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February 19, 2020
File No. 03.0033554.60

Mr. Joseph Martella
Office of Waste Management
Rhode Island Department of Environmental Management
235 Promenade Street, 3rd Floor
Providence, RI 02908-5767

Re: Proposed Drywell Closure Plan
Fields Point Liquefaction Project
642 Allens Avenue
Providence, Rhode Island
RIDEM Case No. SR-28-1152

Dear Mr. Martella:

On behalf of our Client, the National Grid LNG, LLC d/b/a National Grid (National Grid), GZA GeoEnvironmental, Inc. (GZA) has prepared this letter requesting approval to close a previously unknown and recently discovered drywell at the above-referenced property (herein referred to as the "Site"). National Grid would like to close this structure as part of the Fields Point Liquefaction Project (FPLP; herein referred to as the "Project"). The contractor (Kiewit Power Constructors of Lenexa, Texas) for the Project would like to close this structure in March 2020 to allow for construction activities related to the liquefaction Project in the area of the Former Propane House Foundation. This request is being directed to the Rhode Island Department of Environmental Management (RIDEM) Office of Waste Management (OWM) as part of the approved Short-Term Response Action Plan (STRAP) activities for the Liquefaction Project due to the existing soil and groundwater impacts, as described below.

This letter is subject to the Limitations included in Attachment A.

BACKGROUND

On October 24, 2019, GZA assessed an unnamed manhole (suspected drywell); refer to the attached Figure 1, Overall Aerial, for the location of this structure. GZA could not establish if the structure contained a hard bottom during the October 24, 2019 evaluation. In other words, GZA could not determine if the structure was in fact a drywell. To further assess the structure, Clean Harbors Environmental Services Inc. (CHES) performed vacuum excavation of the suspected drywell to remove accumulated sediment and debris on January 29, 2020. Photos of the drywell pre- and post- vacuum excavation are provided in the attachments. Less than one (1) cubic yard of sediment and brick debris was removed from the structure and added to the soil management stockpile for the FPLP. The bottom of the drywell structure was located approximately 7.5 feet below the rim elevation and was observed to be a soft bottom, indicating that the structure is a drywell. This structure consists of a round solid manhole cover set in concrete. The interior of the structure is round concrete in good condition. There are two inlet pipes to the drywell on the southeast side (toward the Former Propane House

Foundation[1]); no outlet pipes were observed. One inlet is a 4-inch diameter pipe (material unknown). The invert of the 4-inch pipe is approximately 20 inches from the rim of the manhole cover. This pipe appears to have been previously sealed. The second inlet pipe is 3-inch diameter ductile iron and the invert is approximately 7 inches from the rim of the manhole cover. Based on historical operations at the Site, we believe this drywell was utilized as a steam trap for the Former Propane House. Representative photographs of the drywell and interior conditions are provided in Attachment B.

REGULATORY REVIEW

GZA reviewed pertinent regulatory documents for closure requirements for the drywell, including:

- The RIDEM Office of Water Resources (OWR) Rules for the Discharge of Non-Sanitary Wastewater and Other Fluid to or Below the Ground Surface dated June 2012 (Groundwater Discharge Rules, 250-RICR-150-05-4), and
- RIDEM Groundwater Discharge System Closure Guidance document dated September 2017.

Based on our review of relevant regulations, the closure of this drywell is exempt from requiring approval through the OWR Underground Injection Control (UIC) Program provided that the closure receives approval from the OWM. According to Rule 4.18 "Closure of a Groundwater Discharge System" of the Groundwater Discharge Rules, Section F, "The Director shall waive the requirement to submit an Application for Closure of a Groundwater Discharge System listed under §§ 4.18(D)(2) through (5) of this Part, provided that the groundwater discharge system subject to these rules is closed as part of an active waste clean-up activity at a site that is subject to approval by the RIDEM Office of Waste Management. The owner of a facility with a groundwater discharge system that is eligible for an application waiver must be in compliance with all other applicable provisions of these rules. Approval from the RIDEM Office of Waste Management for these closures shall constitute approval pursuant to these rules." We are seeking approval to close the drywell as part of the ongoing remedial activities for the FPLP described in the Short-Term Response Action Plan (STRAP) and STRAP Addendum dated May 2, 2017 and October 11, 2017, respectively. RIDEM OWM approved the STRAP activities by issuance of an approval letter dated October 27, 2017.

