

Division of Environmental Remediation

Amended Record of Decision

NIAGARA MOHAWK ONEIDA - SCONONDOA STREET FORMER MANUFACTURED GAS PLANT SITE

**Oneida (C), Madison County
Site No. 7-27-008**

January 2002

DECLARATION STATEMENT AMENDED RECORD OF DECISION

Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant Site Oneida (C), Madison County, New York Site No. 7-27-008

Statement of Purpose and Basis

This Amended Record of Decision (ROD) presents the amended remedy for the Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant site which was chosen in accordance with the New York State Environmental Conservation Law. The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40 CFR 300).

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant site and upon public input to the Proposed Amended Record of Decision presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste and substance constituents from this site, if not addressed by implementing the response action selected in this amended ROD, presents a current or potential significant threat to public health and the environment.

Description of Selected Remedy

Based on the results of the Proposal to Revise the Selected Site Remedy Report for the Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant and the criteria identified for evaluation of alternatives, the NYSDEC has selected on-site low temperature thermal desorption for treatment of the soil and sediment excavated from the site with on-site backfilling of the treated material as the remedy for this site. The components of the remedy are as follows:

- Excavate approximately 61,500 cubic yards of contaminated soil and sediment from the Niagara Mohawk property and the Tailrace area. Treat the excavated material on-site utilizing a low temperature thermal destruction unit.

- Backfill the excavated areas with treated soil which meets the established soil treatment levels.
- Two isolated areas of contamination located in areas of the site where excavation will be precluded by existing conditions, one under Sconondoa Street and the other under the railroad embankment, will be further evaluated during the excavation of adjacent areas and monitored.
- Deed restrictions to restrict the Niagara Mohawk property to commercial use and limit groundwater use in any area until groundwater quality standards are achieved. Additional deed restrictions will be imposed to prevent exposure to contaminants remaining in the two isolated and inaccessible off-site locations identified above.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

Date

Susan Taluto, Deputy Commissioner

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AMENDED RECORD OF DECISION

Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant Site Oneida (C), Madison County, New York Site No. 7-27-008

January 2002

SECTION 1: Introduction

In June of 2000, the New York State Department of Environmental Conservation, with the concurrence of the New York State Department of Health, signed a Record of Decision (ROD) which selected a remedy to address volatile and semivolatile organic compound contamination in the groundwater, soils and sediments associated with the Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant Site. This ROD selected excavation and off-site treatment or disposal of contaminated soils including dredge spoils and sediment. The June 2000 ROD also provided for a monitored natural attenuation program to be established for groundwater.

Following the issuance of the June 2000 ROD by NYSDEC, a pre-design investigation was completed by Niagara Mohawk Power Corporation (NMPC) to resolve any uncertainties identified and provide a basis for the remedial design.

As detailed in Section 5, the results of the pre-design investigation indicate that the extent of soil containing concentrations in excess of the June 2000 ROD remediation levels is significantly greater than the volume established in this ROD. The volume of soil to be excavated was previously estimated in the June 2000 ROD to be 11,890 cubic yards (cyds). Based on the additional characterization of the site, an estimated volume of approximately 61,500 cyds. of soils will need to be removed to achieve the remediation levels specified by the June 2000 ROD. This has resulted in a request by NMPC for reconsideration of the practicality of the selected remedy for this site.

Based upon the significant increase in volume resulting from the additional investigations, NMPC has proposed a revised site remedy to provide a reliable and low impact disposal/treatment option, while still providing protection of human health and the environment and compliance with applicable statutory requirements. This revised site remedy consists of on-site Low Temperature Thermal Desorption (LTTD) treatment of the excavated soil/sediment with on-site backfilling of the treated material that has met the identified remediation levels. This has been selected to replace the previously selected off-site treatment and disposal remedy.

1.1: Summary of the Amended Record of Decision (ROD):

The decision to consider a change from the selected remedy of excavation of approximately 11,890 cyds. of contaminated soil and sediments and off-site treatment of this material was the result of a significant increase in the volume of MGP contaminated material requiring excavation and treatment identified by the pre-design investigation. The amended remedy requiring treatment utilizing a transportable on-site LTDD unit, in conjunction with the increase in the volume of material to be treated, represents a fundamental change in the remedy. Therefore, the Department is issuing this amendment to the June 2000 ROD. The Department believes that the overall protectiveness of public health and the environment provided by the amended remedy is equivalent to that provided by the original remedy and will result in a remedy best satisfying the evaluation criteria, as presented in Section 6.3.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Niagara Mohawk Oneida - Sconondoa Street Former Manufactured Gas Plant (MGP) Site is located on Sconondoa Street in the City of Oneida, Madison County, New York (see Figure 1). The former MGP site is presently owned by Niagara Mohawk Power Corporation (NMPC) which operates a service center on the property for gas and transmission line service.

The site as defined in this amended ROD consists of the NMPC property, referred to as “on-site” in the June 2000 ROD and the Tailrace area, formerly referred to as “off-site”. For purposes of this document, the site or the “on-site” area is shown on Figure 1 and consists of both areas described below.

The 1.8 acre NMPC property, which is an active gas and electric service center, is secured by a fence at the property perimeter which is locked after working hours. The triangular property is bordered on the west by Tailrace Creek (known locally as Tar Creek) which is a tributary to Oneida Creek, to the east by a gravel road which was the former route of the New York Ontario and Western Railroad, and to the south by Sconondoa Street. This property is generally flat with a gentle slope to the north. Gravel covers the NMPC property except on the south end where there is a small lawn. Tailrace Creek, also known as Tar Creek, is situated at the base of a five-foot embankment along the western and northern sides of the property.

The 1.5 acre Tailrace area is defined by the channel of Tailrace Creek and the contiguous areas of contamination. The Tailrace area is comprised of small areas of three private properties. The majority of the properties owned by the City of Oneida. The Tailrace area is bounded to the north by an abandoned elevated New York Central Railroad right-of-way and the west by the NMPC property. A residential property and several commercial properties including the City Department of Public Works facility are located between the Tailrace and Sconondoa Street to the south, while Oneida Creek forms the eastern boundary. The site is located in an area characterized by industrial and commercial land use. The residential and commercial properties are served by the municipal water system.

Tailrace Creek originates as a storm sewer within the City of Oneida, exiting a 36-inch-diameter culvert northwest of the site, prior to flowing into the Tailrace area where another 36-inch culvert joins it from beneath the railroad embankment (see Figure 1). From the northern end of the site, the Tailrace flows approximately 1,200 feet east to Oneida Creek. A flap gate is located at the confluence of Tailrace and Oneida Creeks, which shuts during high water causing an impoundment of storm water runoff in the Tailrace area. The Tailrace channel is relatively straight and appears to maintain a consistent but very flat slope.

The Tailrace has historically been dredged periodically to maintain storm water flow and the embankments reportedly consist of dredged spoils from the Tailrace that were deposited as a result of the City of Oneida's maintenance of this storm water management system. The flow rate in the Tailrace is variable, with average flow estimated at 0.5 cubic feet per second, although at low flow periods it appears stagnant.

SECTION 3: SITE HISTORY AND CONTAMINATION

3.1: Site History

The Oneida Gas Light Company purchased the current Niagara Mohawk property in 1896. Manufactured gas was produced from approximately 1899-1930. In the first half of the 20th century, a series of consolidations of utility companies ultimately resulted in Niagara Mohawk's acquisition of the site in 1950. Final demolition of MGP structures took place in 1963. The current site has remained essentially unchanged since the construction of a service center addition in 1974.

Records of waste disposal are not available. It is not likely that waste disposal occurred at predetermined periods, but as operations required, wastes were removed from the system. Unrecovered by-products may have been released to the environment through breaks in plant containment structures or piping.

The Remedial Investigation/Feasibility Study (RI/FS) was completed in August 1998 and the proposed remedial action plan for the site released for public review in October 1999. After a public meeting was held to present the proposed remedy, the Record of Decision was signed in June 2000.

3.2: Site Geology and Hydrogeology:

The results of subsurface field activities conducted during the investigation of the site suggest that the site is generally underlain by four main overburden units, including, from uppermost to lowermost unit, fill, peat, glacial lacustrine beach and delta deposits, and a lacustrine silty clay.

The NMPC property is covered by up to approximately 15 feet of fill, with the thickest area of fill located in the southwest corner of the property. The remainder of the NMPC property is underlain by approximately 5 to 8 feet of fill. On the NMPC property, the fill consists of a heterogeneous mixture of silt, sand, gravel, demolition debris, subsurface structures (building foundations, holder floors), and MGP-related waste (slag, cinders, coke, ash, purifier wood chips, etc.). The fill is

discontinuous in the Tailrace areas north and northeast of the NMPC property and where present, generally consists of railroad bedding material, apparent dredge spoils along the Tailrace and refuse and other general fill materials. Subsurface structures are also located in the Tailrace area, including railroad abutments and bridges, piping associated with conveyance of the Tailrace, and active and former sanitary sewers.

A relatively continuous layer of peat lies beneath the fill. The peat is the uppermost native deposit found in the investigation areas. Within the NMPC property, the peat is locally absent, possibly as a result of its removal during construction activities. To the north and northeast of the NMPC property, the peat gradually grades horizontally into a silt/clayey silt. The peat is commonly 1 to 4 feet thick across much of the site.

A glacial lacustrine sequence of silt, sands, and gravels lies below the fill and peat. The lowest overburden unit observed is a stiff, reddish-brown silty clay, containing occasional fine sand partings. Depending on location and surface elevation, the depth to the top of this unit ranges between approximately 19 to 55 feet below ground surface (bgs).

Groundwater is typically found approximately 5 to 11 feet below grade in the filled areas of the NMPC property; whereas, in the lower lying investigation areas, groundwater is generally in the range of 0.5 feet to 8 feet below grade. The water table is found within the fill, peat, and/or the upper portion of the glacial lacustrine deposits. In general, shallow groundwater flows toward the Tailrace, eastern ditch, and Oneida Creek. The majority of shallow groundwater is assumed to flow within the sand and gravel which comprises the upper portion of the glacial lacustrine deposits.

The Tailrace exhibits influent conditions (gaining water from the bank) the majority of the time; however, the Tailrace likely does exhibit short-lived effluent conditions (loses water to the bank) along certain reaches of stream length. Because the Tailrace receives a large volume of precipitation runoff from the City of Oneida, the water level within the Tailrace fluctuates rapidly and in proportion to the duration/intensity of a given storm event. During/following a storm event, surface water within the Tailrace is discharged to the banks (effluent conditions) as the groundwater level within the bank material is unable to equilibrate with the quickly rising water level in the Tailrace. There would be a temporary reversal of groundwater flow direction away from the Tailrace, which would be reversed as soon as the surface water level in the Tailrace receded below the now elevated groundwater levels along the Tailrace. A flap gate is present at the confluence of the Tailrace and Oneida Creek. This flap gate closes when the water levels in Oneida Creek rise above those in the Tailrace. When closed, the water in the Tailrace backs up and inundates the area along the Tailrace, raising the groundwater levels.

The deeper (below the water table to approximately 40 feet bgs) groundwater flow direction is generally to the northeast toward Oneida Creek. A silty clay was observed at the bottom of every boring installed on site and off site with the intent of reaching it, and it is believed that this silty clay is a confining layer with respect to the material below and that groundwater located beneath this unit is derived from recharge area(s) distant from the site.

3.3 Nature of Contamination:

As described in the reports, many soil, surface water, groundwater and sediment samples were collected at the Oneida MGP Site to characterize the nature and extent of contamination. The pre-design investigation soil sampling results, which are the basis for the expanded excavation limits, are summarized in Table 1.

The primary contaminant found at former MGP sites is coal tar. Coal tar is a by-product of the gas making process and can be found as a non-aqueous phase liquid (NAPL). NAPL is an organic liquid that can have the consistency of motor oil or can be a viscous material like roofing tar. The main categories of contaminants which exceed their SCGs are volatile organic compounds and semivolatile organic compounds. Specific volatile organic compounds of concern in soil, groundwater and sediment are, benzene, toluene, ethylbenzene and xylenes. Benzene is a confirmed human carcinogen. The summation of these compounds is referred to as BTEX (benzene, toluene, ethylbenzene, xylene).

Specific semivolatile organic compounds of concern in soil, groundwater and sediment, are the following polycyclic aromatic hydrocarbons (PAHs):

acenaphthlene	<i>chrysene</i>
acenaphthylene	fluoranthene
anthracene	fluorene
<i>benzo(a)anthracene</i>	<i>indeno(1,2,3-cd) pyrene</i>
<i>benzo(a)pyrene</i>	2-methylnaphthalene
<i>benzo(b)fluoranthene</i>	naphthalene
benzo(g,h,i)perylene	phenanthrene
<i>benzo(k)fluoranthene</i>	pyrene
<i>dibenzo(a,h)anthracene</i>	

PAH concentrations referred to in this plan are the summation of the individual PAHs listed above. The italicized PAHs in the above list have been identified as probable human carcinogens.

Cyanide was also found above background levels in soil, surface water, groundwater and sediment at or in the vicinity of monitoring well ES-2S. This is also an area of high BTEX and PAH contamination. The proposed remedy would reduce the cyanide level in all media to non-detect or background levels.

SECTION 4: SUMMARY OF NEW INFORMATION.

As required by the June 2000 ROD, a pre-design investigation was undertaken to resolve uncertainties regarding the site, identified during and subsequent to the RI/FS process, and to provide a basis for developing the remedial design (RD) for subsequent implementation of the remedy. The pre-design characterization program was primarily conducted from July 2000 to October 2000, in accordance with the *Preliminary Remedial Design Work Plan*. Based on the field conditions

encountered and the analytical data obtained, the scope of the pre-design investigation expanded considerably beyond that originally identified.

