

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)
)
Joseph’s Gourmet Pasta Company)
)
265 Primrose Street)
Haverhill, MA 01830)
)
Respondent.)
)
)
)

Docket No. CAA-01-2020-0005

**CONSENT AGREEMENT
AND
FINAL ORDER**

I. PRELIMINARY STATEMENT

1. In accordance with 40 C.F.R. § 22.13(b), the issuance of this Consent Agreement (“Consent Agreement” or “Agreement”) and attached Final Order (“Final Order” or “Order”), simultaneously commences and concludes an administrative penalty assessment proceeding brought under Section 113(d) of the Clean Air Act (the “Act” or “CAA”), 42 U.S.C. § 7413(d), and Sections 22.13 and 22.18 of the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits (“Consolidated Rules”), as codified at 40 C.F.R. Part 22.

2. Complainant is the United States Environmental Protection Agency, Region 1 (“EPA”).

3. Respondent is Joseph’s Gourmet Pasta Company, a corporation doing business in the Commonwealth of Massachusetts.

4. Complainant and Respondent, having agreed that settlement of this action is in the public interest, consent to the entry of this consent agreement and the attached final order without adjudication of any issues of law or fact herein, and Respondent agrees to comply with the terms of this Consent Agreement and Final Order (“CAFO”).

II. JURISDICTION

5. This CAFO is entered into under Sections 113(a)(3)(A) and (d) of the CAA, as amended, 42 U.S.C. §§ 7413(a)(3)(A) and (d); and the Consolidated Rules, 40 C.F.R. Part 22.

6. The EPA and the United States Department of Justice jointly determined that this matter, although it involves alleged violations that occurred more than one year before the

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US EPA, REGION 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

initiation of this proceeding, is appropriate for an administrative penalty assessment in accordance with 42 U.S.C. § 7413(d) and 40 C.F.R. § 19.4.

III. GOVERNING LAW

CAA Statutory and Regulatory Authority

7. Section 112(r) of the CAA, 42 U.S.C. § 7412(r), authorizes EPA to promulgate regulations and programs in order to prevent and minimize the consequences of accidental releases of certain regulated substances. The promulgated regulations are found at 40 C.F.R. Part 68 (“Part 68”).

8. Forty C.F.R. § 68.130 lists the substances regulated under Part 68 (“RMP chemicals” or “regulated substances”). This list identifies anhydrous ammonia as an RMP chemical and identifies a threshold quantity of 10,000 pounds.

9. A “process” is defined by 40 C.F.R. § 68.3 as any activity involving a regulated substance, including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities.

10. Pursuant to 40 C.F.R. § 68.10, each process in which a regulated substance is present in more than a threshold quantity (“covered process”) is subject to one of three risk management programs. A covered process is subject to Program 3 if the process does not meet the eligibility requirements for Program 1 and is either in a specified NAICS code or subject to the Occupational Safety and Health Administration (“OSHA”) process safety management (“PSM”) standard at 29 C.F.R. § 1910.119.

11. Pursuant to 40 C.F.R. § 68.12(a) and (d), the owner or operator of a stationary source with a process subject to Program 3 requirements must, among other tasks, submit a Risk Management Plan, develop a management system to implement the risk management program, and implement the release prevention requirements of 40 C.F.R. §§ 68.65-87.

12. Anhydrous ammonia in an amount over the threshold quantity of 10,000 pounds is subject to OSHA’s PSM requirements at 29 C.F.R. § 1910.119.

13. Sections 113(a) and (d) of the CAA, 42 U.S.C. §§ 7413(a) and (d), allow EPA to assess civil penalties for violations of Part 68. Forty C.F.R. Part 19 sets out the statutory penalties as adjusted for inflation.

IV. ALLEGED VIOLATIONS

14. The Respondent Joseph’s Gourmet Pasta Company operates a manufacturing, packaging, and distribution facility for pasta products and pasta sauces located at 265 Primrose

Street, Haverhill, MA 01830 (“the Facility”). The Facility is located immediately adjacent to other businesses and is located within several hundred feet of residences. According to the U.S. Census data from 2010, several thousand people live near the Facility.

15. Respondent is a corporation incorporated in the State of Delaware and thus is a “person” within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e), against whom an administrative order assessing a civil penalty may be issued under Section 113(d)(1) of the CAA, 42 U.S.C. § 7413(d)(1).

16. The Facility is a building or structure from which an accidental release may occur and is therefore a “stationary source,” as defined at Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C), and 40 C.F.R. § 68.3.

