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July 9, 2021
File No. 21.0056855.20

Mr. Benjamin McPherson, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Street
Buffalo, New York 14203

Re: Final Supplemental Remedial Investigation - Summary Scope of Work
Huntley Power South Parcel – C915337, Town of Tonawanda, NY

Dear Mr. McPherson:

GZA GeoEnvironmental (GZA), on behalf of Huntley Power, LLC (Huntley submits this Final summary scope of work (SOW) of supplemental remedial investigation tasks planned for the subject site. This Final SOW amends the SOW initially submitted to you on May 28, 2021 and includes a corrected **Figure 1** and a project schedule through submittal of the draft Remedial Investigation, Alternatives Analysis Report, and Remedial Work Plan (RI/AAR/RWP), as requested in your email comments of June 10, 2021. The planned work will provide necessary data for characterization of environmental conditions and support remedial planning and design.

This Scope of Work includes the following three tasks:

- Targeted Groundwater Sampling of Four Groundwater Monitoring Wells;
- Delineation of Petroleum Impacts within the former Coal Pile;
- Further Characterization of South Settling Pond Coal Ash

Description of the planned work of each of the three planned tasks are as follow:

Task 1: Targeted Groundwater Sampling of Four Wells

Wells MW-1 and MW-3: Two of the 11 newly installed groundwater monitoring wells (upgradient wells MW-1 and MW-3) were dry during the initial groundwater sampling task of the RI because the fine-grained clayey silt, in which they were installed, caused slow recharge after well drilling/installation and development. These wells now have groundwater within them at sufficient volumes for sampling. GZA will sample these two shallow overburden wells for the “Full” list of parameters which includes:

- TCL Volatile Organic Compounds (VOCs) with TICS; EPA Method 8260;
- TCL SVOCs with TICs – EPA Method 8270;
- TAL Metals – EPA Method 6010;
- PCBs – EPA Method 8082;
- TCL Pesticides – EPA Method 8081;
- Herbicides – EPA Method 8151; and
- Total Cyanide – EPA Method 9012.



Additionally, two wells will be resampled for only those unexpected parameters, as follows:

Well B-17B: Well B-17B contained several PFAS compounds at concentrations slightly above the NYSDEC standards. This well is located on the upgradient, eastern, side of the Site along River Road and is the only well sampled that contained PFAS compounds at such concentrations. This well will be resampled for the same NYSDEC list of 21 PFAS compounds as originally sampled in November of 2020.

Well RA-3: Well RA-3 contained two PCBs (aroclor-1260 and aroclor-1268) at concentrations greater than the NYSDEC Class GA groundwater standard of 0.09 ug/l. This well is located along the downgradient (western) end of the Site between the former coal pile and the Niagara River. This is the only well sampled that contained PCBs at such concentrations. This well will be resampled for PCBs, both total and filtered.

See **Figure 1** for the locations of the four wells discussed above.

Well Sampling will be performed using the field sampling methods provided in the NYSDEC-approved RI Work Plan Section 3.2.5. Investigation Derived Waste will be containerized per Section 3.2.9 of the RIWP. Analytical data will be validated by a third-party data validator who will present the finding of the validation in a Data Usability Summary Report (DUSR).

Task 2: Delineation of Petroleum Impacts

During the RI test pit task, petroleum-impacted soil and groundwater was present at two locations within the former coal pile. To further delineate the horizontal extent of the petroleum impact, GZA will conduct additional test pitting and sampling in the two areas of known petroleum impact as shown on **Figure 1**. The delineation effort will include the following aspects:

- Excavations will continue to the depth of the water table which is between 2 and 6 feet below ground surface;
- Use of a subcontracted excavator capable of digging a minimum of 12 feet below ground surface (bgs);
- Excavation of multiple test pits over a two-day period to visually delineate the extent of petroleum impacts;
- Collection of up to two liquid samples of the petroleum or petroleum-impacted groundwater and up to two samples of petroleum impacted soil/fill to further characterize the composition of the petroleum impact;
- Laboratory analysis of the liquid and soil samples for petroleum hydrocarbon identification (Method TPH-PHI).
- Collection of up to four samples of representative soil/fill material, two each, from within the two areas of petroleum impact for analysis of grain size distribution.
- Installation of up to ten 2-inch inner diameter PVC piezometers at test pit locations for use in monitoring of groundwater elevations within the coal pile in and near the areas of petroleum impact.
- GZA will survey the elevations of the top of Piezometers using a surveyor's level;
- Test pits will be backfilled using the same soil/fill that was removed at each respective excavation location.



