

Regional Permit Administrator - Thomas Haley
NYSDEC
6274 East Avon-Lima Road
Avon, NY 14414-9519

Dear Mr. Haley,

We are residents and property owners in the Village of Dresden and/or the Town of Torrey. We are requesting, pursuant to 6 NYCRR 621.13, paragraph (b) that the Department of Environmental Conservation consider the modification, suspension or revocation of the following permits issued to Greenidge Generation LLC:

Water Withdrawal Permit
Permit ID: 8-5736-00004/00015

Modified SPDES Permit
Permit ID: NY-0001325

Title IV (Phase II Acid Rain) and Air Title V Facility Permits
Permit IDs: 8-5736-00004/00016 and 8-5736-00004/00017

Many of us in the community are very concerned about the environmental impacts from the conversion of the “merchant” power plant that was approved in 2017 to operate based on demand, to a data center and bitcoin mine operating 24/7. The area of Seneca Lake around the plant is listed as Class B, while the rest of the Lake is Class AA. Since the plant began operating in 2017, the area has also been plagued with HABs and the local fishermen complain constantly about the loss of fishing.

According to the SPDES permit, “The cooling water intake structure lacks any fish protection technology, therefore the facility does not meet either the requirements of 6 NYCRR § 704.5 nor the requirements of the CWA § 316(b) Phase II Rule (40 CFR Parts 122 and 125).”

Greenidge applied to add a data center last year and, remarkably, the Town of Torrey Planning Board, issued a negative SEQR determination. The nearby homes are affected by the noise, in addition to the loss of their beaches and recreation to HABs.

Subpart 621.13, allows the department to consider requests from any interested party for modification, suspension or revocation of permits based on reasons specified in the regulations. The reasons include:

- materially false or inaccurate statements in the permit application or supporting papers and
- newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit.

Further, the department “must decide whether the request is justified and the action to be taken in response to the request. A brief response giving the reason(s) for the department’s decision must be sent to the party making the request.”

We are requesting that the DEC conduct that review for the reasons detailed in this letter and that Greenidge is continuing to operate in violation of the Clean Water Act, with no possible way to come into full compliance until at least 2023, if ever.

In Part 3 of the completed EAF, justifying the negative declaration, DEC provided the following evaluation of potential impacts which have proven to be inaccurate.

TOGS 121 - Industrial Permit Writing Significant Change in Production

We believe that, because of the change in operation from a “merchant” power plant, operating on demand, to data center/bitcoin mine, operating 24/7 that the provisions of TOGS 121 - Industrial Permit Writing be applied to Greenidge:

“New industrial facilities or existing facilities that have changed to new processes will not have historical production information that can be used to develop equivalent limits. Furthermore, some facilities have historical data, but the quantity that was measured is not the same as the one specified in the standards and the two cannot be related by deriving a correlation. Without useable historical data, the permit writer will have to rely on the industrial user's projections of what the actual production rate is expected to be in the future.

Projections are often unreliable indicators of actual future production regardless of the method used in making them and the earnestness of the effort to make reasonable assumptions. Therefore, it may be most efficient to write a permit with limits based on the projected production rates. **If actual production varies from the projected production by 20 % or more for a significant period, revise the limits in accordance with established Department priorities.”**

Impacts on Surface Water:

Bed of Seneca Lake

“The project will ultimately involve a modification of the cooling water intake structure (CWIS) at the facility. . . This will involve construction/attachment of intake screens at the end of the intake below the mean high water line of Seneca Lake. As such, no significant amount of modification or alteration of the bed of Seneca Lake is expected even though there may be short-term, temporary impacts to water quality directly around the work site during construction. As a result, no impacts to surface waters are anticipated as a result of intake modification.”