17. At all times relevant to the violations alleged herein, Respondent was the “owner or operator” of the Facility.

18. Respondent uses anhydrous ammonia in two refrigeration “processes,” as defined by 40 C.F.R. § 68.3, in two separate systems of pipes and vessels at the Facility (the “Processes”).

19. On October 12, 2016, Respondent conducted a Process Hazard Analysis (“PHA”) for the Facility.

20. On March 30, 2017, Respondent filed an update of its RMP with EPA. Respondent’s RMP categorizes the Facility as a Program Level 3 facility with two ammonia refrigeration systems: (a) the Hale Street system, containing 12,200 pounds of anhydrous ammonia; and (b) the Primrose Street system, containing 29,100 pounds of anhydrous ammonia.

21. Respondent submitted Tier II reports pursuant to Sections 311 and 312 of the Emergency Planning and Community Right-to-Know Act (“EPCRA”), 42 U.S.C. §§ 11021 and 11022, reporting that the Facility used 42,000 pounds of anhydrous ammonia in 2016.

22. Accordingly, the anhydrous ammonia Processes at the Facility are both “covered processes” subject to the RMP provisions of Part 68.

23. The endpoint for a worst-case release of the amount of anhydrous ammonia used in the Process is greater than the distance to a public receptor.

24. Additionally, both of the Processes are subject to OSHA’s PSM requirements at 29 C.F.R. § 1910.119 because both use anhydrous ammonia in an amount over the threshold quantity of 10,000 pounds.

25. Therefore, in accordance with 40 C.F.R. § 68.10(a)-(d), Respondent’s use, storage, and handling of anhydrous ammonia in the Processes is subject to the requirements of RMP Program 3.

26. In light of the potential hazards posed by the mishandling of anhydrous ammonia, industry trade associations have issued standards outlining the recognized and generally accepted good engineering practices (“RAGAGEP”) in the ammonia refrigeration industry. The standards of care are set out in Attachment A.

27. On March 22, 2017, EPA inspectors visited the Facility (“the Inspection”) to assess Respondent’s compliance with Section 112(r) of the CAA, Part 68, and with Sections 302–312 of EPCRA.

28. Complainant alleges the following violations of 40 C.F.R. Part 68.

Count 1: Failure to Comply with Process Safety Information Requirements

29. Complainant realleges and incorporates by reference Paragraphs 1 through 28 of this document.

30. Pursuant to 40 C.F.R. § 68.65(a), the owner or operator of a Program 3 process is required, among other things, to compile written process safety information before completing the Process Hazard Analysis. This includes documenting information pertaining to the hazards of the RMP chemical in the process and information pertaining to the technology and equipment of the process. Pursuant to 40 C.F.R. §§ 68.65(d)(2) and (3), the owner or operator must also document that the equipment complies with recognized and generally accepted good engineering practices and document that any equipment that was designed according to outdated standards is designed, maintained, inspected, tested, and operated in a safe manner.

31. As further described in Attachment A, Respondent failed to document that the Processes complied with recognized and generally accepted good engineering practices (“RAGAGEP”) and that equipment designed according to outdated standards was designed, maintained, inspected, tested, and operated in a safe manner. For example, there was lack of proper labeling or signage on an emergency shutoff switch, ammonia detector alarms, piping, valves, vessels, and doors; the Facility lacked an emergency ventilation switch at an entrance, a self-closing valve for an oil pot, and an eyewash/safety shower outside the ammonia machinery room; the discharge point for pressure relief valves did not have proper clearance; isolation valves for a high pressure receiver were not easily accessible; an ammonia detector was improperly placed; one door lacked panic hardware and another was not tight fitting; some refrigeration equipment was inadequately supported and protected from forklift impacts; and the ammonia machinery room did not have emergency shutdown steps posted.

32. Accordingly, by failing to document that the Processes complied with recognized and generally accepted good engineering practices and that any equipment that was designed according to outdated standards is designed, maintained, inspected, tested, and operated in a safe manner, Respondent violated 40 C.F.R. § 68.65 and Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E).

Count 2: Failure to Comply with Program 3 Mechanical Integrity Requirements

33. Complainant realleges and incorporates by reference Paragraphs 1 through 32 of this document.

34. Pursuant to 40 C.F.R. § 68.73, the owner or operator of a Program 3 process must establish and implement written procedures to maintain the ongoing integrity of certain process equipment and train employees accordingly. The owner or operator must train each employee involved in maintaining the ongoing integrity of process equipment in the procedures applicable to the employee's job task. Inspections and testing procedures shall follow RAGAGEP, and the frequency of inspections and tests shall be consistent with manufacturer's recommendations and good engineering practices, or more frequently if needed based on prior operating experience. The owner or operator must also document the inspections or tests on process equipment, correct deficiencies, assure that any new equipment is suitable for the process application, perform checks to ensure that equipment is installed properly, and assure that maintenance materials and spare parts are suitable for the process application.

