

- further characterize background sediment chemistry with respect to total cyanide, VOCs, and PAH compounds;
- further delineate the areal extent of coal tar in the river bed;
- define the vertical extent of impacts below the water/sediment interface.

Sediment samples at each near site location will be collected from three (3) discreet depth intervals; 0-1 foot, 3-5 feet, and 7-8 feet below the water interface. If there is evidence (visual, PID) that suggests possible site related impact at 8 feet deep, the boring will be advanced until there is no longer evidence of site related contamination. A fourth sample would then be collected from the bottom of the boring. Samples will be collected using a floating platform with a tripod drilling set-up. Samples will be collected by advancing a 2-foot long, 2 or 3-inch diameter split spoon sampler into the sediments. A 4-inch diameter steel casing will be advanced into the sediments to keep the hole open as the split spoon sampler is withdrawn. Because of the maximum depth limitation (around 10 feet) for this particular boring method, if there appears to be need for deeper penetration at certain sample locations, a subsequent round of sediment sampling, using more robust sampling equipment, may be required.

Sediment samples from all three depth intervals down to 8 feet, and possibly a fourth depth interval (beyond 8 ft), if needed, will be analyzed for volatile organic compounds (VOCs) using EPA Method 8260, polycyclic aromatic hydrocarbons (PAH's) using EPA Method 8270, total organic carbon (TOC), total petroleum hydrocarbons (TPH), and total cyanide. In addition, 2 sediment samples from apparently impacted areas will be submitted for TCLP benzene analysis and total percent solids.

In addition, NYSEG proposes to collect up to two samples of tar, from locations identified in the previous sediment probing investigation, to determine its physical and chemical character. From prior observations, we expect that the tar samples will be collected from the upper few inches of sediment, in areas where it was identified in the previous study. The tar samples will be analyzed for specific gravity, viscosity, VOCs, PAHs, and cyanide.

The near-site sediment samples will provide the chemical data needed to assess whether the surface veneer of coal tar observed in the top few inches of sediment is derived from below (i.e. as NAPL seeps from the site into the river), or whether the coal tar is more likely to be residual, deposited at the surface. The additional upstream and downstream data will be used to better understand the background levels of PAHs in the river sediments, which will help delineate the true impacts related to the former MGP site.

NYSEG further proposes to complete approximately 20 to 24 additional sediment borings, spaced approximately 300 feet apart, beginning at the furthest downstream near-site location, and extending approximately 7,000 feet downstream. These borings will be advanced by a combination of methods, depending on the river channel conditions at each particular location. It is anticipated that either a floating platform will be used, as above, or hand auguring tools where conditions permit wading. These downstream borings will be advanced to a maximum of 3 feet deep, as opposed to 8 feet, since the primary objective of the downstream borings will be to assess the potential impacts relating to the transport of sediment from near site areas. Because depositional impacts originate at the sediment/water interface, as opposed to groundwater impacts that originate from below the sediment, the upper few feet of sediment are of interest as opposed to deeper sediment zones. Considering the dimensions and flow of the river, it is doubtful that site impacts dating back only a few decades would manifest themselves beyond three feet deep into the sediment profile. If there is evidence (visual, PID) of coal tar related impacts in the sediment samples from 3 feet deep, the boring will be advanced down to 5 feet and an additional sample will be collected.

Prior to advancing the downstream soil borings, a sediment probing reconnaissance will be completed, along transectes spaced approximately 100 feet apart and extending downstream approximately 7,000 feet. Each transect will include probes near the west and east riverbanks, as well as one probe in the center of the river, to determine the possible presence of NAPL in the upper 2 to 3 feet of sediment. It is anticipated that a sediment boring, as described above, would occur on every third transect (i.e. 300 feet apart as proposed).

The actual number of borings will depend on local flow conditions along the river. A reconnaissance of the downstream area past the Clinton Avenue bridge revealed that portions of the river are shallow and swift scouring environments, and others are calmer depositional areas. In areas of scouring, the river bottom tends to have exposed cobbles and boulders, with little sediment. If conditions do not provide enough sediment for sample collection, the actual number of samples may be fewer than the estimated amount.

The goal of the downstream sediment sampling effort will be to determine the extent of sediment transport from the site to downstream areas. Approximately 500 feet downstream of the Clinton Avenue bridge a stone breakwater-like structure was observed during the recent reconnaissance, which appeared to just barely break the water surface. This structure restricts sediment transport, and in principle is the maximum possible limit of sediment migration downstream of the site.

From each of the downstream borings, sediment samples from 0-1 foot and 2 to 3 feet (and possibly 4 to 5 feet if needed) will be submitted for laboratory analysis, for VOCs, PAHs, TOC, TPH, and total cyanide.

All of the sediment samples collected will be visually examined, and screened with a photoionization detector (PID). Boring logs will be maintained.

Finally, NYSEG proposes to collect four (4) additional surface water samples as a follow up to the previous samples that were collected during the SRI. Those previous samples generally did not contain organic compounds above applicable water quality standards. For this reason, and also because water samples from a moving water system tend to be well mixed, 4 additional samples, together with the 9 samples that were collected previously, will provide adequate characterization of surface water quality. One sample will be collected upstream of the site, associated with the furthest upstream sediment sample, one “worst case” sample will be collected adjacent to the site, associated with an apparently impacted sediment sample collected as part of the near site sampling effort, and two samples will be downstream of the site, at approximately 2000 feet and 7,000 feet downstream. The surface water samples will be analyzed for VOCs, PAHs, and cyanide.

