



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF LAND REVITALIZATION & SUSTAINABLE MATERIALS MANAGEMENT
235 Promenade Street, Providence, Rhode Island 02908

ORDER OF APPROVAL - ADDENDUM

October 7, 2021

File No. SR-26-0934A

(Formerly Case No. Case No. 95-022)

CERTIFIED MAIL

Mr. Kenneth E. Lento
Project Manager - Site Investigation & Remediation
National Grid
40 Sylvan Road
Waltham, MA 02451

RE: Tidewater Coal Gasification
Tidewater Street
Pawtucket, Rhode Island
Plat Map 54B / Lot 826, Plat Map 65B / Lots 645, 647, 649, 662 and portions of Lot 648
and portions of Plat Map 67B / Lots 11 and 21

Dear Mr. Lento:

Enclosed please find the Order of Approval Addendum (the Addendum) for the proposed recommended modifications to the current, ongoing remedial actions at the abovementioned property as described in the Remedial Action Work Plan Addendum #2, Site Remediation File No. SR-26-0934A/Formerly RIDEM Case No. 95-022, Former Tidewater Facility, 200 Taft Street, Pawtucket, Rhode Island (RAWP Addendum 2), received August 12, 2021, and prepared by GZA GeoEnvironmental, Inc. (GZA). Please review the stipulations of this Order thoroughly to ensure your compliance with the requirements.

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. 2777109, or by E-mail at joseph.martella@dem.ri.gov.

This Addendum shall be recorded in the land evidence records of the City of Pawtucket within thirty (30) days of execution and a recorded copy returned to the Department within fifteen (15) days of recording.

Sincerely,

Joseph T. Martella II
Environmental Engineer III
Office of Land Revitalization & Sustainable Materials Management

cc: Terrence D. Gray, RIDEM/Acting Director
Leo Hellested, RIDEM/OLRSMM
Kelly Owens, RIDEM/OLRSMM
Ronald Gagnon, RIDEM/OCTA
Nick Pissani, RIDEM/OWR/Storm Water
Neil Personeus, RIDEM/OWR/WQC
Dr. Michael Byrns PhD, RIDOH/Center for Healthy Homes & Environment
Tracy A. Silvia, RI CRMC
Richard Lucia, RI CRMC
Kathryn Kelly, NBC
Christopher Feeney, Stantec
Daniel J. Kroeber, Milone & MacBroon
Michael S. Wierbonics, ACOE/Regulatory Division
Dylan M. Zelazo, Pawtucket Mayor's Office
Susan Mara, Pawtucket Planning
Michael D. Cassidy, Pawtucket Planning
Dave Clemente, Director Pawtucket/DPW
Robert Billington, Blackstone Valley Tourism Council
Gerard Charbonneau, Chairman, Pawtucket School Committee
Julie Nora, Ph.D., International Charter School
Carolyn Sheehan, Blackstone Academy
Bridget Boucher, Francis J. Varieur Elementary School
Ms. Dania Alejandra Flores-Heagney, Environmental Justice League of Rhode Island
Michele Leone, National Grid
David J. Rusczyk, GZA
Lance Hill, Pare

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

In the matter of the application for Remedial Action Approval at:

Tidewater Coal Gasification
Tidewater Street
Pawtucket, Rhode Island
File No. SR-26-0934A

ORDER OF APPROVAL – ADDENDUM

In the above entitled matter the Rhode Island Department of Environmental Management (the Department) issued to The Narragansett Electric Company d/b/a National Grid (National Grid), in their capacity as Owner and Responsible Party for the remediation of the property located on Tidewater Street (the Site), Pawtucket (Plat 54B / Lot 826, Plat 65B / Lots 662, 645, 647, 649 and portions of Lot 648 and portions of Plat 67B / Lots 11 and 21), an Order of Approval (Order) date March 5, 2020.

