



August 26, 2022

Via email to wong.virginia@epa.gov

Virginia Wong
Chief, NPDES Section, Clean Water Division
EPA Region 2

**Re: Greenidge Generation Cryptomining SPDES
Urgent Help Needed**

Dear Ms. Wong,

Seneca Lake Guardian, Committee to Preserve the Finger Lakes, Fossil Free Tompkins, and Sierra Club—Atlantic Chapter respectfully request your urgent help related to the Greenidge Generation Station, a once through cooling facility discharging into Seneca Lake and operating a cryptomining facility directly onsite (Facility DEC ID: 8573600004). Under New York law, DEC should have involved EPA in this permit review as soon as Greenidge submitted its SPDES renewal application seeking a thermal variance back in January 2022. *See* 6 NYCRR § 704.4(b). We seek your immediate attention to this matter to stop Greenidge’s installation of insufficient control technology and to deny the SPDES renewal application.

A. The Greenidge Facility has Polluted Seneca Lake for Nearly a Century.

The facility at issue began operating as a coal fired power plant in the 1930’s. In 1976, the facility’s owner completed a thermal discharge analysis and DEC granted a thermal waiver under Section 316(a) of the Clean Water Act. In 2010, the facility’s owner completed a design and technology review, impingement and entrainment study, and a finfish study (based on data from 2006-07). DEC issued the facility a SPDES permit in 2010, but the facility stopped operating as a coal-fired power plant in 2011 when the owner declared bankruptcy. No technology to reduce impingement or entrainment were ever installed on the water intake.

The facility changed hands several times and in 2014 Greenidge Generating sought renewal of the SPDES permit to operate the facility as a gas-fired power plant serving as a “peaker plant” that would operate intermittently to provide power to the electrical grid. DEC issued a renewed SPDES permit for the power plant in 2017 without evaluating the thermal variance or and relying on the 2010 study to make a Best Technology Available finding.¹ The 2017 SPDES permit also gave Greenidge **five years** to install impingement and entrainment technology. In 2020, Greenidge modified the facility from an intermittently operating peaker power plant to a cryptocurrency mining outfit operating 24 hours a day, 7 days a week. Greenidge did not seek to modify its SPDES permit based on the new operations. On June 30, 2022, DEC denied Greenidge a Title V permit for operating the cryptomining facility because it

¹ There is no fact sheet attached to the 2017 permit explaining the Best Technology Available finding, pursuant to 40 C.F.R. §§ 124.7, 124.8, 125.97(f); 125.98(f)(1).

is inconsistent with the state’s climate goals.² The 2017 SPDES permit expires on September 30, 2022.

B. Greenidge’s Renewal Application is Insufficient.

Greenidge applied for a renewal of its SPDES permit on January 12, 2022. The short form application indicated that Greenidge is seeking a variance from New York’s thermal discharge water quality standards. The renewal did not include information demonstrating compliance with the once through cooling application requirements set forth in 40 C.F.R. 122.21(r) and 40 C.F.R. 122.95(a).

Additionally, the renewal does not comply with New York law, which requires that facility changes or modifications “which result in... increased discharges of pollutants into the waters of the state shall be reported by the permittee by submission of a new SPDES application.” Env. Conserv. L §17-0815. The change from a power generating facility to a cryptomining facility means the facility is operating more frequently and therefore discharging more hot water more frequently than the facility as permitted in 2017. Case in point, the permit reflects an industrial code of 4911, or “establishments engaged in the generation... of electric energy for sale,” when the facility now operates as a cryptocurrency mining operation, which has an NAICS code of 518210.

C. Greenidge’s Last-Minute Attempt to Install Ineffective Control Technology Threatens Seneca Lake.

In a stunning show of blatant disregard for the harms once through cooling has caused in Seneca Lake for almost 100 years and ignoring the regulations’ mandate to install technology “as soon as practicable,”³ Greenidge has still not installed any technology to reduce impingement or entrainment on its cooling water intake. This lapse is particularly egregious since the facility has ramped up its operations from sporadic operations as a peaker power plant to round-the-clock operation of the generating facility to support cryptocurrency mining. Greenidge is now rushing to install technology prior to the expiration of its SPDES permit based on a Best Technology Available determination made for a completely different facility operating under vastly different conditions and with no public purpose.

