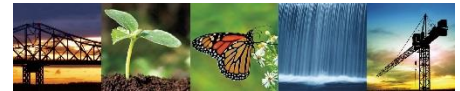




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October 14, 2016  
File: 21.0056757.00

Mr. Kevin Schroeder  
Kevin.schroeder@nrenergy.com  
Huntley Power LLC  
Tonawanda, NY 14150

Re: 2016 CCR Surface Impoundment Annual Inspection Report  
Huntley Generating Station  
Tonawanda, New York

Dear Mr. Schroeder:

GZA GeoEnvironmental of New York (GZA) presents this 2016 Annual Inspection Report to Huntley Power LLC (Huntley) for the existing coal combustion residuals (CCR) surface impoundment at the Huntley Generating Station located in Tonawanda, 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 §257.83), CCR surface impoundments 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.

The required periodic inspections presented in the CCR Rule are intended for the existing CCR surface impoundment at the Site which is identified as the South Settling Pond. We note that two asphalt lined containment basins (identified as North and South Equalization Basins) located adjacent to the South Settlement Pond to the west do not receive CCR and therefore are not included as part of the annual inspection. The limits of the South Settling Pond are shown on the attached Figure 1.

### Site Observations

GZA visited the Huntley Power Plant to make observations of the South Settling Pond on August 26, 2016. We note that the Huntley Plant ceased electrical generation operations on February 29, 2016 and as a result CCR sluice water was eliminated from being discharged into the pond by late March 2016. However, non-CCR water (e.g., water associated with fire suppression, HVAC systems, sumps, etc.) continues to be discharged into the pond. The rate of this non-CCR water has been estimated at about 1,500± gallons per minute (gpm) as compared to the previous rate of about 6,800± gpm when CCR sluice water was included with the non-CCR water being discharged to the pond. In general, our observations of the Huntley South Settlement Pond were similar to those made during our previous 2015 inspection and no significant changes or modifications (with the exception of the reduced flow rate and elimination of CCR sluice water being discharged) were apparent.



The following discussion addresses the requirements for the annual inspection report by a qualified professional engineer as indicated by the CCR Rule section §257.83 (b)(2) (i) through (vii).

- (i) No changes to the overall geometry of the south settlement pond (including sidewalls and outfall structures) were observed as compared to our previous observations of 2015.
- (ii) GZA observed instrumentation equipment consisting of a measurement rod at the south settlement pond outlet which is used to measure outflow volume. The rod is reportedly installed in September 2015 and was set to record water levels above the outfall invert elevation (approximately 569 feet above mean sea-level) to calculate the flow rate based on the outfall pipe specifics (e.g., diameter, slope, wetted perimeter, etc.). This instrumentation was reportedly installed in September 2015. Since its installation, flow rates were periodically determined based on the measured water levels and reportedly range between about 2 and 3 million gallons per day (MGD) or about 1,500 to 2,000 gpm. Based on previously provided documentation, this 2016 measured flow rate is about 20% of the historically measured flow rate when CCR sluice water was included.
- (iii) As part of historic operations when the Huntley Plant was actively generating electricity, typical O&M practices included routinely dredging accumulated CCR from the northern portion of the pond for eventual off-Site disposal. However, depth measurements of accumulated CCR were not routinely made within the extents of the pond. Because the plant significantly reduced and eventually eliminated CCR sluice water discharge into the pond in 2016, elevational changes pertaining to the accumulated CCR are anticipated to be negligible from that of the previous year and the surface water elevation appears to have decreased slightly due to the reduced flow rate of the non-CCR water into the pond. Previous records indicated water elevation (el.) of 570± for the south settlement pond when CCR sluice water was being discharged as compared to the recent approximate measurements of el. 569.25± associated with the reduced flow rate of non-CCR water.
- (iv) Based on the elimination of CCR sluice water into the settlement pond over the past year, the storage capacity is not anticipated to have changed significantly from the previous year. As previously indicated, routine measurements or surveys of the pond were not made to determine storage capacity although previous studies have estimated an approximate design storage capacity of about 43± acre-feet for the South Settling Pond.
- (v) The facility had historically dredged accumulated CCR from the northern portion of the pond on a weekly basis. The recovered CCR was stockpiled adjacent to the pond to drain free liquids prior to final disposal at the facilities off-site ash landfill. This process generally resulted in a negligible net gain of CCR within the South Settling Pond. CCR accumulation in the pond is assumed to have ceased once the facility eliminated the CCR sluice water discharging into the Pond. A review of available documentation indicated the entire pond area was last dredged in December 2008 in which a reported volume of 20,177 cy of CCR was removed for disposal. The dredging reportedly used a bottom-scrape target elevation of 564.5 feet. Based on the approximate 200,000 sf area of the pond and the anticipated volume of CCR waste accumulation since the December 2008 dredging, the anticipated volume of water remaining in the pond during our inspection was estimated at about 2.5 million gallons and about 23,000 cubic yards of CCR.



- (vi) During the time of our Site observations, no indication of actual or potential structural weaknesses of the surface water impoundment were observed that would be considered disruptive or having the potential to disrupt the operation and safety of the CCR unit.
- (vii) During this annual inspection, we identified no changes that may affect the stability or operation on the impoundment structure within the past year. With the exception of the discharge flow reduction (due to elimination of the CCR sluice water and subsequent reduction of the surface water elevation relative to the invert elevation of the outfall pipe) the South Settling Pond appears to have been unchanged and in similar condition to the observations made in 2015.

Overall, the South Settling Pond, the only remaining surface impoundment located at the Huntley Power Plant, was observed to be constructed, operated and maintained 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 structural instability.

**PROFESSIONAL ENGINEER CERTIFICATION**

The undersigned registered professional engineer is familiar with the requirements of §257.83 and has visited and examined the Huntley Station South Settling Pond surface impoundment 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 §257.83, and that this Report is adequate for the Huntley Station. This certification was prepared as required by §257.83(b)(2).

Name of Professional Engineer: Daniel J. Troy, P.E.

Company: GZA GEOENVIRONMENTAL OF NEW YORK

Signature: Dal Troy

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

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

Bart A. Klettke  
Bart A. Klettke, P.E.  
Principal

Attachments: Figure 1 – Huntley Power South Settling Pond

