Incident Report

Completed by: Boone Brothers

Date: March 10, 2020

Location of Incidents: BD
8195 Industrial Blvd.
Covington, GA 30014

Background:

On March 6, 2020, the Georgia Attorney General's office sent BD a memorandum discussing the definition of "unpermitted release," reviewing BD's previous event reporting, and requiring BD to review its records for the Covington and Madison facilities to identify any additional events that were not previously reported. The letter required BD to submit a report discussing these events on March 9, 2020, later extended until March 10, 2020. In response to the Attorney General's letter, BD is providing a summary of potentially reportable events detected by its "baseline" monitoring systems or otherwise reflected in contemporaneous work orders.

BD's monitoring systems are designed to detect extremely low levels (1 ppm) of ethylene oxide (EtO) within BD's Covington and Madison facilities, both to alert workers to potential safety issues and to ensure the optimal performance of facility equipment and processes. In response to a system reading, facility operators take follow-up actions intended to determine the existence of any potential safety, equipment, or process issues as soon as worker safety allows. If an equipment malfunction or other equipment failure is determined to be the cause of the EtO reading, the facility will create a work order to address the issue. If a cause is not identified, BD continues to monitor the situation. Because of the sensitivity of the monitoring systems, the possibility of false alerts, and the complexity of facility operations, not every EtO reading indicates a malfunction, equipment failure, or other process deviation.

The following table represents all responses to EtO readings not previously reported at the Covington and Madison facilities that relate in any way to a malfunction or other failure of equipment. No reportable events were identified for Madison.

Date of Reading	Covington Monitoring Location	Peak Recorded PPM	Total Estimate Emissions (lbs.)	Team Follow-Up	Corrective Action
12/20/2019	SP6 - NORTH CORRIDOR @ STERILIZER 3 & 4	4.76	0.0048	During transfer from sterilization vessel to the aeration chamber, a pallet became jammed, causing the product to fall and setting off the Baseline system. Operators had to restack, which resulted in the pallet staying in the hallway for longer than usual. No other equipment malfunction or failure was identified.	Continue to verify that pallets meet plant standards upon delivery and when building the loaded pallet
1/19/2020	SP9 - DRUM MANIFOLD	1.31	0.13	In response to an initial short, low-level reading in the drum manifold room, BD sent an engineering and/or maintenance team to investigate. No equipment malfunctions or other failures were identified. When the reading recurred, it was determined that it was occurring during the sterilant charging phase of the cycle. The team subsequently identified an internal component of a small temperature transmitter as the apparent source of the readings. After the transmitter was removed, the readings ceased.	Replaced the temperature transmitter; monitor for additional readings
1/20/2020	SP9 - DRUM MANIFOLD	1.12			
1/21/2020	SP9 - DRUM MANIFOLD	1.34			
1/21/2020	SP9 - DRUM MANIFOLD	1.18			
1/22/2020	SP9 - DRUM MANIFOLD	1.04			
1/23/2020	SP9 - DRUM MANIFOLD	2.20			
1/24/2020	SP9 - DRUM MANIFOLD	1.02			
1/26/2020	SP18 - NORTH CORRIDOR @ STERILIZER # 2	5.26	.0048	During transfer from the sterilization vessel to the aeration chamber, a piece of pallet became lodged in the conveyor chain, causing the transfer to stay in the hallway for longer than usual. This set off the Baseline system. No other equipment malfunction or failure was identified.	Continue to verify pallets meet plant standards upon delivery and when building the loaded pallet

Date of Reading	Monitoring Location	Peak recorded PPM	Total Estimate Emissions (lbs.)	Team Follow-Up	Corrective Action
1/31/2020	P2 - Vessel Room # 1	8.22	0.06	After a reading was registered in vessel room 1, BD sent an engineering and/or maintenance team to follow-up. The team discovered some small droplets of water around the threaded connection to the liquid drain line of the vacuum pump separator tank. The team determined that the droplets of water may have included a very small amount of ethylene oxide which vaporized and caused the Baseline reading. After a ball-valve was replaced, the readings ceased.	The piping was replaced and was tested to ensure integrity; monitor for additional readings.
		Total	**0.1948**		