

RESOLUTION NO. 2021- 471

RESOLUTION AUTHORIZING THE EXECUTION OF A SETTLEMENT AGREEMENT BY AND BETWEEN THE CITY OF VINELAND AND NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION REGARDING THE WEST GENERATING STATION.

WHEREAS, the Vineland Municipal Electric Utility (VMEU) has an air operating permit from the New Jersey Department of Environmental Protection (NJDEP) covering the allowed operation of, and air emissions from, equipment located at the West Generating Station, which includes West Unit 1; and

WHEREAS, the emissions from the West Unit 1 turbine are calculated using industry accepted data, periodic stack tests, and certain operating parameters of West Unit 1 which are monitored according to the provisions of the permit; and

WHEREAS, any emission exceedances recorded during stack tests, and any deviations from operating requirements, must be reported to the NJDEP in semiannual and annual reports; and

WHEREAS, deviations from the operating requirements which apply to West Unit 1 have sometimes occurred, usually caused by brief equipment problems, and have been reported to the NJDEP as required; and

WHEREAS, the NJDEP has recently concluded an evaluation of such filed reports, including annual reports filed for 2014, 2015, 2016, 2017, 2018, 2019 and 2020, and individual incident reports submitted by the utility explaining the circumstances surrounding reported violations; and

WHEREAS, affirmative defenses have been granted, based on submitted incident reports, for certain of the reported violations, with associated penalties waived for those violations; and

WHEREAS, the NJDEP has, however, assessed penalties for other violations, based on a standard schedule of fines contained in the air pollution regulations for incidents identified by permit reports, and has issued a proposed settlement which covers these alleged violations and penalty assessments; and

WHEREAS, the NJDEP has offered a settlement with an overall 25% penalty reduction from the initially calculated \$77,800 to **\$58,350**; and

WHEREAS, the City Council of the City of Vineland deems it in the best interest of the City to settle this matter rather than proceed on to costly litigation and expenses;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Vineland that the Mayor of the City of Vineland is hereby authorized to execute on behalf of the City of Vineland a Settlement Agreement in the form attached hereto.

Adopted:

President of Council

ATTEST:

City Clerk

Memorandum

To: Mayor Anthony Fanucci
Bob Dickenson, Business Administrator

CC: John Lillie, Director, Utilities
Joseph Isabella, General Manager, Utilities
Richard P. Tonetta, Esq., City Solicitor

From: Jeff Davis, Supervising Engineer, Vineland Municipal Electric Utility

Date: September 21, 2021

Re: DEP Settlement Agreement – NEA210001 - 75482 - with Penalty Reduction
For alleged air permit violations – West Generating Station, January 2014 to December 2020

The electric utility has an air operating permit from the NJDEP (DEP) covering the operation of all sources of air pollution at VMEU's West Generating Station, the most significant of which is the West Unit 1 combustion turbine (West CT) which was installed in 1972. West Generating Station also includes a diesel starter engine, which serves to spin the rotating components of the turbine up to the minimum speed required for fuel injection and ignition. Several modifications have been made to West CT to reduce emissions and remain in compliance with increasingly stringent emissions standards. Specifically, a water injection system was installed in 1995, and a Selective Catalytic Reduction (SCR) system was installed in 2015.

Unlike VMEU's more recently installed Down Unit 11 and Clayville Unit 1 turbines, emissions from the West CT are not monitored directly by continuous emission monitors (CEMS). Rather, the emissions from the turbine are calculated based on operational parameters, industry accepted data from similar turbines, and periodic emissions testing at West CT. The operating permit for West CT places limits and requirements on certain operational parameters which can affect the emissions from the turbine. These include limits on fuel consumption and turbine start-up time, and requirements that the water injection and SCR systems function properly during turbine operations. The operating permit also incorporates an Emission Averaging Plan, which allows the short duration emissions from the starter engine to be offset by more prolonged operation of the turbine.

Although West CT runs relatively infrequently, the turbine, starter engine and other related systems generally comply with the requirements of the operating permit. However, any problems that do occur, even minor problems, can cause a violation. Due to the structure of the regional energy market and the nature of the West CT turbine, operation of West CT almost always occurs during extreme hot or extremely cold weather events. These extreme conditions cause occasional mechanical problems, such as malfunctions in the water injection or SCR systems, prolonged startups, and aborted turbine starts.

