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October 11, 2019
File: 21.0056812.00

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

Re: CCR Landfill 2019 Annual Inspection
Dunkirk Generating Station
Van Buren Road
Pomfret, New York

Dear Mr. Streit:

GZA GeoEnvironmental of New York (GZA) presents this 2019 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 check 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 are 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 2018 fill progression survey. A constructed cell designated as Phase 2, Cell B-2 (adjacent to Phase 2, 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, Phase 2, 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 been mothballed and associated equipment has been prepared for long term storage and is currently not in operation. A review of the 2018 (most recent) fill progression assessment for the Phase 2 Cells A and B-1 indicates the following information.

Phase 2 Landfill Cell	Ash/Material Received 2018 (cy)	Current Ash Volume (cy)	Volume Remaining (cy)
Cell A (western extent)	43	721,070	26,952
Cell B-1*	333	227,506	251,979
Totals for A & B-1	376	948,576	278,931

cy = cubic yards

*also includes 124 cy of material received during 2018 in Phase I Cell B.

The 2018 received material was actually coal and coal debris that was removed from the plant in June 2018.

The 2019 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 September 9, 2019 to make observations of the active landfill cell areas. During our visit, the majority of the landfill Cell A (area west of the upper intermediate berm) and Cell B-1 were observed and covered with a densely vegetated temporary cover soil over the graded ash waste. The former haul road leading to the work face on the western side of Phase 2, Cell B-1 was no longer observed and the area was generally reworked to match the side slope grades. Access to the top of the active landfill was made via an access road from the south, between Phase 1 and Phase 2 cells. The access road was observed in good condition with little to no evidence of erosion or instability. Observations of the vegetated side slopes and top areas of the active cells identified no areas of actual or potential structural weaknesses.

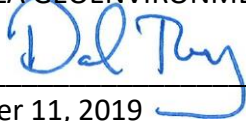
Overall, the temporarily covered areas of the active cells appeared to be graded in general accordance with the proposed design configurations, and the side slopes and other areas were observed in good condition with no evidence of actual, or potential for, structural instability or erosion. Similar to the most recent inspection made in 2018, this inspection identified no areas of concern or areas evidencing structural instability. In general, no significant changes pertaining to the design, operation and maintenance have been made to the active landfill cells since the previous year and the ongoing maintenance of the temporary cover soil 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 11, 2019
PE Registration State: New York
PE Registration Number: 081139-1




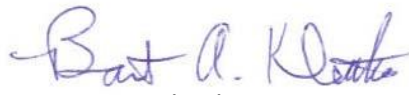
Professional Engineer Seal:

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 - 2018 Dunkirk Fill Progression Survey – Site Plan

