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October 17, 2018
File: 21.0056812.00

Mr. George Streit
George.streit@nrgenergy.com
Dunkirk Power LLC
106 Point Drive North
Dunkirk, NY 14048

Re: CCR Landfill Location Restriction for Unstable Areas
Dunkirk Generating Station
Van Buren Road
Pomfret, New York

Dear Mr. Streit:

GZA GeoEnvironmental of New York (GZA) presents this location restriction documentation to Dunkirk Power LLC (Dunkirk) for the existing coal combustion residuals (CCR) landfill located at the Dunkirk Generating Station's ash landfill located in Pomfret, 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 location restrictions presented in the CCR Rule are for open and active landfills and not required for closed or inactive landfills. As such, the active ash waste cells for the Site area identified as Phase 2, Cells A and B-1. The Site landfill cells identified as Phase 1, Cells A and B (excluding a small portion of the northern Phase I Cells A and B) and the eastern portion of Phase 2, Cell A are considered inactive (i.e., closed) and are not included with the location restriction report. The limits of the active cells requiring this location restriction evaluation are shown on the attached figure prepared by GZA GeoEnvironmental for the 2010 Phase 2, Cell B-2 landfill extension. This landfill cell was constructed in 2010 but has not yet received any CCR to date.

The Dunkirk Power landfill is currently permitted (ID#9-0658-00021/00008) with the New York State Department of Environmental Conservation (NYSDEC) to accept CCR generated



from the Dunkirk Power facility through May 22, 2021. We note that the power plant has been mothballed and associated equipment has been prepared for long term storage and is currently not in operation.


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 and test pit excavations completed at the Site indicate an approximate 10-foot-thick layer of native fine-grained lacustrine soil (e.g., silty clays) with lesser amounts of coarse soil (e.g., sands and gravel) over a shale bedrock (identified as Dunkirk 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 have been 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 - Dunkirk 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:

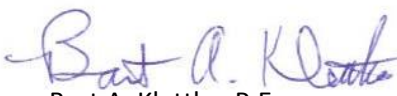


We trust this information satisfies your needs for this project.

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