B. WESTERN SEDIMENTS

NYSEG will complete sediment probing within the wet area west of the I.D Booth building, and will record observation in a field log. Three surface water and sediment samples will be collected. Sediment will be analyzed for TCL VOCs and PAHs, plus total cyanide, TOC, and TPH. The sediment samples will be collected from the top 3 inches below the sediment water interface. Surface water samples will be analyzed for VOCs, PAHs, and total cyanide.

C. NAPL (SOIL BORING) INVESTIGATION

NYSEG proposes to advance eight (8) Geoprobe borings around the exterior of the I.D. Booth building, plus one (1) additional boring within the former holder area. Six exterior borings will be along the western edge of the building, and one each at the southeast and northeast corners of the building. At least four (4) of the western borings will be advanced down to the silty clay “till” layer, located approximately 40 feet deep, to confirm its presence. Each of the southeast and northeast borings will also be advanced down to the silty clay. Soil samples will be collected continuously, visually examined, and screened with a PID. Descriptions and PID results will be recorded in a boring log, including visual evidence of NAPL. One soil sample from each boring, based on “worst case” observations, will be submitted for laboratory analysis for VOCs, PAH compounds, and cyanide.

NYSEG will also investigate the former relief holder, which is located inside the I.D. Booth building. This boring will be advanced from inside the building, through the floor, and will penetrate to the bottom of the relief holder. Soil samples will be collected continuously, and screened with a PID. Observations will be recorded in boring logs. One sample from the boring, preferably near the bottom where residuals, if any, are expected to accumulate, will be submitted for laboratory analysis for PAHs, cyanide, and TCLP benzene.

The distribution holder, located near the southern end of the I.D Booth building and partially extending outside into the fenced storage yard, was investigated and identified in previous studies by boring and test pitting, and NYSEG believes the information from those previous efforts can be relied upon to characterize that area. Please recall that it was mutually decided in the field, by NYSEG and NYSDEC during completion of the SRI, that additional investigation of the distribution holder was not needed. As the relief holder represents the most likely source of MGP residuals that remains to be investigated, NYSEG will focus supplemental investigation efforts specifically on that structure.

To further investigate possible NAPL impact adjacent to the river, NYSEG will advance four (4) additional soil borings, down to the silty clay layer, with two located north of MW-17 and two located south of MW-18. These borings will be spaced roughly 50 feet from each other and from the above referenced wells. Soil samples will be collected continuously, and visually examined and screened with a PID. Visual observation, including identification of NAPL, if present, will be recorded in boring logs. One sample from each boring, based on "worst-case" observation, will be submitted for laboratory analysis for VOCs, PAHs, and total cyanide. If NAPL is observed in any boring, that boring will be converted into a groundwater monitoring well, screened at the top of the silty clay layer.

D. GROUNDWATER

NYSEG proposes to install two additional upgradient monitoring wells, to satisfy two basic data needs: 1) to confirm the present of the underlying silty clay layer; 2) to provide a confirmatory background water quality data point for deeper groundwater upgradient of the site. As implied, the new upgradient wells will be screened near the top of the silty clay layer, to supplement the existing upgradient well which is installed at an intermediate depth. Deep wells are proposed, in response to concerns that DNAPL may be present near the top of the silty clay, which could release dissolved contaminants into the deep groundwater. The new upgradient wells are proposed approximately 60 feet south of the existing well MW-1, and also approximately 350 feet south of MW-1, respectively.

In addition, two well couplets, each consisting of a water table well and a deep well, will be installed, one located south of existing well MW-13, and one located north of existing well MW-15, respectively. These wells are considered to be cross gradient, and will help determine the lateral limits of groundwater impact. The deep wells in each couplet will be advanced down to the silty clay layer, to confirm its presence.

During the drilling of the upgradient wells and the deep couplet wells, soil samples will be collected continuously, and screened with a PID. One soil sample from each of these three borings will be submitted for laboratory analysis for TCL VOCs, PAHs and total cyanide. The shallower borings in each couplet will be advanced without soil sampling, as they will be paired with an adjacent deep boring from which soil samples will have been collected.

The six new monitoring wells will be developed following their installation. At least one week following development, the new wells will be sampled, along with the 17 existing wells on site. All of the groundwater samples will be analyzed for TCL VOCs and SVOCs, total cyanide, and total sulfide. In addition, water samples will be collected for the natural attenuation parameters dissolved oxygen, dissolved carbon dioxide, iron, manganese, nitrate, and sulfate.

PHASE 2 SRI REPORT

The results of the above sampling efforts will be incorporated into a comprehensive report that will include historical summaries of site and past analytical results, and tie those historical assessments together with the more recent (March 2000 and this proposed plan) SRI findings. Included will be figures showing all of the new sampling locations, boring logs for the sediment and soil boring sampling programs, and laboratory reports for sediment, soil, surface water, and groundwater analyses. If it appears that additional sampling is needed to resolve issues relating to the river sediment impacts, specific areas requiring follow up sampling will be called out and additional sediment samples can be collected if needed. We will further assess the findings of the already-completed (through Step IIA) Fish and Wildlife Impact Analysis (FWIA) against the more recent findings, and determine which, if any, further FWIA steps (IIB, C, and D) are prescribed by the standard protocol, based on new information.

Overall, NYSEG believes that the scope of this proposed work, coupled with the findings of previous studies, will provide information sufficient to complete the characterization of the site and conduct a feasibility study.