With the exception of the pre-design investigation, no other component of the remedy selected by the June 2000 ROD has been implemented, nor have any Interim Remedial Measures been conducted at the Oneida MGP site.

The pre-design characterization program was conducted from July 2000 to October 2000, in accordance with the *Preliminary Remedial Design Work Plan*. The uncertainties identified during the RI/FS which were to be addressed by this investigation included:

- the maximum depth of Tailrace sediments containing concentrations of constituents greater than the NYSDEC-proposed remediation levels;
- the extent of dredge spoils deposition along the banks of the Tailrace;
- the extent of remediation level exceedences in the soils located west of soil boring B-1;
- the source of sheens in sediments in the eastern ditch adjacent to the site;
- the detection of a light NAPL in monitoring well ES-4S subsequent to completing the RI/FS for the site; and
- the determination of a background total PAH concentration (i.e., remediation level) for soil and sediment off of the NMPC property from 0 to 2 feet bgs.

As discussed in the *Work Plan*, pre-design activities also were conducted to:

- assess the presence of general characteristics of the dense NAPL in monitoring well ES-3;
- further understand the extent of MGP-source soil and to determine the proposed soil excavation limits, using the remediation levels presented in the June 2000 ROD;
- obtain additional information regarding the physical characteristics of the subsurface;
- facilitate determining an appropriate waste treatment/disposal program for MGP-impacted soils; and
- obtain additional information regarding the absence/presence of PCBs potentially associated with the service center.

Based on the results of the pre-design investigation and the previous investigation results summarized in the June 2000 ROD, the soil and sediment across much of the site and along the Tailrace are affected by MGP-related constituents with heavy visible coal tar contamination present over a much more extensive area from what which was identified by the June 2000 ROD. The

concentrations and types of contaminants identified by these additional investigations were comparable to what was included in the original ROD. However, the extent of coal tar and otherwise visibly MGP impacted soil and sediments increased significantly, extending the area and volume of contamination to be addressed in the Tailrace. These results are summarized in Table 1.

At the time of the June 2000 ROD, the contamination identified in the Tailrace represented a limited area and small volume of what would be addressed by the overall remedy. Since this contamination was off the NMPC controlled former MGP site and represented a small incremental increase in the volume of material to be addressed by the remedy, the June 2000 ROD established remediation levels which would not require a restriction on future land use for the Tailrace area. With the significant increase in the volume of contamination identified by the pre-design investigation, the remedial goals for the site were reevaluated based on the new information relative to the nature and extent of the contamination present. While a much larger area and volume of the subsurface soils and sediments in the Tailrace were found to be heavily contaminated with coal tar, the migration of MGP constituent compounds was not found to extend significantly beyond the limits of this gross contamination. Also, a storm water management plan which calls for a storm water retention basin to be constructed in the impacted Tailrace area is under consideration. This remediation should allow this proposal to go forward, if adopted, without the need for the City to coordinate with NMPC to address any residual soil contamination uncovered by this project or any incremental cost for handling/disposing of contaminated soil. Therefore, since: (1) the original remedial goals established by the June 2000 ROD could still be met, with a only relatively minor incremental increase in the volume to be addressed; (2) for the incremental increase in cost associated with this increase in volume NMPC would benefit by not having the monitoring and institutional control certification requirements a deed restriction would necessitate, as well as (3) the benefit to NMPC of allowing the City to proceed with any storm water system upgrades in the Tailrace area. After consideration of the above, the NMPC proposal which is the basis of this amended ROD maintains the June 2000 ROD remediation levels which, if achieved, will not require any restriction on future land use in the Tailrace area and will support any storm water system upgrades considered by the City.

Accordingly, the groundwater remediation goal remains the groundwater standards for the contaminants identified in Section 3.3. The remediation levels for soils and sediments are included in Table 2. The levels presented in Table 2 are those from the June 2000 ROD, with the addition of the background level for total PAHs of 7.7 ppm for Tailrace soils from 0-2 feet bgs. This was established by the background sampling completed during the pre-design investigation. Table 2 also recognizes the designation of the increased area to be excavated as the site, now differentiating between “NMPC owned and Tailrace area soils” as opposed to “on- and off- site soils” as in the existing ROD.

4.1 Revised Extent of Contamination:

With the exception of the soil located beneath and immediately east of the service center building (which do not appear to be impacted with MGP-related materials), the areal extent of the excavation areas generally covers the NMPC property and a relatively wide strip of soil and sediment along the length of the Tailrace from Sconondoa Street to the western side of the berm near Oneida Creek

where visible MGP impacted soils and sediments have been identified (see Figure 2). The estimated depths of the excavation areas range from 10 to 20 feet bgs.

In some excavation areas, the soil at depth affected by visibly MGP-related materials is overlain by materials which may not be affected by MGP-related materials. During removal operations, segregation of apparently non-affected soil from the affected soil (subject to analytical confirmation) may be appropriate.

The results of the pre-design investigation indicate that the extent of soil containing visible MGP residuals is significantly greater than the volume established by the original ROD. The volume of soil to be excavated was estimated in the June 2000 ROD to be approximately 11,890 cyds.. Based on the additional characterization of the site, which identified an increased area and depth of visible MGP contamination, an estimated volume of approximately 61,500 cyds. of soils would need to be removed to achieve the remediation levels specified for the protection of human health and the environment.

Although the removal of the 61,500 cyds. of material would address the majority of MGP-impacted materials, two relatively small areas pose challenges for excavation. The first is an area beneath Sconondoa Street south of the NMPC property, and the second is a limited area beneath the toe of the railroad embankment (see Figure 3). Each of these areas is discussed below along with the technical limitations associated with their excavation.

Coal tar impacts to soil, in the 6- to 10-foot bgs interval, were observed just north of Sconondoa Street on the NMPC property and likely extend to the south under the Street. The presence of a number of utilities beneath and adjacent to Sconondoa Street (a fiber optics line, gas lines and service feeders, sanitary and storm sewers, and a water main and water service piping) prevented further delineation in and adjacent to the street, however borings on the south side of the Street were not affected. These utilities are located above the depth interval at which coal tar was observed and thus are unlikely to serve as a preferential pathway for NAPL migration, with the exception of the sanitary and storm sewer, which generally coincide with the coal tar depth.

Based upon investigation of the manholes associated with these sewers and soil borings and test pits located near the north-south trending sewer line, no MGP impacts were identified. Observation of groundwater in the test pits from the bedding did not identify any sheens or other evidence of NAPL. Additionally, groundwater analytical results in monitoring wells located generally down gradient of this area did not contain MGP constituent concentrations above SCGs.

The second location is near the northern boundary of the Tailrace excavation area, which generally follows the toe of the railroad embankment. This second area is a relatively small area of coal tar and has a limited thickness and volume of NAPL identified under the embankment. Up to 35 feet of unaffected overburden material and a 12-inch-diameter wastewater force main would need to be removed or replaced to access this thin layer of MGP-impacted materials. The sand and gravel unit where the NAPL was observed has been shown to be discontinuous to the north and is either not present (thus limiting the potential for coal tar migration) or not affected by coal tar to the northeast

and northwest. In addition, groundwater analytical results from surrounding monitoring wells have concentrations of MGP constituents below remediation levels.

In summary, the investigations for these two areas concluded:

- MGP-related coal tar materials that are not excavated during remedial construction would likely be limited in volume and vertical and horizontal extent.
- Groundwater monitoring in the immediate vicinity and generally down gradient of these two areas has not shown concentrations of MGP-related constituents above the applicable groundwater SCGs.
- MGP-related NAPL materials in these areas are generally of limited volume. The MGP-source removal to be performed by the remedy would reduce the volume of coal tar present in the vicinity of the unremediated areas thereby reducing NAPL mobility.

SECTION 5: CHANGES TO THE SELECTED REMEDY

5.1: Summary of the Original Remedy

The remedy selected by the June 2000 ROD included the following components:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Any uncertainties identified during the RI/FS would be resolved.
2. For the Tailrace:
 - Temporary rerouting of surface water flowing into the Tailrace using dams and flexible hose.
 - Removal of approximately 1,780 cyds. of sediments exceeding the remediation level along the entire length of the Tailrace (from the Sconondoa Street culvert to Oneida Creek) to an approximate depth of four feet. The final depth will be based upon confirmation sampling and analysis. Backfilling of excavated areas with treated material or clean imported fill.
 - Removal of approximately 2,960 cyds. of spoils exceeding the remediation levels along the entire length of the Tailrace to an approximate depth of five feet. Since the contaminated spoils were sediments dredged by mechanical equipment, the spoils are anticipated to be localized to the banks of the Tailrace. However, the final depth and horizontal limits will be based upon confirmation sampling and analysis.
 - Restoration of the Tailrace and banks to their original grade using non-contaminated fill and revegetation of the banks.

3. For the Soil/Groundwater:

- Temporary relocation of some vehicle parking and equipment storage area.
- Excavation of approximately 2,610 cyds. of soil in the former large and small gas holder areas to depths of 8 feet and 16 feet, respectively, based on values above the remediation levels.
- Excavation of approximately 3,400 cyds. of soil between the Tailrace and large gas holder and in the area of the purifier slab based on values above the remediation levels to depths of 8 to 14 feet.
- Excavation of approximately 1,140 cyds. of soil directly north of the site based on values above the remediation levels to a depth of 14 feet.
- Management of excavated material off-site which could include on-site processing prior to off-site treatment and/or disposal.
- Replacement of excavated material with noncontaminated fill to the existing grade.
- Revegetation and provide asphalt cover on Niagara Mohawk property.
- Monitor the concentration of hazardous substances in the groundwater attenuating through naturally occurring biological processes. If monitoring demonstrates that the attenuation rate is not sufficient, air sparging and/or addition of oxygen and/or addition of another electron acceptor such as sulfate will be implemented. The performance goals will include compliance with groundwater quality standards and guidance.
- Establish deed restrictions which will prohibit the installation of water supply wells in areas where the groundwater quality does not comply with standards and guidance.

5.2: Changes to the Original Remedy

Based upon the new information presented, the volume of material to be excavated for treatment would increase significantly from the previous estimate of 11,890 cyds. to a new estimated volume of 61,500 cyds.. The areas to be excavated are shown on Figure 2. Based on this increase in volume, it was proposed to modify the selected remedy. The proposed remedy would include all of the same components as the remedy presented in the June 2000 ROD, except the increased volume of excavated material would be treated on-site using a transportable LTTD treatment system, instead of transporting the material to an off-site LTTD facility.

LTTD units are designed to heat soils to temperatures (generally between 300-1,000°F) sufficient to cause MGP-related constituents to volatilize and desorb (physically separate) from the soil. The air carrying the vaporized constituents is then further treated to physically destroy the BTEX and PAH compounds until the applicable air quality standards are achieved. The off-gas, after treatment,

would then be discharged into the atmosphere. In general, the LTDD treatment process consists of the following three components: pretreatment and materials handling; treatment by the LTDD unit; and post-treatment management.

A common design for the LTDD unit would be a rotary desorber which consists of a rotating cylindrical metal drum. As the soil is heated, the MGP-related constituents are volatilized and become a part of the air stream (off-gas) which flows into the air treatment system. The treated soils would be conveyed into an auger/pugmill where water is typically added/blended for cooling and dust control before these soils are discharged from the LTDD treatment unit. At this site, the treated soil would be used as backfill for the excavation areas provided sampling results confirm that the remediation levels for the Oneida MGP site presented in Table 2 have been met. If the remediation levels have not been met, those soils would require either further on-site treatment or disposal off site in accordance with applicable rules and regulations.

A significant restoration effort over that originally contemplated would be required in the Tailrace area, due to the large increase in the area to be excavated in, below, and on either side of the existing creek bed. The restoration of the Tailrace area would have to take into account the need for the City of Oneida to maintain storm drainage through this area. The presence of the MGP impacted soils has limited improvements and maintenance of the storm water capacity in recent years. The restoration would be designed to maximize the passage of storm flows, provide for storm water retention during storm events (when the discharge to Oneida Creek is closed by the flood control flap gate), while considering the need to maintain a low flow channel suitable for wildlife habitat. In the low flow channel area where sediments would result, backfill would be with material with total PAH levels below 4 ppm. A restoration plan for the Tailrace would be developed during the design.

The LTDD unit would be located on City owned property behind the City of Oneida DPW facility. Excavated and treated materials would be transported along haul roads established within the site. Conceptual haul roads and the LTDD area are shown on Figure 4.

For the two areas of the site where NAPL impacted soils would remain, the following actions would be undertaken, as necessary, during implementation of the remedy:

- The extent of residual materials would be documented and characterized during the excavation adjacent to the areas. If this residual material is determined to encompass an area significantly larger than identified to date, or if characterization of the physical properties indicate a greater potential for migration, a recommendation will be provided to NYSDEC to further investigate subsurface materials beyond the excavation limits defined by this amended ROD.
- The use of in-situ treatment technologies would be evaluated in the event substantial quantities of NAPL are detected at the excavation limits or by the delineation outlined above. Before backfilling, NMPC would consider the use of such technologies as Oxygen Release Compound or other chemical additions to facilitate the in-situ destruction of MGP constituents. These technologies could incorporate the use of either NAPL collection or injection systems that would be installed before any excavation would be backfilled.

A site-wide long-term monitoring plan would be developed during the remedial design effort to monitor the areas of residuals that remain along the site boundaries at the conclusion of the remedial construction effort. The overall monitoring program would include a focused plan for both the Sconondoa Street and the railroad embankment areas. This plan would consist of NAPL monitoring wells installed within or in the immediate vicinity of residual materials identified during the remedial construction effort. In addition to the NAPL monitoring wells, sentinel wells would be located down gradient of these areas to detect dissolved MGP-related constituents associated with groundwater migration.