35. As further described in Attachment A, Respondent had not maintained the mechanical integrity of the Processes equipment by correcting deficiencies that are outside of acceptable limits (as defined by the process safety information in 40 C.F.R. § 68.65) before continuing to use the equipment, or in a safe and timely manner when necessary means are taken to ensure safe operation. For example, some piping was vibrating; an ammonia sensor was not functioning adequately; and some electrical wiring and insulation on ammonia piping were not adequately maintained.

36. By failing to comply with the Program 3 mechanical integrity requirements, Respondent violated 40 C.F.R. § 68.73 and Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), for the Process.

V. TERMS OF CONSENT AGREEMENT

37. For the purposes of this proceeding, as required by 40 C.F.R. § 22.18(b)(2), Respondent:

- a. admits that EPA has jurisdiction over the subject matter alleged in this CAFO;
- b. neither admits nor denies the specific factual allegations contained in this CAFO;
- c. consents to the assessment of a civil penalty as stated below;
- d. consents to the issuance of any specified compliance or corrective action order;

- e. consents to the conditions specified in this CAFO;
- f. consents to any stated Permit Action;
- g. waives any right to contest the alleged violations of law set forth in Section IV of this Consent Agreement; and,
- h. waives its rights to appeal the Final Order accompanying this Consent Agreement.

38. For the purposes of this proceeding, Respondent:

- a. agrees that this CAFO states a claim upon which relief may be granted against Respondent;
- b. acknowledges that this CAFO constitutes an enforcement action for purposes of considering Respondent's compliance history in any subsequent enforcement actions;
- c. waives any and all remedies, claims for relief and otherwise available rights to judicial or administrative review that Respondent may have with respect to any issue of fact or law set forth in this CAFO, including any right of judicial review under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1);
- d. consents to personal jurisdiction in any action to enforce this Consent Agreement or Final Order, or both, in the United States District Court for the District of Massachusetts; and,
- e. waives any rights it may possess at law or in equity to challenge the authority of EPA to bring a civil action in a United States District Court to compel compliance with the Consent Agreement or Final Order, or both, and to seek an additional penalty for such noncompliance, and agrees that federal law shall govern in any such civil action.

39. Respondent certifies that it has corrected the violations alleged in this CAFO and is currently in compliance with 40 C.F.R. Part 68 at the Facility. Respondent further certifies that its compliance at the Facility includes all safety measures listed in the "List of Key Safety Measures," appended to this CAFO as Attachment B.

40. Pursuant to Sections 113(d)(2)(B) and (e) of the CAA, 42 U.S.C. § 7413(d)(2)(B) and (e), and taking into account the relevant statutory penalty criteria, the applicable penalty policy, and Respondent's cooperation in agreeing to perform the non-penalty obligations in this CAFO, EPA's June 29, 2015 Guidance on Evaluating a Violator's Ability to Pay a Civil Penalty in an

Administrative Enforcement Action, and extenuating circumstances due to the coronavirus pandemic (COVID-19) public health emergency, EPA has determined that it is fair and proper to assess a civil penalty of **\$103,000** for the violations alleged in this matter. EPA also has determined that an installment payment method and delayed initial payment date are in the best interest of the United States and will allow the repayment of the civil penalty cited above in installments as specified in Paragraph 42.

Penalty Payment

41. Respondent certifies that the statements and accompanying documents it provided to EPA in August 2020 regarding Respondent's financial ability to pay a penalty and the statement it provided to EPA on September 16, 2020 stating that the COVID-19 public health emergency has caused a severe loss of revenue for Respondent are true, accurate, and complete based upon personal knowledge of the undersigned or his or her personal inquiry of the person or persons directly responsible for gathering the information. Respondent is aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

42. Respondent agrees to pay the civil penalty of **\$103,000** (plus interest) in a monthly installment payment method and a delayed initial payment:

- a. Payments shall be made in no more than fifteen (15) installments within eighteen (18) months of the effective date of this CAFO;
- b. Each payment shall total \$7,038.27 (an amount that includes \$171.60 in interest at a rate of 3% per annum).
- c. The first payment of \$7,038.27 shall be made within ninety (90) days of the effective date of the CAFO, and the remaining fourteen (14) payments of \$7,038.27 each shall be made in intervals of no more than 30 days. If the due date for any payment falls on a weekend or federal holiday, then the due date is the next business day.
- d. Respondent shall pay each installment payment using any method or combination of methods, provided on the website: <http://www2.epa.gov/financial/additional-instructions-making-payments-epa>, and identifying every payment with "Docket No. CAA-01-2020-0005."
- e. Within 24 hours of each installment payment, Respondent shall send proof of payment by mail and e-mail to:

