CCR Certification: Initial Hazard Potential Classification §257.73 for C-Pond at the Greenidge Power Generating Station, Dresden, New York

Prepared for:
Greenidge Generation, LLC

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1. Purpose

The purpose of the Initial Hazard Potential Classification (Hazard Potential Classification) is to document the classification requirements specified in Code of Federal Regulations (CFR) §257.73 (a)(2) have been met to support the certification required under each of those regulatory provisions for the C-Pond at the Greenidge Power Generating Station in Dresden, New York.

2. Background

The Greenidge Power Generating Station is located in the Village of Dresden, Town of Torrey, Yates County, New York. The station is situated on the west shore of Seneca Lake with the C-Pond positioned on the east side of the generating station.

Since 2017, Greenidge Station generates electricity by combusting primarily natural gas with the ability to co-fire up to 19% wood biomass. Wastewater discharges from the facility are managed under a State Pollutant Discharge Elimination System (SPDES) permit (No. NY0001325) issued by New York State Department of Environmental Conservation (NYSDEC). Outfall 002 is listed in the Permit as a discharge to groundwater and Seneca Lake. Wastewater from the Greenidge Station currently flows through the C-Pond surface impoundment.

The C-Pond historically received CCR (prior to 2011), as well as a combination of plant process wastewater (primarily non-contact cooling water) and stormwater. The C-Pond and its flood control system provides hydraulic residence time and treatment of process flow prior to being discharged to Seneca Lake through Outfall 002. Greenidge Generation does not generate CCR and C-Pond only receives a mixture of plant process wastewater and stormwater, which passes through the C-Pond before entering Seneca Lake via Outfall 002. Greenidge is in the process of temporarily relocating their plant process wastewater and stormwater conveyance system through a bypass project.

3. Hazard Potential Classification

Based upon a review of the topography around the site of the C-Pond, it is determined that, following catastrophic failure of the dike surrounding the impoundment, the flow path would follow the local topography either directly east or in a southeastern direction towards Seneca Lake. No residences are

located directly adjacent to the dike or within the downgradient release pathway. Review of the area suggests that loss of life would not be considered probable upon failure, but the close proximity to Seneca Lake may cause an environmental and economic impact. Based on the present assessment, a Significant Hazard Potential is recommended for the C-Pond at the Greenidge Station in Dresden, New York.

4. Conclusion

Regulatory Citation: 40 CFR §257.73 (a)(2) Periodic hazard potential classification assessments.

-The owner or operator of the CCR unit must conduct initial and periodic hazard potential classification assessments of the CCR unit ... The owner or operator must document the hazard potential classification of each CCR unit as either a high hazard potential CCR surface impoundment, a significant hazard potential CCR surface impoundment, or a low hazard potential CCR surface impoundment. The owner or operator must also document the basis for each hazard potential classification.

-The owner or operator of the CCR surface impoundment must obtain a certification from a qualified professional engineer stating that the initial hazard potential classification was conducted in accordance with the requirements of 40 C.F.R. § 257.73.

Background and Assessment

CCR units are designated as one of three classes depending on likelihood of losses resulting from mis-operation or failure.

1. High hazard potential CCR surface impoundments are likely to cause loss of human life upon failure. The CCR Rule design storm for a **High** hazard potential facility is the full Probable Maximum Flood (PMF).

2. Significant hazard potential CCR surface impoundments are likely to cause economic loss, environmental damage, disruption of lifeline facilities, or other impacts; but not loss of life. The CCR Rule design storm for a **Significant** hazard potential facility is the 1000-year event.

3. Low hazard potential CCR surface impoundments are not likely to cause loss of life or significant economic or environmental losses. The design storm for a **Low** hazard potential facility is the 100-year event.

Likelihood of loss of human life is primarily discussed within this report, which is the deciding factor between Hazard Potential Classifications of Significant and High. Loss of life is not deemed probable based on the local topography. The C-Pond does not qualify for a Low hazard potential due to the possibility of environmental damage and economic loss.

Conclusion and Recommendation

Based upon the evaluation presented above, we recommend that the Hazard Potential Classification of the C-Pond at the Greenidge station be **"Significant"** in regard to the requirements of §257.73 (a)(2).

5. Limitations

The signature of the Consultant on this document represents that to the best of the Consultant's knowledge, information, and belief in the exercise of its professional judgment, it is Consultant's professional opinion that the aforementioned information is accurate as of the date of such signature. Any opinion or decisions by the Consultant are made on the basis of Consultant's experience, qualifications and professional judgment and are not to be construed as warranties or guaranties. In addition, opinions

relating to environmental, geologic, and geotechnical conditions or other estimates are based on available data, and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

6. Certification

I, Jean-Pierre Minois, PE, being a Registered Professional Engineer, in accordance with the State of New York Educational Law, do hereby certify to the best of my knowledge, information and belief, that the initial hazard potential classification assessment contained in this report dated January 9, 2023 meets the requirements of 40 C.F.R. § 257.73, is true and correct, and has been prepared in accordance with generally accepted good engineering practices.

SIGNATURE: DATE: January 9, 2023

Jean-Pierre Robert Minois: NY PE#: 066135