SITE MANAGEMENT PLAN

FOR ACTIVITIES AT

PLATTSBURGH-BRIDGE STREET
FORMER MANUFACTURED GAS PLANT (MGP) SITE
City of Plattsburgh, Clinton County, New York

OCTOBER 2004

Prepared By:

NYSEG Licensing & Environmental Operations Department
Corporate Drive, Kirkwood Industrial Park, P.O. Box 5224
Binghamton, New York 13902-5224

Reviewed and Approved By:

New York State Department of Environmental Conservation

1.0 INTRODUCTION

This Site Management Plan is developed to ensure the safety of the public, workers and the environment during excavation activities at NYSEG's Plattsburgh-Bridge Street former manufactured gas plant (MGP) site by the City of Plattsburgh, utility companies, contractors, developers, and all others. The excavation activities have been divided into three categories as follows:

- ***Emergency Excavation**:* Immediate excavation activities are necessary to protect human health, the environment or major property damage (i.e., major storm sewer break or blockage), see Attachment A.

- ***Urgent Excavation**:* While not an emergency, excavation cannot wait more than 5 days. Work may require NYSEG to develop a job specific Work Plan that would be approved by NYSDEC, see Attachment B.

- ***Routine Excavation**:* Excavation can wait for up to 30 days with minimal consequences, see Attachment C.

1.1 Site Location and Description

The former MGP site, approximately one-half acre in size, is located at 140 Bridge Street in the City of Plattsburgh. The site is bounded by Bridge Street on the north, a privately owned apartment complex on the east, private residential homes on the west, and a commercial facility on the south. The site is owned by NYSEG and is presently a vacant lot.

An interim remedial measure (IRM) conducted in 2001 removed all of the soil above bedrock across the entire site. Some MGP residues were left on the weathered bedrock surface north of the former gas holder when the site was backfilled with clean imported material. Bedrock is located approximately four to eight feet below the current ground surface, except in the area of the former gas holder which was constructed approximately four feet into the bedrock (i.e. the bedrock in that area was removed during the gas holder construction creating a "socket" in the bedrock, the bottom of which is approximately twelve feet below the current ground surface). Therefore, approximately four to eight feet of clean soil have been placed on top of any potential MGP residues except in the area of the former gas holder where the thickness of clean soil is approximately twelve feet.

1.2 Potential MGP Residues

The MGP produced byproducts which present a potential public safety and environment concern.

Coal Tar - a black, viscous liquid characterized by a strong odor similar to railroad ties, moth balls or driveway sealer. Coal tar contains a variety of organic compounds which, in sufficient quantities present both short term and long term exposure risks. Coal tar is heavier than water so it tends to sink, but it does contain a fraction that may float on the groundwater surface. Coal tar contains volatile organic compounds (VOCs) which can present an inhalation risk if present in high enough concentrations and semi volatile compounds which can present an inhalation risk from breathing contaminated dust.

2.0 OVERVIEW OF PRECAUTIONS TO ENSURE THE SAFETY OF HUMAN HEALTH AND THE ENVIRONMENT

The following precautions must be considered for any excavation work on the MGP site or along Bridge Street immediately adjacent to the MGP site. The applicability and extent of each precaution will need to be determined based upon the actual work location and depth of excavation. The site has been divided into two areas (see Figure 1) based on the thickness of clean fill that was placed during the IRM and the potential for encountering MGP residuals during excavation.

In Area 1 the probability of encountering MGP residuals at the bedrock surface is low, and the depth to bedrock is four to six feet below the existing grade. In Area 2 the probability of encountering MGP residuals at the bedrock surface is greater than in Area 1 and the depth to bedrock is approximately eight feet below existing grade except in the area of the former gas holder where the bedrock surface is approximately twelve feet below the existing grade. Therefore, the precautions presented below are based on which area excavation is occurring in.

For excavations along Bridge Street in close proximity to Area 2, workers should proceed with caution at all depths and evaluate soil handling, personal protective equipment, equipment decontamination and backfilling requirements based on the guidance provided below. In all circumstances, workers should err on the side of caution and treat any suspected contamination as possible MGP waste.