CLOSURE PLAN

The following describes the proposed procedures to be followed during closure of the drywell. In order to minimize soils disturbance at the Site, National Grid proposes to close the drywell in place according to the following procedure:

- Remove/demolish the existing manhole cover, ring, and 3-inch diameter inlet pipe (demolish approximately top 6-7 inches of the structure);
- Dispose of concrete debris and scrap metal from the manhole cover and pipe removal at a licensed disposal facility.
- Fill the bottom of the drywell with clean backfill, flowable fill or suitable Site soils up to 12-inches from the final grade; and

[1] National Grid demolished the Former Propane House in January 2019.

- Cap to existing grade the top 12-inches of the drywell with concrete. Seal any inlet or outlet pipes with concrete as necessary.

It is anticipated that minimal soils will be generated during the drywell closure activities. Generated soils will be managed consistent with the requirements of the STRAP. Closure activities associated with the drywell will be documented in the Short-Term Response Action Closure Report for the FPLP project. Kiewit is expected to close the drywell in March 2020, and the closure will take approximately 1 day to complete.

Should you have any questions or comments regarding the information presented herein, please do not hesitate to contact the undersigned or Amy Willoughby at (781) 907-3644 or William Howard at (401) 784-7490.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.

Sara Haupt, P.E.
Assistant Project Manager

Igor Runge, Ph.D., P.H.
Consultant/Reviewer

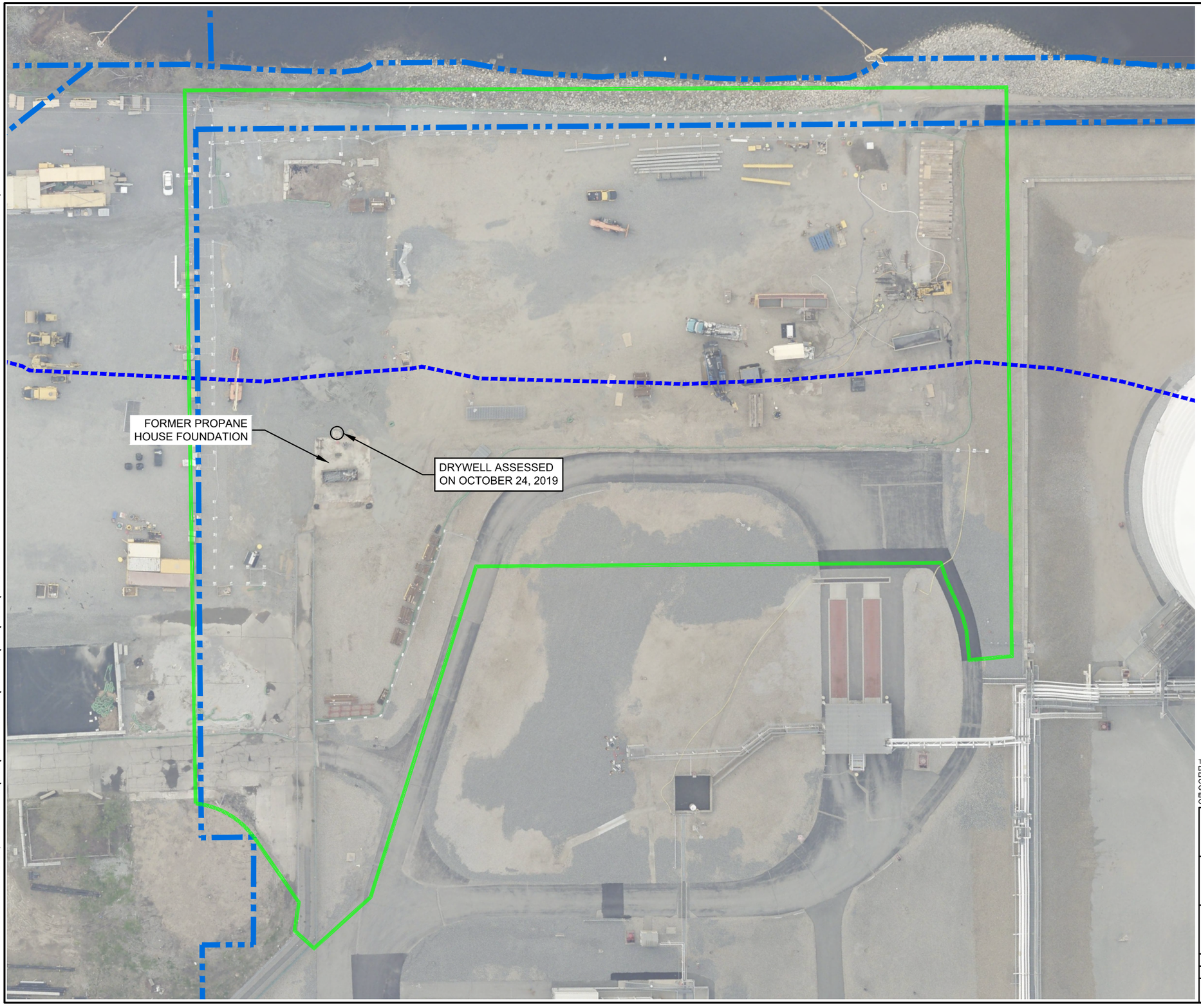
Margaret S. Kilpatrick, P.E.
Associate Principal