A deed restriction would be necessary for the existing NMPC property, which would limit the future use of the site to commercial/industrial uses. As discussed in Section 4, the NMPC proposal will utilize the remedial goals for the Tailrace area, from the June 2000 ROD. These goals would not require a commercial/industrial use restriction be implemented, but will allow for unrestricted land use in this area, allowing the City's proposed storm water management project to proceed without further involvement by NMPC to deal with residual soil contamination. . Also, for those areas of the NMPC property and the Tailrace where groundwater would not initially meet groundwater quality standards, groundwater use restrictions would have to be established. For both the Sconondoa Street and railroad embankment areas, additional deed restrictions would need to be implemented to restrict potential exposure scenarios associated with any residual subsurface materials. The potential exists for both municipal and private utility workers to be exposed to MGP constituents in the Sconondoa Street area and to a lesser degree in the area of the treated sewage effluent force main under the embankment. As a component of the final design effort, NMPC would meet with the City of Oneida and other utility owners to develop appropriate deed restrictions and safety protocols that would be necessary to address residual constituents that may be present at either of these two areas. Associated with this deed restriction effort would be the identification of subsurface excavation protocols that would be necessary to protect future utility worker scenarios, as well as address the handling, transport, and proper disposal of any excavated materials with MGP constituents.

5.3 Evaluation of the Changes

As required, the proposed changes to the June 2000 ROD have been evaluated against the evaluation criteria identified in 6 NYCRR Part 375.1-10 for selection of remedial actions. The proposed changes have been compared to the original remedy, with the assumption that the revised volume of 61,500 cyds. would be addressed by either remedy. The results of the evaluation are presented below:

The first two evaluation criteria are termed threshold criteria and must be satisfied in order for an alternative to be considered for selection.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.

The most significant SCGs of concern in this instance would be the contravention of the groundwater standard (6NYCCR700-705) and the NYSDEC TAGM 4046, Soil Cleanup Objectives and Cleanup Levels. Due to the expansion of the required excavation in the Tailrace area and the siting of the LTDD system, both options would also require compliance with the flood plain regulations.

In addition, due to the air emissions from the LTDD system, the substantive requirements of an air permit would have to be met for this alternative. These include performance stack testing to establish operating parameters and monitoring of the units compliance with these parameters during operation.

Both alternatives would significantly reduce contaminant levels in sediments, soils, and groundwater at the site. The soil remediation levels which define the soil and sediment excavation boundaries would be the same for both options. These levels also define the concentrations which must be met before soil treated by an on-site LTDD unit can be used as backfill for the excavation areas.

Both treatment alternatives would also be the same with respect to meeting groundwater quality standards. As stated in the original ROD, by removing the MGP-source soils and sediments, groundwater quality would be expected, in time, to meet standards after the remedy is completed. The exception would be in the area beneath Sconondoa Street and under the railroad embankment. In these areas, localized impacts may persist, however, monitoring, deed restrictions and, if necessary, in-situ treatment would be implemented should groundwater impacts result beyond the areas identified and delineated.

Both alternatives would also require work in the regulated flood plain with the proposed alternative also requiring the siting of the LTDD unit there. Mitigative measures would need to be employed in both cases. However, due to the short duration of the activity, significant impacts are not anticipated and once complete, restoration would return disturbed areas to appropriate elevations.

2. Protection of Human Health and the Environment. This criterion is an overall evaluation of the health and environmental impacts to assess whether each alternative is protective.

Both alternatives would be equally protective of human health and the environment, since both would remove the same MGP-impacted soils and sediments, implement a long-term groundwater monitoring program, and establish deed restrictions and institutional controls for the area of Sconondoa Street and the railroad embankment, where residuals would remain, and for on-site areas where groundwater quality would not comply with standards initially.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

There are a number of considerations regarding short-term effectiveness which are common to both alternatives, associated with the soil and sediment excavation activities. If not designed and monitored correctly, the excavation of soil and sediment could have a short term negative

environmental impacts. The sediment could dry and become transported as contaminated dust and any excavation cuts could erode during a storm. For both alternatives, truck and construction vehicle traffic excavating and hauling fill and contaminated material around the site would represent comparable noise, dust, and emission concerns. These impacts would be mitigated through conventional and remedial construction practices approved by the NYSDEC and the New York State Department of Health such as erosion and dust control, equipment and truck decontamination, air monitoring, approved haul routes, permitted transporters and approved work hours.

The truck traffic leaving the site on public roadways would be significantly greater for the off-site LTTD treatment option. Based on the estimated soil/sediment volume of approximately 61,500 cyds., approximately 3,000 - 3,500 trucks would be required to haul the material to an off-site treatment/disposal facility (assuming use of 20 cubic yard dump trailers). An approximately equivalent amount of trucks would be needed to haul imported clean fill back to the site for use as backfill into the excavation areas. In each case there would also be an arriving or departing trip, which would result in from 12,000-13,000 truck trips along the streets between the site and Thruway.

Under the on-site LTTD option there would be less truck traffic on public roadways, because the excavated soil would be treated at the site and backfilled upon confirmation that soil remediation levels have been met. The treated soil volume would, however, be less than the untreated volume due to loss of moisture and organics (e.g., peat). Therefore, imported backfill material would need to be hauled to the site. Assuming a 25% reduction in the soil volume, up to 15,000 cyds. of imported backfill may be hauled to the site (approximately 800 trucks) under the on-site LTTD treatment option. Additionally, some debris or oversized material that could not be treated using the on-site LTTD treatment unit may need to be hauled off site to a facility permitted to accept the waste material. While there would be some increase in truck traffic for the on-site alternative, there would be from 10,000 - 12,000 fewer trips anticipated for this remedy than for the off-site treatment alternative.

For both the on-site and off-site treatment options, a traffic control plan would need to be developed and implemented. Throughout the length and duration of the remedial construction activities, traffic would be maintained in accordance with an approved traffic control plan, which would include contingency plans to address spills, accidents or other situations which may arise due to the increased truck traffic.

Another short-term impact related to the high volume of heavily loaded truck traffic associated with the off-site alternative would be the potential for damage to roadway pavement and other infrastructure in the streets identified as haul routes. This would be addressed by pavement inspections and would include provision for repairs, as necessary.

The noise associated with construction activities would be another short-term impact which would have to be addressed for both options. In addition to the excavation activities common to both, the off-site alternative would result in significantly increased truck traffic and the resulting noise along the haul routes established through the community.

For the on-site LTTD treatment option, there would be some additional noise associated with the operation of construction equipment and the LTTD unit near the site, as the unit typically operates 24 hours/day. The noise impacts would be mitigated using standard remediation and construction practices potentially including: limiting stockpile generation and soil pretreatment activities to certain work hours, using noise-muffling devices and/or using strobe lights (during night-time hours) instead of beepers on heavy construction equipment (e.g., loaders).

Noise levels during either alternative would be kept within safe and tolerable limits set forth by Occupational Safety and Health Administration (OSHA) as well as any applicable local ordinances.

There would be air emissions associated with both alternatives. For the off-site LTTD alternative, the air emissions would be those associated with operation of construction equipment, most significantly the 12,000-13,000 truck trips necessary to haul material to and from the site. For the on-site LTTD option, as mentioned above, there would be significantly less truck traffic and therefore less exhaust from construction equipment. There would be some air emissions associated with the on-site LTTD treatment unit, however, the LTTD would be equipped with state of the art air emission control equipment which would assure compliance with all applicable air quality standards. During operation of the treatment unit, off-gases would be monitored and the LTTD unit operated and inspected in accordance with applicable rules and regulations, including the substantive requirements of an air permit. The emission from the LTTD will be heated air, typically in the neighborhood of 300⁰ F, which in cooler weather will result in a plume of steam and water vapor. In general, air emissions associated with the truck traffic for the off-site alternative would include far more constituents and impact a larger area than the discharge of steam and water vapor typically associated with the on-site LTTD.

Another short-term consideration for the on-site LTTD treatment option and, to a lesser degree for the off-site option, is the proximity of Sconondoa Park. This park is adjacent to and east of the City of Oneida DPW property where the LTTD unit is proposed to be sited and the areas of excavation in the eastern end of the Tailrace. Both alternatives would require excavation in the Tailrace adjacent to the park and movement of material in the area. The on-site alternative would also include the loss of parking at the DPW property and the proximity of an “attractive nuisance” to some of the users of the park afforded by the on-site LTTD located at the DPW yard and excavation in the Tailrace. While the on-site alternative would result in the loss of parking for the park at the DPW property, alternative parking arrangements would be made as part of the project design. Regarding the “attractive nuisance”, the project site would be fenced and appropriate security would be required to prevent trespassing. The off-site alternative would have potentially greater impacts on the access to and safety of the users of the park since the heavy truck traffic anticipated for the off-site alternative would coincide with the times of heaviest usage of the park in the Spring, Summer and early Fall, since the haul route and entrance to the public roadways will both be in close proximity to the park entrance. Traffic controls and/or flag men would be necessary to assure the safety and reasonable access to the park by children and other users of the park.

The length of time required to complete either option is estimated to be approximately two years, and would be controlled by a number of factors, including, but not necessarily limited to the following:

- the throughput (the volume treated in a given time) for the on-site LTTD unit;
- capacity of the off-site LTTD treatment unit;
- availability of a large number of dump trucks for hauling material off-site; and
- receipt of permits and/or approvals necessary for implementation.

Throughput of the unit would be addressed by requiring a minimum treatment volume per day for any unit considered for the project. The availability of trucks and capacity issues would be of greater concern since both would be subject to the demands of the marketplace at the time the remedy is implemented. Both could have a significant impact on the time needed to complete the project and the duration of any short-term impacts to the community. Scheduling and availability of sufficient capacity at off-site treatment units is a major concern, since the longer the project takes, the longer the short term impacts would be felt by the community. The current estimate assumes maximum potential capacity solely reserved for the Oneida site and even then it would still take 3 to 6 months of continuous operation to treat 61,500 cyds. required. More reasonably, if the site were only provided 25% of the potential throughput, it would take 12 to 24 months; or if only 10%, it would take 30 to 60 months (2.5 to 5 years). An on-site unit would be dedicated to the site and designed to meet the time frame identified.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks; 2) the adequacy of the controls intended to limit the risk; and 3) the reliability of these controls.

Both options would be equivalent with respect to long-term effectiveness and permanence, in that both would be equally effective after implementation of the remedy and protective of human health and the environment.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume (TMV) of the wastes at the site.

Both the on-site and off-site LTTD treatment options are equivalent with respect to this criterion.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc.

Both the on-site and off-site LTTD treatment options are implementable, however, both may be subject to some difficulties in this respect. While the construction equipment necessary to implement both alternatives is routinely available, the large number of trucks required for the off-site

alternative may not be available to complete the project in the time frames indicated, leading to delays in the completion. Likewise for this alternative, the availability of sufficient treatment capacity at the commercial treatment units would have an impact on the project schedule. Currently there is only one facility permitted to treat this material in New York State and only a few others within a days travel time of the site. Therefore, the reliance of the off-site alternative on a limited available treatment capacity and sufficient trucking to get the material to and from the site makes the off-site alternative less technically and administratively implementable given the large volume of material to be handled at this site.

7. Cost. Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision. The cost estimate for off-site treatment presented below is based on a unit price assuming the availability of sufficient treatment capacity. The actual cost will be based on treatment system capacity available at the time the remedial contract is bid. Based on market conditions at that time, the total cost of off-site treatment could change.

Estimate of the June 2000 ROD remedy utilizing the original volume: \$2.4 million.

Estimate of the June 2000 ROD remedy utilizing the revised volume: \$24.1 million.

Estimate of the proposed amended remedy (on-site treatment): \$24.9 million.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Amended Record of Decision have been received.

8. Community Acceptance - Concerns of the community regarding the Amended Proposed Remedial Action Plan have been evaluated. The "Responsiveness Summary" included as Appendix A presents the public comments received and the Department's response to the concerns raised. The concerns raised by the public appeared to support the on-site alternative over the off-site alternative; however, a vocal minority of the more than fifty persons in attendance advocated taking no action at the site. Since this was a proposed amendment to an existing ROD, it was explained at the public meeting that the issue before them for comment was whether to consider a change from the selected remedy to the newly proposed one, not whether remediation was necessary at all.

The public was also understandably concerned with historic flooding problems associated with storm water flow from a large portion of the downtown area of the City through the Tailrace into Oneida Creek. There was requests to having the remedy support a flood control project for the City of Oneida that was developed by the US Army Corp of Engineers back in 1984 and never implemented. A comment was received which supported the off-site remedy and argued that the local fill material necessary for backfill of the excavation could come from areas near the site to allow construction of the storm water retention basin and to remove a railroad bed that restricts the flow of Oneida Creek. It was explained at the public meeting that the remedy does support the flood control project by removing contaminated sediment and subsurface soil from the area of the

proposed flood control basin. However, NMPC can not be required under the consent order to fund or construct a major flood control project for the City of Oneida.

While the remedy could not offer elimination of the flooding problem, it was noted that the restoration of the Tailrace area would be designed to maximize the passage of storm flows, provide for in-channel retention during storm events when the discharge to Oneida Creek is closed. Also, by addressing the coal tar contamination associated with the site, a significant impediment to any future actions to address the problem will have been eliminated.