- **Notification** to NYSEG and New York State Department of Environmental Conservation (NYSDEC) as soon as practical, preferably prior to excavation (see Section 4.0 Contact List).

- **Personal Hygiene**, at a minimum, should consist of workers washing hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets. Smoking, eating and/or drinking is not be permitted in the vicinity of the excavation.

- **Personal Protective Equipment (PPE)**, For excavations in Area 1 that exceed three and one-half (3.5) feet in depth, at a minimum workers should don long sleeve shirt, long pants, work boots and work gloves. If soil is stained or coal tar is visible, then workers should don rubber boots, tyvek suits or rain suits and nitrile or other chemical resistant inner gloves. For excavations in Area 2 that exceed six (6) feet in depth, at a minimum workers should don long sleeve shirt, long pants, work boots and work gloves. If soil is stained or coal tar is visible, then workers should don rubber boots, tyvek suits or rain suits and nitrile or other chemical resistant inner gloves.

- **OSHA 40-Hour Hazardous Waste Operator (HAZWOPER)** trained workers will be required to perform excavation in highly contaminated areas. (This requirement will be determined by NYSEG and NYSDEC).

- **Air Monitoring** is required for worker and community safety for volatile organic compounds (VOCs) and dust if excavations will exceed three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2. Exception may be

granted for emergency work. The NYSDOH's Community Air Monitoring Plan shall be followed. This plan is included in this document as Attachment D - Community Air Monitoring Plan.

- **Soil Handling**. Contaminated or stained soil should be handled to minimize contaminating adjacent areas. Contaminated or stained soil should be placed on polyethylene sheeting (poly) or in either 55-gallon drums or waste wranglers. If sidewall and bottom of excavation is heavily stained, then the excavation should be lined with poly prior to workers entering excavation.

- **Dewatering Excavation**. Water that contains a sheen should not be discharged to storm sewers or the creek. Contaminated or stained water should be placed in storage containers (i.e. 55-gallon drums or larger containers).

- **Dust Control** should be accomplished by wetting soil with water.

- **Equipment Decontamination**, for excavations that exceed three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2, prior to leaving the work area soil that has accumulated on equipment should be removed. Tar contaminated equipment will require washing prior to leaving the area of excavation. Washing should be conducted over the open excavation (at the conclusion of excavating contaminated soils and prior to the equipment contacting clean backfill materials). Wash water should be allowed to infiltrate the soil in the open excavation. At no time shall rinse water or contaminated soil removed from equipment be allowed to contact surface soils or soils shallower than three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2.

- **Personnel Decontamination**, at a minimum, should consist of removing soil from footwear and removing any clothing with coal tar on it prior to leaving area of excavation. Workers should wash hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets.

- **Material Storage**. Bulk Soil and containerized waste materials (i.e., soil, water, PPE and poly) should be placed in a designated area at NYSEG Service. A stockpile containment area will require a berm around the perimeter that is constructed with timbers or soil. Poly will be placed over the area and berm. The stockpile must be covered and secured with poly. NYSEG will be responsible for all disposal.

- **Backfilling Requirements**. Area 1: For excavations less than three and one-half (3.5) feet in depth the excavated soil may be used for backfill. For excavations three and one-half (3.5) feet or greater in depth, soil excavated from 0-3.5 feet in depth should be segregated from soils excavated from deeper than 3.5 feet in depth. Soils from 0-3.5 feet in depth may be used for backfill. Soils from greater than 3.5 feet in depth should be evaluated as per the Soil Handling bullet above. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first, followed by soils excavated from 0-3.5 feet in depth. If additional soils are required to bring the excavation back to grade, they should be clean material imported from a non-contaminated site.

