



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Americold, Indianapolis, Indiana

FROM: Erin DuMontelle, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Americold

Facility Location: 3320 S. Arlington Ave., Indianapolis, Indiana

Date of Inspection: May 16, 2024

EPA Inspector(s):

1. Erin DuMontelle, Environmental Engineer
2. Danny Nguyen, Environmental Engineer

Other Attendees:

1. Jason Lee, District Engineering and Maintenance Manager
2. John Devney, Safety Manager

Contact Email Address: Jason.Lee@americold.com

Purpose of Inspection: To assess compliance with the Chemical Accident Prevention Provisions (CAPP) at 40 C.F.R. Part 68

Facility Type: Cold Storage Warehousing

Regulations Central to Inspection: 40 C.F.R. Part 68 – Chemical Accident Prevention Provisions

Facility Name: Americold
Facility Location: 3320 S. Arlington Ave., Indianapolis, Indiana
Date of Inspection: May 16, 2024

Arrival Time: 8:30 AM Eastern
Departure Time: 6:30 PM Eastern

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Small Business Resource Information Sheet not provided. Reason: Company is not a small business.
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Americold personnel unless otherwise noted.

Company Ownership: The Facility has always been owned by Americold.

Process Description:

Americold (the Facility) is a cold storage warehouse. The Facility has four buildings that are all connected to each other in a series. The Facility receives between 30 and 40 trucks a day and supply space to customers for both cooler storage, held around 35°F, and freezer storage, kept between 0°F and 4°F. There are separate Engine Rooms and anhydrous ammonia two-stage systems for each building. Facility personnel noted that, although not all of the anhydrous ammonia systems are above the threshold quantity for the CAPP in 40 C.F.R. Part 68, the Facility manages all four systems as Program Level 3 processes. The Facility runs defrost cycles approximately two times per day to clean the coils.

Staff Interview:

Americold operates 250 facilities worldwide. The Indianapolis Facility operates Monday through Friday and has security onsite 24/7. There are approximately 250 employees onsite. There are two refrigeration operators onsite that are HAZMAT certified. They are able to complete small jobs around the system, complete daily rounds to make sure equipment is running, and shutdown the system in cases of emergency. The refrigeration operators are only on day shift. Most of the larger projects, calibrations, and other maintenance is completed by contractors. The Facility noted that most of the contractor groups which are used for site maintenance have been onsite since the process started back in 1984.

The facility is on city power and does not currently have a back-up power system to keep the plant running or to keep the safety systems on in the case of power failure. The facility did note that they train for emergencies in regard to fire, tornadoes, and ammonia releases.

Facility personnel noted that they are currently in the process of a large project to repaint piping, ballards, and other equipment around the facility. There is a chance of expanding the Facility, but the plans are still under review.

Data Collected:

1. Hazard Analysis

The Facility is required to complete a hazard analysis based on the anhydrous ammonia that is onsite. The Facility calculated worst case scenarios (WCS) for each building. The documentation was last updated in 2019. The analyses are completed by the Regional PSM for Americold. EPA noted that there was a discrepancy between the amount being used in the WCS and the amount that was in each system.

2. Process Safety Information (PSI)

Each Engine Room has a different amount of anhydrous ammonia in each system. Engine Rooms #1, #2, and #3 can only be turned off manually. Engine Room #4 has a control panel that can shutdown the system. The Facility stated that the ammonia sensors will alarm at 25 ppm and start to shutdown the system and turn on the emergency ventilation at 50 ppm. There is a fire panel as well that is monitored by a 3rd party contractor 24/7. The ventilation calculations were completed in 2012 and are based on amounts that were higher than previously noted during the inspection. There were mismatches between the intended inventories, the ventilation calculations, and the Hazard Analysis for the total amount in each system. EPA also noted that documentation was missing to denote the safe upper and lower limits for the system, an evaluation of the consequences of deviation, and the process safety information for the safety systems that are in place.

