



SMP Lockport State Rd Site
#932109

26 November 2007

Lockport State Road MGP Site

William S. Ottaway, PE
Project Manager
Division of Environmental Remediation, 11th floor
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Remedial Bureau C
Division of Environmental Remediation

Subject: Lockport State Road Former MGP Site – Site No. 9-32-109
Draft Site Management Plan

Dear Mr. Ottaway:

Enclosed for your review is the draft site management plan for the Lockport State Road MGP Site. Please feel free to contact me if you have any questions regarding this submittal.

Sincerely,

Tracy L. Blazicek, CHMM
Lead Analyst - Environmental
Site Investigation & Remediation

Cc w/o enclosure:
Joe Simone

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Lockport State Rd Site

Site Management Plan
Lockport-State Road Former MGP Site

SITE MANAGEMENT PLAN

FOR ACTIVITIES AT

**LOCKPORT STATE ROAD
FORMER MANUFACTURED GAS PLANT (MGP) SITE**
City of Lockport, Niagara County, New York

November 2007

Prepared By:

**NYSEG Site Investigation & Remediation Group
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 Lockport-State Road former manufactured gas plant (MGP) site. 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 natural gas leak or distribution system failure), 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 is located on State Road just northeast of High Street in the City of Lockport. The site is bounded by private property on the north, High Street on the south, the New York State Barge Canal on the west, and State Road on the east. The site is owned by NYSEG and presently contains a natural gas regulator station with underground natural gas distribution system piping and overhead electric transmission and distribution lines.

A remedial investigation was completed in 2007. Low levels of MGP related contaminants have been identified in overburden soil and bedrock at the site.

1.2 Potential MGP Residues

Despite the fact that the site is called an MGP, it never produced gas. The site was used to store gas and process tar that was produced at the Transit Street site located approximately one-half mile to the northeast. MGP byproducts which present a potential public safety and environment concern that are or may be present at the site are:

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.

Purifier Waste - Purifier Waste is typically found as a dark mixture of wood chips with a very strong, unpleasant burnt odor. Once exposed at the ground surface, the waste will often develop an iridescent blue color known as "Prussian Blue." Purifier waste often contains significant quantities of chemically complexed cyanide compounds. Some

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cyanide can leach from the waste and contaminate groundwater, which can move through the subsurface away from the burial location. Although some cyanide

compounds are highly toxic, there is evidence that the cyanide compounds typically leached from purifier waste are in a chemically complexed form which is significantly less toxic. In addition to containing complexed cyanide, water which comes into contact with purifier waste, is often highly acidic.

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. The applicability and extent of each precaution will need to be determined based upon the actual work location and depth of excavation.

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's Compliance Department and New York State Department of Environmental Conservation (NYSDEC) as soon as practical, preferably prior to excavation (see Section 4.0 Contact List). Staff of the Compliance Department will make the notification to NYSDEC.
- **Personal Hygiene**, at a minimum, should consist of workers washing hands prior to leaving area of excavation, smoking, eating, drinking and/or using toilets. Eating and/or drinking are not permitted in the vicinity of the excavation. Smoking is not permitted anywhere on the property.
- **Personal Protective Equipment (PPE)**, at 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's Compliance Department and NYSDEC).
- **Air Monitoring** is required for worker and community safety for volatile organic compounds (VOCs) and dust if excavations encounter heavily contaminated soils. 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

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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 sheen should not be discharged to storm sewers or the barge canal. 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.** 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 clean backfill material.
- **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 the site. NYSEG's Compliance Department will be responsible for coordinating disposal.
- **Backfilling Requirements.** Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first. 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 **Excavation Demarcation Layer**

An excavation demarcation layer consisting of orange plastic construction fence has been installed beneath certain vegetated portions of the site close to State Road. The purpose of the demarcation layer is to remind site workers that excavation below that layer *may* expose them to MGP related contaminants and that all provisions of this site management plan *must* be adhered to when excavating below the demarcation layer. This is not to imply that excavating in other areas of the site (i.e. where a demarcation layer has not been installed) will not result in exposure to MGP related contaminants; it simply means that the demarcation layer was installed in areas of the site where MGP contaminants are known to be present in the shallow subsurface. Caution should be exercised when excavating anywhere on the site and the provisions of this site management plan should be followed at all times while digging anywhere on the site.