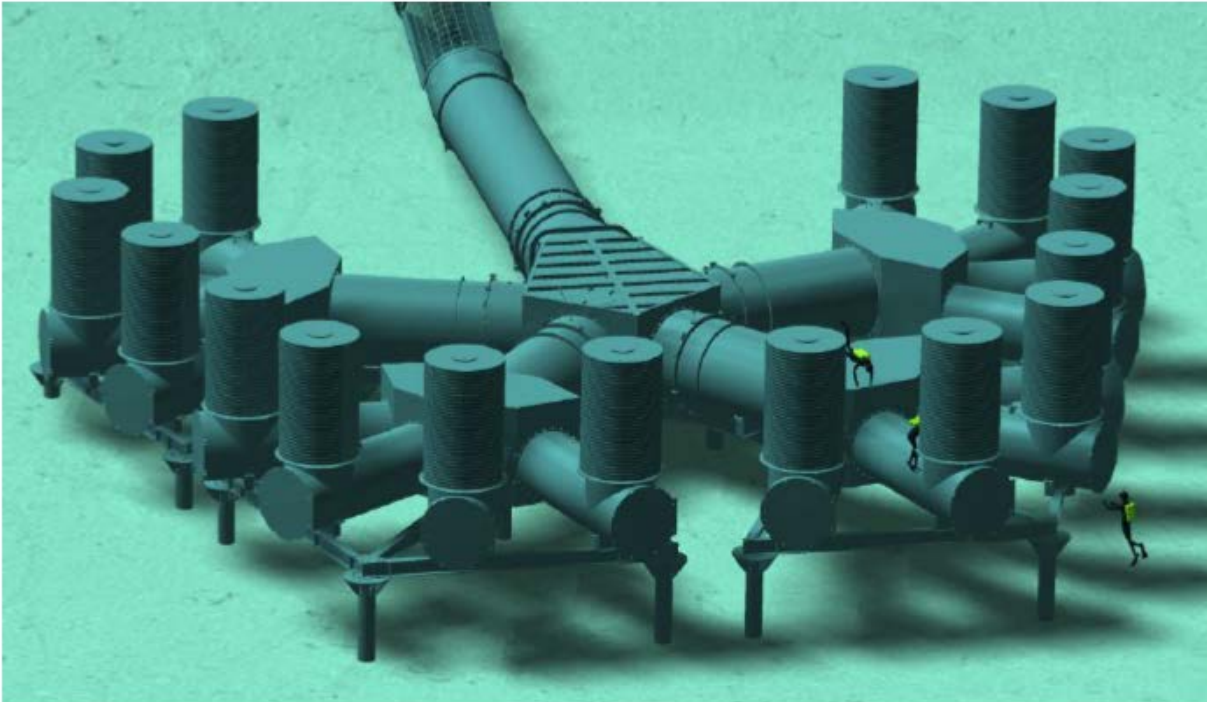
DEC and Greenidge have known since at least 2005 that the Clean Water Act, Section 316(b) Rules for Cooling Water Intake Structures, would require changes to the once through cooling system used to cool the turbines. In fact, DEC and Greenidge both refer to that study “HDR/LM&S Engineers. 2005. Proposal for Information Collection with Section 316(b) Phase II Requirements of the Clean Water Act for Greenidge Generation Station. Prepared for AES Greenidge. October 31, 2005” in various documents.

The cooling water intake is described in the Cylindrical Wedgewire Screen study as entering “the station from Seneca Lake via a 7-ft diameter suction pipe extending from the pumphouse to a point 650 feet offshore. The intake pipe is elevated above the lake on wood pilings and angled down at the lake end. The pipe withdraws water from a 27-ft x 27-ft steel intake structure composed of 3/16-inch bars on 6-

inch centers in about 11 feet of water.” Clearly the permit writer had no clue what the addition of the intake screens would look like.

Here is a picture of the intake screens installed at the Cayuga Power Plant in 44 feet of water. As the caption says, look at the divers to get the scale of the intakes.

Cayuga Power Plant – Cooling Water Intake System – Jan 2017



A rendering of the cooling water intakes that were installed this winter; note the scale of the tiny divers next to the massive intake screens!

Installation, if it is feasible, will clearly disturb the lakebed. Various engineering reports submitted by Greenidge have mentioned the challenges of putting effective equipment in 11 feet of water and the size of screens necessary:

“According to USEPA, CWWS can be successfully employed by large intake facilities under certain circumstances. The limiting factor for a larger facility may be the availability of sufficient accessible space near the facility itself because additional screen assemblies consume more space on the waterbody floor and might interfere with navigation or other uses of the waterbody. Consideration of the impacts in terms of space and placement must be evaluated before selecting CWWS for deployment.”

