



Proactive by Design

GEOTECHNICAL

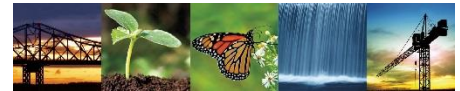
ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

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October 14, 2016
File: 21.0056757.01

Mr. Kevin Schroeder
Kevin.schroeder@nrgenergy.com
Dunkirk Power LLC
106 Point Drive North
Dunkirk, NY 14048

Re: Existing CCR 2016 Landfill Annual Inspection
Van Buren Road
Pomfret, New York

Dear Mr. Schroeder:

GZA GeoEnvironmental of New York (GZA) presents this 2016 Annual Landfill Inspection report to Dunkirk Power LLC (Dunkirk) for the existing coal combustion residuals (CCR) landfill units at the Dunkirk Generating Station landfill located in Pomfret, New York (Site). This annual inspection is required by the United States Environmental Protection Agencies (USEPA) 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. In accordance with the CCR Rule (40 CFR 257.84), owners/operators of CCR landfill units are required to be inspected on a periodic basis by a qualified professional engineer to ensure the design, construction, operation and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.

Document Review

The required periodic inspections 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 annual inspection report. The limits of the active cells requiring this annual inspection report are shown on the attached figure prepared by Wendel for the 2015 fill progression survey. A constructed cell designated as Phase II Cell B-2 adjacent to Cell B-1 on the west has never received waste ash and there are currently no plans for this cell to receive waste in the future. Therefore, Cell B-2 is not included in this annual inspection plan.



The Dunkirk Power landfill is currently permitted (ID#9-0658-00021/00008) with the New York State Department of Environmental Conservation (NYSDEC) to accept residual coal ash waste generated from the Dunkirk Power facility through May 22, 2021. We note that the power plant has recently been mothballed and associated equipment has been prepared for long term storage and is currently not in operation. A review of the 2015 (most recent) fill progression assessment for the Phase 2 Cells A and B-1 indicates the following information.

Phase 2 Landfill Cell	Waste Received 2015 (cy)	Current Ash Volume (cy)	Volume Remaining (cy)
Cell A	0	719,661	28,361
Cell B-1	13,582*	208,544	270,941
Totals for A & B-1	13,582	928,205	299,302

cy = cubic yards

*also includes 602 cy of ash received during 2015 in Phase I Cell B.

A review of the weekly landfill inspection forms prepared by Dunkirk Power personnel did not identify any concerns or complaints related to the operation and/or maintenance of the active ash landfill cells.

Site Observations

GZA visited the Site on August 23th, 2016 to make observations of the active landfill cell areas. During our visit, the upper open area of the landfill Cell A (area west of the upper intermediate berm) was observed with about 12-inches of cover soil being placed over the graded ash waste. The haul roads leading to the work face were observed in good condition with little to no evidence of erosion or instability. Observations of the work face side slopes and newly graded cover soil identified no areas of actual or potential structural weaknesses. Additionally, the central portion of Cell B-1 was observed to have recently had a large trench excavation dug within a north-south orientation. This excavation was recently made in anticipation of placement of CCR associated wastes from the Dunkirk plant that will require disposal due to activities associated with the plant being mothballed.

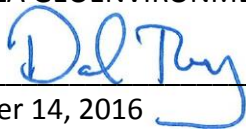
Overall, the work face areas of the active cells appeared to be graded in general accordance with the proposed design configurations, and the side slopes and other areas were observed in good condition with no evidence of actual, or potential for, structural instability or erosion. Similar to the initial annual inspection made at the end of 2015, this inspection identified no areas of concern or areas evidencing structural instability. With the exception of the observed placement of cover soil and the excavation for CCR associated wastes, no significant changes pertaining to the design, operation and maintenance have been made to the active landfill cells. In general, the ongoing maintenance and grading of the ash waste appear to be in compliance with the cell design and permit requirements.



PROFESSIONAL ENGINEER CERTIFICATION

The undersigned registered professional engineer is familiar with the requirements of §257.84 and has visited and examined the Dunkirk Station Landfill or has supervised examination of the facilities by appropriately qualified personnel. The undersigned registered professional engineer attests that this Annual Inspection Report has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and meets the requirements of §257.84, and that this Report is adequate for the Dunkirk Station. This certification was prepared as required by §257.84(b)(2).

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

Signature: 
Date: October 14, 2016
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 - 2015 Dunkirk Fill Progression Survey – Site Plan

