**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.

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| FACILITY NAME:<br>**Shaw's Distribution Center #32711** | ■ PRIVATE ☐ GOVERNMENTAL/MUNICIPAL<br># of EMPLOYEES: **446** |
| FACILITY ADDRESS:<br>**100 Danton Drive, Methuen, MA 01844** | INSPECTION START DATE AND TIME: April 25, 2018<br>INSPECTION END DATE AND TIME: April 25, 2018 |
| RESPONSIBLE OFFICIAL, TITLE, PHONE NUMBER:<br>Kirby Shirk, Facility Maintenance Manager<br>kirby.shirk@shaws.com | EPA FACILITY ID#:<br>**100000195781** |
| FACILITY REPRESENTATIVE(S), TITLE(S), PHONE NUMBER(S):<br>Kirby Shirk, Facility Maintenance Manager<br>kirby.shirk@shaws.com | INSPECTOR NAME(S), TITLE(S):<br>Drew Meyer, EPA Region 1<br>Leonard B. Wallace IV, EPA Region 1<br>Andrew Loll, Eastern Research Group, Inc. (ERG)<br>Joseph Watson, ERG |

**INSPECTION FINDINGS**

IS FACILITY SUBJECT TO RMP REGULATION (40 CFR Part 68)? ■ YES ☐ NO

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 NO

DATE RMP INITIALLY FILED WITH EPA: **07/07/2006** DATE OF RMP UPDATE: **01/22/2020**

1) PROCESS/NAICS CODE: 49312 PROGRAM LEVEL: 1 ☐ 2 ☐ 3 ■

REGULATED SUBSTANCE**:** anhydrous ammonia MAX. QUANTITY IN PROCESS: **at least 15,000 pounds**

DID FACILITY CORRECTLY ASSIGN PROGRAM LEVELS TO PROCESSES? ■ YES ☐ NO

ATTACHED CHECKLIST(S):

☐ PROGRAM LEVEL 1 PROCESS CHECKLIST ☐ PROGRAM LEVEL 2 PROCESS CHECKLIST ■ PROGRAM LEVEL 3 PROCESS CHECKLIST

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: Shaw's Distribution Center #32711, Methuen, Massachusetts

### 1. Program Level 3 Alleged Violations and Unadjusted Penalties

**Section C – Prevention Program – Safety information [68.65]**

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| Has the owner or operator documented either that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)] or, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, documented that it is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]?<br>– At the time of the inspection, the Facility lacked adequate signs and labels in several places. Alarm light signs were vague and confusing (two alarm color schemes and inadequate signage explaining the difference such that someone would understand what actions to take when lit); some ammonia piping in warehouse refrigerated rooms was not labeled; the ammonia machinery room (AMR) Roof Door lacked required ammonia warning signs; and the glycol chiller room door and unit lacked NFPA diamond for ammonia (though had one for other substances). *See, e.g.*, ANSI/IIAR 2-2014 § 6.15; NFPA 1-2012 § 60.5.1.8.2.1; NFPA 704-2012; ASME A13.1-2007 § 3. *See also* ANSI/IIAR 9-2020 §§ 7.2.9.1, 7.2.9.4, 7.3.12.6. | $ 1500.00 |

**Section C – Prevention Program – Safety information [68.65]**

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| Has the owner or operator documented either that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)] or, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, documented that it is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]?<br>– At the time of the inspection, the liquid discharge line on the medium pressure recirculator contained a bypass line around the King Valve that could interfere with the functioning of the King Valve as designed and defeat its ability to stop the flow of ammonia in the event of an emergency. Operators did not know if the manual bypass valve was open or closed. Signage indicating the status of the valve would eliminate confusion posed by this configuration. Additionally, the valve on the bypass line was not accessible from the ground or a permanent work surface. *See, e.g.*, ANSI/IIAR 2-2014 §§ 6.3.3.2 & 13.3.7; IIAR Bulletin 109 § 4.10.3. *See also* ANSI/IIAR 9-2020 §§ 7.2.9.3, 7.3.3.3. | $ 1500.00 |

