



SHORT-TERM RESPONSE ACTION APPROVAL LETTER

October 27, 2017

File No. SR -28-1152

Formerly Case No. 98-004

Amy A. Willoughby
Lead Environmental Scientist
New England Site Investigation & Remediation Group
National Grid
40 Sylvan Road, E3.691
Waltham, MA 02451

RE: Providence Gas Co. – AA
A.k.a. Former New England Gas Company MGP property
642 Allens Avenue, Providence, Rhode Island
Plat Map 56 / Lot 5, Plat Map 101 / Lot 1

Dear Ms. Willoughby:

As you know, Rhode Island Department of Environmental Management (DEM), Office of Waste Management (OWM) is responsible for overseeing the remediation effort at 642 Allens Avenue – specifically, the removal and containment of contaminated soil and groundwater. This property became a regulated site in DEM's Site Remediation Program due to historic releases of hazardous materials to soil and groundwater related to its former usage as a manufactured gas plant.

On November 9, 2011, OWM amended the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations). The purpose of these regulations is to create an integrated program requiring reporting, investigation and remediation of contaminated sites in order to eliminate and/or control threats to human health and the environment in a timely and cost-effective manner. A Short-Term Response Action Approval Letter is a document used by the Department to approve limited phased remedial actions pursuant to Section 6.00 of the Remediation Regulations at contaminated sites that do not involve the use of complex engineered systems or techniques (i.e., groundwater pump and treat systems, soil vapor extraction systems, etc.).

In the matter of the above-referenced property, OWM is in receipt of the following final documentation submitted pursuant to the Remediation Regulations in response to the reported release at the Site:

1. Short Term Response Action Plan (STRAP), Proposed Liquefaction Project, 121 Terminal Road / 642 Allens Avenue, Providence, Rhode Island, RIDEM Case No. 98-004 / Site Remediation File No. SR-28-1152, FERC Docket No. CP16-121-000, received by the Department on May 12, 2017, prepared by GZA Geoenvironmental, Inc. (GZA); and
2. Short Term Response Action Plan (STRAP) Addendum, Proposed Liquefaction Facility,

121 Terminal Road, RIDEM File No. SR-28-1152, RIDEM Case Number: 98-004, Providence, Rhode Island, received by the Department on October 11, 2017, and prepared by GZA.

Together these documents fulfill the requirements of Section 6.00 (Emergency or Short-term Response) of the Remediation Regulations.

The STRAP addresses remedial activities in the area of planned construction of a proposed Liquefaction Facility for the Liquefied Natural Gas (LNG) facility at the site. The STRAP describes erosion and sedimentation controls, establishment of a temporary laydown area, performance of initial subgrade remedial work, testing of and importing of clean fill materials, grading and off-Site disposal of excess regulated materials at an appropriately licensed facility. It also includes pre-clearing or pre-drilling of selected piles, which requires management of excess impacted soil and groundwater during earthwork activities, which will ultimately raise the majority of the STRAP area approximately 9 to 11 feet above existing grade. Finally, the STRAP describes installation of a variety of Department approved engineered caps, and restoration activities (fencing, gate installation and monitoring well re-installation), which are required under the Remediation Regulations.

The five (5) Department approved engineered caps include a Crushed Stone Soil Engineered Cap consisting of at least 18-inches of processed gravel, sand or other imported tested clean fill base, overlain with at least 6-inches of imported 2-inch crushed stone; a Concrete Engineered Cap consisting of at least 6-inches of processed gravel, sand or other imported tested clean fill base, overlain with at least 4-inches of concrete; an Asphalt Engineered Cap (New Paving) consisting of at least 6-inches of processed gravel, sand or other imported tested clean fill base, overlain with at least 4-inches of asphalt; a Rip-Rap Engineered Cap consisting of a non-woven geotextile, overlain with at least 12-inches of imported Rip-Rap; and a Sand Filter Engineered Cap consisting of a Linear Low Density Polyethylene (LLDPE) liner system, overlain by a minimum of 12-inches of 3/8 inch peastone, overlain by a non-woven geotextile, overlain with at least 18-inches of clean imported C-33 sand. All areas disturbed by the proposed STRAP activities shall be restored with a Department approved engineered cap consistent with those listed above. Any remaining areas within the Project Work Site, which do not currently have an existing equivalent cap, and are not subject to proposed capping during STRAP activities, shall be subject to remediation under the future Site Investigation Report (SIR) Addendum for the remainder of the Site.

