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October 8, 2021
File: 21.0056984.00

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

Re: CCR Landfill 2021 Annual Inspection
Dunkirk Generating Station
Van Buren Road
Pomfret, New York

Dear Mr. Streit:

GZA GeoEnvironmental of New York (GZA) presents this 2021 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 ash waste cells for the Site that are considered to be active are identified as Phase 2, Cells A and B-1. We note that these active portions of the landfill have a temporary cover system consisting of an approximate 12-inches of vegetated soil covering the previously exposed CCR waste. As a result, contact water (i.e., stormwater runoff over exposed CCR waste) runoff is not generated, rather stormwater runoff is considered clean.

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 closed and are not included with this 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 2020 fill progression survey (see **Figure 1**).

A constructed landfill 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 future plans for this cell to receive coal ash waste, although accumulated stormwater in this cell does discharge to the active leachate collection system.

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. This permit was to expire on May 22, 2021 and is currently undergoing the permit renewal process with NYSDEC to extend the Site permit for an additional ten-year period. A review of the 2020 (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 2020 (cy)	Current Ash Volume (cy)	Volume Remaining (cy)
Cell A (western extent)	0	721,070	26,952
Cell B*	0	227,506	536,403
Totals for A & B-1	0	948,576	563,355

cy = cubic yards

*Reported volume remaining in Cell B includes potential volume of Cell B-1 and B-2

The 2021 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 as these cells have had a temporary cover of vegetated topsoil.

Site Observations

GZA visited the Site on September 10, 2021 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 covered with a temporary vegetated cover soil over the previously graded ash waste. Access to the top of the active landfill areas was made via an access road between Phase 1 and Phase 2 landfills. 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 and no exposed ash waste was observed. Grass mowing activities were observed being done on top of Cell B-1 at the time of our Site visit.

Overall, the temporarily covered areas of the active cells appeared to be similar to the previous year’s inspection observations and were 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 2020, this inspection identified no areas of concern or areas evidencing structural instability. In

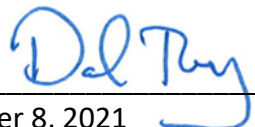


general, no significant changes pertaining to the design, operation and maintenance have been made to the active landfill cells since the previous year and the ongoing maintenance of the temporary cover soil appear to be in compliance with the cell design and permit requirements.

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 8, 2021
PE Registration State: New York
PE Registration Number: 081139-1




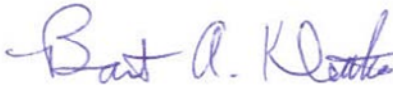
Professional Engineer Seal:

We trust this information satisfies your needs for this project.

