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October 17, 2018
File: 21.0056811.00

Mr. George Streit
George.Streit@nrg.com
Huntley Power LLC
3500 River Road
Tonawanda, NY 14150

Re: Existing CCR Landfill Location Restrictions – Unstable Areas
Huntley Generating Station CCR Landfill
Tonawanda, New York

Dear Mr. Streit:

GZA GeoEnvironmental of New York (GZA) presents this location restriction documentation to Huntley Power LLC (Huntley) for the existing coal combustion residuals (CCR) landfill located at the Huntley Generating Station's ash landfill located in Tonawanda, New York (Site). This location restriction documentation is required by the United States Environmental Protection Agencies (USEPAs) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, as presented in the Federal Register Volume 80 No 74 dated April 17, 2015.

This documentation is being provided in accordance with the CCR Rule, 40 CFR §257.64 for unstable areas. Specifically;

40 CFR §257.64 (a) states, "...existing CCR landfill must not be located in an unstable area unless the owner or operator demonstrates by the dates specified in paragraph (d) of this section that recognized and generally accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted.

Site Background

The required periodic inspections presented in the CCR Rule are intended for open and active landfills and are not required for closed or inactive landfills. As such, the active/open ash waste cells for the Huntley Power Site are identified as upper portions of Cells A and D, and all of Cell C. The remaining landfill cells at the Site are considered inactive (i.e., closed) and are not included with this location restriction report. The limits of the active cells requiring this location restriction evaluation for unstable areas are shown on the attached figure prepared by Wendel for a 2017 fill progression survey. Areas designated as future Cell B (located between Cells A and C) and Cell E (located south of Cell A) were never constructed.

The Huntley Power landfill is currently permitted (ID#9-1464-00089/000010) with the New York State Department of Environmental Conservation (NYSDEC) to accept primarily CCR generated from the Huntley Power facility through January 3, 2023. The Huntley Power plant



has ceased electrical generation operations and is retired. Portions of the landfill remain active to support plant shutdown activities.

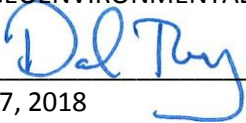
With respect to the location restriction for unstable areas, there are no documented unstable areas (e.g., karst conditions, loosely placed fill or waste, etc.) that may result in significant differential settling resulting from geologic/geomorphologic features and/or manmade features at the Site. Previously completed soil borings from the Site indicate an approximate 40 ± foot thick lacustrine and glacial deposited silty clay soil with lesser amounts of coarse soil (e.g., sands and gravel) over a shale bedrock (identified as Camillus Shale).

The CCR unit was constructed on generally flat ground surfaces. Additionally, the CCR unit was designed and constructed with recognized and generally accepted good engineering practices (e.g., placement of subbase/structural fill in controlled lift thicknesses compacted with vibratory heavy equipment compaction rollers, construction of a primary and secondary leachate collection system to remove landfill liquids, etc.), that were incorporated into the design and construction of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disturbed.

PROFESSIONAL ENGINEER CERTIFICATION

The undersigned registered professional engineer is familiar with the requirements of *Location Restrictions §257.64 for Unstable Areas*. The undersigned registered professional engineer attests that this CCR Location Restriction documentation has been prepared in accordance with good engineering practice, including consideration of applicable state regulatory requirements and meets the requirements of §257.64, and that this plan is adequate for NRG - Huntley Power. This certification was prepared as required by §257.64(b).

Name of Professional Engineer: Daniel J. Troy, P.E.
Company: GZA GEOENVIRONMENTAL OF NEW YORK

Signature: 
Date: October 17, 2018
PE Registration State: New York
PE Registration Number: 081139-1
Professional Engineer Seal:




We trust this information satisfies your needs for this project.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK


Daniel J. Troy, P.E.
Senior Project Manager


Bart A. Klettke, P.E.
Principal

Attachments: Figure 1 - Site Plan

©2018 - GZA GeoEnvironmental of NY GZA-K:\PROJECTS\568006\56811 NRG Huntley CCR Surface Impoundment Location Restriction Figures - Huntley Landfill.dwg [Figure 1 Unstable Areas] October 16, 2018 - 3:56pm theodore.kietke



LEGEND

- CCR GROUNDWATER MONITORING WELL

GENERAL NOTES

1. BASE MAP AERIAL PHOTOGRAPH WAS DEVELOPED USING GOOGLE EARTH PRO.
2. MONITORING WELL LOCATIONS AND BOUNDARIES WERE ADAPTED FROM APTIM DRAWING No. 631229737-B4, FIGURE 2 DATED 1/17/18 PROVIDED BY NRG.



NO.	ISSUE/DESCRIPTION	BY	DATE
2018 CCR LANDFILL LOCATION RESTRICTION UNSTABLE AREAS HUNTLEY POWER PLANT TONAWANDA, NEW YORK			
HUNTLEY LANDFILL			
PREPARED BY: GZA GeoEnvironmental Inc. Engineers and Scientists 300 Pearl Street, Suite 700 BUFFALO, NEW YORK 14202 (716) 885-2300		PREPARED FOR: HUNTLEY POWER	
PROJ MGR: DJT DESIGNED BY:	REVIEWED BY: BAK DRAWN BY: TAK	CHECKED BY: DJT SCALE: AS SHOWN	FIGURE 1
DATE OCTOBER 2018	PROJECT NO. 21.0056811.00	REVISION NO.	

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