400 Gosling Road
Portsmouth, NH 03801

GSP SCHILLER

June 27, 2022

VIA E-MAIL
VIA FIRST CLASS MAIL

Ms. Ellen Weitzler, Section Chief
Wastewater Permits Section
Water Division
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (OEP06-1)
Boston, MA 02109-3912

Re: **GSP Schiller LLC**
Schiller Station, Portsmouth, New Hampshire
NPDES Permit No. NH0001473

Dear Ms. Weitzler:

Please allow this correspondence to serve as follow up to a June 10, 2022 conversation I had with Ms. Danielle Gaito regarding NPDES Permit No. NH0001473 for Schiller Station (the "Permit") and to provide an update on the operational status of Schiller Station. Ms. Gaito explained that EPA Region 1 is processing GSP Schiller LLC's ("GSP Schiller" or "the company") March 31, 2021 request to modify the Clean Water Act ("CWA") § 316(b) provisions included in the Permit issued by EPA Region 1 on April 6, 2018 (and modified on March 25, 2020). We appreciate EPA Region 1's attention to the pending request and are providing the following additional information to assist Region 1 in issuing the modification to the permit in the near term.

Background

As explained in GSP Schiller's March 31, 2021 modification request and in other submittals to EPA, studies conducted pursuant to the Permit and changes in the operational profile of the units at the Schiller Station have demonstrated that limitations on the Station's intake flow (along with other possible operational measures), in lieu of the installation of a full scale wedgewire screen intake system, are the most effective method for addressing entrainment and impingement and to otherwise limit environmental impact from the construction of such a system.

At the same time, pursuant to Part I.A.11.b of the Permit, the company has submitted the required design information for a full scale wedgewire screen intake system, most recently in a June 21, 2021 submittal that included a report from Enercon Services, Inc., but which explained that the modification request is the most viable option. GSP Schiller had been

awaiting a response to this latest report from Region 1 due, in part, to the materially different design of the screen system that was not contemplated by the agency in issuing the current Permit and which could obstruct navigation and/or commercial activity in the Piscataqua River. For this reason, we believe that Region 1's decision to process the § 316(b) modification request, instead of further pursuing the wedgewire screen installation, is the correct approach.

Since submission of GSP Schiller's modification request, the company and EPA have engaged in periodic discussions regarding the details of flow limitations and operational measures necessary to address entrainment and impingement, and the company has submitted additional information requested by staff. During this time, the company also explained that all steam units at Schiller Station have been in a long-term outage status with the Independent System Operator of New England (ISO-NE) since June 1, 2020, and they remain so at this time.

GSP Schiller is now nearing the end of the long-term outage at Schiller Station. We anticipate that the long-term outage status of the Station will end in the coming months, and the Station anticipates making one or more of its steam units available to ISO-NE for operation beginning on December 2, 2022. In light of current conditions in the energy markets, including the need for electric reliability and security in the wake of geopolitical instability and rising natural gas prices, we believe that Schiller Station will play a role in stabilizing energy reliability in the region, and the § 316(b) regulations allow Region 1 to take these factors into consideration.

316(b)

GSP Schiller continues to believe the permit modifications set out in its March 31, 2021 request reasonably reflect the anticipated operational profile for Schiller Station moving forward and the best compliance option for GSP Schiller, Region 1, and the environment. The multi-year schedule of compliance in the current Permit would not result in the installation of a fine mesh wedgewire screen intake system until sometime in 2023, 2024, or later. And, even after installation, questions regarding the degree of environmental benefit will persist due to the array of documented issues experienced during the pilot study.

GSP Schiller offers the following additional information regarding entrainment and impingement compliance options based on flow reductions and operational measures at Schiller Station, based on the issues discussed with Ms. Gaito on June 10, 2022, in support of the pending modification request.

Entrainment

GSP Schiller continues to believe that the proposed monthly intake flow reductions set out in its March 31, 2021 modification request represent a reasonable projection of the operation of the Schiller Station units for the foreseeable future. Recall that, when weighted based on monthly mean entrainment density, the proposed flow reductions would reduce entrainment abundance by 59.2 percent – which exceeds the 37 percent Region 1 deemed necessary to satisfy § 316(b)'s best technology available requirement in issuing the 2018 permit for the facility. GSP Schiller is open to some additional targeted flow reductions in key annual periods. A specific proposal by Region 1 is likely necessary to evaluate how such reductions could impact facility operations, especially given that the reductions GSP Schiller has proposed already surpass the 2018 permit standard. This issue may resolve itself,

however, if GSP Schiller pursues the low capacity utilization rating impingement compliance path for one or more Schiller Station units (discussed below).

