

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I – NEW ENGLAND**

IN THE MATTER OF)
)
)

Northeast Gateway Energy Bridge, LLC)
2445 Technology Forest Blvd., Level 6)
The Woodlands, TX 77381)
)
)

FINDING OF VIOLATION

INTRODUCTION

1. The United States Environmental Protection Agency Region I (“EPA”) issues this Finding of Violation (“FOV”) to Northeast Gateway Energy Bridge, LLC (“NEG”). EPA has found that NEG violated its Clean Air Act permit to construct and operate the Northeast Gateway Energy Bridge deepwater port off the coast of Massachusetts, Permit Number RG1-DPA-CAA-01M (the “Permit”).

BACKGROUND

2. NEG has constructed the Northeast Gateway Deepwater Port in waters adjacent to the Commonwealth of Massachusetts approximately 22 miles northeast of Boston.

3. EPA issued NEG its Permit on May 14, 2007, under the Deepwater Port Act, 33 U.S.C. §1501 et. seq., and applicable rules and regulations under the Clean Air Act, including MassDEP air pollution control regulations. The Permit was amended December 30, 2014.

4. The Permit regulates air emissions during the operation of the deepwater port including its use by vessels conducting regasification of liquid natural gas while moored at the deepwater

port.

5. NEG's Energy Bridge Regasification Vessel ("EBRV"), named the H.2272 Exemplar, connected to the subsea buoys at the deepwater port on January 2, 2022.

6. The H.2272 Exemplar is a third generation EBRV with two 224 MMBtu/hr natural gas-fired boilers with 0.1% sulfur fuel oil, identified as "B1" and "B2."

7. Permit condition V.A.1.a, for B1 and B2, prohibits NEG from discharging or causing the discharge into the atmosphere of nitrogen oxides (" NO_x ") emissions in excess of 0.018 Pounds per million British Thermal Units (" lbs/MMBtu ") or a maximum of 4.0 pounds per hour (" lbs/hr ") whichever is more stringent based on a three-hour block average.

8. Permit condition V.A.7 prohibits NEG from discharging ammonia (" NH_3 ") into the atmosphere in excess of 10 parts per million by volume on a dry basis corrected to 3% O_2 (" $\text{ppmvd@3\%O}_2$ ") based on a 1-hour average from the Selective Catalytic Reduction ("SCR") systems controlling B1 and B2.

9. Permit condition V.B.5 requires NEG to ensure that all air pollution control equipment and emissions monitoring systems are connected to their respective emission units and properly function at all times whenever the emission units are in operation.

PERFORMANCE TESTING

10. NEG conducted performance testing for B1 on January 11, 2022, from 5:20 PM to 9:20 PM.

11. NEG conducted performance testing for B2 on January 12, 2022, from 1:40 PM to 5:40 PM.

12. EPA personnel Tyler Kotsifas and Alysha Murphy observed the January 11 and 12 performance testing remotely.

13. NEG submitted a test report for the January 11 and 12 performance testing via email to EPA on February 28, 2022.
14. The test report documents that the NH₃ emissions for B1 during performance testing were 76.1 ppmvd @ 3% O₂, averaged over 3 runs.
15. The test report documents that the NH₃ emissions for B2 during performance testing were 54.9 ppmvd @ 3% O₂, averaged for 3 runs.

EMISSIONS EXCEEDENCE AND BREAKDOWN CONDITION REPORTING

16. On January 18, 2022, NEG submitted to EPA a written emissions exceedance report. The report describes that on January 11 and 12, 2022 excess emissions of NO_x occurred from both B1 and B2.
17. On January 21, 2022, NEG submitted to EPA a written emissions exceedance report and a written correction of breakdown conditions report, pertaining to incidents that occurred on January 14 and 15, 2022. The reports were dated January 20, 2022.
 - a. The reports describe a breakdown condition where urea injection into the SCR was stopped for both B1 and B2 from January 14 from 12:45 PM to 2:14 PM, resulting in excess NO_x emissions. The reports state that a low-level urea alarm was tripped. The reports state that crews cleared the alarm, allowing for urea injection to resume.
 - b. The reports describe a second breakdown condition relating to a Data Acquisition and Handling System (“DAHS”) alarm for B1 being active from 9:47 PM on January 14 to 8:27 AM on January 15 that resulted in excess NO_x emissions. The reports describe that the alarm was cleared at 8:27 AM on January 15 rectifying the condition.
18. On January 24, 2022, NEG submitted to EPA a written emissions exceedance report and a written correction of breakdown conditions report, pertaining to an incident that occurred on

January 16, 2022, from 6:00 AM to 8:59 AM and 12:00 PM and 2:59 PM, resulting in two 3-hour block exceedances of NO_x emissions. The reports describe that the urea injection flow meters for B1 were manually reduced after it was observed that B1 had very low NO_x emissions. The reports state that the manually reduced flow likely resulted in the excess emissions of NO_x. The reports describe that on January 16, 2022, the breakdown condition was corrected by manually increasing the urea injection rate for B1 to bring NO_x emissions within limits.

19. On January 28, 2022, NEG submitted to EPA a written correction of breakdown conditions report, pertaining to an incident that occurred late evening January 20 to early morning January 21, 2022. The report describes that the DAHS recorded missing CEMS data due to intermittent periods of “hardware fault” status for the B1 NO_x analyzer. The report describes that although the NO_x analyzer continued to measure and record concentration data throughout the periods of hardware fault, the DAHS marked these periods as invalid and insufficient data was available to calculate the 3-hour block averages for NO_x lb/MMBtu and NO_x lb/hour. The report describes that the cause of the hardware fault was determined to be a chamber pressure alarm for the B1 NO_x analyzer, which was found to be set too low. The report describes that the alarm set point was changed to the correct value correcting the incident.