Each year, the Utility must certify the compliance status of all sources at the station and enumerate any permit deviations that occurred over the prior year. DEP has recently concluded an evaluation of annual summary reports for West Station for 2014, 2015, 2016, 2017, 2018, 2019 and 2020. Affirmative defenses have been granted for a number of the reported violations, based on individual incident reports submitted by the utility to explain the circumstances surrounding the violations, and associated penalties have been waived in these cases. DEP has, however, assessed penalties for certain of the other violations. VMEU has received a proposed settlement from the DEP regional enforcement section regarding these alleged violations and penalty assessments. (Please see attached.)

The air pollution regulations contain a standard schedule of fines for incidents identified by continuous monitoring, as well as those shown through stack testing and other types of site monitoring, and these are the basis of the DEP penalty assessments. Calculations have been provided by DEP with the proposed settlement document. In further consideration of all circumstances, however, and the fact that all incidents have been resolved, DEP has offered a settlement with an overall 25% penalty reduction. In the agreement, the penalty has been reduced from the initially calculated \$77,800 to \$58,350. Because further litigation would likely cost more than any reduction that might be realized through an appeal process, it is recommended that the proposed settlement agreement be approved and signed by the mayor, and the proposed penalty paid. As noted above, this total represents penalties accrued over seven years from 2014 to 2020.

We are requesting that a resolution authorizing execution of this Settlement Agreement be added to the City Council agenda for October 12, 2021.

If you have any questions about the settlement or facts of the matter, please feel free to contact me at jdavis@vinelandcity.org or call me at City Extension x4541.

Thank you.



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR ENFORCEMENT

BUREAU OF AIR COMPLIANCE & ENFORCEMENT- SOUTHERN

2 Riverside Drive, Suite 201

Camden, New Jersey 08103

Tel. (856) 614-3601 • Fax. (856) 614-6313

PHILIP D. MURPHY

Governor

SHEILA Y. OLIVER

Lt. Governor

SHAWN M. LATOURETTE

Commissioner

IN THE MATTER OF
VINELAND CITY MUNICIPAL ELECTRIC UTILITY
WEST STATION
PO BOX 1508
VINELAND, NJ 08362-1508

SETTLEMENT AGREEMENT

EA ID # NEA210001 - 75482

1. This Settlement Agreement is entered into pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (“Department”) by N.J.S.A. 13:1D-1 et seq., and the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq. (the “Act”), and duly delegated to the Manager, Division of Air Enforcement, Bureau of Air Compliance & Enforcement- Southern pursuant to N.J.S.A.13:1B-4.
2. The Department has completed its compliance evaluations of the following reports submitted by VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION, located at New Peach St. & Lubin Ln., City of Vineland, County of Cumberland, State of New Jersey:

Annual Compliance Certifications

SUB150003 = 2014

SUB160002 = 2015

SUB170004 = 2016

SUB180004 = 2017

SUB190003 = 2018

SUB200003 = 2019

SUB210002 = 2020

3. As the result of the above compliance evaluations, the Department has determined that VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION failed to comply with applicable requirements as follows:

2014 ANNUAL COMPLIANCE CERTIFICATION (SUB150003)

14-A Requirement: Pursuant to N.J.A.C. 7:27-19.6 and N.J.A.C. 7:27-22.3(e), VMEU - West Station must comply with all the requirements of its NOx Averaging Plan as approved and modified by the Department.

Description of Noncompliance: Your NOx RACT Averaging Plan was exceeded on the date(s) listed below when the emissions of nitrogen oxides from the averaging set (Combustion Turbine U1 + Starter Engine U2) exceeded the maximum allowable (excess 3.4 lbs), in violation of your Title V Operating Permit BOP130001 - GR1 - Ref# 2.

DATES

05/16/14

14-B Requirement: Pursuant to N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e), maximum Gross Heat Input \leq 450 MMBTU/hr (HHV).

Description of Noncompliance: The maximum gross heat input from Unit 1 Combustion Turbine (burning distillate oil) exceeded the maximum allowable, 450 MMBTU/hr, on the date(s) listed below in violation of your Title V Operating Permit BOP130001 - U1 - OS0 - Ref# 13.