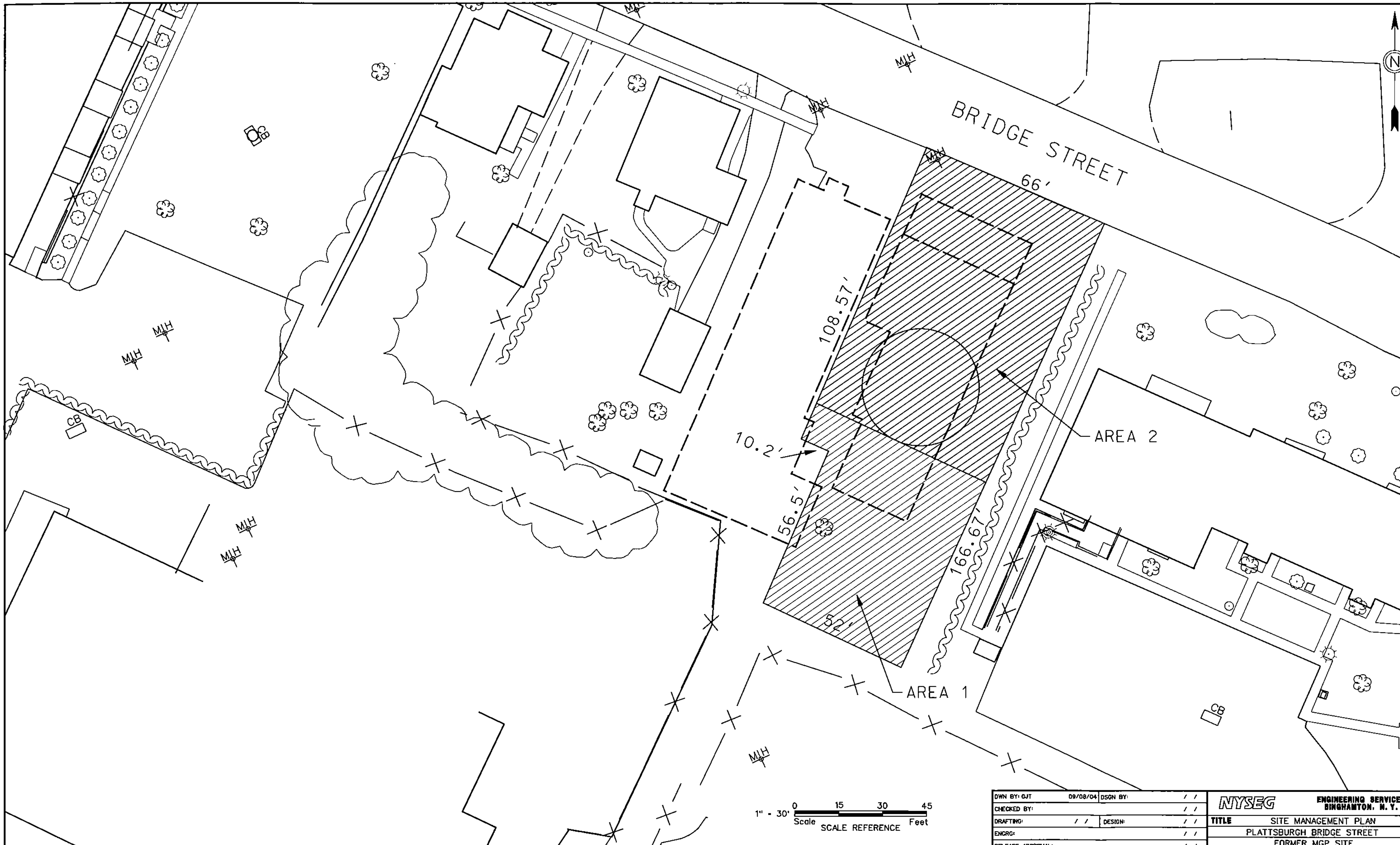
- **Backfilling Requirements.** Area 2: For excavations less than six (6) feet in depth, the excavated soil may be used for backfill. For excavations six (6) feet or greater in depth, soil excavated from 0-6 feet in depth should be segregated from soils excavated from deeper than 6 feet in depth. Soils from 0-6 feet in depth may be used for backfill. Soils from greater than 6 feet in depth should be evaluated as per the Soil Handling bullet above. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first, followed by soils excavated from 0-6 feet in depth. If additional soils are required to bring the excavation back to grade, they should be clean material imported from a non-contaminated site.