SECTION 6: SUMMARY OF THE AMENDED REMEDY

Based upon the evaluation presented in Section 5, the NYSDEC will amend the remedy for this site to call for the excavation of the revised volume of MGP-impacted soils and sediments, treatment utilizing an on-site LTTD system, and backfilling of excavated areas with treated material which meet the remediation levels in Table 2. The amended remedy will treat approximately six times the volume of contaminated soil and sediments as the June 2000 ROD remedy.

With regard to off-site versus on-site treatment, both remedies would provide comparable protection of human health and the environment and compliance with SCGs, however, the amended remedy is preferred when the evaluation of the balancing criteria is considered. While both remedies would achieve similar levels of long-term permanence and reduction of toxicity, mobility, and volume, the preferred remedy (on-site treatment) will present less short-term impact and will have a greater ease of implementation than off-site treatment, despite being slightly more costly. The short-term impacts attributable to on-site treatment will be largely contained to the site and will be managed and monitored in accordance with standard industrial practices or applicable state or federal rules, regulations and guidance. The greatest short-term impact from either alternative would be the result of truck traffic through the community. The off-site treatment alternative would have a significantly greater impact due to the almost ten times greater volume of truck traffic and the associated noise, air emissions, and general safety concerns associated with the large number of truck trips which would result from the need to transport over 120,000 yards of material, half of which would be contaminated. This is compared to 15,000 cyds. of mostly clean fill material which will need to be transported for the on-site treatment alternative.

In addition to the short term impacts due to truck traffic, the high volume of material to be transported and treated off-site also makes on-site treatment more implementable. The large number of trucks necessary and their availability could result in delays in removing the contaminated material from the site, extending completion of the project, and the short-term impacts to the community. Also, with regard to implementability, the availability of sufficient treatment capacity for the large volume of material in question could also result in substantial delays to the projects completion, since commercially operated LTTD treatment facilities permitted to treat MGP derived waste are currently limited in New York State and surrounding States. While it is expected this capacity would increase as the market recognizes the need for more treatment capacity, currently the lead time needed for new LTTD facility permitting and construction, with increasing demand make

the availability of sufficient capacity a concern in the ability to begin and implement this project within the proposed schedule.

While, based on preliminary estimates, the proposed on-site treatment may be slightly more costly, the limited off-site treatment capacity is likely to result in higher than estimated costs for off-site treatment. The relatively high availability of on-site treatment units and competition results in a higher degree of confidence in the on-site treatment cost estimate.

The cost of the proposed amended remedy will be \$ 24,100,000, with a present worth monitoring cost of \$850,000 for a total cost of \$24,850,000.

The components of the amended remedy are as follows:

1. Contaminated soils and sediments exceeding the levels in Table 2 will be excavated from the areas and to the depths indicated on Figure 2, to the extent feasible. The excavated material will be treated on-site using a LTTD treatment system which will only be utilized to treat material from this site. The LTTD unit will be located in the yard behind the City of Oneida DPW facility and materials to be treated and backfill will be transported along haul roads established within the site. Conceptual haul roads and the LTTD area are shown on Figure 4.
2. The treated soil will be used as backfill for the excavation areas once sampling results confirm that the remediation levels in Table 2 have been achieved by the LTTD. If the remediation levels have not been met, those soils will require further on-site treatment or disposal off-site in accordance with applicable rules and regulations.
3. The Tailrace areas will be restored upon the completion of remediation. A restoration plan will be developed during the remedial design which will balance the Tailrace areas current status as a major component of the City on Oneida storm water conveyance system with the need to maintain the Tailrace as a wildlife habitat. In any area of the restoration where soil could be classified as sediment, the material placed to restore these area will have total PAH levels below 4 ppm.
4. For the two areas of the site where NAPL impacted soils will remain (see Figure 3), the following actions will be undertaken, as necessary, during implementation of the remedy:
 - a) The extent of residual materials will be documented and characterized during the excavation adjacent to the areas. If this residual material is determined to encompass an area significantly larger than identified in previous investigations, or if characterization of the physical properties indicate a greater potential for migration, an investigation will be undertaken as part of the construction to delineate these areas beyond the excavation limits identified by this document.
 - b) The use of in-situ treatment technologies would be evaluated in the event substantial quantities of NAPL are detected at the excavation limits or by the delineation outlined above.

Before backfilling, NMPC would consider the use of such technologies as Oxygen Release Compound or other chemical additions to facilitate the in-situ destruction of MGP constituents. These technologies could incorporate the use of either NAPL collection or injection systems that could be installed before excavation backfilling.

5. A site-wide long-term monitoring plan will be developed during the remedial design effort to monitor the areas of residuals that remain along the site boundaries at the conclusion of the remedial construction effort. Incorporated into the overall monitoring program will be a focused plan for both the Sconondoa Street and the railroad embankment areas. This plan will consist of NAPL monitoring wells installed within or in the immediate vicinity of residual materials identified during the remedial design/construction effort. In addition to the NAPL monitoring wells, sentinel wells will be located downgradient of these areas to detect dissolved MGP-related constituents associated with groundwater migration.
6. The groundwater monitor program will also review the concentration of contaminants in the groundwater attenuating through naturally occurring biological processes. If monitoring demonstrates that the attenuation rate is not sufficient, additional remedial technologies such as air sparging, addition of oxygen release compounds and/or the consideration of chemical oxidation will be evaluated as part of the long-term monitoring of the site. The performance goals will include compliance with groundwater quality standards and guidance.
7. Deed restrictions will be necessary for the NMPC property, which will prohibit this property from ever being used for purposes other than for appropriate industrial or commercial enterprises, without the express written waiver of such prohibition by the NYSDEC and NYSDOH. Appropriate industrial or commercial uses of the property would have to be consistent with any applicable zoning ordinances, but would not include enterprises that draw susceptible portions of the community to the property for activities that may lead to exposures to residual site contamination (e.g., day care, child care, medical treatment facilities, some recreational enterprises). Provided the remedy achieves the remedial goals, as discussed in Section 4, there will be no land use restrictions for the private and City of Oneida properties in the Tailrace area. However, for those areas of the NMPC property, as well as any properties in the Tailrace area, where groundwater will not initially meet groundwater quality standards, groundwater use restrictions will have to be established.
8. For both the Sconondoa Street and railroad embankment areas, additional deed restrictions will be implemented to restrict potential exposure scenarios associated with any residual subsurface materials. The potential exists for both municipal and private utility workers to be exposed in the Sconondoa Street area and to a lesser extent in the area of the force main under the embankment. Associated with this deed restriction effort will be the identification of subsurface excavation protocols that would be necessary to protect future utility worker scenarios, as well as address the handling, transport, and proper disposal of any excavated materials with MGP constituents.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of citizen participation activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- # A repository for documents pertaining to the site was established.
- # A site mailing list was established which included nearby property owners, local political officials, local media and other interested parties.
- # In December 1992, the NYSDEC issued a press release announcing the investigation and remediation, if necessary, of certain former MGP sites including the Oneida MGP Site.
- # In July 1993, Niagara Mohawk issued a fact sheet discussing the proposed preliminary site assessment work for the site.
- # On May 22, 1995, Niagara Mohawk held a public information meeting announcing the findings of the preliminary site assessment and the proposed RI.
- # In May 1997, Niagara Mohawk issued a fact sheet on the site discussing the RI findings.
- # On June 4, 1997, Niagara Mohawk held a public meeting discussing the RI findings.
- # In October 1999, the NYSDEC issued a fact sheet announcing the proposed remedy for the site.
- # On November 15, 1999, the NYSDEC held a public meeting to solicit comments on the proposed remedy.
- # In June 2000 the Record of Decision (ROD) was issued, which included the Responsiveness Summary which addressed the comments received from the public during the public comment period for the PRAP.
- # In August 2001, the NYSDEC issued a fact sheet announcing the availability of a proposed amended ROD for the site and announcing a public meeting to present the proposed amended remedy and gather public comment.
- # On September 6, 2001, the NYSDEC held a public meeting to solicit comment on the proposed amended ROD.
- # As part of this amended ROD a Responsiveness Summary was prepared which addresses the comments received from the public during the public comment period for the proposed amended ROD.

TABLE 1**NATURE AND EXTENT OF CONTAMINATION IN SOIL**

Niagara Mohawk Oneida - Sconondoa Street Former MGP Site

MEDIA	CONTAMINANT OF CONCERN	CONCENTRATION RANGE	FREQUENCY of EXCEEDING SCG/Bkgd	SCG/ Bkgd
SOIL	Benzene	.001 - 7.7	8 of 29	0.28
NMPC Property	Ethylbenzene	.003 - 37	2 of 29	25
All Depths	Toluene	.002 - 10	2 of 29	6.9
	Total Xylenes	.003 - 56	4 of 29	5.5
	Total PAHs ¹	61 - 5768	5 of 29	500
SOIL	Benzene	ND (14) - ND (17)	0 of 8	0.28
Tailrace Area	Ethylbenzene	ND (14) - ND (17)	0 of 8	25
Surface (0-2 ft.)	Toluene	ND (14) - ND (17)	0 of 8	6.9
	Total Xylenes	ND (14) - ND (17)	0 of 8	5.5
	Total PAHs ¹	1.285 - 108	6 of 9	7.7 ³
SOIL	Benzene	.002 - .7	1 of 58	0.28
Tailrace Area	Ethylbenzene	.001 - 14	0 of 58	25
Subsurface (>2ft.)	Toluene	.002 - 1.7	0 of 58	6.9
	Total Xylenes	.001 - 19	2 of 58	5.5
	Total cPAHs ²	.042 - 10,010	24 of 59	10

All concentrations are in parts per million (milligrams per kilogram)

SCGs are from TAGM 4046 recommended soil cleanup objectives adjusted for total organic carbon (4.6%) unless noted otherwise.

Note 1 = Total PAHs is the summation of the concentrations of the 17 individual PAHs listed in Section 3.3.

Note 2 = Total cPAHs is the summation of the concentrations of the 7 individual carcinogenic PAHs (italicized) listed in Section 3.3.

Note 3 = Background level established during remedial design

TABLE 2

REMEDIATION LEVELS FOR SOIL AND SEDIMENTS
Niagara Mohawk Oneida - Sconondoa Street Former MGP Site

CONTAMINANT	NMPC PROPERTY ALL DEPTHS	TAILRACE AREA 0-2 feet bgs	TAILRACE AREA >2 feet bgs
Benzene	0.28	0.28	0.28
Ethylbenzene	25	25	25
Toluene	6.9	6.9	6.9
Total Xylenes	5.5	5.5	5.5
Total PAHs ¹	500	7.7 ³	NA
Total cPAHs ²	NA	NA	10

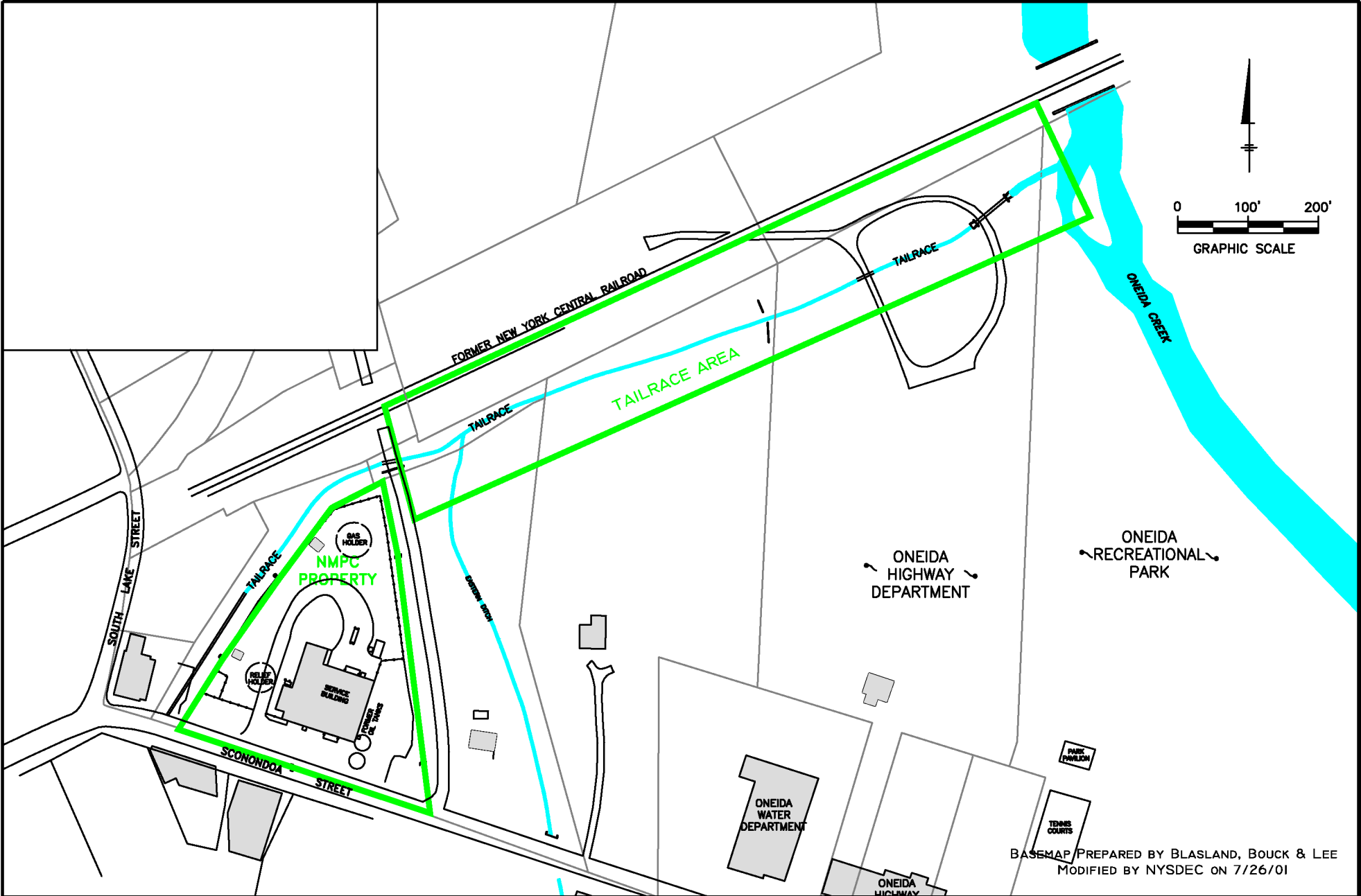
All concentrations are in parts per million (milligrams per kilogram)

Note 1 = Total PAHs is the summation of the concentrations of the 17 individual PAHs listed in Section 3.3.