3. Process Hazard Analysis (PHA)

The previous PHA's were completed in 2016 and 2021. The 2016 PHA was split to cover Buildings #1, #2, and #3 together and Building #4 by itself. All buildings were covered in a single PHA in 2021. EPA noted that the current PHA policy did not state that there was a priority order for the buildings when conducting PHAs. The Facility has chosen to use the "What-If" method for PHA Evaluation. The Facility uses an online management system to track and address the team findings and recommendations from the PHAs, and the system is also responsible for communicating the actions that the responsible person is assigned.

4. Mechanical Integrity (MI)

The Facility utilizes the International Institute of All-Natural Refrigeration (previously the International Institute of Ammonia Refrigeration) as their standard. They have an MI procedure that requires the Facility to complete a Mechanical Integrity Inspection every 5 years (MI5). EPA was unable to review a previous MI5 during the inspection.

5. Operating Procedures (SOP)

The facility uses an online management system to host their operating procedures. The system will send out updates and reminders on when procedures need to be reviewed and updated. It was noted that the last recertification that was provided was in 2021. The procedures are also grouped by the equipment type. There were areas noted where there would be equipment named that would be incorrectly referenced; this was specifically in the Pump Out procedures. The startup procedures and emergency shutdown procedures were also noted as being brief in their instruction; and there were Operating procedures for vessels that did not include normal or manual shutdown procedures.

6. Training

All new hires go through a safety training that includes Ammonia Refrigeration Awareness. The Facility uses a schedule to complete monthly refresher training. Employees onsite are trained to notify their supervisors if there is an ammonia leak, and only the refrigeration operators or the Maintenance Manager are allowed to shutdown the ammonia system. Training that is being completed for the refrigeration operators was completed in 2020 and 2024. They completed Operator I and Operator II training as well as HAZMAT training.

7. Compliance Audits

The last two compliance audits were completed in 2018 and 2021. Americold to complete their next audit in August.

8. Contractors

The facility uses contractors to complete maintenance and projects at the facility. The Contractor Policy for the Facility requires that they complete periodic safety reviews of the contractor's work performance. The Contractor Policy also notes that the Facility requires the contractor to complete the Americold Contractor Safety Data and General Information Form.

9. Emergency Response

The Facility works with the Indianapolis Fire Department to respond to emergencies. They complete an annual walkthrough of the Facility. A tabletop exercise was completed last year, and the Facility plans to complete a live-action exercise with LEPC, IFD, and the local police department in the coming months.

TOUR INFORMATION

EPA Toured the Facility: Yes

Tour Observations:

EPA inspectors made the following observations during the walkthrough of the facility, and any photos that were taken are listed in Appendix A.

Building #1:

1. Piping near the ceiling in Engine Room #1 had high corrosion.
2. The HPR and attached piping had been partially painted; the top piping was still being affected by corrosion.
3. The Emergency Response Documentation needs to be updated.
4. The Exit Door from Engine Room #1 was blocked by a small trailer in the fenced area.
5. The Exit Door from the fenced area was difficult to open without force.
6. Piping near the ceiling in the truck bay of Building #1 did not have insulation or paint to limit corrosion.
7. Each of the compressors had a corresponding E-Stop.
8. Many of the ballards and equipment had been freshly painted.
9. No NFPA hazard label displayed outside with ammonia high pressure receiving vessel located outside.
10. No visual alarm indicator on west side engine room.

Building #2

11. Piping near the ceiling in the truck bay of Building #2 was only partially insulated.
12. A small pipe near the HSS line was seen vibrating.
13. Multiple pipes in Engine Room #2 were noted as having labels that were coming off or missing.
14. The King Valve sign needed to be rehung.
15. The HTS line in Engine Room #2 was seen shaking and looks to be rubbing against other piping.
16. BD Piping seen with corrosion from above for Engine Room #2.
17. The door in the truck bay outside of Engine Room #2 did not have a sensor to note the ammonia levels within the room.
18. The Eye Wash Station had been removed from outside of Engine Room #2.
19. There were no ammonia alarms within the freezer room.

Building #3

20. A separate water line that uses an ammonia line for support was observed to be vibrating.
21. Corrosion on structural supports and base due to condensation under each of the LTRL.
22. Compressor 2 was trending low based on inspection of the daily round paperwork.
23. There was no eye wash station outside of Engine Room #3.