DATES

01/06/14

01/07/14

01/08/14

14-C Requirement: Pursuant to N.J.A.C. 7:27-22.16(e) and N.J.A.C. 7:27-22.3(e), water injection system shall be operated at all times the combustion turbine is operating, except during start-up and shut-down periods.

Description of Noncompliance: The water injection system was not operated at all times, specifically on the date(s) listed below, when the Combustion Turbine was operated without water injection for 22 minutes (8:18 to 8:39), therefore you failed to fulfill all conditions and provisions of your Title V Operating Permit BOP130001 - U1 - OS Summary - Ref# 17.

DATES

01/25/14

2015 ANNUAL COMPLIANCE CERTIFICATION (SUB160002)

15-A Requirement: Pursuant to N.J.A.C. 7:27-19.6 and N.J.A.C. 7:27-22.3(e), NOx (Total): VMEU - West Station must comply with all requirements of the NOx averaging plan dated May 2012, as approved by the Department, through April 30, 2015.

Description of Noncompliance: Your NOx RACT Averaging Plan was exceeded on the date(s) listed below when the emissions of nitrogen oxides from the averaging set (Combustion Turbine U1 + Starter Engine U2) exceeded the maximum allowable (excess 6 lbs), in violation of your Title V Operating Permit BOP150001 - GR1 - Ref# 3.

DATES
04/15/15

15-B Requirement: Pursuant to N.J.A.C. 7:27-19.6 and N.J.A.C. 7:27-22.3(e), NOx (Total): VMEU - West Station must comply with all requirements of the NOx averaging plan dated May 2014, as approved by the Department, beginning May 1, 2015.

Description of Noncompliance: Your NOx RACT Averaging Plan was exceeded on the date(s) listed below, when the emissions of nitrogen oxides from the averaging set (Combustion Turbine U1 + Starter Engine U2) exceeded the maximum allowable (excess 30.2 lbs), in violation of your Title V Operating Permit BOP150001 - GR1 - Ref# 4.

DATES
05/19/15

15-C Requirement: Pursuant to N.J.A.C. 7:27-22.16(e) and N.J.A.C. 7:27-22.3(e), except during start-up and shut-down periods, minimum water injection rate during normal operation of the combustion turbine shall not be lower than set forth in the chart in Appendix 1.

Description of Noncompliance: The water injection rate fell below the minimum required on the date(s) listed below, when the Combustion Turbine was operated without water injection for 38 minutes (8:41to 9:31), therefore you failed to fulfill all conditions and provisions of your Title V Operating Permit BOP150001 - U1 - OS Summary - Ref# 19.

DATES
05/19/15

15-D Requirement: Pursuant to N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e), the SCR shall be operated and reagent shall be injected at all times that the turbine is operating, except during periods of SCR start-up and SCR shutdown.

Description of Noncompliance: The SCR ammonia injection system was not operated at all times that the turbine is operating, specifically on the date(s) listed below, therefore you failed to fulfill all conditions and provisions of your Title V Operating Permit BOP150001 - U1 - OS2 - Ref# 6.

DATES

06/23/15

07/23/15

2016 ANNUAL COMPLIANCE CERTIFICATION (SUB170004)

16-A Requirement: Pursuant to N.J.A.C. 7:27-19.6 and N.J.A.C. 7:27-22.3(e), NOx (Total): VMEU - West Station must comply with all requirements of the NOx averaging plan dated May 2014, as approved by the Department, beginning May 1, 2015.

Description of Noncompliance: You failed to ensure that all requirements of your Operating Permit were met as reported in your 2016 Annual Compliance Certification (SUB170004). Specifically, your NOx Averaging Plan was exceeded, when emissions of Nitrogen Oxides from the West Station averaging set GR1 - Ref #3 (Combustion Turbine U1 + Starter Engine U2) exceeded the maximum allowable on the date(s) listed below:

DATES

01/06/16

01/20/16

02/14/16

07/07/16

12/21/16

16-B Requirement: Pursuant to N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e), ammonia Flow Rate to SCR: The facility shall establish the minimum flow rate of Ammonia to SCR within 180 days from the date of initial startup of the turbine with installed SCR and maintain this minimum flow rate thereafter. The limit has to be verified by a minimum of the three stack test results including ammonia flow monitoring data.