**Section C – Prevention Program – Safety information [68.65]**

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| Has the owner or operator documented either that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)] or, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, documented that it is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]?<br>– At the time of the inspection, facility components essential for quick emergency response were locked, slowing their use. Remote shutoff controls at the principal entrance to the AMR were locked and the key needed for operation was not readily accessible. Also, the fence around the parking lot from the loading dock area lacked a pedestrian gate and the vehicle gate was locked closed with a chain and padlock, which could trap people in the area of a release. *See, e.g.*, ANSI/IIAR 2-2014 § 6.12.1; ANSI/ASHRAE 15-2013 § 8.12(i); NFPA 1-2012 § 53.2.3.4.5; NFPA 101-2015 § 7.11. *See also* ANSI/IIAR 9-2020 § 7.3.11.1. | $ 1500.00 |

**Section C – Prevention Program – Safety information [68.65]**

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| Has the owner or operator documented either that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)] or, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, documented that it is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]?<br>– At the time of the inspection, the facility lacked audio/visual alarms at the AMR Roof Door and lacked detectors and alarms in the glycol chiller room. *See, e.g.*, ANSI/IIAR 2-2014 §§ 6.13.1, 17.7; ANSI/ASHRAE 15-2013 § 8.11.2.1; NFPA 1-2012, § 53.2.3.1.2. *See also* ANSI/IIAR 9-2020 § 7.3.12.4. | $ 1500.00 |

**Section C – Prevention Program – Safety information [68.65]**

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|---|---|
| Has the owner or operator documented either that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)] or, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, documented that it is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]?<br>– At the time of the inspection, the condenser piping contained four PRVs at each end of the condenser that discharged to the atmosphere below the level of the working platform on top of the condenser, rather than the required 7.25 feet above. *See, e.g.*, ANSI/IIAR 2-2014 § 15.5.1.3; ANSI/ASHRAE 15-2013 § 9.7.8. *See also* ANSI/IIAR 9-2020 § 7.4.2. | $ 1500.00 |

**Section C – Prevention Program – Safety information [68.65]**

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|---|---|
| Has the owner or operator documented either that equipment complies with recognized and generally accepted good engineering practices [68.65(d)(2)] or, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, documented that it is designed, maintained, inspected, tested, and operating in a safe manner? [68.65(d)(3)]?<br>– At the time of the inspection, the electrical junction box for a pressure sensing switch on the gycol chiller was missing, exposing its wiring and posing a potential ignition hazard. *See, e.g.*, NFPA 70-2014, § 110.12(B). | $ 1500.00 |

**Section C – Prevention Program – Training [68.71]**

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| Has refresher training been provided at least every three years, or more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process [68.71(b)]?<br>-- At the time of the inspection, Respondent's refresher training documentation for one employee indicated that training had not been completed within the past three years. | $ 1500.00 |

**Section C – Prevention Program – Mechanical Integrity [68.73]**

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| Has the owner or operator corrected deficiencies in equipment that were outside acceptable limits defined by the process safety information before further use or in a safe and timely manner when necessary means were taken to assure safe operation [68.73(e)]?<br>– At the time of the inspection, there was rusting on condenser supports, a section of overhead piping insulation was damaged, and one section of ammonia piping had damaged insulation at a support saddle that could lead to moisture entrapment and corrosion under insulation, each indicating that equipment deficiencies were not being corrected in a safe and timely manner. *See, e.g.*, IIAR Bull. 109, §§ 4.7.4 and 4.7.5; IIAR Bull. 110, §§ 6.4.3, 6.7.2. Bulletins 109 and 110 were in effect at the time of inspection and have since been withdrawn and replaced by ANSI/IIAR 6-2019. | $ 900.00 |

**Total unadjusted penalty: $11,400**

## 2. 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.

**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 |
| 10 – 100 | 0.6 | 0.8 | 1.0 |
| > 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.

Proposed Penalty = **$11,400** (Unadjusted Penalty)
x **1.0** (Size/Threshold Quantity Multiplier)

= **$11,400**