FINDINGS

20. NEG violated permit condition V.A.7 by exceeding the emission limit for NH₃ from B1 during performance testing that occurred on January 11, 2022.

21. NEG violated permit condition V.A.7 by exceeding the emission limit for NH₃ from B2 during performance testing that occurred on January 12, 2022.

22. NEG violated permit condition V.A.1.a by exceeding the emission limit for NO_x from B1. See Appendix A, Table 1 of this FOV.

23. NEG violated permit condition V.A.1.a by exceeding the emission limit for NO_x from B2. See Appendix A Table 2 of this FOV.

24. NEG violated permit condition V.B.5 by failing to ensure all air pollution control equipment and emissions monitoring systems properly functioned at all times whenever the emission units were in operation.

ENFORCEMENT

25. At any time, EPA may take any or all of the following actions in accordance with the provisions of Section 113 of the Act: (a) issue an order requiring compliance with the Act; (b) issue an administrative penalty order; or (c) bring a civil action in federal district court for an injunction and/or monetary penalties. The Clean Air Act provides for penalties up to \$25,000 per day per violation, as adjusted for inflation. See Sections 113(a), (b) and (d) of the Act, 42 U.S.C. §§ 7413(a), (b) and (d), 40 C.F.R. Part 19.4, and the Civil Monetary Penalty Inflation Adjustment Rule, 81 Fed. Reg. 4309 (July 1, 2016).

26. If NEG has knowingly violated the requirements of the Act, NEG and its responsible corporate officers may be subject to criminal penalties under Title 18 of the United States Code, imprisonment for not more than five years, or both. See Section 113(c) of the Act, 42 U.S.C. § 7413(c).

27. Be advised that issuance of this FOV does not preclude EPA from electing to pursue any other remedies or sanctions authorized by law that are available to address these violations alleged above. This FOV does not resolve NEG's liability for past violations of the Act or for any violations that continue from the date of this FOV up to the date of compliance. This FOV is not subject to Office of Management and Budget review pursuant to the Paperwork Reduction Act, 44 U.S.C. Chapter 35.

OPPORTUNITY TO CONFER

28. NEG may request an opportunity to confer with EPA concerning this FOV and the findings upon which it is based. To schedule a conference, contact Davianna Vasconcelos at (617) 918-1315 or davianna.vasconcelos@epa.gov, or have your legal counsel contact Michael Wagner at (617) 918-1735 or wagner.michael@epa.gov within fourteen (14) days of issuance of this FOV. NEG may choose to be represented by counsel at the conference.

EFFECTIVE DATE

29. This FOV shall become effective immediately upon issuance by EPA. This FOV applies to NEG, its officers, agents, servants, employees, successors, and assigns, and to all persons, firms, and corporations acting under, through, or for NEG. This FOV is not subject to Office of Management and Budget review under the Paperwork Reduction Act, 44 U.S.C. Chapter 35.

SO ISSUED:

**KAREN
MCGUIRE**

Digitally signed by KAREN
MCGUIRE
Date: 2022.07.21 15:38:24
-04'00'

Karen McGuire, Director
Enforcement and Compliance Division
U.S. Environmental Protection Agency
Region 1 – New England

Date

Appendix A

Table 1: Excess Emissions Reported for Boiler 1 by NEG (in lb/MMBtu)

Date of Incident	Start Time	End Time	NO _x Emission [3-hr block avg.]	NO _x Emission Limit [3-hr block avg.]	Date of Written Report
1/12/22	9:00	11:59	0.032	0.018	1/18/22
	12:00	14:59	0.168	0.018	
	15:00	17:59	0.178	0.018	
	18:00	20:59	0.172	0.018	
	21:00	23:59	0.110	0.018	
1/14/22	12:00	14:59	0.058	0.018	1/20/22
	21:00	23:59	0.022	0.018	
1/15/22	0:00	2:59	0.025	0.018	
	3:00	5:59	0.025	0.018	
	6:00	8:59	0.020	0.018	
1/16/22	6:00	8:59	0.019	0.018	1/24/22
	12:00	14:59	0.019	0.018	

Table 2: Excess Emissions Reported for Boiler 1 by NEG (in lb/hr)

Date of Incident	Start Time	End Time	NO _x Emission [3-hr block avg.]	NO _x Emission Limit [3-hr block avg.]	Date of Written Report
1/12/22	18:00	20:59	7.4	4.0	1/18/22
	21:00	23:59	9.8	4.0	
1/14/22	12:00	14:59	5.0	4.0	1/20/22

Table 3: Excess Emissions Reported for Boiler 2 by NEG (in lb/MMBtu)

Date of Incident	Start Time	End Time	NO _x Emission [3-hr block avg.]	NO _x Emissions Limit [3-hr block avg.]	Date of Written Report
1/11/22	12:00	14:59	0.020	0.018	1/18/22
	15:00	17:59	0.142	0.018	
	18:00	20:59	0.208	0.018	
	21:00	23:59	0.213	0.018	
1/12/22	0:00	2:59	0.033	0.018	1/20/22
1/14/22	12:00	14:59	0.076	0.018	

Table 4: Excess Emissions Reported for Boiler 2 by NEG (in lb/hr)

Date of Incident	Start Time	End Time	NO_x Emission [3-hr block avg.]	NO_x Emissions Limit [3-hr block avg.]	Date of Written Report
1/11/22	15:00	17:59	4.9	4.0	1/18/22
	18:00	20:59	5.4	4.0	
	21:00	23:59	14.3	4.0	
1/14/22	12:00	14:59	6.4	4.0	1/20/22