Description of Noncompliance: You failed to ensure that all requirements of your Operating Permit were met as reported in your 2016 Annual Compliance Certification (SUB170004). Specifically, Ammonia Flowrate to SCR fell below the minimum flowrate required for the West Combustion Turbine, U1 - OS2 - Ref #5 , on the date(s) listed below:

DATES
01/06/16
07/07/16

2017 ANNUAL COMPLIANCE CERTIFICATION (SUB180004)

17-A Requirement: Pursuant to N.J.A.C. 7:27-19.6 and N.J.A.C. 7:27-22.3(e), NOx (Total): VMEU - West Station must comply with all requirements of the NOx averaging plan dated May 2014, as approved by the Department, beginning May 1, 2015.

Description of Noncompliance: Your NOx Averaging Plan was exceeded, when emissions of Nitrogen Oxides from the West Station averaging set (Combustion Turbine U1 + Starter Engine U2) exceeded the maximum allowable on the date(s) listed below, as reported in your 2017 Annual Compliance Certification (SUB180004), therefore you failed to ensure that all requirements of your Operating Permit at GR1 - Ref# 3 were met.

DATES
09/21/17

17-B Requirement: Pursuant to N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e), ammonia Flow Rate to SCR: The minimum injection rate shall be 8.26 gal. NH3 / MGal oil burned, based on stack testing performed July 23, 2015.

Description of Noncompliance: The Ammonia Flowrate to SCR on the West Combustion Turbine fell below the minimum as required at U1 - OS2 - Ref #5, specifically on the date(s) listed below, as reported in your 2017 Annual Compliance Certification (SUB180004), therefore you failed to ensure that all requirements of your Operating Permit were met.

DATES
08/02/17
09/21/17

17-C Requirement: Pursuant to N.J.A.C. 7:27-22.16(o) and N.J.A.C. 7:27-22.3(e), monitored by periodic emission monitoring annually for NOx, CO and O2. The average of three twenty minute test runs shall be performed according to the approved periodic emission monitoring protocol.

Description of Noncompliance: The Annual Periodic Emission Monitoring (PEM) required to be completed during 2017 was not conducted on West Station Starter Diesel Engine until 01/12/18, as reported in your 2017 Annual Compliance Certification (SUB180004). Therefore, you failed to ensure that all requirements of your Operating Permit at U2 - OS Summary - Ref# 1 were met.

2018 ANNUAL COMPLIANCE CERTIFICATION (SUB190003)

18-A Requirement: Pursuant to N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e), ammonia Flow Rate to SCR: The minimum injection rate shall be 8.26 gal. NH₃ / MGal oil burned, based on stack testing performed July 23, 2015.

Description of Noncompliance: The Ammonia Flowrate to SCR on the West Combustion Turbine fell below the minimum required at U1 - OS2 - Ref #5, specifically on the date(s) listed below, as reported in your 2018 Annual Compliance Certification (SUB190003), therefore you failed to ensure that all requirements of your Operating Permit were met.

DATES
12/06/18

2019 ANNUAL COMPLIANCE CERTIFICATION (SUB200003)

19-A Requirement: Pursuant to N.J.A.C. 7:27-22.16(e) and N.J.A.C. 7:27-22.3(e), start-up is defined as the period of time from initiation of combustion turbine operation until the unit reaches steady state at 80 to 100 percent load conditions. The duration of exemption from N.J.A.C. 7:27-22.16(e) lb/hr, lb/MMBtu and ppmvd emission limits during start-up shall not exceed 30 minutes. Maximum duration of exemption from N.J.A.C. 7:27-22.16(e) emission limits for start-up based on preconstruction permit.

Description of Noncompliance: The duration of start-up exceeded the allotted 30 minute period on the West Combustion Turbine, specifically on the date(s) listed below, as reported in your 2019 Annual Compliance Certification (SUB200003), therefore you failed to ensure that all requirements of your Operating Permit at U1 - OS0 - Ref# 14 were met.

DATES
01/31/19

19-B Requirement: Pursuant to N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e), ammonia Flow Rate to SCR: The minimum injection rate shall be 8.26 gal. NH₃ / MGal oil burned, based on stack testing performed July 23, 2015.

Description of Noncompliance: The Ammonia Flowrate to SCR on the West Combustion Turbine fell below the minimum required at U1 - OS2 - Ref #5, specifically on the date(s) listed below, as reported in your 2019 Annual Compliance Certification (SUB200003), therefore you failed to ensure that all requirements of your Operating Permit were met.

