

December 17, 2019

Mr. Scott Deyette
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, NY 12233-7014

**Re: *National Grid Troy – Liberty Street
Troy, New York
Site # V000482
2019 Periodic Review Report***

Dear Mr. Deyette:

Attached for your review is the 2019 annual Periodic Review Report with the Institutional Controls / Engineering Controls Certification Forms for the National Grid Troy – Liberty Site in Troy, NY (Site #V000482). The PRR pertains to the period from July 20, 2018 to July 20, 2019.

If you have any questions, please feel free to contact me at 315.428.5652.

Sincerely,

A handwritten signature in black ink, appearing to be 'S. Stucker', written in a cursive style.

for SPS

Steven P. Stucker, C.P.G.
Lead Environmental Engineer

Attachments

cc: Devin Shay - Groundwater & Environmental Services, Inc.

Periodic Review Report
National Grid Troy – Liberty Street
NYSDEC Site # V000482
December 17, 2019

I. Executive Summary

- A. Brief Site Summary** – The Troy (Liberty Street) Non-Owned Former Manufactured Gas Plant (MGP) (the “Site”) is a roughly rectangular parcel comprising 1.016 acres in an urban residential / commercial area in the city of Troy’s “Little Italy” neighborhood, part of Rensselaer County. The Site was operated as a MGP site between 1848 and 1889 by the Troy Gas Light Company, with all of the MGP buildings demolished by 1899. Site contamination related to the coal tar byproduct of MGP operations is concentrated in two areas of the site. The Site is currently used as a farmer’s market and for various community activities.

National Grid entered into a Voluntary Cleanup Order (VCO) with the New York State Department of Environmental Conservation (NYSDEC) as part of the Voluntary Cleanup Program (VCP), which was executed on July 3, 2001. An initial site assessment and follow-up Remedial Investigation (RI) took place between 2005 and 2011. National Grid submitted a Remedial Action Work Plan (RAWP) to NYSDEC in August 2013, and the Remedial Action was completed in July 2014. In April 2015, GEI Consultants, P.C., (GEI) submitted a Site Management Plan (SMP) to the NYSDEC to manage remaining contamination at the Site.

- B. Remedial Program Effectiveness** – The ongoing goals of the remedial program include prevention of exposure to MGP-related soil contamination and groundwater contamination exceeding class GA standards for groundwater outlined in the NYSDEC Technical and Operational Guidance Series (TOGS) Section 1.1.1. During the reporting period (July 20, 2018, to July 20, 2019), the remedial objectives were met for the Site. The remedial program remains sufficient to achieve the long term remedial objectives for the Site.
- C. Remedial Program Compliance** - The major elements within the Site Management Plan are in compliance.
- D. Remedial Program Recommendations** - It is recommended that no changes be made to the SMP. It is recommended that the PRR submittal frequency remain annual as noted in the SMP. The next PRR submittal deadline will be August 19, 2020.

II. Site Overview

- A. Site Location and Features** – The Site comprises approximately 1.016 acres of paved land and lies approximately 35 feet above the North American Vertical Datum of 1988 (NAVD88). The Site is bordered by Fifth Avenue to the east, Washington Street to the south, Hill Street to the west, and Liberty Street to the north. Refer to Figures 1 and 2 in Attachment 1 for a site location map and site map, respectively.

The Site was formerly an MGP which was active from 1848 until 1889 and operated by the Troy Gas Light Company. Coal gas was emitted by heating coal in air-tight ovens. This coal gas product stream was pumped into circular gas holders, the foundations of which remain in the subsurface at the Site. As a by-product of the coal gas manufacturing operations on the Site, coal tar was condensed out of the gas product stream. This coal tar was stored in two tar wells, with one located in the northern end of the Site between the two gas holders and the other located at the southern end of the Site. These coal tar sources caused the environmental impacts at the Site. All of the MGP related buildings were demolished in 1899 when the City of Troy purchased the property.

- B. Remedy Features and Chronology** – National Grid entered into a VCO with the NYSDEC as part of the VCP, which was executed on July 3, 2001. An initial site assessment was conducted in 2005 by National Grid, with a follow-up RI conducted between 2006 and 2011. The Final RI report was approved by the NYSDEC on August 31, 2012. In August 2013, National Grid submitted an Alternatives Analysis (AA) and a RAWP to NYSDEC, which were approved on January 3, 2014.

The remedial action was conducted in July 2014. This action resulted in 502.7 tons of brick and impacted soil removed from the northern tar well area and 3,287 tons of brick and impacted soil removed from the southern tar well area. The removed soils were excavated to a depth of 20 to 22 feet, with fluorescent orange plastic fencing placed at the bottom of the excavation to demarcate the boundary between native and backfilled soil. A soil cover system comprised of 2.5 inches Type 3 asphalt binder and 1.5 inches hot asphalt wear layer were placed at the two excavation locations.