Note 2 = Total cPAHs is the summation of the concentrations of the 7 individual carcinogenic PAHs (italicized) listed in Section 3.3.

Note 3 = Background level determined during remedial design

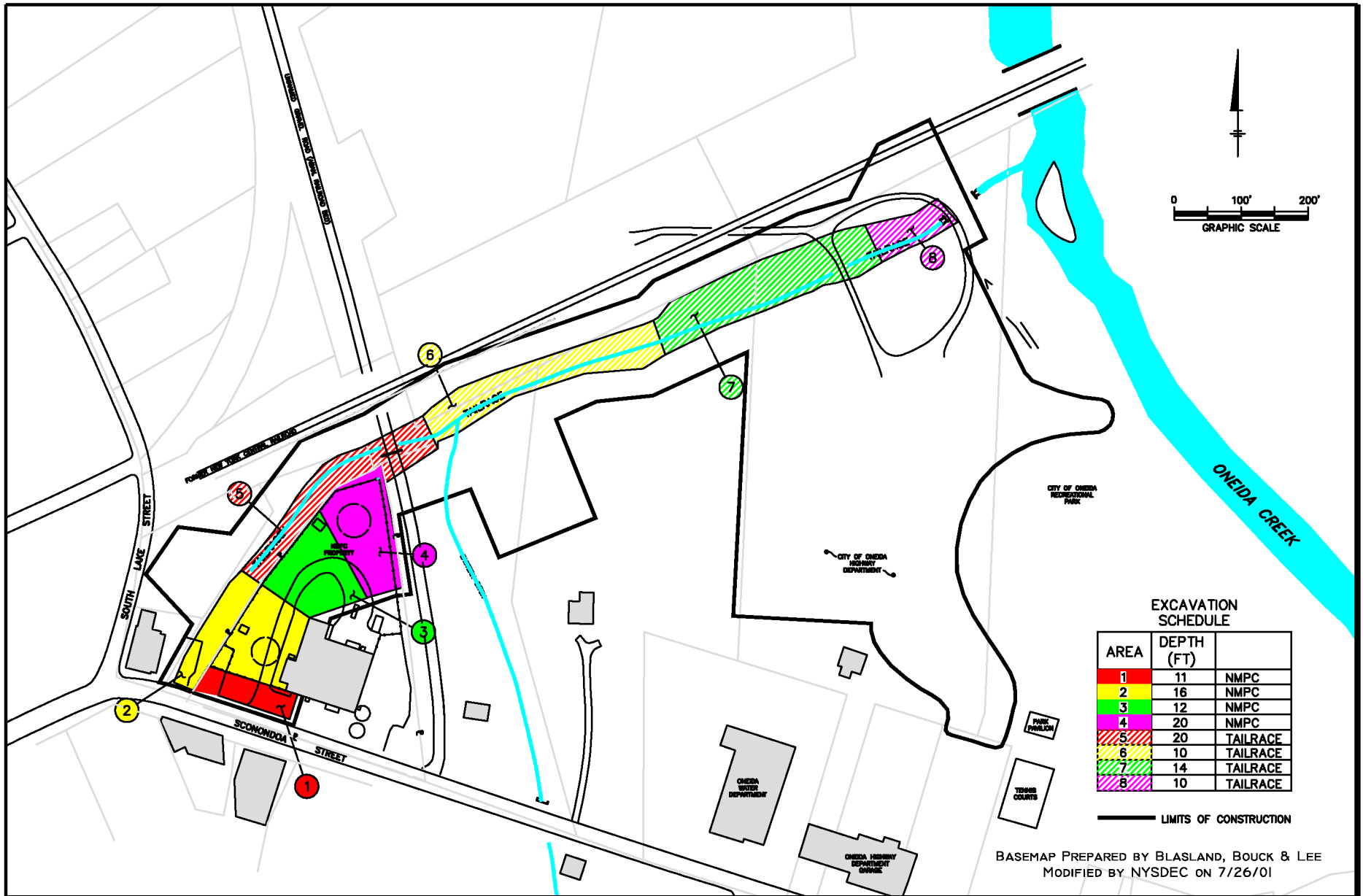
NA = Not Applicable



ONEIDA (SCONONDOA STREET) FORMER MGP SITE
ONEIDA, MADISON COUNTY, NEW YORK

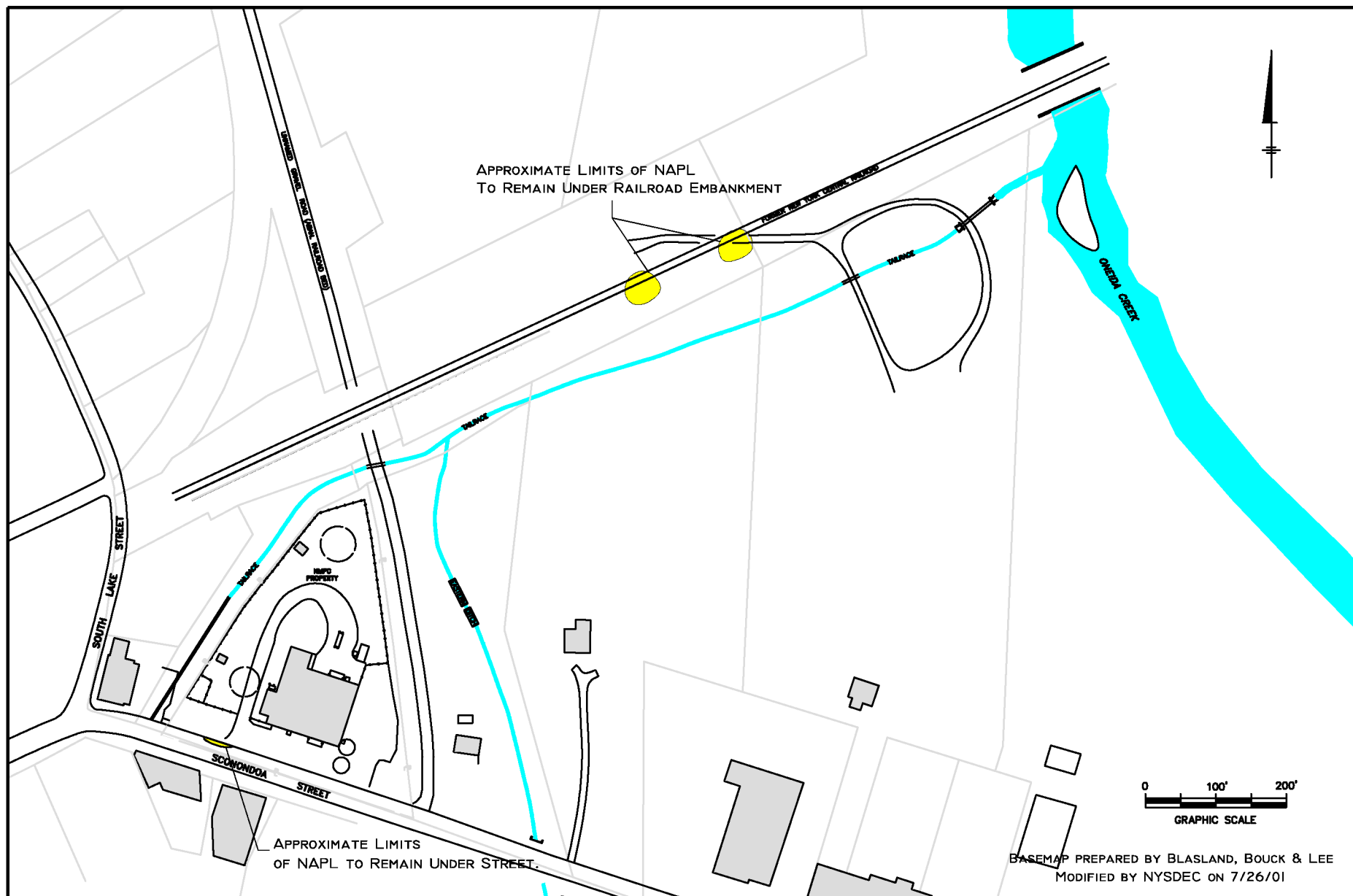
SITE MAP

FIGURE I



ONEIDA (SCONONDOA STREET) FORMER MGP SITE
 ONIEDA, MADISON COUNTY, NEW YORK
 ESTIMATED LIMITS OF EXCAVATION

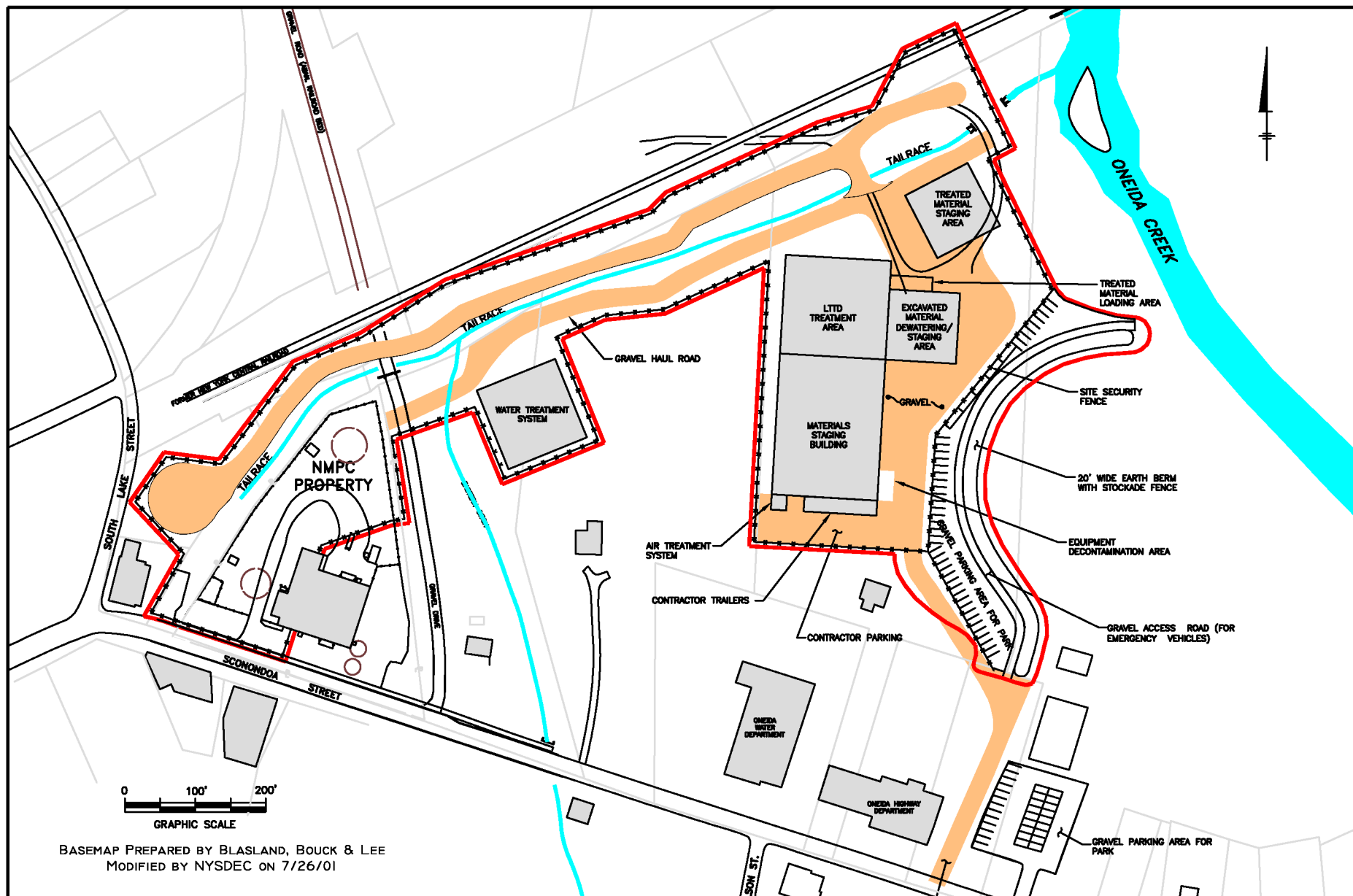
FIGURE 2



ONEIDA (SCONONDOA STREET) FORMER MGP SITE
ONEIDA, MADISON COUNTY, NEW YORK

APPROXIMATE EXTENT OF NAPL TO REMAIN

FIGURE 3



ONEIDA (SCONONDOA STREET) FORMER MGP SITE
 ONEIDA, MADISON COUNTY, NEW YORK

PROPOSED LOCATION OF TREATMENT FACILITY

FIGURE 4

APPENDIX A

Responsiveness Summary

NIAGARA MOHAWK ONEIDA - SCONONDOA STREET FORMER MANUFACTURED GAS PLANT SITE

Oneida (C), Madison County
Site No. 7-27-008

The proposed amended Record of Decision (ROD) for the Oneida MGP site was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository in August 2001. In addition, Niagara Mohawk Power Corporation released a document entitled, "Proposal to Revise the Selected Site Remedy Report," dated August 2001 that is also available to the public at the repository. This proposed change to the remedy is due to the increase in the amount of soil/sediments which require remediation. The amendment proposes to treat the material with an on-site treatment by low temperature thermal desorption instead of shipping the material off-site. The release of the proposed amended ROD was made via a notice to the mailing list, which informed the public of the amended ROD's availability and the date of the public meeting.