Management of stormwater runoff generated from the new impervious areas shall be treated via a forebay and lined sand filter system designed and installed in accordance with the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM). There shall be no infiltration of stormwater from the system into Site soils under the STRAP. A final stormwater outfall shall discharge to the Providence River. All collected groundwater shall be containerized into fractionation tanks, stored in the soil and groundwater management area, and shall be disposed/recycled off-Site at a licensed and permitted disposal/recycling facility.

An estimated 2,988 cubic yards of excess regulated soil materials will be removed to facilitate installation of piles and utilities. Excess regulated soils shall be temporarily stored in the soil and groundwater management area on at least two (2) layers of polyethylene sheeting and covered with

a layer of polyethylene sheeting to control the generation of wind-blown dusts and potential migration of soils with stormwater runoff. All stockpile areas shall be equipped with appropriate controls to limit the loss of the cover and protect against storm water erosion. Any soils which exhibit excessive visual or olfactory evidence of impact, evidence of free non-aqueous phase liquid (NAPL), or elevated total volatile organic compound (TVOC) headspace screening via a photoionization detector (PID), shall be segregated and stockpiled separately for off-Site disposal/recycling at a permitted/licensed facility and shall be kept in designated, separate piles from other Site soils that may be reused under the engineered cap. Excess regulated soils which do not exhibit excessive visual or olfactory evidence of impact, evidence of free NAPL, or elevated TVOC headspace screening may be reused on Site only under an engineered cap in the STRAP area. All excess soil materials not reused under an engineered cap shall be disposed of off-Site at a licensed and permitted facility.

During all STRAP earthwork activities, best management practices (BMPs) shall be implemented for dust, odor & organic vapor control, including performance of an Air Monitoring Program (AMP). The AMP shall include three (3) unmanned continuous air monitoring stations located along the perimeter of the STRAP area positioned in the direction of the nearest potential receptors, as well as real-time monitoring utilizing portable instrumentation, including a PID MiniRAE to measure TVOCs, and a DustTRAK Dust Meter to sense airborne respirable particulate dust. If readings above the action levels for TVOCs or dust are encountered and exceeded at sustained levels for a period of 5 minutes at the perimeter locations, the likely source of exceedance shall immediately be evaluated, and if determined that the source is the actual work, Site personnel shall implement appropriate engineering controls and/or modify work practices to address exceedances, including stopping the work as necessary until exceedances are controlled. Results of the air monitoring shall be provided to the Department on a weekly basis in an air monitoring summary report suitable for web posting. In the event of any sustained perimeter exceedance, the weekly summary report shall include information regarding the date/time of exceedance, nature of exceedance, field measures/work practice modifications implemented in response to the exceedance, and how the causes were controlled and/or finally resolved.

At this time, the OWM offers its concurrence with the proposed remedial action for the property. The OWM approves the STRAP provided that all activities and procedures detailed in the STRAP are strictly adhered to. Furthermore, this letter continues to place primary responsibility for the construction, operation, maintenance, and monitoring of the approved STRAP and its associated implementation on National Grid. As the Responsible Party and Performing Party, National Grid is expected to implement the STRAP in an expeditious and professional manner that prevents non-compliance with this Short-Term Response Action Approval Letter and said STRAP, and is protective of human health and the environment.

The Performing Party shall notify all abutting property owners, tenants, easement holders, the municipality, and any community well suppliers associated with any well head protection areas which encircle the site, that the Short-Term Remedial Action is complete and make available to them the findings of the Short-Term Response Report submitted in accordance with Rule 6.06 II of the Remediation Regulations. Please submit a draft notification to the Department via E-mail for review and approval prior to distribution.

Within thirty (30) days of completion of all the above mentioned remedial work outlined in the STRAP, please submit a STRA Closure Report in accordance with Rule 6.09 inclusive of any disposal documentation and laboratory sampling analysis to the OWM for review and approval.

This Short-Term Response Action Approval Letter does not remove your obligation to obtain any other necessary permits from other local, State, or Federal agencies. The OWM shall require at least forty-eight (48) hours notice in advance of any remedial work.

If you have any questions regarding this letter or would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 222-2797, ext. 7109, or by E-mail at joseph.martella@dem.ri.gov.

Sincerely,



Joseph T. Martella II
Senior Engineer
Office of Waste Management

Authorized by,



Kelly J. Owens
Supervising Engineer
Office of Waste Management

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