



U.S. ENVIRONMENTAL PROTECTION AGENCY

RISK MANAGEMENT PROGRAM INSPECTION FINDINGS, ALLEGED VIOLATIONS AND PROPOSED PENALTY FORM

REASON FOR INSPECTION: This inspection is for the purpose of determining compliance with the accidental release prevention requirements of Section 112(r)(7) of the Clean Air Act (Act), 42 U.S.C. sec. 7412(r)(7), and the regulations set forth at 40 C.F.R. Part 68. The scope of this inspection may include but is not limited to: reviewing and obtaining copies of documents and records; interviews and taking of statements; reviewing chemical storage, handling, processing, and use; taking samples and photographs; and any other inspection activities necessary to determine compliance with the Act.

FACILITY NAME: Calpine Westbrook Energy Center
PRIVATE [checked] GOVERNMENTAL/MUNICIPAL [unchecked]
of EMPLOYEES: 21

FACILITY ADDRESS: 60 Eisenhower Drive, Westbrook, Maine 04098
INSPECTION START DATE: June 13, 2018
INSPECTION END DATE: June 13, 2018

RESPONSIBLE OFFICIAL, TITLE, PHONE NUMBER: Holly Bragdon, Plant Manager
EPA FACILITY ID#: RMP 100000173812
FRS 110001681243

FACILITY REPRESENTATIVE(S), TITLE(S), PHONE NUMBER(S): Holly Bragdon, Plant Manager
INSPECTOR NAME(S), TITLE(S): Drew Meyer, EPA Region 1
Leonard B. Wallace IV, EPA Region 1

INSPECTION FINDINGS

IS FACILITY SUBJECT TO RMP REGULATION (40 CFR Part 68)? YES [checked] NO [unchecked]

DID FACILITY SUBMIT AN RMP AS PROVIDED IN 68.150 TO 68.185 AND UPDATE THE RMP AS PROVIDED IN 68.190 TO 69.195? YES [checked] NO [unchecked]

DATE RMP INITIALLY FILED WITH EPA: DATE OF RMP UPDATE:

1) PROCESS/NAICS CODE: 221112 PROGRAM LEVEL: 1 [unchecked] 2 [checked] 3 [checked]
REGULATED SUBSTANCE: anhydrous ammonia Program Level 3 MAX. QUANTITY IN PROCESS: 87,840 pounds
aqueous ammonia Program Level 2 MAX. QUANTITY IN PROCESS: 44,840 pounds

DID FACILITY CORRECTLY ASSIGN PROGRAM LEVELS TO PROCESSES? YES [checked] NO [unchecked]

ATTACHED CHECKLIST(S):
PROGRAM LEVEL 1 PROCESS CHECKLIST [unchecked] PROGRAM LEVEL 2 PROCESS CHECKLIST [checked] PROGRAM LEVEL 3 PROCESS CHECKLIST [checked]

OTHER

ATTACHMENTS:

U. S. ENVIRONMENTAL PROTECTION AGENCY
 REGION I
 5 POST OFFICE SQUARE
 BOSTON, MA 02109-3912

**Process Checklist (Findings) and Alleged Violations and Proposed Penalty Form:
 Calpine Westbrook Energy Center (“CWEC”), Westbrook, Maine**

1. Program Level 3 Alleged Violations and Unadjusted Penalties

Section C – Prevention Program – Safety information [68.65]	
<p>Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?</p> <p><i>–Labeling Issues:</i> At the time of the inspection, the receiver tank, certain doors, and emergency equipment lacked adequate signs and labels, including the following:</p> <p>Inadequate NFPA signs - The anhydrous ammonia receiver tank did not have viewable NFPA hazards diamonds visible from any direction of approach, and the size NFPA hazards diamond do not meet NFPA 704 size requirements. The NFPA signs on the exterior doors at the Chiller Room do not have meet NFPA 704 size requirements;</p> <p>Inadequate electrical equipment labeling - The emergency ventilation fan switch located next to the exterior door at the southeast corner of the Chiller Room was not clearly labeled (“on” or “off”) and the emergency electrical switches failed to specify what equipment were controlled by each switches;</p> <p>See, e.g., NFPA 55-2016 § 7.1.7.3; NFPA § 704-2012, Figure 9.1(b); ANSI/ASHRAE 2-2014 § 6.12 and ANSI/ASHRAE 15-2013 § 8.12(i).</p>	<p>\$ 1500.00</p>

Section C – Prevention Program – Safety information [68.65]	
<p>Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?</p> <p><i>– Labeling Issues:</i> At the time of the inspection, certain piping and the sign for the ammonia system lacked critical information, including the following:</p> <p>Inadequate ammonia piping signage – Piping by the receiver tank lacked enough labels to distinguish flow direction, contents, and physical state;</p> <p>Inadequate ammonia system signage - The sign describing parameters of the ammonia system did not include the field test pressure applied.</p> <p><i>See, e.g., ANSI/IIAR 2-2014 §§ 5.14.5; 5.15</i></p>	<p>\$ 1500.00</p>