A public meeting was held on September 6, 2001, which included a presentation of the proposed amended remedy and the reasons for amending the ROD. The public meeting provided the citizens an opportunity to discuss their concerns, ask questions, and comment on the amended ROD. These comments have become part of the Administrative Record for this site. Written comments were received from the Oneida County Health Department and Mr. Paul Van der Hoff. The public comment period for the proposed amended ROD ended on September 19, 2001. This Responsiveness Summary responds to all questions and comments raised at the September 6, 2001 public meeting and to the written comments received.

The following are the comments received at the public meeting with the NYSDEC responses:

COMMENT 1: Why was this (the remedy) not done before?

RESPONSE 1: It was not until the late 1980s that utilities in New York State, such as Niagara Mohawk Power Corporation (NMPC), became aware of the nature and concerns associated with the former manufactured gas plant (MGP) sites for which they were responsible. In December of 1992, NMPC entered into a consent order (a legal agreement) that requires them to investigate

and, if necessary, remediate 21 MGP sites which they own in their service area. Recently, the number of former MGP sites which NMPC is responsible for has increased to 50. Due to the nature and complexities of MGP sites, it takes several years from investigation to remedy selection to remediation of these sites. Further, due to the number of MGP sites that NMPC is responsible for, scheduling and budgeting requires that the site investigation be prioritized.

The preliminary investigation at the Oneida MGP site started in February 1993 and was completed in June of 1997. After which, a feasibility study was conducted to determine the appropriate remedy to mitigate site impacts. The feasibility study was completed in August 1998. Based on the finding of the feasibility study, the NYSDEC issued a Record of Decision in June 2000. The Record of Decision detailed the need to excavate and remove MGP contaminated soil and sediments.

In July - October 2000, NMPC conducted a pre-design investigation to fill in data gaps noted in the previous investigations. The investigation indicated that contamination was more widespread than anticipated, especially with depth. The most recent estimates indicate that over 61,500 cy of soil/sediment will have to be removed compared to the original estimate of about 20,000 cy. Based on the findings of significantly more contamination than previously anticipated, NMPC approached the Department to change the treatment portion of the remedy from off-site to on-site low temperature thermal desorption (LTTD).

COMMENT 2: Of the MGP sites which NMPC is responsible to remediate, is Oneida the first to use LTTD? Where is closest LTTD unit? You stated that NMPC has conducted LTTD at Harbor Point. How long did it take to clean up Harbor Point with the LTTD system?

RESPONSE 2: In 1995, NMPC conducted a pilot test of LTTD at the Utica Harbor Point MGP. The pilot test indicated that LTTD was an appropriate technology to treat MGP contaminated material. Based in part on the findings of the pilot test, as well as site-specific information from the Oneida site, LTTD is the preferred treatment method for MGP contaminated soil and sediment. After completion of the pilot test at the Harbor Point MGP site, the LTTD unit was dismantled. It is anticipated that Harbor Point will also utilize LTTD as the remedy for MGP contaminated site soils and sediments when a remedy is selected. The Oneida MGP remediation will be the first full-scale remediation of an MGP site that utilizes an on-site LTTD. NMPC and other utilities have conducted several interim remedial measures where MGP waste have been sent off site to a commercial LTTD unit.

The closest commercial LTTD unit in New York is located in Ft. Edward, New York (north of Glens Falls) about 140 miles from Oneida. The Fort Edward facility would likely have been the facility used if the materials were sent off site for treatment.

COMMENT 3: Can you assure that the LTTD will not pollute the air? Will there be any health effects from breathing LTTD emissions for the 2-year duration of the project? Can you give me 100% assurance that we won't be affected by any of the chemicals?

RESPONSE 3: The LTTD unit will be equipped with an air treatment system that must meet the emission treatment goals established for the site. Typically, an LTTD air emission treatment system will consist of a particulate removal system and a system to treat organic vapors. The final performance requirements of the air treatment system will be determined in the remedial design using the appropriate state and federal standards, criteria, and guidance. The major components of the stack emissions from an LTTD unit treating MGP waste are water vapor (which results in the visible emission plume) and carbon dioxide.

The emission control system will be monitored continuously during operation of the unit using real time instrumentation. The monitoring will also include periodic stack emissions sampling that will be sent to a certified laboratory to assure that the system is operating properly and the air discharge is within the established limits. The NYSDEC and the New York State Department of Health (NYSDOH) have overseen the operations of several LTTD units in New York and reviewed the data generated during the monitoring of these units.

During the remedial design, a community air monitoring program will be developed which is designed to monitor and protect the community from vapor releases. Ambient air monitoring will tell us if and what the local community is exposed to. Air monitoring, LTTD stack gas treatment, and controls of emissions from the excavation will reduce, to the extent practical, air impacts to the community. Our experience has been that there has been no elevated off-site levels of air contaminants as a result of the operation of an LTTD unit.

COMMENT 4: How will emission to the air at the point of excavation be managed?

RESPONSE 4: There are several engineering controls that can be utilized to reduce air emissions from the excavation. These include reducing the size of the open excavation, covering the excavation with plastic when the face is not actively being worked, and using commercially available water-based sprays to reduce the vapors and odors. These techniques have all been used successfully at several MGP sites in the last few years and have proved effective at minimizing vapors and odors.

In addition, NMPC will be required to prepare an air monitoring plan and a vapor emission control plan that outline procedures for monitoring air emissions and what steps will be taken if vapors are above established limits. Air sampling will include use of hand-held instrumentation that provides “real time” monitoring of air emissions at the work zone and at the site perimeter. In addition, air samples will be collected periodically at established air monitoring stations and sent to a laboratory for analysis. This “documentation” sampling provides a record of any air emissions. .

COMMENT 5: Did you factor in emissions from additional truck traffic from hauling the material off site?

RESPONSE 5: A quantitative evaluation of the air emissions from the number of truck trips from each alternative was not conducted. However, a qualitative evaluation was used to support the use of an on-site LTTD unit. By reducing the number of truck trips to and from the site, the

air emissions from truck traffic will be greatly reduced. It is estimated that the on-site treatment option would reduce total truck trips by 12,000 to 14,000. The air quality impacts from this number of additional truck trips are estimated to be significantly greater than any emissions from an on-site LTTD unit.

COMMENT 6: How many trucks are anticipated per day? You stated that there will be truck traffic regardless, how will this be managed? Has anyone evaluated the truck routes?

RESPONSE 6: The amended remedy will greatly reduce the amount of truck traffic along City streets. It is estimated that 12,000 to 14,000 truck trips would have been necessary if the on-site treatment remedy was not selected. There will however, be some increase in local truck traffic resulting from implementation of the amended remedy. This would include trucks required for site mobilization, transportation of support supplies, imported fill material, and occasional off-site disposal of material that cannot be treated by the LTTD unit. The report of the revised remedy did evaluate potential traffic corridors that could be used by the remedial contractor. The presently proposed route is to travel down Wilson Street to NYS Route 365A, then to Route 365, and finally to the NYS Thruway. However, the final determination of the truck routes will be part of a traffic management plan which will be developed during the design phase of the project. This plan may select a preferred route for truck traffic based on the needs of the community and the design of the roads, or may just prohibit the use of certain travel routes based on these same factors. The City of Oneida will be involved in the review of the plan and be able to make recommendations.

COMMENT 7: Will the remediation impact the quality of life? What can we expect regarding dust, noise, air emissions?

RESPONSE 7: There will be some short-term impacts to the local community from the remediation. There will be typical noise from the construction equipment and the low hum of the LTTD unit. The noise from the construction equipment can be limited by restricting excavation activities, which would be the same regardless of the alternative, to daylight hours during which time enough material can be stockpiled within the enclosed soil staging area to feed the LTTD.

The LTTD typically will run 24 hours per day, seven days a week. There would be an occasional period when the system would be down for maintenance. The air management system would treat the LTTD off-gas whenever the LTTD unit is treating soil. It is anticipated that the remedial design will require the LTTD unit to result in a decibel reading of about 55 dBA at the site perimeter. This should only be heard as a low hum beyond the site perimeter.

Dust is a concern at any construction site and will be here as well. The selected contractor will have to submit a plan to control dust emissions which include measures to reduce dust impacts to acceptable ranges. Air monitoring for dust will be required using hand-held instrumentation. Air emissions were discussed in RESPONSES 4 and 5 above. Traffic around the site may also have some limited impacts during the day and this is discussed in RESPONSE 6.

Odors can be an issue at former MGP sites. Coal tar and coal tar contaminated soil has a distinctive odor (similar to driveway sealer but with a mothball type twist). When coal tar is excavated and moved around the site, odors can be released. Coal tar has a very low 'odor threshold', that is, it can be detected by a person's nose at very low levels. Further, it has been our experience that a person can smell coal tar but at levels that are not detected by handheld instrumentation or by laboratory analysis. As such, a person may smell coal tar odors, without being exposed to levels of extensive air contamination that could be a health concern. As noted above, excavation techniques, emissions treatment, and air monitoring are all designed to reduce potential air impacts and associated odors.

COMMENT 8: Will NMPC pay for this or will the cost be passed onto consumers? If the project goes over the \$ 24 million estimate, who absorbs additional costs?

RESPONSE 8: NMPC is under a consent order with the NYSDEC to remediate the Oneida Former MGP site and will be responsible for implementing the amended remedy even if the cost of the project goes beyond the \$24 million estimate. The Department does not require NMPC provide details of how they are funding the project. However, it is our understanding that the NMPC MGP remedial program is funded by some combination of rate payer, stockholder, and insurance settlements contributions.

COMMENT 9: What about hauling the contamination by rail?

RESPONSE 9: During the feasibility study, the possibility of hauling contamination by rail was evaluated. There are no active rail spurs close enough to the site to make rail hauling feasible or cost effective.

COMMENT 10: Why not consider transporting the soil to the Utica Harbor Point site?

RESPONSE 10: While NMPC is looking to utilize an LTTD unit at the Harbor Point site to treat contaminated soil from that site and possibly other NMPC MGP sites, at this time, the Harbor Point remedy has not been formally adopted by the NYSDEC. Assuming it is approved, it would still take several years to complete the design, construct the unit, and begin to receive soil from other MGP sites. Based on the schedule for Harbor Point, it would be several years before construction could start there as opposed to a Spring of 2002 start for the selected remedy at Oneida.

Even if available in 2002, the use of an NMPC controlled LTTD unit at the Harbor Point site would address only one of the concerns with off-site LTTD discussed by the amended ROD, specifically the implementability due to the limited commercially available treatment capacity. It would not, however, address the greater concern associated with the significant short term impacts to the community of the 12,000 - 13,000 truck trips necessary to move the material off site to Harbor Point.

COMMENT 11: What will happen after the remedy is done?

RESPONSE 11: The remedial design will include a site restoration plan that will detail how the site will be restored. At present, it is anticipated that the former MGP site will be restored to a gravel lot appropriate for use by the existing NMPC service center. The ROD calls for the Tar Creek area, or as it is identified by the ROD the “Tailrace,” to be restored in a manner which balances the areas current status as a major component of the City on Oneida storm water conveyance system, with the need to maintain the Tailrace’s status as a wildlife habitat. Considerations for the storm water management in the Tailrace area would be to maximize the passage of storm flows, provide for in-channel retention during storm events (when the discharge to Oneida Creek is closed), and maintain a low flow channel.

In addition to site restoration, a long-term monitoring program will be developed and implemented that will evaluate the effectiveness of the remedy. This plan will include sampling of groundwater and surface water, as well as site inspections to monitor the remedy implementation.

COMMENT 12: What will prevent NMPC from bringing material from other MGP sites to be treated at the Oneida MGP site?

RESPONSE 12: Section 8 of this amended ROD has been modified to include a provision that specifically precludes NMPC from bringing MGP wastes from other MGP sites to the Oneida site for treatment.

COMMENT 13: What will happen with Sconondoa Park?

RESPONSE 13: It is planned that the park will remain open for all current recreational activities. There will be some reduced parking at the Park, however, NMPC is looking to provide alternate parking in the area. It is not anticipated that the remedy will impact park operations or activities. As noted above in RESPONSES 4, 5, and 7, there will be provision to control and monitor site emissions of vapors and dust. In addition, installation of a berm and fencing between the construction area and the park is also included in the NMPC preliminary site plan.

COMMENT 14: Who is responsible for everything; NMPC or NYSDEC?

RESPONSE 14: NMPC has signed a consent order with the NYSDEC to conduct a remedial program at the Oneida MGP site. The order requires that NMPC select consultants and contractors acceptable to the Department. The remedial design will be developed by a professional engineering firm licensed to practice engineering in the State of New York. The NYSDEC will review and approve NMPC’s design submittals and subsequent contractor submittals to assure that the work is conducted in accordance with the amended ROD and all applicable NYS and Federal rules, regulations and standards. During construction, the Department will have a field inspector on-site who will assure that the construction and all required monitoring are being conducted in accordance with the approved remedial design.

COMMENT 15: Will deed restrictions be placed on the City-owned property?