Maximilian Boal, Senior Enforcement Counsel
Office of Regional Counsel

United States Environmental Protection Agency—Region 1
5 Post Office Square, Suite 100 (Mail Code 04-2)
boal.maximilian@epa.gov

“Proof of payment” means, as applicable, a copy of the check, confirmation of credit card or debit card payment, confirmation of wire or automated clearinghouse transfer, and any other information required to demonstrate that payment has been made according to EPA requirements, in the amount due, and identified with “Docket No. CAA-01-2020-0005.”

- f. If Respondent fails to make any of the payments required under this CAFO by the required due dates, all remaining installments shall become immediately due and payable as of the missed payment date. Interest on such unpaid penalty amounts shall accrue from the missed payment date until the total amount due has been received by the United States. Respondent shall be liable for such amount regardless of whether EPA has notified Respondent of its failure to pay or made a demand for payment.

43. Collection of Unpaid Civil Penalty: Section 113(d)(5) of the CAA, 42 U.S.C. § 7413(d)(5), specifies the consequences of failure to pay the penalty on time. There are other actions EPA may take if respondent fails to timely pay: refer the debt to a credit reporting agency or a collection agency pursuant to 42 U.S.C. § 7413(d)(5), 40 C.F.R. §§ 13.13, 13.14, and 13.33; collect the debt by administrative offset (i.e., the withholding of money payable by the United States to, or held by the United States for, a person to satisfy the debt the person owes the Government), which includes, but is not limited to, referral to the Internal Revenue Service for offset against income tax refunds, 40 C.F.R. Part 13, Subparts C and H; suspend or revoke Respondent's licenses or other privileges; or suspend or disqualify Respondent from doing business with the EPA or engaging in programs the EPA sponsors or funds, 40 C.F.R. § 13.17.

VI. ADDITIONAL PROVISIONS

44. The terms, conditions, and compliance requirements of this CAFO may not be modified or amended except upon written agreement of both parties, and approval of the Regional Judicial Officer.

45. By signing this CAFO, the undersigned representative of Complainant and the undersigned representative of Respondent each certify that he or she is fully authorized to execute and enter into the terms and conditions of this CAFO and has legal capacity to bind the party he or she represents.

46. By signing this CAFO, both parties agree that each party's obligations under this CAFO and EPA's compromise of statutory maximum penalties constitute sufficient consideration for the other party's obligations.

47. By signing this CAFO, Respondent certifies that the information it has supplied concerning this matter was at the time of submission true, accurate, and complete for each such submission, response, and statement. Respondent acknowledges that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing submission of such information, under 18 U.S.C. § 1001.

48. Complainant and Respondent, by entering into this CAFO, each give their respective consent to accept digital signatures hereupon. Respondent further consents to accept electronic service of the full executed CAFO, by electronic mail, to the following address: Sailesh.Venkatraman@josephspasta.com. Complainant has provided Respondent with a copy of the EPA Region 1 Regional Judicial Officer's Authorization of EPA Region 1 Part 22 Electronic Filing System for Electronic Filing and Service of Documents Standing Order, dated June 19, 2020. Electronic signatures shall comply with, and be maintained in accordance with, that Order.

VII. EFFECT OF CONSENT AGREEMENT AND ATTACHED FINAL ORDER

49. In accordance with 40 C.F.R. § 22.18(c), completion of the terms of this CAFO resolves only Respondent's liability for federal civil penalties for the violations specifically alleged above.

50. Penalties paid pursuant to this CAFO shall not be deductible for purposes of federal taxes.

51. This CAFO constitutes the entire agreement and understanding of the parties and supersedes any prior agreements or understandings, whether written or oral, among the parties with respect to the subject matter hereof.

52. Nothing in this CAFO shall relieve Respondent of the duty to comply with all applicable provisions of the Act and other federal, state, or local laws or statutes. Nor shall it restrict EPA's authority to seek compliance with any applicable laws or regulations, or be construed to be a ruling on, or a determination of, any issue related to any federal, state, or local permit.

53. Nothing herein shall be construed to limit the power of EPA to undertake any action against Respondent or any person in response to conditions that may present an imminent and substantial endangerment to the public health, welfare, or the environment.