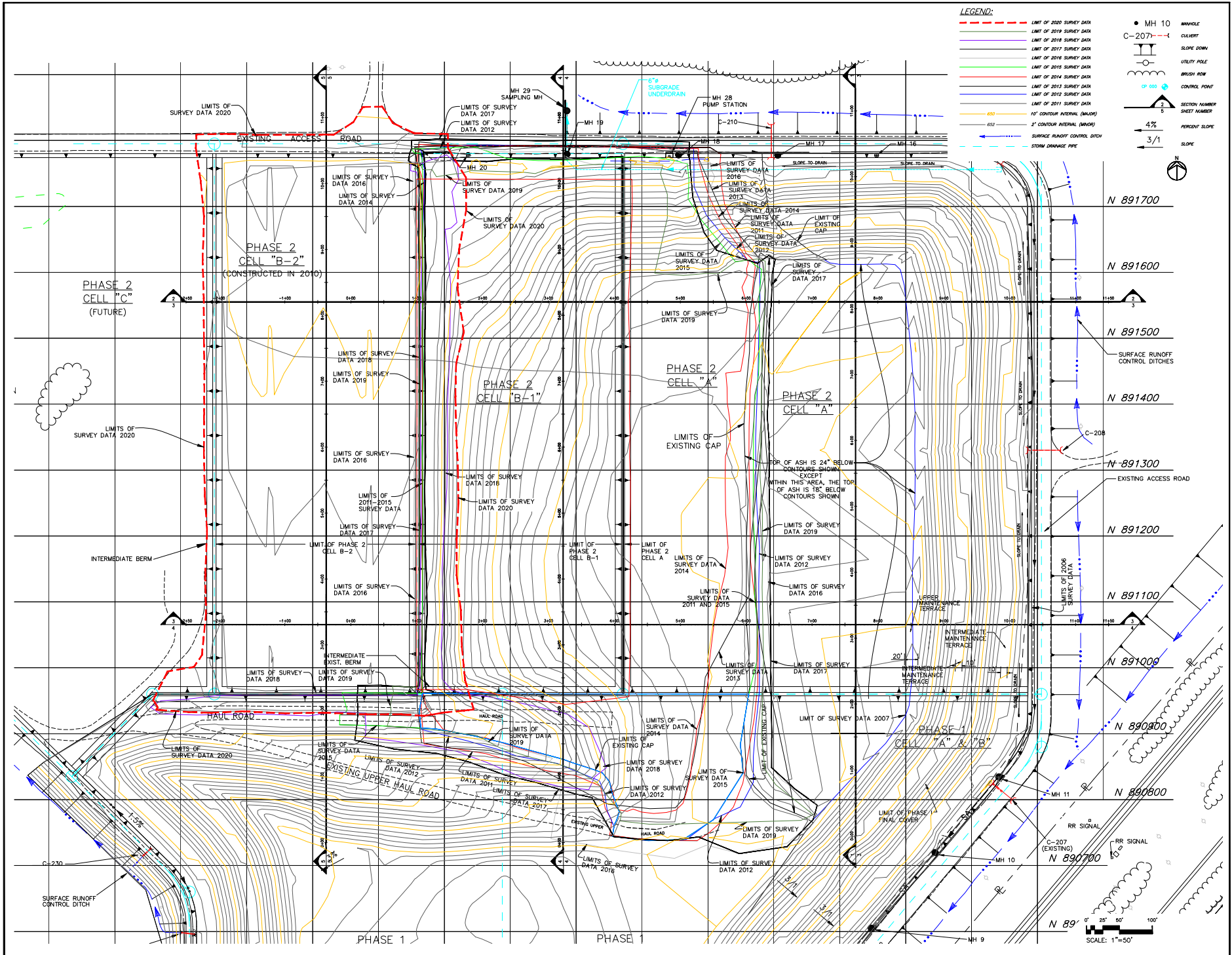
Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK


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


Bart A. Klettke, P.E.
Principal

Attachments: Figure 1 - 2020 Dunkirk Fill Progression Survey – Site Plan



LEGEND:

- LIMIT OF 2020 SURVEY DATA
- LIMIT OF 2019 SURVEY DATA
- LIMIT OF 2018 SURVEY DATA
- LIMIT OF 2017 SURVEY DATA
- LIMIT OF 2016 SURVEY DATA
- LIMIT OF 2015 SURVEY DATA
- LIMIT OF 2014 SURVEY DATA
- LIMIT OF 2013 SURVEY DATA
- LIMIT OF 2012 SURVEY DATA
- LIMIT OF 2011 SURVEY DATA
- LIMIT OF 2010 SURVEY DATA
- LIMIT OF 2009 SURVEY DATA
- LIMIT OF 2008 SURVEY DATA
- LIMIT OF 2007 SURVEY DATA
- LIMIT OF 2006 SURVEY DATA

- MH 10
- C-207
- SLOPE DOWN
- UTILITY POLE
- BRUSH ROW
- COUNTROL POINT
- SECTION NUMBER
- PERCENT SLOPE
- SLOPE

600
 652
 SURFACE RUNOFF CONTROL DITCH
 STORM DRAINAGE PIPE



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REV.	DESCRIPTION	DATE

DUNKIRK
2020 FILL PROGRESSION SURVEY
SITE PLAN

SCALE: 1"=50'

DATE: 10/30/2019
 SCALE: 1"=50'
 DWG. NO.: 47930
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

Figure 1