3.0 CONTACT LIST

NYSDEC: Mr. John Helmeset: Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233-7013
Office Phone: (518) 402-9662
E-mail: jahelmes@gw.dec.state.ny.us

NYSEG: Primary
Mr. Walter J. Savichky: MGP Remediation Group
NYSEG
Corporate Drive, Kirkwood Industrial Park, P.O. Box 5224
Binghamton, New York 13902-5224
Office Phone: (607) 762-7412
After Hours Phone: (607) 427-0718
E-mail: wjsavichky@nyseg.com

NYSEG: Secondary
Mr. Bert W Finch: MGP Remediation Group
NYSEG
Corporate Drive, Kirkwood Industrial Park, P.O. Box 5224
Binghamton, New York 13902-5224
Office Phone: (607) 762-8683
E-mail: bwfinch@nyseg.com



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DO NOT REVISE MANUALLY

SYM	ZONE	REVISION	DATE	BY	CHK	APP
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AUTHORIZED BY:			/ /
MATERIAL OR SPEC:			

NYSEG — ENGINEERING SERVICES BINGHAMTON, N. Y.

TITLE SITE MANAGEMENT PLAN
PLATTSBURGH BRIDGE STREET
FORMER MGP SITE

SCALE 1"=30' | DWG NO FIGURE 1 | REV

Date/Time Plotted: 08 SEP 2004

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ATTACHMENT A

EMERGENCY EXCAVATION PROTOCOL

For Area of Bridge Street Adjacent to, and Including the
Plattsburgh-Bridge Street
Former Manufactured Gas Plant Site

Emergency Excavation: Immediate excavation activities are necessary to ensure the safety of human health, the environment or major property damage (i.e., major storm sewer break or blockage).

PROCEDURES IN ORDER OF IMPORTANCE

1. **Do not endanger your own life. Survey the situation before taking any action.** Take whatever action is necessary to ensure the safety of human health and the environment. If at all possible, take action that will avoid or minimize excavation at a depth eight feet or more below ground surface.

2. **Personal Hygiene**, at a minimum, should consist of workers washing hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets. Smoking, eating and/or drinking is not be permitted in the vicinity of the excavation.

3. **Personal Protective Equipment (PPE)**, For excavations in Area 1 that exceed three and one-half (3.5) feet in depth, at a minimum workers should don long sleeve shirt, long pants, work boots and work gloves. If soil is stained or coal tar is visible, then workers should don rubber boots, tyvek suits or rain suits and nitrile or other chemical resistant inner gloves. For excavations in Area 2 that exceed six (6) feet in depth, at a minimum workers should don long sleeve shirt, long pants, work boots and work gloves. If soil is stained or coal tar is visible, then workers should don rubber boots, tyvek suits or rain suits and nitrile or other chemical resistant inner gloves.

4. **Soil Handling**. Contaminated or stained soil should be handled to minimize contaminating adjacent areas. Contaminated or stained soil should be placed on polyethylene sheeting (poly) or in either 55-gallon drums or waste wranglers. If sidewall and bottom of excavation is heavily stained, then the excavation should be lined with poly prior to workers entering excavation.

5. **Dewatering Excavation**. Water that contains a sheen should not be discharged to storm sewers or the creek. Contaminated or stained water should be placed in storage containers (i.e. 55-gallon drums or larger containers).

6. **Equipment Decontamination**, for excavations that exceed three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2, prior to leaving the work area soil that has accumulated on equipment should be removed. Tar contaminated equipment will require washing prior to leaving the area of excavation. Washing should be conducted over the open excavation (at the conclusion of excavating contaminated soils and prior to the equipment contacting clean backfill materials). Wash water should be allowed to infiltrate the soil in the open excavation. At no time shall rinse water or contaminated soil removed from equipment be allowed to contact surface soils or soils shallower than three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2.

7. **Personnel Decontamination**, at a minimum, should consist of removing soil from footwear and removing any clothing with coal tar on it prior to leaving area of excavation. Workers should wash hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets.