54. This CAFO in no way relieves Respondent or its employees of any criminal liability, and EPA reserves all its other criminal and civil enforcement authorities, including the authority to seek injunctive relief and the authority to undertake any action against Respondent in response to conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment.


55. Except as qualified by Paragraph 43 (overdue penalty collection), each party shall bear its own costs and fees in this proceeding including attorney's fees. Respondent specifically waives any right to recover such costs from EPA pursuant to the Equal Access to Justice Act, 5 U.S.C. § 504, or other applicable laws.

VIII. EFFECTIVE DATE

56. Respondent and Complainant agree to issuance of the attached Final Order. Upon filing, EPA will transmit a copy of the filed CAFO to Respondent. This CAFO shall become effective after execution of the Final Order by the Regional Judicial Officer on the date of filing with the Regional Hearing Clerk.

The foregoing Consent Agreement in the Matter of Joseph's Gourmet Pasta Company, Docket No. CAA-01-2020-0005, is Hereby Stipulated, Agreed, and Approved for Entry.

FOR RESPONDENT:



Signature
Date: September 15, 2020
Printed Name: Sailesh Venkatraman
Title: Chief Financial Officer
Address: 262 Primrose Street, Haverhill, MA 01830

FOR COMPLAINANT:

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

Date

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1**

IN THE MATTER OF)	
)	
Joseph's Gourmet Pasta Company)	Docket No. CAA-01-2020-0005
)	
265 Primrose Street)	
Haverhill, MA 01830)	
)	
Respondent.)	
)	

FINAL ORDER

Pursuant to 40 C.F.R. § 22.18(b) and (c) of EPA's Consolidated Rules of Practice; Section 113(d)(1) and (d)(2)(B) of the Clean Air Act, 42 U.S.C. § 7413(d)(1) and (d)(2)(B), the attached Consent Agreement resolving this matter is incorporated by reference into this Final Order and is hereby ratified.

As described in, and in accordance with, Paragraphs 40 through 42 of this CAFO, the Respondent, Joseph's Gourmet Pasta Company, is ordered to pay the civil penalty of \$103,000 (plus interest) in installment payments. In accordance with 40 C.F.R. § 13.18, 40 C.F.R. § 22.31(c), and the U.S. EPA's June 29, 2015 Guidance on Evaluating a Violator's Ability to Pay a Civil Penalty in an Administrative Enforcement Action, and extenuating circumstances due to the COVID-19 public health emergency, Complainant has represented that the amount and the installment payment method are based on the Respondent's ability to pay and are in the best interest of the United States.

The Respondent is ORDERED to comply with the terms of the above Consent Agreement, effective on the date is filed with the Regional Hearing Clerk.

Date: _____

LeAnn Jensen
Regional Judicial Officer
U.S. Environmental Protection Agency, Region I

CONSENT AGREEMENT AND FINAL ORDER
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US EPA, REGION 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

ATTACHMENT A

Recognized and Generally Accepted Good Engineering Practices

In collaboration with the American National Standards Institute, the International Institute of Ammonia Refrigeration (“IIAR”) has issued (and updates) “Standard 2: *Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems* (“ANSI/IIAR 2”), specifically, Int’l Inst. of Ammonia Refrigeration, Standard 2-2014, Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems (2014), [hereinafter “IIAR 2-2014”]; Standard 4: *Installation of Closed-Circuit Ammonia Mechanical Refrigeration Systems* (“ANSI/IIAR 4”), Standard 6: *Standard for Testing, Inspection, and Maintenance of Closed-Circuit Ammonia Refrigeration Systems* (“ANSI/IIAR 6”), Standard 7: *Developing Operating Procedures for Closed-Circuit Ammonia Mechanical Refrigerating Systems* (“ANSI/IIAR 7”), Standard 9: *Standard for Minimum System Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems* (“ANSI/IIAR 9”), *inter alia*, along with other applicable standards and guidance. Bulletins and guidance include, without limitation, IIAR Bulletin No. 109, *Guidelines for IIAR Minimum Safety Criteria for a Safe Ammonia Refrigeration System* (1997, and in effect until 2019 when ANSI/IIAR 6 replaced it) (“IIAR Bull. 109”); IIAR Bulletin No. 110, *Guidelines for Start-Up, Inspection, and Maintenance of Ammonia Mechanical Refrigerating Systems* (1993, most recently updated in 2007, and in effect until 2019 when ANSI/IIAR 6 replaced it) (“IIAR Bull. 110”); IIAR Bulletin No. 114, *Guidelines for Identification of Ammonia Refrigeration Piping and Components* (1991, most recently updated in 2018) (“IIAR Bull. 114”); IIAR Bulletin No. 116, *Guidelines for Avoiding Component Failure in Industrial Refrigeration Systems Caused by Abnormal Pressure or Shock* (1992) (“IIAR Bull. 116”); and the Ammonia Refrigeration Management Program (2005, most recently updated in 2019) (“IIAR ARM Program”), which is intended to provide streamlined guidance to facilities that have less than 10,000 pounds of ammonia. Also in collaboration with the American National Standards Institute, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (“ASHRAE”) has issued (and updates) “Standard 15: Safety Standard for Refrigeration Systems.” These standards are consistently relied upon by refrigeration experts and are often incorporated into state building and mechanical codes.