Water Withdrawal

“The Department is also considering an application for an initial permit for the withdrawal of water pursuant to 6 NYCRR Part 601 (Water Withdrawal Permitting). Part 601 requires the Department to issue Initial Permits to authorize the continued operation and withdrawal of already-existing water withdrawal facilities for the maximum capacity reported to NYSDEC as of February 15, 2012. The

Department intends on issuing an initial permit to Greenidge Generation LLC for Greenidge Station, an already-existing water withdrawal facility, for the withdrawal of approximately 160 million gallons per day (MGD), the amount reported to the Department.”

This statement is disingenuous. The report filed by Greenidge on February 15, 2012 was for withdrawals for calendar year 2011, when Greenidge operated for just 3 months. The withdrawal rate was not set on actual usage, or any conservation of water, it was set based on the capacity of the pumps when both Unit 3 and 4 were in operation.

However, from the data we have obtained so far from DEC, it is clear that the water withdrawal was

2.2 OPERATION

Greenidge has operated intermittently over the last 3 years with annual capacity factors of 18% in 2017, 20% in 2018, and 6% in 2019. Generation has typically been higher in summer months, although the winter of 2017-2018 was also a period of relatively high output (Figure 2-4).

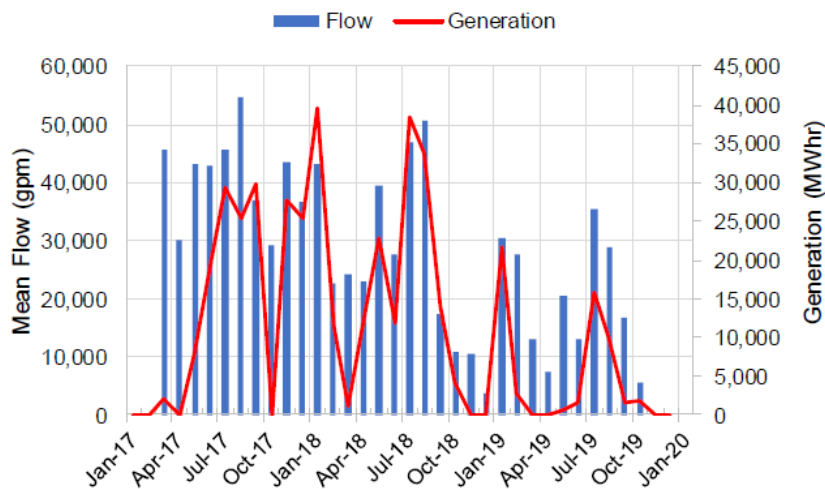


Figure 2-4 Mean monthly flow (gpm) and monthly generation (MWhr) at Greenidge Generation, 2017-2019.

below capacity, at least until the data center/bitcoin mine was opened in 2020. Before any future permits are considered or negative declarations issued, changes in both water withdrawal and discharge since the operational change must be investigated and adjustments made.

There are no significant water conservation measures in the permit, much less a “suite” of them, as promised in the amended negative declaration issued in 2016. The permit requires that the meters be read and calibrated, that records be kept, and that Greenidge check for leaks. In fact, this is all the water withdrawal regulations require, DEC does not actually require “conservation.”

Water Discharge – Dilution Study and Thermal Study

Greenidge uses the water to cool the turbines and other equipment. Then the heated water is discharged into the Keuka Outlet. The SPDES permits required the performance of a dilution study to

which is not due to be completed until 2023. The dilution factors obtained by the dilution study will be used to refine the current water quality based effluent limits in the permit.

Of more concern is the Thermal Discharge Study which was to be completed on the following schedule:

6. SCHEDULE

The following schedule is proposed for completing Thermal Discharge Study Work Plan for the Greenidge Station cooling water discharge to Seneca Lake.