RESPONSE 15: As detailed in Section 8 of the ROD, there will be no land use restrictions on the City-owned land in the Tailrace area, however, groundwater use restrictions will exist in some areas of the City property in the Tailrace area where groundwater quality standards will not be met initially. Two small areas of City property, one under Sconondoa Street and another located on the railroad embankment will be further restricted since residual contamination will remain which will need to be monitored. In neither of these cases will the current use of the areas be impacted.

COMMENT 16: Is there contamination on the other side of the railroad bed?

RESPONSE 16: The investigations to date have not identified contamination to the north (other side) of the railroad embankment. The pre-design investigation did, however, identify a limited area of coal tar impacted soil in an area under the former railroad embankment, as shown on Figure 3 of the ROD. As discussed in the ROD, the material exists as “a relatively limited thickness and volume of non-aqueous phase liquid (NAPL), identified under the embankment. Up to 35 feet of unaffected overburden material and a 12-inch-diameter wastewater force main would need to be removed or replaced to access this thin layer of MGP-impacted materials. The sand and gravel unit where the NAPL was observed has been shown to be discontinuous to the north and is either not present (thus limiting the potential for NAPL migration) or not affected by NAPL to the northeast and northwest. In addition, groundwater analytical results from surrounding monitoring wells have concentrations of MGP constituents below remediation levels.” The ROD calls for this area to be further characterized and evaluated during the removal of adjacent material. If a significantly greater volume or extent is identified, in-situ treatment technologies would be evaluated, otherwise it would be monitored as part of the site-wide monitoring plan.

COMMENT 17: At Wilson Street storm water comes up out of the catch basins. There have been four significant floods in the last 40 years. How are they going to account for possibility of a flood? What would happen in the event of the 100-year flood? Can you guarantee that Tar Creek will not flood during the remediation and spread contamination?

RESPONSE 17: During the design of the remedy NMPC will have to address these issues. The remedial structures (the LTDD, water treatment plant, etc.) will be temporary structures located within the 100-year flood plain of Oneida Creek and Tar Creek. The LTDD unit and other site remedial structures will have to be protected from flooding either with dikes/berms/pumps or by placing the LTDD and other remedial structures on elevated pads which are above the anticipated flood level. Before any structures can be planned or constructed in the floodplain, a hydraulic analysis and floodplain assessment to assure compliance with Executive Order 11988 will be completed and the substantive requirements of applicable US Army Corps of Engineers and NYSDEC Floodplain Management permits will have to be met. This is expected to include computer modeling to ensure that any construction will not have an impact on the floodplain or floodway.

The conceptual design may include a provisions for the material handling facility to remain as a permanent structure to be used by the City of Oneida. If the City were to go forward with a proposal to address flooding of Oneida Creek as outlined in the 1984 Army Corp of Engineers Flood Control Project, the structure could be dismantled. Since the property in question is owned and operated by the City as a Department of Public Works facility, the use and future development of the property is under their control. It is the NYSDEC's understanding that the City will have input as to the location of the building and may requested NMPC leave the building for their use at the completion of the remediation.

During the excavation in Tar Creek, provision will be made to direct storm water around the excavation. However, during severe flood events, it is assumed that excavation work will stop and the excavation will be protected from the rising water by using dikes, berms and pumping. It is also probable that the contractor will select to excavate the stream sediment in the summer/fall during dry weather and relatively low flow conditions.

A 100-year flooding event would likely close down the remediation until such time as Oneida Creek recedes. Any construction project located adjacent to a stream or river would have difficulty operating during a 100 year flooding event. The contractor would have to take measures to protect remedial structures and possibly fill in the excavation and wait for Oneida Creek to recede.

COMMENT 18: Has historic flooding caused contamination to spread to other areas? Has contamination gone beyond the flood gate on Tar Creek?

RESPONSE 18: The investigations conducted to date have included the collection of numerous samples of surface and subsurface soil. The investigation has determined the nature and the extent of the site derived contamination. Clean soil samples have been found in all directions from the site delineating the clean zone. There does appear to be contamination in surface soils along the Tailrace Creek, most likely due to the placement of contaminated material removed during maintenance activities on the creek. It is possible that flooding events may have contributed to the migration of the contaminants to the surface and subsurface soils around the creek bed. However, the environmental investigations do not indicate wide spread coal tar contamination caused by flooding of Tar Creek.

There is some evidence that MGP related contamination has gone beyond the flood control structure at the end of the Tailrace. A few of the soil samples located within and adjacent to Oneida Creek appear to indicate MGP contamination in the subsurface. Additional investigation of the creek sediments will be conducted to determine if remediation of Oneida Creek sediment is warranted.

COMMENT 19: There is another stream that enters Tar Creek. How will that water be managed?

RESPONSE 19: During the remedial design a storm water management plan will be developed for the site which will have to address all water flowing down Tar Creek or into Tar

Creek from other tributaries. The details of the storm water management plan will be developed during the remedial design, however, one can anticipate some type of bypass to allow water from the tributary to continue to flow to Oneida Creek, either by gravity feed or pumping.

COMMENT 20: You mention that pumps may be used to protect the excavation and remedial structures. The contract could be written that would allow the pumps to remain with the City of Oneida and be used for flood control management.

RESPONSE 20: The remedial plan does not specify that pumps will be used to bypass storm water nor discuss what NMPC will do with pumps used by the contractor. The consent order to remediate the site does not require NMPC to solve the flooding problems in Oneida Creek. One of the benefits to the City of Oneida from the project will be that the Tailrace will be restored in such a way as to allow regular maintenance of the stream channel. By periodically removing sediments that enter the Tailrace, the carrying capacity of Tar Creek should stabilize and minor flooding may be reduced.

COMMENT 21: What will be done with water flowing in Tar Creek during the remedy? Will it be contaminated and flow to Oneida Creek? Will discharged water contribute to the flow of Oneida Creek?

RESPONSE 21: During the remediation of Tar Creek (the Tailrace), the contractor will take measures to isolate the excavation with dikes/berms and pump storm water around the excavation. This will allow for the excavation of stream sediments in relatively dry conditions. The water that bypasses the excavation will be of the same quality that is presently enters the Tailrace from the storm sewer system and flows to Oneida Creek. Any water that is pumped from the excavations, or which comes in contact with potentially contaminated soils, will be collected for treatment by an on-site water treatment system. Once treated to discharge limits determined by the NYSDEC, the water will be discharge back to either of the creeks. The water discharged should be approximately the same volume as that which normally enters Oneida Creek from the Tailrace or the groundwater table.

COMMENT 22: Explain the water treatment system. How big will the plant be?

RESPONSE 22: The design of the water treatment plant will be determined in the design phase of the project. However, it is anticipated that the system will include oil/water separation, sediment removal and carbon filter polishing. The amount of flow from the treatment plant is estimated at about 100 gallons per minute. However, this also will be further evaluated in the remedial design.

COMMENT 23: What will happen to drinking water wells near site? There are three located on the property adjacent to the area of impact.

RESPONSE 23: The remedial investigation report indicates that the entire area is served by public water provided by the City of Oneida. The City of Oneida water source is not close to the MGP site. A survey of drinking water wells was conducted during the remedial investigation

and the findings of that investigation indicate that there are no drinking water wells located within a half mile of the former MGP site. One well that was identified is used for gardening and farm animals. This well was recently sampled and the results are pending. If there is any information on other wells (drinking wells or not) near the location of the former MGP, that information should be brought to the attention of the NYSDOH. Sampling of any wells should be conducted before the start of the remedial effort to establish a baseline.

COMMENT 24: How many people will die or get cancer if there is no remediation, and how does this compare with worker deaths during the excavation?

RESPONSE 24: The human health risk assessment that was done during the remedial investigation can determine a numerical degree of risk but cannot predict specific health affects. The investigation identified some ongoing exposures, and a greater potential for future exposure depending on changes in land use. The risk assessment indicated that the site represents an unacceptable health risk to both current and future receptors. It is appropriate, therefore, to implement the remedy to mitigate current risk and to prevent the potential for future exposure from becoming a reality. The NYSDEC recognizes that construction projects of this magnitude have inherent risk to site construction workers because of the excavation and management of soil by large construction equipment. However, the hazardous waste remediation industry is very sensitive to work health and safety issues and the federal Occupational Health and Safety Administration (OSHA) has issued regulations applicable to hazardous waste remedial projects which are very extensive. Remedial workers must have received extensive training for use of personal protective equipment and safe construction practices.

COMMENT 25: How much municipal water will be required for LTTD unit?

RESPONSE 25: The volume of water required for the operation of an LTTD unit is very dependent of the specific unit which is used. The LTTD unit will require a source of clean water for cooling of off-gases, amending treated soil, and for operation of the air pollution control equipment. When a remedial contractor is selected and the LTTD unit (including the air treatment system) is determined, the contractor will have to estimate the amount of clean water that is necessary to operate the LTTD system and determine the best source for that water. Purchase of potable water from the City of Oneida will be one of the sources evaluated.

COMMENT 26: Why is this being done to begin with? I have lived in the area for 61 years and have never seen anybody hurt by the site. Why do you have to remove the soil after all these years? Have you heard of anyone that died or got sick because of the site? Why dig that up?

RESPONSE 26: NMPC signed a consent order with the NYSDEC to investigate, and if necessary remediate, several former MGP sites within their service territory. The Oneida MGP is one of those sites. The results of the remedial investigation indicated a consequential quantity of hazardous wastes and substances have been disposed which have contaminated surface soil, subsurface soils and groundwater, as well as the sediments of the Tailrace and possibly Oneida Creek. It has been determined that this contamination represents a threat to the environment and to public health. A feasibility study was conducted to determine the appropriate remedial action

to address the potential risks. The remedy chosen in June 2000 was excavation and off-site treatment.

It is still the determination of NYSDEC and NYSDOH that the potential threats posed by the site require remediation. There are coal tars and coal tar contamination within the former gas holder area. There is non-aqueous phase liquid (NAPL) in Tar Creek that is likely migrating to Oneida Creek. If uncontrolled, the coal tar will continue to spread in the subsurface and in the sediments toward Oneida Creek impacting additional groundwater, surface waters and sediments. It is the responsibility of the NYSDEC and NYSDOH to see that these threats to the environment and public health are addressed.

COMMENT 27: Who makes the decision? How can it be changed? Can we reverse the decision to dig up material?

RESPONSE 27: The decision that a remedy was necessary to remove this contamination to address the threats it represented was made by the NYSDEC in a Record of Decision for the Oneida Former MGP site issued in June 2000. This June 2000 ROD was issued after consultation with the NYSDOH and after assessing public comments on the Proposed Remedial Action Plan for this site, which was presented at a public meeting held in the City of Oneida on November 15, 1999. During the November 15, 1999 public meeting, there was no request to reconsider the remedy and there was no public concern raised about conducting the soil removal and treatment. At this time, the Department has fulfilled its statutory responsibility by issuing this amended ROD and will require NMPC to go forward with the remediation in accordance with the Order on Consent.

COMMENT 28: Why were we (the property owners) the last people to know about all this?

RESPONSE 28: NMPC has developed a citizen participation (CP) plan as required under Environmental Conservation Law Part 375. The plan includes notification of the public and adjacent property owners of public information meetings. Over 100 fact sheets were mailed to the local community announcing the availability of site related documents and the date of this public meeting. A similar announcement was sent prior to the public meeting in November 1999. Both the June 2000 ROD and the amended ROD (see Section 7) summarizes the CP activities undertaken in support of the project. The mailing list for all notices sent to the public included the best available information, obtained from the City of Oneida, of the names and addresses of neighboring property owners. These same informational fact sheets were sent to the local press and local elected officials for their information. The Department feels that NMPC has adequately conducted a public participation program, as per the appropriate regulations, and that adequate notification was made to the adjacent landowners.

COMMENT 29: We don't see how you can justify the new remedy on the cost information provided?

RESPONSE 29: It is true, based upon the preliminary estimates, that the amended remedy does not result in a significant cost savings, since both on-site or off-site LTDD had similar costs.

Cost, however, is only one of eight criteria to be evaluated in considering a remedy. With all other criteria being more or less equal, including cost, short-term impacts and implementability were the deciding criteria for this selection. On-site LTTD was selected because the Department believes it would have fewer short-term impacts on the local community with the reduction in truck travel trips and shorter construction period. The questionable off-site treatment and transportation capacity, a measure of the remedies implementability, also supported the on-site LTTD since assurance of a dedicated treatment capacity will result in a shorter construction duration (estimated from 6 - 12 months shorter) which would further lessen any short-term impacts on the local community. The evaluation of these criteria is discussed in greater detail in Sections 5.2 and 6 of the amended ROD.

COMMENT 30: It appears that there are several reasons to reopen this remedy selection process. First, several adjacent property owners were not advised of the original remedial plan, the local community does not want you to dig up the site and there are no health impacts from contamination at the site.

RESPONSE 30: The Department does not believe there is any justification to reopen the remedy selection process. The decision to remove the contamination present at the site was established by the June 2000 ROD which considered and rejected a No Action alternative. This decision was also apparently supported by the local residents who attended the November 1999 PRAP public meeting. Adjacent property owners were advised of this meeting and NMPC has adequately carried out a Citizen Participation Program. Finally, the NYSDEC believes that the uncontrolled release of coal tar and MGP contamination associated with this site continues to pose an unacceptable risk to the environment and the NYSDOH believes that there is a potential threat to public health as well, unless remedial actions are undertaken.

COMMENT 31: What about former junkyard across Oneida Creek? There is oil in the soils. Why is nothing being done there?

RESPONSE 31: The consent order with NMPC requires that NMPC adequately address MGP contamination from the Oneida MGP site. The consent order does not require NMPC to investigate or remediate other contaminated sites. This site has been referred to the NYSDEC Regional Office for follow-up.