DATES

01/31/19

12/12/19

12/19/19

19-C Requirement: Pursuant to N.J.A.C. 7:27-22.16(o) and N.J.A.C. 7:27-22.3(e), monitored by periodic emission monitoring annually for NO_x, CO and O₂. The average of three twenty minute test runs shall be performed according to the approved periodic emission monitoring protocol.

Description of Noncompliance: The Annual Periodic Emission Monitoring (PEM) required to be completed during 2019 was not conducted on the West Station Starter Diesel Engine until 01/23/20 as reported in your 2019 Annual Compliance Certification (SUB200003). Therefore, you failed to ensure that all requirements of your Operating Permit at U2 - OS Summary - Ref# 1 were met.

2020 ANNUAL COMPLIANCE CERTIFICATION (SUB210002)

20-A Requirement: Pursuant to N.J.A.C. 7:27-19.6 and N.J.A.C. 7:27-22.3(e), VMEU - West Station must comply with all the requirements of its NO_x Averaging Plan as approved and modified by the Department.

Description of Noncompliance: Your NO_x Averaging Plan was exceeded, when emissions of Nitrogen Oxides from the West Station averaging set (Combustion Turbine U1 + Starter Engine U2) exceeded the maximum allowable on the date(s) listed below, therefore you failed to ensure that all requirements of your Title V Operating Permit were met, BOP160004 - GR1 - Ref# 2.

DATES

07/24/20

08/12/20

20-B Requirement: Pursuant to N.J.A.C. 7:27-22.16(e) and N.J.A.C. 7:27-22.3(e), water injection system shall be operated at all times the combustion turbine is operating, except during start-up and shut-down periods.

Description of Noncompliance: The water injection system was not operated at all times, specifically on the dates listed below, when the West Combustion Turbine was operated without water injection, therefore you failed to fulfill all conditions and provisions of your Title V Operating Permit BOP160004 - U1 - OS Summary - Ref# 16.

DATES

08/19/20

4. Therefore, the Department has determined that the VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION is liable for civil administrative penalties totaling \$77,800.00 for the above referenced violations pursuant to N.J.S.A. 26:2C-19 and N.J.A.C. 7:27A-3.1 et seq.
5. The Department and VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION have agreed to settle this matter in accordance with the following terms:
 - a. The Department has determined that the above violations have been corrected and thus is willing to accept a reduced penalty as follows. VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION agrees to operate in compliance with all applicable regulations and permits.
 - b. In full settlement of the aforementioned violation(s) VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION shall pay a penalty of \$58,350.00 by check made payable to "Treasurer, State of New Jersey" and remit to the Division of Revenue at the address stated on the enclosed invoice within thirty (30) calendar days from the date of full execution of this Settlement Agreement.
 - c. Neither the entry into this Settlement Agreement nor the payment of the settlement amount shall constitute an admission of liability by VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION for the violations listed herein.
 - d. If VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION fails to pay the above reduced penalty in accordance with the terms and conditions of this Settlement Agreement, then VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION is liable for the full penalty amount. The full penalty amount will be included in a formal enforcement action that will also include formal withdrawal of this settlement agreement.
 - e. Nothing in this Settlement Agreement shall preclude the Department from taking enforcement action against VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION for violations not set forth in this Settlement Agreement.
 - f. VINELAND CITY MUNICIPAL ELECTRIC UTILITY WEST STATION hereby waives its right to an administrative hearing with respect to the violations which are listed in paragraph 3 above.

- g. Nothing in this Settlement Agreement restricts the ability of the Department to raise the above findings in any other proceeding, specifically including, but not limited to, proceedings pursuant to N.J.S.A. 13:1E-126 et seq., (commonly referred to as A-901).
- h. This Settlement Agreement shall be effective upon execution by both parties. The Department does not waive its right to consider any violations set forth above as an offense in determining penalties in any future enforcement action.

NJ Department of Environmental Protection

DATE: _____

BY: _____

Mary M. Toogood, Manager
Bureau of Air Compliance & Enforcement-
Southern

VINELAND CITY MUNICIPAL
ELECTRIC UTILITY WEST STATION

DATE: _____

BY: _____

Anthony Fannucci, Mayor
City of Vineland