8. **Material Storage**. Bulk Soil and containerized waste materials (i.e., soil, water, PPE and poly) should be placed in a designated area at NYSEG Service. A stockpile containment area will require a berm around the perimeter that is constructed with timbers or soil. Poly will be placed over the area and berm. The stockpile must be covered and secured with poly. NYSEG will be responsible for all disposal.

9. **Backfilling Requirements. Area 1**: For excavations less than three and one-half (3.5) feet in depth the excavated soil may be used for backfill. For excavations three and one-half (3.5) feet or greater in depth, soil excavated from 0-3.5 feet in depth should be segregated from soils excavated from deeper than 3.5 feet in depth. Soils from 0-3.5 feet in depth may be used for backfill. Soils from greater than 3.5 feet in depth should be evaluated as per the Soil Handling bullet above. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first, followed by soils excavated from 0-3.5 feet in depth. If additional soils are required to bring the excavation back to grade, they should be clean material imported from a non-contaminated site.

Backfilling Requirements. Area 2: For excavations less than six (6) feet in depth, the excavated soil may be used for backfill. For excavations six (6) feet or greater in depth, soil excavated from 0-6 feet in depth should be segregated from soils excavated from deeper than 6 feet in depth. Soils from 0-6 feet in depth may be used for backfill. Soils from greater than 6 feet in depth should be evaluated as per the Soil Handling bullet above. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first, followed by soils excavated from 0-6 feet in depth. If additional soils are required to bring the excavation back to grade, they should be clean material imported from a non-contaminated site.

10. Notify NYSEG MGP Remediation Group as soon as practical after emergency is under adequate control.

Primary:	Walter J. Savichky	Normal working hours phone:	(607) 762-7412
		After hours phone:	(607) 427-0718
			E-mail: wjsavichky@nyseg.com
Secondary:	Bert W Finch	Normal working hours phone:	(607) 762-8683
		E-mail: bwfinch@nyseg.com	

11. NYSEG will notify NYSDEC Division of Environmental Remediation

ATTACHMENT B

URGENT EXCAVATION PROTOCOL

For Area of Bridge Street Adjacent to, and including the
Plattsburgh-Bridge Street
Former Manufactured Gas Plant Site

Urgent Excavation: While not an emergency, excavation cannot wait more than 5 days. Work may require NYSEG to develop a job specific work plan that would be approved by NYSDEC.

PROCEDURES IN ORDER OF IMPORTANCE

12. **Notify NYSEG MGP Remediation Group**

Primary:	Walter J. Savichky	Normal working hours phone:	(607) 762-7412
		After hours phone:	(607) 427-0718
		E-mail:	wjsavichky@nyseg.com
Secondary:	Bert W Finch	Normal working hours phone:	(607) 762-8683
		E-mail: bwfinch@nyseg.com	

1. **NYSEG will notify NYSDEC Division of Environmental Remediation**

2. **Notify Dig Safely New York**. Phone: (800) 962-7962

3. **Personal Hygiene**, at a minimum, should consist of workers washing hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets. Smoking, eating and/or drinking is not be permitted in the vicinity of the excavation.

4. **Personal Protective Equipment (PPE)**. For excavations in Area 1 that exceed three and one-half (3.5) feet in depth, at a minimum workers should don long sleeve shirt, long pants, work boots and work gloves. If soil is stained or coal tar is visible, then workers should don rubber boots, tyvek suits or rain suits and nitrile or other chemical resistant inner gloves. For excavations in Area 2 that exceed six (6) feet in depth, at a minimum workers should don long sleeve shirt, long pants, work boots and work gloves. If soil is stained or coal tar is visible, then workers should don rubber boots, tyvek suits or rain suits and nitrile or other chemical resistant inner gloves.

5. **OSHA 40-Hour Hazardous Waste Operator (HAZWOPER)** trained workers will be required to perform excavation in highly contaminated areas (This requirement will be determined by NYSEG and NYSDEC).

6. **Real-Time Air Monitoring (NYSEG)** for volatile organic compounds (VOCs) and dust for excavations exceeding four (4) feet in depth in Area 1 and seven (7) feet in depth in Area 2.