On August 12, 2021, the Department received a written request from GZA GeoEnvironmental, Inc. (GZA), for approval of modifications to the original Order with respect to the ongoing remedial activities at the Site. The following documents were submitted by GZA on behalf of National Grid regarding the requested modifications:

1. Remedial Action Work Plan Addendum #2, Site Remediation File No. SR-26-0934A/Formerly RIDEM Case No. 95-022, Former Tidewater Facility, 200 Taft Street, Pawtucket, Rhode Island, received by the Department on August 12, 2021, and prepared by GZA; and
2. Electronic Mail RAWP Addendum - Tidewater, received by the Department on September 20, 2021, and prepared by GZA, responding to verbal comments on the RAWP Addendum 2 from the Department.

Subject to the conditions herein, the above listed documents, in addition to the documents listed in the Order dated March 5, 2020, describe a plan to remediate existing contamination pursuant to Rhode Island General Laws 23-19.14-1 et seq. and 250-RICR-140-30-1, the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations), in accordance therewith.

Based on review of the above referenced documents, the Department has concluded that a modification to the prior order is warranted.

It is the Department's intent that this Addendum continues to place primary responsibility for the construction, operation, maintenance, and monitoring of the approved Remedial Action Work Plan (RAWP) and its associated implementation on National Grid. As the Responsible Party and Performing Party, National Grid is expected to implement the RAWP in an expeditious and professional manner that prevents non-compliance with the original Order, this Addendum, and the RAWP, and is protective of human health and the environment. For the convenience of

National Grid and its contractors and consultants, the changes made to the original Order by this Addendum have been highlighted below.

Upon consideration thereof, the Department of Environmental Management's Office of Land Revitalization and Sustainable Materials Management (LRSMM) approves said plan or means to remediate contamination through this Addendum provided that:

1. All conditions set forth in the Order of Approval dated March 5, 2020, shall remain in full force and effect unless specifically altered by this Addendum.
2. The remedy modifications are necessary due to the revised development of the northern portion of the Site as a stadium facility by Fortuitous Partners under a long-term lease agreement with National Grid and the realignment of the existing combined sewer outfall (CSO) at the Site by the Narragansett Bay Commission (NBC).
3. The original remedy indicated that an impermeable cap would be conservatively extended across the entire Former Gas Plant Area (FGPA) and North Fill Area (NFA). Since the majority of the FGPA and NFA will be covered by the stadium or hardscaped/paved areas, the extent of the impermeable cap in the northern portion of the Site will be modified as follows:
 - a. The impermeable cap installed beneath the eastern portions of the FGPA and NFA and beneath the stadium field and bleachers will consist of a 50-mil linear low-density polyethylene (LLDPE) liner underlying at least 24-inches of imported clean fill, which is the same material as previously approved.
 - b. In the areas to the north, west, and south of the bleachers where hardscaped/paved areas or buildings will be constructed, the engineered cap will consist of a non-woven geotextile fabric to act as a warning barrier underlying at least 12-inches of clean imported fill. Additional clean imported fill may be placed by the developer to achieve final design grades so the actual clean engineered cap thicknesses may be greater than the minimum required 12-inches in thickness.
 - c. A vapor barrier will also be installed beneath the footprint of any/all buildings to mitigate the potential for vapor intrusion into the occupied spaces.
 - d. Near the new CSO pipe, approximately where the pipe will be installed via open excavation methodology, the engineered cap will consist of a non-woven geotextile fabric to act as a warning barrier underlying a 6-inch-thick layer of relatively impermeable clay underlying an 18-inch-thick layer of imported clean fill.
 - e. The section of the originally proposed porous pavement maintenance path extending from Tidewater Street down to the riverfront conflicts with the proposed stadium and therefore will no longer be installed. The porous pavement maintenance path parallel to the river will still be installed and will serve to provide access to the recovery and monitoring wells installed along the riverfront.