Section C – Prevention Program – Safety information [68.65]	
<p>Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?</p> <p>– <i>Piping Issues:</i> At the time of the inspection, ammonia piping showed corrosion at locations where the piping meets a support. Piping maintenance had not been adequately performed.</p> <p><i>See, e.g.,</i> IIAR Bulletin 110 (3/93) - § 6.7.1.</p>	\$ 1500.00
Section C – Prevention Program – Safety information [68.65]	
<p>Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?</p> <p>– <i>Piping Issues:</i> At the time of the inspection, piping containing anhydrous ammonia was not adequately equipped with protection from accidental bumps and resulting damage, including piping under the anhydrous ammonia receiver tank;</p> <p><i>See, e.g.,</i> ANSI/IIAR 2-2014 § 7.2.4; ANSI/ASHRAE 15-2013 § 11.1 and NFPA 55-2016 § 4.11.1.1.</p>	\$ 1500.00
Section C – Prevention Program – Safety information [68.65]	
<p>Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?</p> <p>- <i>Emergency Procedure issues:</i> At the time of the inspection emergency shutdown procedures with emergency contact information were not posted outside the exterior doors at the southeast corner and southwest corner of the Chiller Room.</p> <p><i>See, e.g.,</i> ANSI/ASHRAE 15-2013 § 11.7; IIAR Bulletin 109 § 4.10.5; ANSI/IIAR 2-2014 § 5.15 and Appendix J.</p>	\$ 1500.00

Section C – Prevention Program – Safety information [68.65]

Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?

\$ 1500.00

- *King Valve issues:* At the time of the inspection the following problems with the king valve were identified including:

A wrench is required to manually close/open the king valve for the anhydrous ammonia receiver tank. Two wrenches of different sizes within the vicinity of the king valve were not labeled. Nor were there instructions about the direction the king valve should be turned (on/off);

See, e.g., ANSI/ASHRAE 15-2013 § 11.7; IIAR 2-2014 § 13.3.7

Section C – Prevention Program – Safety information [68.65]

Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?

\$ 1500.00

- *Emergency Equipment issues:* At the time of the inspection the following problems with the emergency equipment were identified including:

The inspectors observed there was one emergency eyewash station located at the far west end of the Chiller Room. Process equipment and piping containing anhydrous ammonia that is located toward the east end of the Chiller Room is greater than 55 feet from the closest emergency eye wash station. An eyewash was also not present within 55 feet of the anhydrous ammonia receiver tank. Stations must be located within the work area for immediate emergency use (i.e., less than 10 seconds or within 55 feet).

See, e.g., ANSI/IIAR 2-2014 § 6.7

Section C – Prevention Program – Safety information [68.65]

Has the owner or operator documented that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)]?

\$1500.00

- *General Hazardous Conditions issues:* At the time of the inspection the following hazardous conditions were identified including:

Combustible materials (e.g., cardboard boxes) were located in the Chiller Room;

The operator computer station is located against the wall in front of an electrical cabinet. The clearance in front of the electrical cabinet is less than 36-inches;

The inspectors observed a used oil drum next to an ammonia system oil pot. A transfer hose was connected from the oil pot to the bung hole of the oil drum. The bung was open that allowed vapors to escape. The valve on the transfer hose was in the open position;

See, e.g., ANSI/IIAR 2-2014 §§ 6.4, 5.9; NFPA 70-2017 § 110.26

Total unadjusted Program Level 3 penalty: \$12,000

2. Program Level 2 Alleged Violations and Unadjusted Penalties

Section C – Prevention Program – Safety information [68.48]

<p>Has the owner or operator owner or operator ensured that the process is designed in compliance with recognized and generally accepted good engineering practices? [68.48(b)]</p> <ul style="list-style-type: none"> - <i>General Safety Issues:</i> At the time of the inspection, several aspects of the Facility lacked adequate signs and labels, including the following: - The aqueous ammonia storage tank did not have sufficient NFPA hazards diamonds to be viewable from all normal approaches. The NFPA hazards diamond did not meet NFPA 704 requirements for size; and - Piping containing aqueous ammonia at the aqueous ammonia tank and near the SCR was not adequately equipped with protection from accidental bumps that could result in damage. <p><i>See e.g., ANSI/ASME 13.1-2007 and ASME B31.3-2006</i></p>	<p>\$ 1500.00</p>
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Total unadjusted Program Level 2 penalty: \$1,500

3. Size-Threshold Quantity Multiplier

The Size-Threshold Quantity multiplier is a factor that considers the size of the facility and the amount of regulated chemicals at the facility. Westbrook Energy Center has approximately 21 employees.

Expedited Settlement Penalty Matrix: Private Industries

Largest Multiple of Threshold Quantity of any Regulated Chemical(s) on Site			
# of Employees	1 – 5	>5 – 10	> 10
0 – 9	0.4	0.6	0.8
<i>10 – 100 (21)</i>	0.6	0.8	1.0 (8.8)
> 100	1.0	1.0	1.0

Size/Threshold Quantity multiplier from Expedited Settlement Penalty Matrix: **1.0**

3. Proposed Penalty

The Proposed Penalty is the amount of the non-negotiable penalty that is calculated by multiplying the Total Penalty and the Size/Threshold Quantity multiplier.

$$\begin{aligned}
 \text{Proposed Penalty} &= && \mathbf{\$13,500} \text{ (Unadjusted Penalty)} \\
 &x && \mathbf{1.0} \text{ (Size/Threshold Quantity Multiplier)} \\
 &= && \mathbf{\$13,500}
 \end{aligned}$$