The standards of care cited below are those that were in effect in 2016 when Respondent completed its latest Process Hazard Analysis before the March 22, 2017 inspection.

Count:	Condition:	Examples of RAGAGEP:
1	The remote emergency stop located outside the main entrances for the Processes were not labeled to indicate what systems would be shut down when the stops were	It is standard industry practice for the emergency shut-off switch to have a tamper-resistant cover and to be marked by clear signage near the controls regarding its function. <i>See e.g., IIAR 2-2014, § 6.12.1 and ASHRAE 15-2013, § 8.21(i); IIAR 9-2019, § 7.3.11.1.</i> It is standard industry practice for a facility to have a

	activated. In addition, there was no emergency ventilation override switch at the auxiliary entrance to the Hale Street Process to start ventilation in the event of a release.	clearly identified control switch for emergency ventilation with a tamper-resistant cover to be located outside the machinery room and adjacent to the designated principal machinery room door. <i>See e.g., IIAR 2-2014, § 6.12.2; IIAR 9-2019, § 7.3.11.2.</i>
1	Facility lacked a self-closing valve for the oil pot located beneath the Hale Street ammonia pump recirculation vessel.	The standard industry practice is for ammonia refrigeration equipment used for oil removal to have a shut-off valve in a series with a self-closing shut-off valve. <i>See e.g., IIAR 2-2014, §§ 5.9.3.2 and 5.9.3.3. IIAR Bull. 109, § 7 Inspection Checklist; IIAR 9-2019, § 7.2.5.3.</i>
1	Ammonia detector alarms were not equipped with signs identifying the meaning of the alarms.	It is standard industry practice for ammonia leak detection alarms to be identified by signage adjacent to visual and audible alarm devices. <i>See e.g., IIAR 2-2014, §§ 6.15.2 and 17.6, ASHRAE 15-2013, §8.11.2.1; and IIAR 9-2019, § 7.3.12.6.</i>
1	Ammonia refrigeration vessels at the Facility lacked appropriate labelling, and piping lacked labelling to indicate the purpose of equipment, contents, physical state, or direction of flow.	The standard industry practice is for all ammonia machinery to be labelled. <i>See e.g., IIAR 2-2014, §§ 5.14.2, 5.14.4, 8.4, 10.2.3, and 11.2.3.</i> The standard industry practice is for piping mains, headers, and branches to be identified as containing ammonia and as to the physical state of the refrigerant (that is, vapor or liquid, etc.), the relative pressure level of the refrigerant, and the direction of flow. <i>See e.g., IIAR 2-2014, § 5.14.5, IIAR Bull. 109, § 4.7.6, IIAR Bull. 114, § 4.2.1; and IIAR 9-2019, § 7.2.9.4.</i>
1	Exterior ammonia vessels lacked required NFPA signage to indicate the presence and hazards of ammonia.	The standard industry practice is for buildings and facilities with refrigeration systems to include placards in accordance with NFPA 704 at the means of access to an exterior storage area. <i>See e.g., NFPA 704, Section 4.3 (2017).</i>
1	The ammonia system pressure release valve vent headers for the Hale Street refrigeration system discharged through gooseneck pipes extending to the roof, but the discharge point for each vent header was	It is standard industry practice for the termination of pressure relief devices is to discharge to atmosphere not less than 7.25 feet above a roof that is occupied solely during service and inspection. And where a higher adjacent roof level is within 20 feet horizontal distance from the relief discharge, the discharge termination shall not be less than 7.25 feet above the height of the higher adjacent roof. <i>See e.g., IIAR 2-</i>