4.0 **Future Demarcation Layer**

If any future site work requires the gravel drive and parking area just out side the gate to the fenced portion of the site to be re-graded or re-work, an excavation demarcation layer must be installed at that time. The demarcation layer shall be orange plastic

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construction fence and it shall be placed such that it is covered by a minimum of one (1) foot of gravel.

5.0 Periodic Site Inspection for Evidence of Exposed Soil

On a periodic basis, the upper, level portion of the site will be inspected to ensure that significant bare spots of soil are not present. Any such spots will be addressed by placing seed and mulch on the area, or by taking other appropriate action to cover the bare spot.

6.0 Lockport Division Employee Awareness Training

In order to ensure that those employees of NYSEG's Lockport Division who may be required to conduct excavation activities at the State Road site are aware of the requirements of this document, supervisors in the Division will review this document with appropriate employees at least once every three (3) months.

7.0 CONTACT LIST

NYSEG:

Primary
Mr. Tracy L. Blazicek: Compliance Department
NYSEG

Corporate Drive, Kirkwood Industrial Park, P.O. Box 5224
Binghamton, New York 13902-5224
Office Phone: (607) 762-8839
After Hours Phone: (607) 237-5325
E-mail: tblazicek@nyseg.com

NYSEG:

Secondary
Mr. Bert W Finch: Compliance Department
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

NYSDEC:

Mr. William Ottaway: Division of Environmental Remediation
NYSDEC

625 Broadway
Albany, New York 12233-7014
Office Phone: (518) 402-9662
E-mail: wsottawa@gw.dec.state.ny.us

ATTACHMENT A

EMERGENCY EXCAVATION PROTOCOL

For the State Road 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 natural gas leak or distribution system failure).

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.
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. Eating and/or drinking are not permitted in the vicinity of the excavation. Smoking is not permitted anywhere on the property.
3. Personal Protective Equipment (PPE). 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 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. 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 clean backfill material.
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 the site. NYSEG's Compliance Department will coordinate disposal.
9. Backfilling Requirements. Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first. 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 Compliance Department as soon as practical after emergency is under adequate control.

Primary:	Tracy L. Blazicek	Normal working hours phone: (607) 762-8839 After hours phone: (607) 237-5325 E-mail: tblazicek@nyseg.com
Secondary:	Bert W Finch	Normal working hours phone: (607) 762-8683 After hours phone: (607) 725-4312 E-mail: bwfinch@nyseg.com

11. NYSEG Compliance Department will notify NYSDEC Division of Environmental Remediation

ATTACHMENT B

URGENT EXCAVATION PROTOCOL

For the State Road 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 Compliance Department
Primary: Tracy L. Blazicek
Normal working hours phone: (607) 762-8839
After hours phone: (607) 237-5325
E-mail: tlblazicek@nyseg.com
- Secondary: Bert W Finch
Normal working hours phone: (607) 762-8683
After hours phone: (607) 725-4312
E-mail: bwfinch@nyseg.com

1. NYSEG Compliance Department 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. Eating and/or drinking are not permitted in the vicinity of the excavation. Smoking is not permitted anywhere on the property.
4. Personal Protective Equipment (PPE). 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.
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 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. 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 clean backfill material.
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 the site. NYSEG's Compliance Department will be responsible for coordinating disposal.
13. **Backfilling Requirements.** Soils that are not contaminated or stained may be used for backfill. Those soils should be placed back into the excavation first. 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 the State Road Former Manufactured Gas Plant Site

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

PROCEDURES IN ORDER OF IMPORTANCE

13. Notify NYSEG Compliance Department

Primary:	Tracy L. Blazicek	Normal working hours phone: (607) 762-8839
		After hours phone: (607) 237-5325
		E-mail: tblazicek@nyseg.com
Secondary:	Bert W Finch	Normal working hours phone: (607) 762-8683
		After hours phone: (607) 725-4312
		E-mail: bwfinch@nyseg.com

1. NYSEG Compliance Department will notify NYSDC Division of Environmental Remediation
William Ottaway - phone: (518) 402-9662, E-mail: wsottawa@gw.dec.state.ny.us
2. NYSEG may develop a work plan that would require approval by NYSDC. 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/m³) 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/m³ 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/m³ 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/m³ 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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