Task 3: Further Characterization of South Pond Coal Ash

Knowledge of Site history and review of aerial photography indicates that the South Settling Pond (Pond) was constructed at its current location sometime between 1966 and 1978. The aerial photography shows that, prior to the 1960s, the area at and around the current pond location was subject to significant surficial disturbance from ash deposition and excavation operations. Groundwater monitoring wells installed to the east and west of the current pond location confirm over 15 feet thickness of ash fill. Thus, the pond not only contains coal combustion residuals but was constructed in historic fill, including old ash, making it difficult to visually determine the vertical and horizontal extents of the pond during closure.

Between 2005 and 2010, to reduce sulfur dioxide emissions, Huntley converted from burning eastern coal to burning Powder River Basin (PRB) coal which has a lower sulfur content. The chemical composition of these different coal sources results in differences in the chemical composition of the ash generated from their burning. Since the pond was dredged of ash periodically and most recently in 2008, the CCR remaining in the pond is believed to be PRB ash.

To support remedial alternatives analysis and remedial design of Pond closure, a focused drilling and sampling program will be conducted. The objective of the program is to further characterize the physical and chemical characteristics of the ash within the Pond as well as the material beneath and adjacent to the Pond, to determine a means for delineating the extents of the pond.

Huntley, along with Frontier Technical Associates and their drilling subcontractor (SJB) and GZA will drill and sample three Soil borings at the following locations (See **Figure 1** attached):

- One within the pond at the northern end where ash forms an island;
- One within the pond, using a drill rig on a floating barge, at the western end near the outfall; and
- One outside and near the pond on the land to the west of the pond near monitoring well CCR-8.

Soil borings will be drilled using hollow stem augers and 2-foot long split-spoon samplers to retrieve continuous samples to a depth beneath the fill. Samples of each visually-distinct fill layer and the underlying native soil will be sampled at each of the three locations for laboratory analysis of the following parameters:

- aluminum, arsenic, calcium, iron, lithium, magnesium, potassium, silica, and sodium.
- Sulfate



GZA will present the findings of our investigations within the RI/AAR/RWP Report. See **attached** updated project schedule through submittal of the draft RI/AAR/RWP.

If you have any questions or require additional information, please contact Jim Richert (716) 341-4459.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Handwritten signature of Jim Richert in blue ink.

James J. Richert P.G.
Senior Project Manager

Handwritten signature of Daniel J. Troy in blue ink.

Daniel J. Troy, P.E.
Consultant Reviewer

Handwritten signature of Bart A. Klettke in blue ink.

Bart A. Klettke, P.E.
Principal

Attachments:

- Figure 1 – Proposed Supplemental RI Work
- Project Schedule

RI/AAR/RWP Schedule

Huntley Power South Parcel Site (C915337) Town of Tonawanda, New York

Month	July				August					September				October				November					December			
Task	7/5	7/12	7/19	7/26	8/3	8/10	8/17	8/24	8/31	9/7	9/14	9/21	9/28	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30	12/7	12/14	12/21	12/28
NYSDEC Approval of Supplemental RI Scope of Work																										
Contract Modification, Subcontracting, Mobilization																										
Supplemental RI Field Investigation, sample analyses, data evaluation																										
Writing of Draft RI/AAR/RWP																										
Huntley review and GZA revision of Pre-Draft Report																										
Submittal of Draft RI/AAR/RWP to NYSDEC																										

revised 7/9/2021