	insufficiently high enough above the roof to prevent spraying ammonia on people.	2014, §§ 15.5.1.3 and 15.5.1.4, <u>ASHRAE 15-2013</u> , § 9.7.8; and IIAR 9, § 7.4.2.
1	The isolation valves (<i>i.e.</i> , king valves) for the Primrose Street high pressure receiver were inaccessible and were not labeled.	The standard industry practice is for all manually operated valves that are inaccessible from floor level to be operable from portable platforms, fixed platforms, ladders, or to be chain-operated. Isolation valves identified as being part of an emergency shutdown procedure should be directly operable or chain-operated from a permanent work surface. <i>See e.g.</i> , <u>IIAR 2-2014</u> , §§ 5.14.3, 6.3.3.1, 6.3.3.2, and 13.37; <u>ASHRAE 15-2013</u> , §§ 9.12.6 and 11.2.2a; and IIAR 9-2019, § 7.3.3.3 and 7.2.9.3.
1	The Facility's ammonia machinery room did not have an eye wash or safety shower outside of the room.	The standard industry practice is to maintain an eyewash station and body shower unit located external to the machinery room and readily accessible by an exit. <i>See e.g.</i> , <u>IIAR 2-2014</u> , § 6.7; <u>IIAR Bull. 109</u> , § 4.10.10; and IIAR 9-2019, § 7.3.7.
1	The exit door from the Primrose Street boiler room lacked appropriate panic hardware.	It is standard industry practice for doors that are part of the means of egress to be equipped with panic hardware. <i>See e.g.</i> , <u>IIAR 2-2014</u> , § 6.10.2; and IIAR 9-2019, § 7.3.9.2.
1	The main entry door to the Primrose Street ammonia machinery room was not tight sealing.	It is standard industry practice for machinery room doors to be self-closing and tight fitting. <i>See e.g.</i> , <u>IIAR 2-2014</u> , §§ 6.2.1, 6.10.2, and 7.2.1, <u>ASHRAE 15-2013</u> , §§ 8.11.2 and 8.12(b); and IIAR 9-2019, § 7.3.9.2.
1	Ammonia piping, valves, and evaporators at Facility were unprotected and/or unsupported.	The standard industry practice is for ammonia piping to be inspected throughout a facility to determine that no piping is exposed to possible physical damage through traffic hazards, for example, fork lifts. <i>See e.g.</i> , <u>IIAR Bull. 109</u> , §§ 4.42 and 4.7.3. It is standard industry practice for equipment to be protected where there is a risk of physical damage. For example, where equipment containing ammonia is located in an area with heavy vehicular traffic during normal operations and a risk of impact exists, it is standard industry practice to provide vehicle barriers or alternative protection in accordance with the fire code. <i>See e.g.</i> , <u>IIAR 2-2014</u> , § 7.2.4; IIAR 9-2019,

		§ 7.2.12.1 (protection from physical damage) and § 7.2.7.1 (adequate support).
1	Both ammonia machinery rooms at the Facility lacked required signage to display important information about the Processes and emergency shut down documentation.	It is standard industry practice to for the person in charge of a facility with an ammonia refrigeration system to provide directions for emergency shutdown of the system in a location that is readily accessible to trained refrigeration system staff and trained emergency responders. The schematic drawings or signage shall include several types of information including: (1) Instructions with details and steps for shutting down the system in an emergency; (2) The name and telephone numbers of the refrigeration operating, maintenance, and management staff, emergency responders, and safety personnel; (3) The names and telephone numbers of all corporate, local, state, and federal agencies to be contacted as required in the event of a reportable incident; (4) Quantity of ammonia in the system; (5) Type and quantity of refrigerant oil in the system; and, (6) Field test pressures applied. <i>See e.g.</i> , <u>IIAR 2-2014</u> , § 5.15; <u>ASHRAE 15-2013</u> , § 11.2.1; and <u>IIAR 9-2019</u> , § 7.2.10.
1	The ammonia detector in the Hale Street production area was not placed in an appropriate location to detect an ammonia leak where it would be expected to accumulate.	It is standard industry practice for ammonia leak detection sensors to be mounted in a position where ammonia from a leak is expected to accumulate. <i>See e.g.</i> , <u>IIAR 2-2014</u> , § 17.4; <u>IIAR 9-2019</u> , § 7.3.12.4.
2	Some electrical wiring at the Facility was not properly maintained.	It is standard industry practice for electrical components to have no damaged parts that may adversely affect safe operation or mechanical strength of equipment such as parts that are broken, bent, cut, or deteriorated <i>See e.g.</i> , <u>NFPA 70-2014</u> , § 110.12(B).
2	There were problems with insulation of ammonia piping at the Facility, including insulation that was breached, frosted or rusted, indicating that the insulation was failing.	The standard industry practice is for piping and equipment surfaces not intended for heat exchange to be insulated, treated, or otherwise protected to mitigate condensation and excessive frost buildup where the surface temperature is below the dew point of the surrounding air during normal operation and in an area where condensation and frost could develop and become a hazard to occupants or cause damage to