Following the remedial action, an SMP was submitted by GEI in April 2015 to manage contamination that remained following the remedial action. This SMP details Engineering and Institutional Controls (EC/ICs), groundwater monitoring, and periodic inspections to monitor and manage the remaining contamination at the Site.

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A Declaration of Covenants and Restrictions was issued by the City of Troy on September 14, 2016. A Temporary Access Agreement was granted on December 19, 2017. Groundwater and Environmental Services, Inc., (GES) took over the long term monitoring program from GEI in October 2017.

III. Evaluate Remedy Performance, Effectiveness and Protectiveness

- A. Evaluation of Remedy Performance** – The Site is in good condition, with the asphalt barrier layer continuing to serve its intended purpose. See Attachment 1 for site inspection forms generated during the reporting period.

IV. Institutional Controls/ Engineering Controls (IC/EC) Plan Compliance Report

A. IC/EC Requirements and Compliance

1. IC/EC Controls -

The ICs/ECs include:

- Asphalt barrier layer;
- Regular inspection of all ECs; and,
- Restricting use of the Site to commercial uses only.

2. IC/EC Goals –

The goal for these features include:

- Inspect the permanent asphalt cover system to assess the quality and integrity of this system at defined, regular (annual) intervals in perpetuity.

3. IC/EC Corrective Measures – No deficiencies requiring attention were noted during the quarterly inspections.

4. IC/EC Conclusions/Recommendations – Each goal is being met and/or working effectively. The program is in compliance and there are no recommendations at this time.

B. IC/EC Certification – Refer to Attachment 2 for the certification form.

V. Monitoring Plan Compliance Report

A. Monitoring Plan Requirements – The SMP dated April 2015 calls for annual groundwater sampling and groundwater elevation gauging for a duration of 3 years, at which time the sampling frequency and extent will be reevaluated. Groundwater samples are to be evaluated for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) via EPA Method 8260B and for Polycyclic Aromatic Hydrocarbons (PAHs) via EPA Method 8270C. Samples are to be collected using low-flow sampling techniques via a peristaltic pump.

The Monitoring Plan also calls for annual site-wide inspections to assess the effectiveness of and continued compliance with all EC/ICs. The results pertaining to this Monitoring Plan are to be reported to the NYSDEC on an annual basis.

B. Monitoring Plan Compliance – During the reporting period (July 20, 2018 to July 20, 2019), the annual groundwater gauging and sampling event was conducted on October 18, 2018. No compounds were detected above New York State Ambient Water Quality Standards (AWQS) in any wells, with the exception of BMW-203(06) and BMW-102(05). Site Inspections during the reporting period were conducted quarterly.

VI. OM&M Plan Compliance Report – Not Applicable

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP

1. **Requirements** - All IC/EC Plan requirements were met during this reporting period.
2. **Exposure Pathways** – There are no new completed exposure pathways resulting in unacceptable risk.
3. **Proposed Plans and Schedule to Meet Compliance** – No plan proposed.

B. Performance and Effectiveness of the Remedy – The remedy as described by the SMP and executed by National Grid has been effective in meeting the program goals.

C. Future PRR Submittals – The frequency of PRR Submittals should remain annual. Therefore, the next PRR submittal deadline will be August 19, 2020.

VIII. Additional Guidance - Not Needed

Attachment 1 – Site Inspection Forms

**Troy Liberty St
Non-Owned Former MGP Site
Site Wide Inspection**

Date: 7/26/2018
Technician: KL

Time: 10:00
Weather: Cloudy 74

Cover System			
Soil intrusion activities being performed?	YES	NO	COMMENTS:
Signs of soil intrusive activities?	YES	NO	
Evidence of saw cutting?	YES	NO	
Evidence of excavation or trenching?	YES	NO	
Burrowing animals?	YES	NO	

Site Monitoring Wells		
Well ID.	Location Secure	
B/MW-101(05)	YES	NO
B/MW-102(05)	YES	NO
B/MW-104(05)	YES	NO
B/MW-202(06)	YES	NO
B/MW-203(06)	YES	NO
B/MW-404(11)	YES	NO

General Comments/Suggested Action Items:

**Troy Liberty St
Non-Owned Former MGP Site
Site Wide Inspection**

Date: 10/18/2018
Technician: KL

Time: 9:30
Weather: Sunny 63

Cover System			
Soil intrusion activities being performed?	YES	NO	COMMENTS:
Signs of soil intrusive activities?	YES	NO	
Evidence of saw cutting?	YES	NO	
Evidence of excavation or trenching?	YES	NO	
Burrowing animals?	YES	NO	