COMMENT 32: What does the remediation do to property values while it is going on? I'm two houses from the Park and my house is for sale now, my chances for selling have gotten very small.

RESPONSE 32: During the active remedial period, as with any construction project in a neighborhood, there may be some impact on the desirability of property in the area. This project will be of short duration, about two years, and when complete will have had no lasting impact on the areas disturbed. Rather, the removal of the contamination is expected to have a positive impact on property values. It is expected that the final restoration of the area will enhance the current storm water conveyance system and the removal of the contamination should also allow better maintenance of the Tailrace storm water system in the future to maintain storm water

conveyance through the area. By removing the contaminated material a major complication and significant cost to the flood control project will have been addressed.

COMMENT 33: As an environmentalist, which would you rather have, the plot of land cleaned up or the sewer backing up into your street when you get rain?

RESPONSE 33: Both situations represent very serious public health and environmental issues, however, only the coal tar cleanup is the responsibility of NMPC and under the authority of the Division of Environmental Remediation. The cleanup of the contamination in this area is, however, a first step toward any comprehensive storm water system upgrade, since any storm water related construction in this area would have to deal with the existing contaminated soil. The implementation of this remedy is necessary before dealing with the storm water problem and NMPC will be taking that first step with the approval of this remedy.

A letter dated September 19, 2001 was received from Mr. Paul Vanderhoff, which included the following comments:

COMMENT 34: The proposed location of the on-site LTTD unit and the permanent location of the materials staging building are in direct conflict with the Oneida Creek Flood Control Project (OCFCP) which was adopted by the City of Oneida in 1984. The proposed remedial project facilities would be located in the OCFCP's storm water holding pond. The proposed remediation would prevent the construction of the flood control project.

RESPONSE 34: While the proposed remedy is to take place within the footprint of the referenced flood control project's storm water holding pond, it is the Department's understanding that the OCFCP is conceptual in nature and there are no plans to fund or construct the project at this time. The remedy outlined in the proposed amended Record of Decision (ROD) is a temporary project. The duration of the remedial project is estimated to be about two years and is planned to start in the Spring of 2002. It would be unlikely that funding, design, and the start of construction of the OCFCP could be completed within the time frame for the remediation. As such, the remedial project should not interfere with any flood control projects the City of Oneida may wish to conduct. It should be noted that the remediation calls for the remove of contaminated sediments and subsurface soil in a large portion of the proposed footprint of the flood control retention pond. By removing the contaminated material, a major complication and significant cost to the flood control project will have been addressed.

The conceptual design may include a provisions for the material handling facility to remain as a permanent structure to be used by the City of Oneida. If the City were to go forward with a proposal to address flooding of Oneida Creek as outlined in the OCFCP, the structure could be dismantled. Since the property in question is owned and operated by the City as a Department of Public Works facility, the use and future development of the property is under their control. It is the NYSDEC's understanding that the City will have input as to the location of the building and may requested NMPC leave the building for their use at the completion of the remediation.

COMMENT 35: Due to flooding concerns in Oneida flats, a permanent storm water pumping station located near the Tar Creek Tailrace is also needed. Therefore, any encroachment in the storm water retention area/holding pond without mitigation is unacceptable.

RESPONSE 35: The proposed amended remedy will have no impact on any possible plans to construct a pump station at the flood control structure on Tar Creek in the future. During the remedial design of the cleanup, the substantive requirements of federal and state flood plain permits will have to be satisfied. This will include evaluating the potential impacts to flooding in the area of the Tailrace (Tar Creek) during the remediation. If the analysis indicates the need for mitigative measures, they will be included as part of the remedial design. Mitigation plans are discussed in Response #35.

COMMENT 36: The Department should reconfigure the proposed location of the LTTD facility so as not to conflict/interfere with the OCFCP retention pond. A viable alternative to the proposal is to locate the LTTD unit on the former railroad embankment. This would minimize the risk of spreading contamination during an unforeseen major flooding event.

RESPONSE 36: The locations of the remedial structures, as presented in the amended ROD, are conceptual. The actual size and location of the structures will be determined during the design phase of the project. However, the proposal to site the remedial unit operations on top of the railroad bed is not feasible. The conceptual design calls for contaminated material to be moved from the excavation to the material handling building, from the material handling building to the LTTD unit, and then to move treated material back to the excavation. This will require large construction equipment (excavators, loaders, backhoes, etc.) to move material in and around the material handling building and the LTTD unit. There would be insufficient space on top of the railroad bed to allow for the efficient and safe movement of construction equipment.

In addition, the present plan calls for excavation of contaminated material directly adjacent to the railroad bed. If heavy equipment and structures were placed on top of the former railroad bed, there would be concerns of slope stability during excavation near the base of the railroad bed.

COMMENT 37: The proposed amended ROD selects on-site LTTD and is preferred due to the resulting truck traffic that would be necessary to send the material off-site for treatment. If debris (i.e., large rocks and construction debris) were placed on the Oneida Creek dike, and if the required backfill volumes could be acquired on-site from the proposed storm water retention pond, then the number of truck trips would be reduced. This modified plan needs to be considered.

RESPONSE 37: As noted in response #35 above, NMPC is not required under the Consent Order to excavate areas other than those identified as contaminated during the numerous investigations. The remedial design will include a site restoration plan that will detail how the site will be restored. At present, it is anticipated that the former MGP site will be restored to a gravel lot appropriate for use as an NMPC service center. Tar Creek (or called the "Tailrace" in

many of the investigation and design reports) will be restored in a manner that will balance the need to mitigation of flooding issues and enhancing wildlife habitats.

A letter dated September 19, 2001 was received from Mr. James Kinsella of the Madison County Department of Health, which included the following comments:

COMMENT 38: During remediation of the Sconondoa MGP site, there is a concern by the community that MGP site-related contaminants might be released (from sediments, soils, or groundwater) into surface waters or air as dust, vapor, or aerosol. The magnitude of release, transport, and associated risks should be quantified and minimized through an effective monitoring program and decision-making process. Chemical and biological decision criteria need to be established to define unacceptable changes during remedial work. A decision-making framework and process should be established to review data for unacceptable chemical and biological impacts and to assure appropriate actions are taken to modify operations. Real-time monitoring methods will be needed to support decisions about unacceptable impacts during the remedy implementation.

RESPONSE 38: The remedial design will include a number of plans that are designed to protect the local community. Though the scope of the various plans will be developed in the remedial design, the general scope of the various plans are as follows.

There will be a community air monitoring plan that will outline the type of monitoring and action levels at which appropriate actions will be taken to reduce potential exposure to site contaminants. There will be a vapor emission plan that will outline procedures to follow if the air monitoring indicates levels that are of a concern. These measures may include work practices to reduce emissions, increased monitoring at appropriate off-site areas, stoppage of work, and applicable people and organizations to contact if there is a vapor release.

There will be a storm water management plan that will outline measures to prevent erosion, control flooding, and mitigate contaminant transport via storm water. Also, a site management plan, which will outline how work will be conducted, where particular work related activities will occur, and address site security issues, will be developed. See responses #3 and #4 for additional discussion of these issues.

COMMENT 39: Long-term (post-remediation) monitoring should be planned and implemented to determine the effectiveness of any completed remedial action in meeting the remedial objectives established for the project and the recovery and restoration of the site.

RESPONSE 39: The June 2000 Record of Decision outlined a post remediation monitoring program that will be conducted following construction. The following is a response to a question as noted in the 2000 ROD, "Groundwater will be monitored for a minimum of five years following remediation and will continue until the groundwater quality in all areas satisfies the remediation level indicated in Table 2. If the goals are not achieved, a program intended to accelerate the natural biological breakdown of the hazardous substances will be required through this record of decision." This same program will be part of the amended ROD.

COMMENT 40: To help support these programs and to address local public health concerns, I suggest that the Madison County Health Department be given consideration for the following:

1. A copy of the final remediation plan.
2. A copy of responses on and off the site if levels of contaminate reach defined levels.
3. Direct and real-time access to monitoring data.
4. MSDS for contaminants.
5. Informed beforehand about significant planned changes in operations at the site.
6. Informed of responses to unplanned significant changes in contaminate release.
7. Inform local health care providers with appropriate information about treating contaminant exposures.
8. Access to project managers (NYS and NM) on and off site.
9. Resources (material and personnel) to pay for monitoring site and addressing local public health needs and questions.
10. Inform the public through local news outlets of the program status and its progress.

RESPONSE 40: The requested items and the issues raised will be addressed in the various remedial design and contract submittals, and which can be provided to the County DOH and the City of Oneida. For example, the final remedial plan and the remedial design (which will include the air monitoring, vapor emission plan, storm water management plan, MSDS, etc.) will be provided to the County DOH and will be available for the public at the document repository. Access to project personnel will be provided to county and local officials. Information regarding the finding of air monitoring will be provided to the NYS Department of Health and can be provided to county DOH. Significant changes in the scope of the remedial project based on site conditions will be brought to the attention of all interested parties.

With regard to resources, the Consent Order with NMPC requires NMPC to provide support to the NYSDEC and NYSDOH for oversight of the project. This will include an on-site construction inspector to oversee the work of the remedial contractor. The consent order allows the NYSDEC and NYSDOH to have the resources necessary to oversee the construction and air monitoring that will be conducted, as well as assures that personnel are available to address local public health questions and issues.

COMMENT 41: Calculations of truck trips of the two alternative plans may need to be corrected. Page 5-2 of the “proposal to Revise the Selected Site remedy (sic).” The off-site treatment plan assumes that trucks leaving with contaminated fill will return to the site empty and that trucks bringing clean fill onto the site will leave empty. This assumption doubles the number of trips through the community. Is this a reasonable assumption? Isn’t it more likely that the trucks will return with clean fill that is generated at the off-site LTDD plant? This would halve the 12,000 to 14,000 trips neighborhood to 6,000 to 7,000.

RESPONSE 41: The number of truck trips identified in the “Proposal to Revise the Selected Site Remedy” is correct as presented. While it is a possibility that trucks could return with clean

backfill that is generated at the off-site LTTD, there is a higher probability that the remedial contractor will purchase backfill from a local source and thus avoid the need to decontaminate each truck before the return haul. Furthermore, the remedial contractor may choose to excavate large areas before backfilling and thus prefer to receive large quantities of backfill in a short time period to minimize the overall project schedule. As a result, having a supply of backfill available from a local source may be more advantageous than to backhaul material from a distance of 140 miles away. The cited text identified a conservative realistic potential volume of truck traffic that the community could reasonably anticipate encountering.

COMMENT 42: Left out the evaluation on page 5-2 is the estimated (my estimate) of 2,500 to 3,000 trips through the neighborhood necessary to bring in fill for 3 acre x 5 ft. pad for LTTD plant. The plan also estimates that there will be 1,500 to 1,700 trips through the neighborhood to replace 25% of the volume lost in the on-site processing of the soil. Therefore, the number of truck trips through the community may be 4,000 to 4,700 with the on-site plant.

RESPONSE 42: The estimate of 2,500 to 3,000 truck trips to bring in fill is based on a preliminary assumption used to formulate a cost estimate for the LTTD unit (see Assumption 8, Table 18 of the “proposal to Revise the Selected Site Remedy”). However, as noted in Assumption 8, Table 18, “Actual flood protection measures will be determined during the design based on applicable regulations and substantive requirements.” These actual flood protection measures, based on recent discussions with the City of Oneida, are likely to include portable dams and dikes to protect the LTTD unit from potential flooding and not “fill” material preliminarily identified in the report. As a result, an estimated 2 to 4 truck trips, instead of the 2,500 to 3,000 truck trips, as asserted in the comment, would be necessary to provide the flood control equipment to protect the LTTD.

APPENDIX B

Administrative Record

- Order on Consent Index # DO-0001-9210, In the Matter of the Development and Implementation of a Former Manufactured Gas Plant (MGP) Sites Investigation and Remediation Program by Niagara Mohawk Power Corporation,, December 7, 1992.
- Record of Decision, Niagara Mohawk Oneida (Sconondoa Street) Former Manufactured Gas Plant Site, Oneida, Madison County, prepared by the New York State Department of Environmental Conservation, dated June 2000.
- Letter, Steven Stucker, NMPC to Robert Schick, NYSDEC, RE: Oneida (Sconondoa Street) Former MGP Site, dated April 11, 2001.
- Proposal to Revise the Selected Site Remedy, Oneida (Sconondoa Street) Former Manufactured Gas Plant Site, Oneida, New York, prepared by BBL, dated June 2001.
- Proposed Remedial Action Plan, Niagara Mohawk Oneida (Sconondoa Street) Former Manufactured Gas Plant Site, Oneida, Madison County, prepared by the New York State Department of Environmental Conservation, dated August 2001.
- Fact Sheet, Notice of the Availability of the Proposed Amended Record of Decision for the Oneida Sconondoa Street MGP Site, dated August 2001.
- Letter, James Kinsella, Ph. D, Madison County Department of Health to David Crosby, NYSDEC, dated September 19, 2001.
- Letter, Paul W. Vanderhoff, to David Crosby, NYSDEC, RE: Comments on the Amended Record of Decision, Niagara Mohawk Oneida (Sconondoa Street) Former MGP Site, dated September 19, 2001.
- Transcript, September 6, 2001 Public Meeting, RE: Proposed Amended Record of Decision, dated October 1, 2001.
- Letter, David W. Hale, BBL to David Crosby, NYSDEC, RE: Oneida (Sconondoa Street) Former MGP Site, dated October 29, 2001.
- Letter, Gary Litwin, NYSDEC to Michael O'Toole, NYSDEC, RE: Oneida (Sconondoa Street) Former MGP Site, December 18, 2001.