



## **APPENDIX B-3**

### **Redacted Order for Keystone**

**Bureau of Air Quality  
Department of Environmental Protection**

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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

*Via Certified Mail # 7003 2260 0000 3139 7810*

In The Matter Of:

Genon NE Management Co.	:	SO <sub>2</sub> 1 hour NAAQS
Keystone Plant	:	Nonattainment;
121 Champion Way	:	Indiana County and
Canonsburg, PA 15317-5817	:	Portions of Armstrong County

ORDER

NOW THIS 11<sup>th</sup> day of October, 2017, the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") has made and determined the following FINDINGS and enters the following ORDER:

FINDINGS

The Department has found and determined the following:

A. ~~The Department is the agency with the duty and authority to administer and enforce the Air Pollution Control Act, Act of January 8, 1960, P.L. 2119 (1959), as amended, 35 P.S. § 4001 et seq. ("APCA"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P. L. 177, as amended, 71 P.S. § 510-17; and the rules and regulations promulgated thereunder.~~

B. ~~Genon NE Management Company ("Genon NE") operates as a subsidiary of NRG Energy, Inc. ("NRG"), who is authorized to do business in Pennsylvania, with a mailing address of 121 Champion Way, Canonsburg, PA 15317-5817.~~

C. ~~Genon NE owns the Keystone Plant, a coal-fired, steam electrical generation station located at 313 Keystone Drive, Shelocta, PA 15774 in Plumcreek Township, Armstrong County.~~

D. ~~The Keystone Plant is presently covered by Title V Operating Permit No. 03-00027, which expires on April 29, 2020.~~

E. ~~The Keystone Plant presently includes the following sources of SO<sub>2</sub> emissions (“SO<sub>2</sub> Emitting Sources”):~~

- ~~• Boiler 1 (Source ID 031) nominally rated at 8,717 MMBTU/HR; and~~
- ~~• Boiler 2 (Source ID 032) nominally rated at 8,717 MMBTU/HR;~~

F. ~~Each of the SO<sub>2</sub> Emitting Sources described in Paragraph E, above, is an air contamination source as that term is defined in Section 3 of the APCA, 35 P.S. § 4003.~~

**Background of Requirements for Commonwealth to Submit Revision to State Implementation Plan (SIP):**

G. ~~On June 22, 2010, the United States Environmental Protection Agency (“EPA”) promulgated a revised primary (health-based) national ambient air quality standard (“NAAQS”) for Sulfur Dioxide (SO<sub>2</sub>). See 75 FR 35520, June 22, 2010 (hereinafter “2010 1-Hour SO<sub>2</sub> NAAQS”). Specifically, the EPA established a new 1-hour standard at a level of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site when the 3-year average of the annual 99<sup>th</sup> percentile of 1-hour daily maximum concentrations is less than or equal to 75 ppb. These revised SO<sub>2</sub> standards became effective on August 23, 2010.~~

H. ~~On August 5, 2013, at 78 FR 47191, the EPA designated all of Indiana County and Plumcreek Township, South Bend Township, and Elderton Borough in Armstrong County as being in nonattainment for the 2010 1-Hour SO<sub>2</sub> NAAQS (“Indiana Nonattainment Area”). The designations took effect October 4, 2013.~~

I. Pursuant to Section 191 of the Clean Air Act (“CAA”), 42 U.S.C. § 7514, the Commonwealth of Pennsylvania was required to develop and submit to the EPA a State Implementation Plan revision (“SIP revision”) to address the Indiana Nonattainment Area within 18 months (April 4, 2015) from the effective date of the 2010 1 Hour SO<sub>2</sub> NAAQS nonattainment designations. Specific statutory requirements for a SIP submittal can be found in Section 172(c) of the CAA. 42 U.S.C. § 7502(c).

J. On March 18, 2016, effective April 18, 2016, the EPA published a final action to find that Pennsylvania failed to submit a SIP to satisfy nonattainment area planning requirements of the CAA for the 2010 1 Hour SO<sub>2</sub> NAAQS. 81 FR 14736. *See also* 81 FR 22025 (April 14, 2016.) (This action corrects that listing to clarify that the Indiana, Pennsylvania nonattainment area for the 2010 SO<sub>2</sub> NAAQS consists of the entirety of Indiana County and part of Armstrong County.) The EPA’s findings of “failure to submit” triggered deadlines for the EPA to impose sanctions if Pennsylvania does not submit a SIP addressing those requirements and for the EPA to promulgate a Federal Implementation Plan (“FIP”) to address any outstanding SIP requirements.