- f. The footprint of the development extends to the northern Site property boundary and over the footprint of an existing freshwater wetland. The developer is responsible for, and is in the process of obtaining, regulatory approval from the Rhode Island Coastal Resources Management Council (CRMC) to fill this wetland area. Provided the developer obtains approval, the wetland will be filled and capped with a nonwoven geotextile fabric and at least 12-inches of clean imported fill.
 - g. Originally approximately 37,000 cubic yards of existing soil was going to be regraded across the entire Site in order to install the engineered caps. In order to achieve the design grades for the stadium development and to construct the stadium field, approximately 42,000 cubic yards of existing soil will be regraded and placed as fill beneath the engineered caps in just the northern half of the Site.
4. There will be no changes to the engineered cap within 50-feet of the new coastal feature line including the 25-foot vegetated buffer and the revetments previously approved by the Department and CRMC.
5. There will be no changes to the soil management techniques including stockpile size limitations and the Best Management Practices for sedimentation and erosion control previously approved by the Department and CRMC.
6. The original Order of Approval included the abandonment of twenty-nine (29) existing monitoring wells to facilitate the implementation of the remedy. Due to conflicts with the stadium infrastructure, the layout of NBC's realigned CSO and a future substation equipment upgrade in the planning phase, an additional ten (10) monitoring wells will require abandonment. After abandonment of these additional monitoring wells, the long term natural attenuation groundwater monitoring program will include 4 new monitoring wells and eighteen (18) existing monitoring wells MW-310S, MW-310D, and MW-311 in the NFA, wells MW-312D, MW-326D, MW-333S, and MW-333D in the FGPA, wells M&E MW-2, MW-6, MW-314S, MW-314D, MW-316S, MW-316D, and MW-337 in the Former Power Plant Area (FPPA), and wells MW-107, MW-318S, MW-334S and MW-334D in the South Fill Area (SFA). This modification will result in a reduction in the number of monitoring wells included in the long term natural attenuation groundwater monitoring program from a total of 27 monitoring wells (5 new wells and 22 existing wells) to 22 monitoring wells.
7. Installation of the engineered cap in the southern portion of the Site is anticipated to be completed in the September/October 2021 timeframe. Once the southern end of the Site is capped, intrusive activities that will disturb impacted Site soils will be focused in areas directly west and north of the substation area. At that point the number of perimeter air monitoring stations will be reduced from 11 to 9 stations and the perimeter air monitoring program will be focused on the northern end of the Site.
8. The stadium developer needs to complete a ground improvement program in the northern portion of the Site to densify a deep layer of loose sands prior to construction of the stadium foundations. The ground improvement program will consist of a combination of vibratory probe compaction and rapid impact compaction activities. National Grid will regrade the existing Site soils in the northern portion of the Site prior to the initiation of the ground

improvement program. The engineered cap in the northern portion of the Site will be constructed as the ground improvement program is completed and the stadium construction will be completed on clean capped soils.

9. NBC's contractor will be mobilizing to the Site in January 2022 to start the realignment of the existing CSO pipe, and will be responsible for the management and placement of the soils generated during the course of their work as fill beneath the engineered caps to the extent practical consistent with the regulatory approvals previously obtained by National Grid. Any excess soil that cannot be used as fill beneath the engineered cap will be disposed of off-Site to a licensed facility by NBC's contractor. Realignment of the CSO will also require dewatering of at least the drop shafts for the pipe jacking activities. Dewatering fluids that are generated during the work will be treated on-Site and discharged to the sanitary sewer system consistent with a discharge approval obtained by NBC's contractor. Upon realignment of the CSO pipe, NBC's contractor will be responsible for installation of the engineered cap consistent with the engineered cap designs approved by the Department.

The original Order and this Addendum shall remain in full force and effect provided said RAWP is implemented in a manner satisfactory to the Department of Environmental Management. Failure to comply with all points outlined in the Department approved RAWP and stipulated in this Order shall result in the revocation of this Order of Approval and may result in the issuance of a Notice of Violation against the Performing Party.

The original Order and this Addendum shall be subject to modification or revocation in accordance with law.

This Order shall be subject to modification or revocation in accordance with law.

Entered as the Order of the Department of Environmental Management this 7th day of October, 2021.

By:

Matthew DeStefano

Digitally signed by Matthew DeStefano
DN: C=US,
E=matthew.destefano@dem.ri.gov,
CN=Matthew DeStefano
Reason: I am approving this document
Date: 2021.10.07 12:50:09-04'00'

Matthew D. DeStefano
Deputy Administrator
Office of Land Revitalization & Sustainable Materials Management
Department of Environmental Management