Building #4

24. Much of the equipment in Engine Room #4 had been newly painted.
25. There was ice buildup on the LTR and supports in Engine Room #4.
26. Tag under ice buildup that notes it should have been replaced by 2020.
27. Evaporators in Building #4 Cold Storage were at the same height as the materials being stored.
28. Excessive vibration in orange ammonia line was observed.

Photos: were taken during the inspection using an Olympus Tough TG-6 digital camera.

RECORDS REVIEW

EPA reviewed documents for the Following RMP Level 3 Requirements:

1. Program Applicability
2. Management Structure
3. Hazard Analysis
4. Hazard Assessment Documentation
5. Five-year accident history
6. Process Safety Information (PSI)
7. Process Hazard Analysis (PHA)
8. Mechanical Integrity (MI)
9. Operating Procedures (SOP)
10. Training
11. Management of Change
12. Pre-startup safety review (PSSR)
13. Compliance Audits

14. Incident Investigation
15. Employee Participation
16. Hot Work Permit
17. Contractors
18. Emergency Response
19. Risk Management Plan

CLOSING CONFERENCE

- ☒ Provided U.S. EPA point of contact to the facility

REQUESTED DOCUMENTS

1. All Annual Safety Inspections with comments and notes that were completed between Jan 1, 2021 and May 16, 2024;
2. The Last MI5 report with comments, recommendations, and either the date of completion, or the current status of the recommendation and its reason;
3. The current status of the MI5 that was being completed during the May Inspection;
4. List of all E-Stops onsite (could also be a map of each location);
5. Any E-Stop Inspections with comments that were completed between Jan 1, 2021 and May 16, 2024;
6. Records of any Daily Rounds Work Orders (PM09s) that were completed between Jan 1, 2021 and May 16, 2024 that noted issues with the ammonia system and their follow-up Work Orders (If there are no follow-up WOs, please state that);
7. Dates of commission for each of the buildings;
8. List of all Certification Dates for Operating Procedures that were completed between Jan 1, 2021 and May 16, 2024 (this can be an excel sheet or a report printed from APSM);
9. List of all PRV and SRV most recent installation dates;
10. The Initial Training records for your refrigeration operators;
11. The Operator I and Operator II certificates for your refrigeration operators;
12. Any Training records for your refrigeration operators that were completed between Jan. 1, 2020 and December 31, 2020;
13. The Temperature Management Policy;
14. The Facility's Site-wide Lockout/Tagout (LOTO) Procedure;
15. The Facility's Line Break Procedure;
16. The Operating Procedures that cover the ammonia alarms; and
17. The Operating Procedures that cover the ammonia detectors.
18. Capacity of the ammonia for each vessel;
19. Calculations for the Worst-Case Scenario and Alternative Case Scenarios;
20. The following MOCs;
 - 1378-2022-01 – Walmart Refrigeration Upgrade
 - 1378-2023-001 – Replacement of ER3 CP2 Quantum Part
 - 224787 – New LMM-Indy

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21. Any PSSR's in the past where it was noted Operating Procedures or P&IDs needed to be changed;
22. Contractor Safety Forms for DuBak, WMI, and the Welding Contractors;
23. Audit completed for the Welding Contractor;
24. Documentation to show the site is part of the LEPC Community Action Plan;
25. Notification documentation as part of the Tabletop Exercise; and
26. Documentation for the 2022 and 2023 Annual Ammonia drills.