MSK/

Cc: Amy Willoughby (National Grid)
William Howard (National Grid)

Attachments: Figure 1 – Overall Aerial
Limitations
Photographs

J:\ENV\33554.60.msk\Work\Drywell Closure\33554.60 Drywell Closure Letter Final.docx



REFERENCE NOTES:

1. BASE MAP DEVELOPED FROM RHODE ISLAND'S RIGIS AERIAL IMAGERY PUBLISHED IN APRIL 2019.
2. PARCEL AND STREET DATA PROVIDED BY THE CITY OF PROVIDENCE PLANNING AND DEVELOPMENT DEPARTMENT. PARCELS OF REAL ESTATE ASSESSED AS OF DECEMBER 31, 2012. GIS DATA ARE FOR PLANNING PURPOSES ONLY. THESE DATA DO NOT REPRESENT A LEGALLY RECORDED PLAN, DEED, SURVEY OR ENGINEERING SCHEMATIC AND ARE NOT INTENDED TO BE USED AS SUCH.
3. SITE BOUNDARIES ARE APPROXIMATE.

LEGEND:

PROPERTY LINES

CRMC 200' JURISDICTIONAL LIMIT

LIQUEFACTION PROJECT AREA

0 30' 60' 120'

SCALE IN FEET 1" = 60'

FPLP - DRYWELL CLOSURE
642 ALLENS AVENUE
PROVIDENCE, RHODE ISLAND

OVERALL AERIAL

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: nationalgrid	
PROJ MGR: SH	REVIEWED BY: MSK	CHECKED BY: SDN	DRAWING 1
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: FEBRUARY, 2020	PROJECT NO. 33554.60	REVISION NO. 0	SHEET NO. 1 OF 1

GEOHYDROLOGICAL LIMITATIONS

1. This *letter* has been prepared on behalf of and for the exclusive use of National Grid, solely for use in documenting the conditions observed at the property located at 642 Allens Avenue in Providence, Rhode Island ("Site"). This letter and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA or National Grid.

2. GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the study. No other warranty, express or implied is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during the performance of our Site investigations.

3. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based upon services performed and observations made by GZA.

Site Photos

Client Name: National Grid	**Site Location:** Drywell	**Project No.** 03.00033554.60

Photo 1

Description: Drywell prior to cleaning with vacuum truck

Photo 2

Description: Drywell after cleaning with vacuum truck