DEC has neglected to revisit its determination of the Best Technology Available, based on studies completed in 2010, now that the facility is no longer solely producing power for the grid and instead is using all the power produced for cryptocurrency mining. Further, the recent pilot study demonstrated that wedgewire screens with variable speed pumping is not equivalent to closed-loop cooling. The study showed this technology only reduced entrainment by 77%, and variable speed pumping is not a meaningful technology to reduce aquatic impacts for cryptomining facilities because they run 24 hours a day, 7 days a week all year long.

² NYS DEC Denial Letter, (June 30, 2022), at https://www.dec.ny.gov/docs/administration_pdf/greenidgefinal630.pdf.

³ 40 C.F.R. § 125.98(c).

Importantly, DEC never requested, and Greenidge did not provide, the information Clean Water Act regulations mandate be provided for intake structures in a SPDES renewal application. Federal regulations require an “owner or operator of [an existing] facility... whose currently effective permit expires after July 14, 2018,” to submit to the state agency “the information required in the applicable provisions of 40 CFR 122.21(r) when applying for a subsequent permit.” 40 C.F.R. §122.95(a). Greenidge’s renewal application, including the cover letter, is only 7 pages long, contains minimal information from Greenidge, and does not contain any information about compliance with the regulations governing cooling water intake structures or the facility’s impact on aquatic life in Seneca Lake.

Yet, Greenidge has applied for a 401 certification and an Article 15 permit from DEC to install the screens on the intake. Greenidge also plans to use an Army Corps Nationwide Permit for maintenance projects,⁴ even though there is known mercury contamination at the site, triggering the need for an individual 404 permit and NEPA analysis. Greenidge should not be eligible to use a general permit for this construction because there is known mercury contamination in the sediment where Greenidge plans to dredge. Greenidge needs an individual Section 404 dredging permit and should complete a NEPA review in order to avoid and minimize harms from dredging contaminated sediment.

Because the wedgewire screen is ineffective control technology and DEC has not demonstrated that this technology satisfies federal once through cooling requirements as applied to a cryptomining facility, we implore EPA to intervene to stop the unnecessary harm caused by installing this sub-par technology. If the facility is allowed to continue to operate, DEC must complete a new Best Technology Available for the cryptomining facility. Indeed, DEC has identified closed-cycle cooling (or equivalent) as the performance goal for the Best Technology Available.⁵ The pilot study for the wedgewire screen showed that it is not equivalent to closed-cycle cooling. Therefore, closed-cycle cooling should be required here if the facility is allowed to continue to operate.

D. Greenidge’s Constant Hot Water Discharge is Illegal and not Justified.

Greenidge’s existing SPDES permit waives state thermal water quality standards based on a thermal study done in 1977. The permit allows a summer intake/discharge temperature difference of 26 degrees with a maximum temperature of 108 degrees and a winter intake/discharge difference of 31 degrees with a maximum temperature of 86 degrees. The water quality standard only allows an increase or two or three degrees. *See* 6 NYCRR § 704.2(b).

Greenidge requested that its current §316(a) thermal waiver be continued in the permit renewal. That §316(a) waiver was based on a demonstration by New York State Electric & Gas in August 1977. This cryptomining facility cannot rely on a 45-year old justification completed for a coal fired power plant providing electricity for public benefit and consumption as support for a continued thermal variance.

⁴ Even if Greenidge could use a Nationwide Permit, it should have sought a NWP 7 which covers outfalls and intake structures, not NWP 3 covering maintenance projects.

⁵ DEC Policy CP-#52, Best Technology Available (BTA) for Cooling Water Intake Structures (2011).

As soon as Greenidge applied for the waiver in its renewal application, DEC was bound by state law to immediately “confer with EPA and... transmit to [EPA] information to enable the administrator to fulfill responsibilities under Federal Law.” 6 NYCRR § 704.4(b). Greenidge’s renewal application contained no materials justifying a thermal waiver or meeting the facility’s burden to prove that strict adherence to state water quality standards is not necessary for this cryptomining facility. *See* 6 NYCRR § 704.4(c).