- Submittal of an approvable Thermal Discharge Work Plan (this document) by December 31, 2017.
- Lake and the Keuka Lake Outlet two (2) week temperature surveys conducted in the two (2) month period between mid-July and mid-September.
- Thermal modeling of Greenidge Station discharge will commence upon receipt of the field survey report and data (anticipated within 1 month from completion of the field survey) with the submittal of a draft Thermal Discharge Study Report to NYSDEC four (4) months after completion of the temperature surveys.
- Meeting with NYSDEC on the draft Thermal Discharge Study Report two (2) months after submitting the draft Thermal Discharge Study Report.
- Final Thermal Discharge Study Report submitted to NYSDEC one (1) month after meeting with the NYSDEC to review the draft report.

To date, DEC has not provided any documents related to this study since the Thermal Discharge Work Plan in December 2017.

Discharge of heated water to Keuka Outlet is a significant concern for HABs and fish habitat.

Solid Waste Management

“No impacts related to solid waste management are expected to result from the reactivation of Greenidge Station. ... As a result, there are no significant adverse impacts related to solid waste management associated with this project.”

Because the DEC segmented the review of the Greenidge permits from the permits issued to the Lockwood Hills Ash Landfill, both owned and operated by Atlas Holdings, LLC. Greenidge has continued to deposit coal combustion residuals at Lockwood since it restarted operations.

The Lockwood Landfill permit renewal tells a different story:

“Part 360 Series Renewal:

The primary waste stream is anticipated to be fly ash and bottom ash from Greenidge associated with the up to 19% biomass that the Station is authorized to co-fire. Application documents associated with the Greenidge Station’s conversion to Natural Gas estimated that the biomass co-firing would produce 6,500 tons per year of fly ash. The dewatered solids from the Greenidge wastewater treatment plant are also regularly disposed of at Lockwood at a rate

of 12 tons per year. Additionally, permitted wastes from routine maintenance or other activities have the potential to be disposed of in the landfill.”

Noise

In the Amended Negative Declaration, Part 3 EAF, DEC responded **NO** to the question: “Impact on Noise, Odor, and Light The proposed action may result in an increase in noise, odors, or outdoor lighting.” However, that answer was not true. The plant wasn’t operating when DEC did the assessment, so, logically, there was increased noise. Phase 1 of the data center/bitcoin mine includes 3 outdoor trailers with cooling equipment and fans that create a distinct noise at residences. The addition of four (4) 42’ by 120’ buildings, each with 8 racks of 308 Servers and 4 computer grade fans, closer to the Village will increase the noise even more.

Greenidge was featured in Forbes last month for its creative use of before the meter power. Here are a few quotes:

“We turned that into a small test pilot of several hundred machines from many different manufacturers in May of 2019. After completion and analysis of the test pilot, we built the current data center within four months, starting our larger-scale mining operation in January 2020.”

“They currently operate 8,500 of the latest generation miners from Bitmain and other manufacturers. Greenidge is using over 20 megawatts (MW) of power to mine Bitcoin, which makes it the largest energy company in the U.S. with this kind of strategy. Greenidge wants to increase its energy consumption. The company has plans to use the plant's total capacity of 104MW next year. “

“Mining Bitcoin and cryptocurrency is an energy-intensive enterprise. Some argue that it is a waste of energy and that digital assets are purely an environmental drain. One megawatt, by some estimates, could power about 800 homes on average per year. But this is a difficult statistic to estimate; electric consumption changes by region and need.

“Tim Rainey said, "Without the mining operation, we would not be running most of the time, but if we ran around the clock, year-round, we would generate revenues of about \$20/MWh. Bitcoin mining revenue with the latest generation hardware ranges anywhere from \$70/MWh to north of \$200/MWh depending on price, global hashrate and difficulty.”

We respectfully request that the DEC, pursuant to Subpart 621.13, consider this request for modification, suspension or revocation of permits issued to Greenidge Generation, LLC for materially false or inaccurate statements in the permit application and newly discovered information or a material change in environmental conditions, relevant technology, and production.

Very truly yours,

Cary Becraft
Peter Becraft
Linda Bracht
Phil Bracht
Abi Buddington

Winton Buddington
Beth Cain
Linda Downs
Lori Fischline
John Ghidiu

Carolyn McAllister
Jack McAllister
Ann McGuigan
Tom McGuigan
Eileen Moreland
John Moreland

Dave Murray
Leah Murray
Adam Parker
Stephanie Parker
Catherine Ramirez
Stevan Ramirez