7. **Soil Handling**. Contaminated or stained soil should be handled to minimize contaminating adjacent areas. Contaminated or stained soil should be placed on polyethylene sheeting (poly) or in either 55-gallon drums or waste wranglers. If sidewall and bottom of excavation is heavily stained, then the excavation should be lined with poly prior to workers entering excavation.

8. **Dewatering Excavation**. Water that contains a sheen should not be discharged to storm sewers or the creek. Contaminated or stained water should be placed in storage containers (i.e. 55-gallon drums or larger containers).

9. **Dust Control** should be accomplished by wetting soil with water.

10. **Equipment Decontamination**, for excavations that exceed three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2, prior to leaving the work area soil that has accumulated on equipment should be removed. Tar contaminated equipment will require washing prior to leaving the area of excavation. Washing should be conducted over the open excavation (at the

conclusion of excavating contaminated soils and prior to the equipment contacting clean backfill materials). Wash water should be allowed to infiltrate the soil in the open excavation. At no time shall rinse water or contaminated soil removed from equipment be allowed to contact surface soils or soils shallower than three and one-half (3.5) feet in depth in Area 1 or six (6) feet in depth in Area 2.

11. **Personnel Decontamination**, at a minimum, should consist of removing soil from footwear and removing any clothing with coal tar on it prior to leaving area of excavation. Workers should wash hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets.

12. **Material Storage**. Bulk Soil and containerized waste materials (i.e., soil, water, PPE and poly) should be placed in a designated area at NYSEG Service. A stockpile containment area will require a berm around the perimeter that is constructed with timbers or soil. Poly will be placed over the area and berm. The stockpile must be covered and secured with poly. NYSEG will be responsible for all disposal.

13. **Backfilling Requirements**. **Area 1**: For excavations less than three and one-half (3.5) feet in depth the excavated soil may be used for backfill. For excavations three and one-half (3.5) feet or greater in depth, soil excavated from 0-3.5 feet in depth should be segregated from soils excavated from deeper than 3.5 feet in depth. Soils from 0-3.5 feet in depth may be used for backfill. Soils from greater than 3.5 feet in depth should be evaluated as per the Soil Handling bullet above. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first, followed by soils excavated from 0-3.5 feet in depth. If additional soils are required to bring the excavation back to grade, they should be clean material imported from a non-contaminated site.

14. **Backfilling Requirements. Area 2**: For excavations less than six (6) feet in depth, the excavated soil may be used for backfill. For excavations six (6) feet or greater in depth, soil excavated from 0-6 feet in depth should be segregated from soils excavated from deeper than 6 feet in depth. Soils from 0-6 feet in depth may be used for backfill. Soils from greater than 6 feet in depth should be evaluated as per the Soil Handling bullet above. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first, followed by soils excavated from 0-6 feet in depth. If additional soils are required to bring the excavation back to grade, they should be clean material imported from a non-contaminated site.

ATTACHMENT C

ROUTINE EXCAVATION PROTOCOL

For Area of Bridge Street Adjacent to, and including the
Plattsburgh-Bridge Street
Former Manufactured Gas Plant Site

Routine Excavation: Excavation can wait for up to 30 days with minimal consequences.

PROCEDURES IN ORDER OF IMPORTANCE

12. **Notify NYSEG MGP Remediation Group**

Primary:	Walter J. Savichky	Normal working hours phone:	(607) 762-7412
		After hours phone:	(607) 427-0718
			E-mail: wjsavichky@nyseg.com
Secondary:	Bert W Finch	Normal working hours phone:	(607) 762-8683
		E-mail: bwfinch@nyseg.com	

1. **NYSEG will notify NYSDEC Division of Environmental Remediation**
   (To be determined by NYSDEC) - phone: (518) 402-9662, E-mail:

2. NYSEG may develop a work plan that would require approval by NYSDEC. If a job specific work plan is not developed follow the minimum procedures for Urgent Excavation.

Attachment D

Community Air Monitoring Plan

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust and odors at minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCS will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less – but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 of upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000

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