CONCERNS

1. The facility does not currently have a backup power supply for emergency systems.
2. Process safety information was missing for safe upper and lower limits, evaluating the consequences of deviation, and the documentation for the safety systems.
3. There was a mismatch between the capacities used for each building in regards to the stated amounts, the amounts used to calculate the worst-case scenario, and the amounts used in the ventilation calculations.
4. At the time of the inspection, there were only three people onsite that could shutdown the refrigeration systems.
5. Operating Procedures did not contain much detail on how to safely conduct activities in regard to emergency operation and startup after an emergency shutdown.
6. Calibration of Sensors reports noted that the sensors had been deactivated upon inspection.
7. The current Valve Program is covered in a generic "exercise and Lube Isolation Valves" during the Annual PM Inspection.
8. Engine Rooms #2, #3, and #4 did not contain sensors outside of the doors leading into the respective building's truck bay.
9. Eye wash stations were missing outside of Engine Rooms #2 and #3.
10. The LTRs had high amounts of corrosion around their structural supports and foundations.
11. The Spill Notification information in each of the Engine Rooms needed to be updated.
12. No NFPA hazard label displayed outside with ammonia high pressure receiving vessel located outside Engine Room #1.
13. No visual alarm indicator on west side room in Engine Room #1.
14. A separate water line that uses an ammonia line for support was observed to be vibrating Engine Room #3.
15. Excessive vibration in orange ammonia line was observed in Engine Room #4.

DIGITAL SIGNATURES

Report Author:  Digitally signed by
Dumontelle, Erin
Date: 2024.07.08 11:01:30
-05'00'

Section Supervisor: **SARAH MARSHALL**  Digitally signed by
SARAH MARSHALL
Date: 2024.07.08
11:35:02 -05'00'

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APPENDICES

Appendix A: Digital Image Log and Digital Video Log

APPENDIX A: DIGITAL IMAGE LOG AND DIGITAL VIDEO LOG

Inspector Name: Erin DuMontelle **Archival Record Location:** Electronic Record Center

Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	P5160001.JPG	05/16/2024 2:09 PM CDT	Photo was blurry. Retaken (See Image # 2).
2	P5160002.JPG	05/16/2024 2:09 PM CDT	Piping in Engine Room #1
3	P5160003.JPG	05/16/2024 2:16 PM CDT	Piping off the High Pressure Receiver for Engine Room #1
4	P5160004.JPG	05/16/2024 2:19 PM CDT	Exit door from Engine Room #1 into fenced area
5	P5160005.JPG	05/16/2024 2:23 PM CDT	Gate from inside fenced area
6	P5160006.JPG	05/16/2024 2:25 PM CDT	Piping in the ceiling of truck bay for Building #1
7	P5160007.JPG	05/16/2024 2:27 PM CDT	Piping in the ceiling of truck bay for Building #2
8	P5160008.JPG	05/16/2024 2:30 PM CDT	Small pipe in Engine Room #2
9	P5160009.JPG	05/16/2024 2:35 PM CDT	Orange piping in Engine Room #2
10	P5160010.JPG	05/16/2024 2:38 PM CDT	HTS Line in Engine Room #2
11	P5160011.JPG	05/16/2024 2:39 PM CDT	Yellow piping in Engine Room #2
12	P5160012.JPG	05/16/2024 2:46 PM CDT	HPR for Engine Room #2
13	P5160013.JPG	05/16/2024 2:46 PM CDT	Supports for the Low Temperature Recirculator vessel and piping (front view)
14	P5160014.JPG	05/16/2024 2:52 PM CDT	Supports for the Low Temperature Recirculator vessel and piping (side view)
15	P5160015.JPG	05/16/2024 2:56 PM CDT	Niagara ammonia system in Building #3
16	P5160016.JPG	05/16/2024 2:58 PM CDT	Low Temperature Recirculator for Engine Room #3
17	P5160017.JPG	05/16/2024 3:00 PM CDT	Pump near LTR for Engine Room #3
18	P5160018.JPG	05/16/2024 3:04 PM CDT	Open ended pipe to the ceiling.
19	P5160019.JPG	05/16/2024 3:06 PM CDT	Small piping being supported by ammonia line

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20	P5160020.JPG	05/16/2024 3:16 PM CDT	Evaporators in Building #4
21	P5160021.JPG	05/16/2024 3:23 PM CDT	Ice build-up near LTR in Engine Room #4
22	P5160022.JPG	05/16/2024 3:28 PM CDT	Ice build-up on old tag in Engine Room #4
23	P5160023.JPG	05/16/2024 3:42 PM CDT	Door from Engine Room #2 into the truck bay
24	P5160024.JPG	05/16/2024 3:52 PM CDT	Daily Calibration Sheets
25	P5160025.JPG	05/16/2024 3:52 PM CDT	Daily Temperature Records