Impingement

GSP Schiller also continues to believe that the "system of technologies" compliance option set out in its March 31, 2021 modification request remains a viable one for the cooling water intake structures at Schiller Station. Schiller Station may rely upon flow reductions in whole or in part to satisfy this compliance option, consistent with this language from EPA's 2014 final § 316(b) rule:

> EPA expects the reduction in impingement will be treated as an equivalent reduction in impingement mortality and will therefore be considered by EPA or the State NPDES permitting authority in evaluating whether the chosen technologies and operational measures represent BTA performance under the site's conditions. *For example, an intake that operates infrequently due to the infrequent operation of the electric generating unit(s) it serves (such as a peaking unit) may use a relatively small amount of water on an annual basis when compared to the design capacity of the intake structure. This facility may choose to comply with the impingement mortality standard at § 125.94(c)(6) by demonstrating to the Director that the facility operates at an annual intake flow that is less than or equal to 24 percent of its design intake flow on an annual basis.* This level of flow reduction could achieve a level of performance equivalent to or better than the impingement mortality performance standard in § 125.94(c)(7), and therefore could be considered to be compliant with the requirements of today's final rule. *This demonstration may include design data, several years of past operating data, and dispatch modeling. These operating conditions would then be incorporated into the NPDES permit.*

79 Fed. Reg. 48,299, 48,347 (Aug. 15, 2014) (emphasis added). GSP Schiller intends to analyze other management practices, operational measures, and technologies (e.g., behavioral deterrents, screen rotation, pressure washes, strategically-planned outages, debris minimization techniques, pump capacity) as well, as part of the two-year optimization study required by the § 316(b) regulations. Importantly, EPA has made clear that "[t]he owner or operator of a facility choosing [the "system of technologies" option] to comply with the IM requirements do[es] not have ongoing biological compliance monitoring as part of the applicable IM standard" following the completion of this optimization study. *Id.* at 48,361.

Ms. Gaito requested a complete list of management practices, operational measures, and technologies GSP Schiller intends to analyze. While we appreciate the request for this information, we do not believe that a definitive list is required in advance of the permit modification under the § 316(b) regulations. Instead, the final approach is developed after the permit is issued pursuant to the optimization study. There is little value in prospectively formulating a complete list because trial, error, and/or innovation may cause GSP Schiller and its consultants to develop new options during the course of the optimization study period. We

nevertheless welcome further discussion on this topic to assist EPA in finalizing the compliance requirements for impingement mortality at Schiller Station.

Separately, GSP Schiller continues to evaluate whether the low capacity utilization rating ("CUR") exception for impingement compliance is a viable alternative for any of the Schiller Station units. All units have an annual average CUR of less than eight percent averaged over a 24-month block contiguous period. However, the company is assessing the most likely prospective operational profile for the units, given Region 1 will likely seek to cap future unit operations accordingly. In the end, whether GSP Schiller opts for this compliance path may be determined by what compliance obligations Region 1 would nevertheless require for the associated intake structure(s). GSP Schiller would welcome an opportunity to discuss this issue further with Region 1. Given the Unit 4 intake accounts for approximately 70 percent of the total historical impingement at Schiller, reducing Unit 4's intake through this CUR compliance path could provide additional compliance flexibilities for the Unit 5/6 intake.

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We look forward to additional, constructive dialogue with Region 1 as the agency moves toward issuing a new permit for Schiller Station. As discussed above, time is of the essence—it would be preferable to have the new § 316(b) provisions in place prior to the end of the Station's long-term outage status. Please contact me with any questions or concerns you may have or if you would like to discuss anything in greater detail.

Sincerely,

Elizabeth H. Tillotson
Vice President
GSP Schiller LLC

cc: Lynne Jennings, EPA Region 1
Danielle Gaito, EPA Region 1
Mark Stein, EPA Region 1