DEC approved a Thermal Discharge Study Plan on February 8, 2011. In the 2017 SPDES permit, DEC required Greenidge to submit and updated schedule to that plan by January 2018. Greenidge met the deadline to submit the thermal study but never completed it. Greenidge submitted a revised Thermal Discharge Study Plan in December 2020 that DEC approved in January 2021. The information Greenidge has submitted to DEC about the facility’s thermal impacts fails to show that the thermal water quality standards are more restrictive than necessary to protect fish and aquatic life. Indeed, the interim reports Greenidge has submitted contain no temperature data and no data regarding the impact of the discharges on fish or aquatic life. Greenidge cannot carry its heavy burden of demonstrating why the state’s temperature water quality standards should be waived without providing data on aquatic impacts or temperature. Further, the discharge has been ongoing for so long that merely sampling the existing discharge is unlikely to reveal the effect the discharge is having on aquatic life in Seneca Lake. Seneca Lake itself and the people who live by and recreate in the lake deserve better.

DEC is also required by New York state law to hold a public hearing on the application for this variance. 6 NYCRR § 704.4(e). Should DEC fail to hold this hearing before September 30, EPA should ensure that the variance is denied for this reason as well.

E. The Current Permit’s Mercury Limits Violate Water Quality Standards and Must Be Addressed Immediately.

The 2017 SPDES Permit allows Greenidge to discharge up to 50 ug/L of mercury. New York’s mercury water quality standard is 0.7 ug/L. While DEC provides limited situations where facilities may seek a variance from the mercury water quality standard, those variances are limited where the discharging facility is in the Great Lakes System. Specifically, the law states that a variance “shall not apply to a new or recommencing discharger in the Great Lakes System unless the proposed discharge is a temporary one... necessary to alleviate an imminent and substantial danger to the public health or the environment that is greater than the danger from not achieving the standard....” 6 NYCRR 702.17(a)(2). Seneca Lake drains to Lake Ontario and Greenidge’s change from a power plant to a cryptomining facility qualifies as a new or recommencing discharge. Therefore, the current permit limit violates the law.

F. EPA Should Intervene to Ensure that Greenidge’s Renewal Application is Denied.

EPA should immediately review Greenidge’s renewal application, which DEC was obligated to promptly provide to EPA upon receipt. 40 C.F.R. § 123.43(a)(1). EPA should inform DEC that the facility that it is not eligible for an administrative continuance after

September 30, 2022 because it failed to submit a complete application that complies with the requirements of 40 C.F.R § 122.21(r). Federal regulations allow permits to be administratively continued only if the applicant submits a complete application. 40 C.F.R. §122.6(a). While those regulations allow a state to administratively continue a permit if state law allows, a delegated state's regulations must be at least as stringent as the federal regulations, and New York only allows administrative continuance when the application is "timely and sufficient." 40 C.F.R. § 123.25; State APA § 401.2. This means DEC cannot waive the federal requirement that applicants with cooling water intake must comply with federal regulations at their renewal and therefore Greenidge has forfeited the ability to continue to operate once its permit expires on September 30, 2022. Additionally, Greenidge's failure to provide the necessary information for DEC and EPA to evaluate its renewable application are grounds for denial of the renewal. 40 C.F.R. § 122.64.

This situation highlights the fatal shortcomings of New York's Environmental Benefit Priority System. Under the system, DEC only submits a short, 2-page renewal application to dischargers prior to the renewal deadline. DEC then only solicits additional information when a facility reaches "the front of the line" for full technical review under the priority system. This summer, DEC circulated its draft 2022 priority list for comment. Greenidge was listed as priority number 255 on the 2022 ranking list, despite major changes with the facility since the last permit, the once through cooling requirements, and the major public controversy surrounding the facility. If DEC has its way, it will allow Greenidge to continue to operate and discharge for years under the current SPDES permit based on an incomplete renewal application. EPA committed to ensuring "that a complete application is submitted prior to the administrative continuance of any permit" in its last review of New York's SPDES system. EPA's 2018-2022 Permit Quality Review cycle identified this as an "essential" action item. We seek EPA's immediate intervention in this permitting process to address these issues.

Conclusion

We ask EPA to please immediately intervene in this process to protect water quality and aquatic life in Seneca Lake and to protect the residents and visitors that enjoy these natural resources. Urgently, we seek to block the imminent installation of wedgewire screen technology on the water intake, which will harm the environment during installation and does not represent Best Technology Available for a cryptomining facility. We also seek to have the SPDES renewal application denied and the facility stop discharging as of September 30, 2022.

Respectfully submitted,

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