		the structure, electrical equipment, or refrigeration system. <i>See e.g.</i> , <u>IAR 2-2014</u> , § 5.10.1. In addition, the standard industry practice is to check piping for signs of corrosion and to treat corroded piping with rust preventative paint and to replace badly corroded pipe. <i>See e.g.</i> , <u>IAR Bull. 109</u> , §§ 4.7.4 and 4.7.5.
2	During the Inspection, an ammonia discharge pipe had significant vibration, which could lead to pipe failure and an ammonia release.	It is standard industry practice for supports and foundations shall be designed to prevent excessive vibration or movement of piping, tubing, and equipment. <i>See e.g.</i> , <u>IAR 2-2014</u> , §§ 5.11.5, 6.2.4, and 13.4.2, <u>ASHRAE 15-2013</u> , § 8.10.4; and <u>IAR 9-2019</u> , § 7.2.7.1.
2	During the Inspection, the ammonia sensor near the ceiling of the Hale Street ammonia machinery room was not functioning properly.	It is standard industry practice to test ammonia detectors in accordance with the manufacturers' specifications. <i>See e.g.</i> , <u>ASHRAE 15-2013</u> , § 11.6.3, and <u>IAR 2-2014</u> , § 5.12.3.

ATTACHMENT B

LIST OF KEY SAFETY MEASURES

Identifying Hazards

- Hazard Addressed: Releases or safety deficiencies that stem from a failure to identify hazards in design/operation of system
 - Facility has completed a process hazard analysis or review.

Operating Activities:

- Hazard Addressed: High risk of release from operating or maintenance activity
 - System has self-closing/quick closing valves on oil pots.
 - Facility has written procedures for maintenance and operation activities.
 - Only authorized persons have access to machinery room and the ability to alter safety settings on equipment.

Maintenance/Mechanical Integrity:

- Hazard Addressed: Leaks/releases from maintenance neglect
 - A preventative maintenance program is in place to, among other things, detect and control corrosion, deteriorated vapor barriers, ice buildup, and pipe hammering, and to inspect integrity of equipment/pipe supports.
 - All piping system openings except the relief header are plugged or capped, or valve is locked.
 - Equipment, piping, and emergency shutdown valves are labeled for easy identification, and pressure vessels have legible, accessible nameplates.
 - All atmospheric pressure relief valves have been replaced in the last five years with visible confirmation of accessible pressure relief valves [note – replacement every five years is the general rule but there are other options in IIAR Standard 6].

Machinery Room and System Design

- Hazard Addressed: Inability to isolate and properly vent releases
 - The System(s) has/have emergency shut-off and ventilation switches outside each machinery room.
 - The machinery room(s) has/have functional, tested, ventilation. Air inlets are positioned to avoid recirculation of exhaust air and ensure sufficient inlet air to replace exhausted air.
 - Documentation exists to show that pressure relief valves that have a common discharge header have adequately sized piping to prevent excessive backpressure on relief valves, or if built prior to 2000, have

adequate diameter based on the sum of the relief valve cross sectional areas.

Emergency Actions

- Hazard Addressed: Inability to regain control and reduce release impact
 - Critical shutoff valves are accessible, and a schematic is in place to show responders where to access them.
 - EPCRA Tier II reporting is up to date.

Additional Compliance Items:

Identifying Hazards

- For systems that employ hot gas defrost, the process hazard analysis/review includes an analysis of, and identifies, the engineering and administrative controls for the hazards associated with the potential of vapor propelled liquid slugs and condensation-induced hydraulic shock events.

Operating Activities and Maintenance/Mechanical Integrity

- Written procedures are in place for proper use and care of personal protective equipment.
- If respirators are used, facilities know the location of their respirators, and they are inspected and maintained per manufacturer or industry standards.
- All changes to automation systems (programmable logic controls and/or supervisory control and data acquisition systems) if present, are subject to management of change procedures.

Machinery Room and System Design

- The facility has engineering controls in place to protect equipment and piping against overpressure due to hydrostatic expansion of trapped liquid refrigerant. Administrative controls are acceptable where hydrostatic overpressure can occur only during maintenance operations.
- Eyewash station(s) and safety shower(s) is/are present and functional.

Emergency Actions

- Emergency response communication has occurred or has been attempted with the Local Emergency Planning Committee and local responders.
- The facility has an emergency action plan pursuant to 29 C.F.R. § 1910.38(a) or an emergency response plan pursuant to 29 C.F.R. § 1910.120(q) and 40 C.F.R. § 68.90.