Site Monitoring Wells		
Well ID.	Location Secure	
B/MW-101(05)	YES	NO
B/MW-102(05)	YES	NO
B/MW-104(05)	YES	NO
B/MW-202(06)	YES	NO
B/MW-203(06)	YES	NO
B/MW-404(11)	YES	NO

General Comments/Suggested Action Items:

**Troy Liberty St
Non-Owned Former MGP Site
Site Wide Inspection**

Date: 10/18/2018
Technician: KL

Time: 9:30
Weather: Sunny 63

Cover System			
Soil intrusion activities being performed?	YES	NO	COMMENTS:
Signs of soil intrusive activities?	YES	NO	
Evidence of saw cutting?	YES	NO	
Evidence of excavation or trenching?	YES	NO	
Burrowing animals?	YES	NO	

Site Monitoring Wells		
Well ID.	Location Secure	
B/MW-101(05)	YES	NO
B/MW-102(05)	YES	NO
B/MW-104(05)	YES	NO
B/MW-202(06)	YES	NO
B/MW-203(06)	YES	NO
B/MW-404(11)	YES	NO

General Comments/Suggested Action Items:

**Troy Liberty St
Non-Owned Former MGP Site
Site Wide Inspection**

Date: 4/9/2019
Technician: KL/AJ

Time: 11:15
Weather: Partly Sunny 46

Cover System			
Soil intrusion activities being performed?	YES	NO	COMMENTS:
Signs of soil intrusive activities?	YES	NO	
Evidence of saw cutting?	YES	NO	
Evidence of excavation or trenching?	YES	NO	
Burrowing animals?	YES	NO	

Site Monitoring Wells		
Well ID.	Location Secure	
B/MW-101(05)	YES	NO
B/MW-102(05)	YES	NO
B/MW-104(05)	YES	NO
B/MW-202(06)	YES	NO
B/MW-203(06)	YES	NO
B/MW-404(11)	YES	NO

General Comments/Suggested Action Items:

Attachment 2 – Engineering Controls and Institutional Controls Certification Form



Site Details

Box 1

Site No. V00482

Site Name NM - Troy Liberty St. MGP

Site Address: Liberty St. Zip Code: 12180
City/Town: Troy
County: Rensselaer
Site Acreage: 4.500

Reporting Period: July 20, 2018 to July 20, 2019

YES NO

- | | | | |
|----|--|-------------------------------------|-------------------------------------|
| 1. | Is the information above correct? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | If NO, include handwritten above or on a separate sheet. | | |
| 2. | Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. | Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. | Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development? ☐ ☒

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☒ ☐
Commercial and Industrial
7. Are all ICs/ECs in place and functioning as designed? ☒ ☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date _____

SITE NO. V00482

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

1010690012001000000

City of Troy

Ground Water Use Restriction
Landuse Restriction
Site Management Plan

A Deed Restriction was filed which restricts the site to commercial use, and restricts the use of groundwater.

Box 4

Description of Engineering Controls

Parcel

Engineering Control

1010690012001000000

Cover System

The site is capped with asphalt which serves as the cover system.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

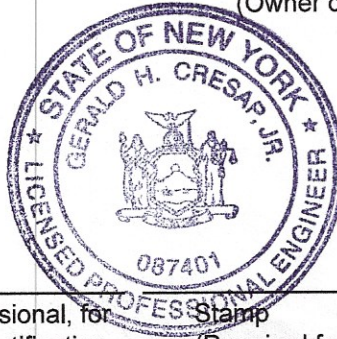
I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

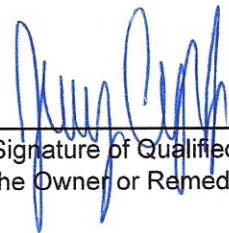
Gerald Cresap, PE

5 Technology Place, Suite 4, East Syracuse, NY

I Gerald Cresap, PE at 5 Technology Place, Suite 4, East Syracuse, NY,
print name agent for National Grid print business address

am certifying as a Qualified Environmental Professional for the agent for National Grid
(Owner or Remedial Party)




Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

Date

12-13-2019

IC CERTIFICATIONS
SITE NO. V00482

Box 6

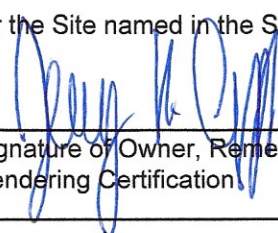
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerald Cresap, PE at 5 Technology Place, Suite 4, East Syracuse, NY
print name print business address

am certifying as agent for National Grid agent for National Grid (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

12-13-2019
Date

