

GSP Schiller LLC]	NO_x RACT ORDER
Schiller Station]	September 6, 2018
400 Gosling Road]	RO-003
Portsmouth, NH 03801]	
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A. Introduction

This NO_x RACT Order is issued by the New Hampshire Department of Environmental Services, Air Resources Division, to Granite Shore Power (GSP) Schiller LLC pursuant to RSA 125-C.

B. Parties

1. The New Hampshire Department of Environmental Services, Air Resources Division (NHDES), is a duly constituted administrative agency of the State of New Hampshire having its principal offices at 29 Hazen Drive, Concord, NH 03301, telephone number (603) 271-1370.
2. Schiller Station is owned and operated by GSP Schiller LLC (GSP Schiller), a wholly owned subsidiary of Granite Shore Power LLC, with a mailing address of 431 River Road, Bow, NH 03304.

C. Statements of Fact and Law

1. GSP Schiller LLC owns and operates the Schiller Station Power Facility (Schiller Station) located at 400 Gosling Road in Portsmouth, NH. Schiller Station is a 155 megawatt (MW) wood and fossil fuel-fired electric generating facility.
2. The facility includes three utility boilers: one wood and fossil fuel-fired boiler (designated as emission unit SR5) and two fossil fuel-fired boilers (designated as emission units SR4 and SR6). The facility also operates one combustion turbine operating as a load shaving unit, and an emergency generator.
3. SR4 and SR6 are dry-bottom, face-fired utility boilers capable of firing bituminous coal or residual fuel oil. Each boiler is rated at 575 MMBtu/hr. SR4 and SR6 were installed in 1952 and 1957, respectively. SR4 and SR6 are rated at approximately 48 MW each.
4. Effective May 20, 1994, NHDES adopted the New Hampshire Code of Administrative Rules Env-A 1211, *Nitrogen Oxides (NO_x)*. This part defines the sources that are subject to Reasonably Available Control Technology (RACT) requirements and specifies the RACT requirements.¹
5. SR4 and SR6 are currently subject to a NO_x RACT limit of 0.50 lb/MMBtu of heat input based on a 24-hour calendar day average, as per Env-A 1303.06(b) *RACT Requirements: Dry-Bottom Utility Boilers Firing Coal and/or Oil*.

¹ Effective October 31, 2010, NHDES adopted Part Env-A 1300 *Nitrogen Oxides (NO_x) Reasonably Available Control Technology (RACT)* which replaced Part Env-A 1211.

6. SR4 and SR6 boilers are each equipped with low NO_x burners², overfire air (OFA) systems³ and selective non-catalytic reduction (SNCR) systems⁴. As per Schiller Station's Title V Operating Permit⁵, SNCR systems are operated on an "as needed" basis to comply with the current permit limits for NO_x.
7. In accordance with 40 Code of Federal Regulation (CFR) 51.1116, states within the Ozone Transport Region (OTR) must submit a SIP revision that meets the RACT requirements of Section 182(b)(2) of the Clean Air Act within 24 months after designation of an Ozone National Ambient Air Quality Standard (NAASQ). In an effort to meet those obligations for both the 2008 and 2015 Ozone NAAQS, NHDES requested in a letter dated May 3, 2018 that GSP conduct a NO_x RACT analysis for optimization of the SNCR systems on utility boilers SR4 and SR6 including an evaluation of the technical and economic feasibility of operating the SNCR systems on a year-round basis to achieve more stringent NO_x emission levels.
8. On June 25, 2018, GSP Schiller submitted a NO_x RACT analysis for SR4 and SR6.
9. GSP Schiller conducted a technical and economic feasibility analysis of year-round SNCR operation to achieve the NO_x emission levels of 0.15 lb/MMBtu, 0.20 lb/MMBtu and 0.25 lb/MMBtu (calendar day average) as requested by NHDES.
10. GSP Schiller contends that NO_x emission levels of 0.15 and 0.20 lb/MMBtu are technically not feasible. GSP concluded that NO_x emission level of 0.25 lb/MMBtu can be achieved using existing combustion controls (i.e., LNB and OFA).
11. Economic feasibility analysis conducted by GSP Schiller indicated that year-round mandatory operation of SNCR to achieve compliance with the NO_x RACT limit is not cost effective or economically feasible.
12. Based on technical and economic analysis, GSP Schiller proposed a NO_x RACT limit of 0.25 lb/MMBtu, 24-hour calendar day average, for each of SR4 and SR6. GSP proposed to comply with this emission limit using existing combustion controls (i.e., LNB and OFA).
13. GSP Schiller proposed to use SNCR systems on an as needed basis to achieve compliance with the proposed emission limit.

² SR4 and SR6 boilers were each retrofitted with RJM Corporation's low-NO_x burners in mid-1999.

³ Selective non-catalytic reduction NO_x control systems were installed on SR4 and SR6 in 1999.

⁴ Overfire air systems were installed in the early 2000's. The OFA systems are comprised of ports, ducts, and dampers that allow up to 15 percent of the combustion airflow to be diverted from the top of the window box through ports located above the top elevation of burners.

⁵ <http://www4.des.state.nh.us/OneStopPub/Air/330150001218-0008TypePermit.pdf>

D. Order

Based upon the above findings and determinations, NHDES hereby orders GSP Schiller as follows:

1. Comply with a NOx emission limit of less than or equal to 0.25 lb NOx/MMBtu on a 24-hour calendar day average, for each of SR4 and SR6. This limit applies at all times, including periods of startup and shutdown.
2. Operate the SNCR as necessary to comply with the NOx emission rate when the boiler(s) is in operation.
3. Use the continuous emissions monitoring systems to determine compliance with the NOx emission rate.
4. Comply with the monitoring requirements in Env-A 808 *Continuous Emission Monitoring* and 40 Code of Federal Requirements (CFR) Part 75 *Continuous Emission Monitoring*.
5. Comply with the recordkeeping and reporting requirements of Env-A 900 *Owner or Operator Recordkeeping and Reporting Obligations*.

Please address any correspondence and communication in reference to this Order to the following:

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