K. If a state has not submitted a SIP revision and the EPA has not found it to be complete on or before 18 months (Oct. 18, 2017) after the effective date of the findings, the offset sanctions identified under Section 179(b)(2) and 40 C.F.R. § 52.31(d) will apply. If a state has not submitted a SIP Revision and the EPA has not found it to be complete on or before 24 months (April 18, 2018) after the effective date of the findings, highway funding sanctions, identified under Section 179(b)(1), will apply. Additionally, such a finding also triggers an obligation under CAA Section 110(c)(1)(A) for the EPA to promulgate a FIP no later than 2



~~years from the finding of failure to submit, if the affected state has not submitted, and the EPA has not approved, the required SIP submittal.~~

~~L. The SIP revision is subject to a public comment period and opportunity for a public hearing.~~

~~M. Because the SO<sub>2</sub> Emitting Sources are point sources located in the Indiana Nonattainment Area with SO<sub>2</sub> emissions that could potentially contribute to nonattainment of the area, they were included in atmospheric dispersion modeling for demonstration of attainment per Appendix W to 40 C.F.R. Part 51 and in accordance with Guidance for 1-Hour Sulfur Dioxide Nonattainment Area State Implementation Plans ("SIP") Submissions.~~

~~N. On behalf of Genon NE and three other NRG-operated power plants in the Indiana Nonattainment Area (Seward Generating Station, Conemaugh Generating Station and Homer City Generating Station), NRG has caused air dispersion modeling to be performed for the Indiana Nonattainment Area in two ways:~~

- ~~1. Using the guideline model AERMOD ("AERMOD Modeling"); and~~
- ~~2. Using the guideline model AERMOD together with AIRMOIST software ("AERMOD/AIRMOIST Modeling").~~

~~O. DEP has reviewed the modeling for the Indiana Nonattainment Area. Both the AERMOD Modeling and AERMOD/AIRMOIST Modeling, identified in Paragraph N, above, show that the Indiana Nonattainment Area would achieve modeled attainment of the 2010 1-hour SO<sub>2</sub> NAAQS with the current SO<sub>2</sub> emissions limitations for the Homer City SO<sub>2</sub> Emitting Sources, the Conemaugh SO<sub>2</sub> Emitting Sources, and the Seward SO<sub>2</sub> Emitting Sources. The AERMOD Modeling and AERMOD/AIRMOIST Modeling show that changes to the currently permitted emissions limits for the Keystone Plant are needed to achieve modeled attainment of~~

~~the 2010 1-hour SO<sub>2</sub> NAAQS. The emission limitations, however, resulting from AERMOD Modeling and AERMOD/AERMOIST Modeling are not identical.~~

~~P. Both the AERMOD Modeling and AERMOD/AERMOIST Modeling will be included in the SIP revision. The EPA is expected to accept only one of these models.~~

~~Q. Contingency measures are a required component of the SIP revision pursuant to Section 172(c)(9) of the CAA.~~

### **ORDER**

NOW THEREFORE, pursuant to Sections 4(9) and 10.1 of the APCA, 35 P.S. §§ 4004(9) and 10.1, and Section 1917-A of the Administrative Code, 71 P.S. § 510-17, the Department orders that:

**1. Emission Restrictions:**

a. **AERMOD/AERMOIST Modeling.** On and after October 1, 2018, unless the EPA rejects the AERMOD/AERMOIST Modeling for this particular SIP determination, the SO<sub>2</sub> emissions from the Keystone Plant shall not exceed the following limit, which is based on AERMOD/AERMOIST Modeling: the SO<sub>2</sub> emission rate from Boiler 1 and Boiler 2 combined shall not exceed 10,800 lb/hr on a 24-hour (daily) block average basis.

b. **AERMOD Modeling.** On and after October 1, 2018, if the EPA rejects the AERMOD/AERMOIST Modeling for this particular SIP determination, emissions from the Keystone Plant shall not exceed the following limit, which is based on AERMOD Modeling: the SO<sub>2</sub> emission rate from Boiler 1 and Boiler 2 combined shall not exceed 9,600 lb/hr on a 24-hour (daily) block average basis.

**2. Emissions Monitoring.** Beginning on and after October 1, 2018, Genon NE shall use its Department certified Continuous Emission Monitors ("CEMs") to demonstrate

compliance with the new emission limitation as detailed in Paragraph 1 of this Order, above. In accordance with the current version of the Department's Continuous Source Monitoring Manual, Permittees shall continue to provide quarterly reports of emissions data as recorded by the CEMs to the Department.

**3. Contingency Measures.**

a. Upon execution of this Order, if SO<sub>2</sub> emissions from the combined SO<sub>2</sub> Emitting Sources at the Keystone Plant exceed 99% of the SO<sub>2</sub> emission limits in Paragraph 1, above, Genon NE shall, within 48 hours, undertake a full- system audit of the SO<sub>2</sub> Emitting Sources, and will submit a written report to DEP within 15 days. A malfunction report prepared pursuant to Title V Operating Permit 03-00027, Section C, Condition 016 shall satisfy this requirement. The full system audit shall consist of a review of the parameters routinely monitored by the Continuous Emissions Monitoring Systems and the Digital Data Acquisition Systems installed on the SO<sub>2</sub> Emitting Sources and their control devices to determine whether or not the units and control devices were operating in accordance with specifications set forth in the approved plan approval application and good air pollution control practices. If the SO<sub>2</sub> Emitting Sources and their control devices were not operating in accordance with specifications set forth in the approved plan approval application and good air pollution control practices, then Genon NE shall identify corrective actions to be implemented to ensure that the limits in Paragraph 1, above, are not exceeded. Only one audit in a seven-operating day period is required if combined SO<sub>2</sub> emissions from the SO<sub>2</sub> Emitting Sources exceed 99% of the SO<sub>2</sub> emission limits in Paragraph 1, above. The audit and associated records shall be maintained on site.

b. Upon execution of this Order, if the Strongstown monitor (AIRS ID 42-063-0004) measures a 1-hour concentration exceeding 75 ppb (which constitutes a daily



exceedance of the 1-hour SO<sub>2</sub> NAAQS), the Department will notify Genon NE both verbally and in writing. Genon NE shall identify whether any of the SO<sub>2</sub> Emitting Sources at the Keystone Plant were running at the time of the exceedance, and/or within a reasonable time period leading up to the exceedance, not to exceed 24 hours. If any of the SO<sub>2</sub> Emitting Sources at the Keystone Plant were running at the time of the exceedance, and within a reasonable time-period leading up to the exceedance, not to exceed 24 hours, Genon NE must then analyze the meteorological data on the day the daily exceedance occurred to ensure that the daily exceedance was not due to SO<sub>2</sub> emissions from the Keystone Plant. The meteorological data analysis should include trajectories run at three different heights (one at stack height and two more within the boundary layer) by the National Oceanic and Atmospheric Administration's Hysplit program or an equivalent program, and an analysis of Johnstown Airport's meteorological data and modeled upper air data using the National Weather Service's Bufkit or equivalent program. The overall goal of the meteorological data analysis is to investigate if emissions from any of the Keystone Plant could have potentially mixed down to the Strongstown SO<sub>2</sub> monitor. Genon NE's finding must be submitted in writing to the Department within 30 days of being notified of the exceedance. In lieu of performing this meteorological analysis for the Keystone Plant alone, meteorological analysis for Genon NE and one or more of the power plants in the Indiana Nonattainment Area may be submitted, provided that the analysis is designed to investigate if emissions from the Keystone Plant could have potentially mixed down to the Strongstown SO<sub>2</sub> monitor.

4. **Title V.** Within six (6) months of US EPA's approval of State Implementation Plan revision addressing the 2010 1-Hour SO<sub>2</sub> NAAQS nonattainment in the Indiana Nonattainment Area ("Indiana Nonattainment Area SIP"), Genon NE shall submit an application

to amend its operating permit to include provisions of this Order that pertain to the Keystone Plant.

5. ~~Transfer of Site.~~ If Genon NE intends to transfer any legal or equitable interest in the Keystone Plant, Genon NE shall serve a copy of this Order upon the prospective transferee of the legal and equitable interest at least 30 days prior to the contemplated transfer and shall simultaneously inform the Southwest Regional Office of the Department of such intent.

6. ~~Correspondence with Department.~~ All correspondence with the Department concerning this Order shall be addressed to:

Mark Gorog, PE  
Regional Air Quality Program Manager  
Pennsylvania Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
Phone: (412) 442-4000  
Fax: (412) 442-4194

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to

the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

FOR THE COMMONWEALTH OF  
PENNSYLVANIA, DEPARTMENT  
OF ENVIRONMENTAL PROTECTION:



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Mark R. Gorog, P.E.  
Air Quality Program Manager  
Southwest Regional Office