U.S. ENVIRONMENTAL PROTECTION AGENCY

Region 1

EPCRA and CAA § 112(r) Inspection Report

Date: September 20, 2023

From: Len Wallace, Drew Meyer, Inspectors
Waste and Chemical Compliance Section

Through: Mary Jane O'Donnell, Chief
Waste and Chemical Compliance Section

To: File

Subject: Chemical Accident Investigation and Inspection, under Clean Air Act (CAA) Risk Management Plan (RMP) Section 112(r) and General Duty Clause (GDC) Section 112(r)(1) and Emergency Planning and Community Right-To-Know Act (EPCRA) Sections 302-312, and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 103 of BIC Consumer Products Manufacturing Co, Inc. in Milford, CT.

I. GENERAL INFORMATION

Facility Name: BIC Consumer Products Manufacturing Co, Inc.

Dun and Bradstreet Number: 738170970

RMP Number: 100000130976

Address: 565 and 550 BIC Drive
Milford, Connecticut, 06461

Inspector Names: Andrew Meyer, U.S. Environmental Protection Agency (EPA) Region 1
Leonard Wallace, U.S. EPA Region 1
Brook McKeown, ERG
John Burton, Weston Solutions

Inspection Date: April 7, 2023

Type of Inspection: Risk Management Plan (RMP) CAA § 112(r), CERCLA § 103, and EPCRA §§ 302-312 Compliance Evaluation Inspection

Purpose of Inspection: This inspection was conducted as a routine EPA CAA § 112(r)/EPCRA compliance evaluation inspection.

Current Owner: BIC Corporation

Current Operator: BIC Consumer Products Manufacturing Co, Inc.

Primary NAICS codes: 339999 (All Other Miscellaneous Manufacturing)

Number of full-time employees: 135

Estimated Annual Sales:

Relationship to other firms, parent corporation, subsidiaries, and location of off-site facilities: BIC leases a warehouse facility located across the street at 500 BIC Drive, Milford, CT.

II. GENERAL FACILITY DESCRIPTION

The BIC Consumer Products Manufacturing Co, Inc. Facility is located at 565 BIC Drive in Milford, CT (BIC or the Facility) was built in 1976. The Facility manufactures lighters filled with isobutane or a mixture of isobutane and pentane. The property is fenced in, with multiple locked entrances on the southern and northern sides. The main Facility entrance with a security post is located along the southern Facility gate. The property is bordered by mixed use commercial and industrial properties in all cardinal directions. The BIC Warehouse Facility (Warehouse) is located to the south of the main manufacturing site, across BIC Drive. Residential properties are located within approximately 800 feet of the Facility to the west, east and south.

The facility has three shifts-usually 5 days/week. Maintenance is done on all three shifts.

Two primary raw materials are received on-site via tank car and stored in the tank farm on the northeastern portion of the site: pure isobutane (also referred to as A-31) and a 19.5% mole propane and 80.5% mole isobutane mixture (also referred to as A-50). There is one 18,000-gallon A-31 tank, one 10,000-gallon A-31 tank and one 18,000-gallon A-50 tank. A-31 is used to fill pocket lighters, referred to as "J26". A-50 is used to fill "reservoir" lighters. The flammable raw materials are transported to indoor production areas via underground piping and delivered to one of twelve lighter assembly machines. Finished assembled lighters are stored in the leased warehouse at 500 BIC Drive.

The Facility's 2022 EPCRA § 312 Tier II report for 565 BIC Drive indicates that the Facility stores a maximum quantity of 221,111 pounds of liquid petroleum gas. The 2022 EPCRA § 312 Tier II report for the Warehouse at 500 BIC Drive indicates that a maximum quantity of 101,943 pounds of liquid petroleum gas is stored at that location. The RMP submitted in February 2023 reported a maximum intended inventory of 184,000 pounds of isobutane at the manufacturing facility and 600,000 pounds of isobutane at the Warehouse location.

At the time of the site visit, the Facility had approximately 130 full time employees. Attachment 1 is a Google Earth aerial photograph of the BIC facility.

III. IN-BRIEF/OPENING CONFERENCE

The EPA inspection team, consisting of Leonard Wallace and Andrew Meyer (USEPA Region 1), Brook McKeown (USEPA contract inspector), and John Burton (USEPA air monitoring contractor), entered the Facility at approximately 9:00 a.m. The inspection team presented identification to Joe Zanchetti, Plant Director, BIC Consumer Products Manufacturing, Inc. Inspector Wallace conducted the opening meeting and explained the reason and scope of the inspection. Inspector Wallace presented the EPCRA Notice of Inspection to Mr. Zanchetti, who signed as the Recipient of the Notice. Mr. Zanchetti did not attempt to deny Facility entry to the inspectors, nor did he invoke any claims of Confidential Business Information (CBI) for purposes

of the inspection. Facility contacts stated that at the time of the inspection, the facility was in a holiday production shut down and no Union representative was available from the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union.

Facility Representatives:

Name	Title/Company	Phone Number	E-mail
Joe Zanchetti	Plant Director / BIC	203-783-2829	Joe.Zanchetti@bicworld.com
Erin Scinto	EHS / BIC	203-283-2747	Erin.Scinto@bicworld.com
Patrick Gentile	Sr Electrical Engineer	203-783-2986	Pat.gentille@bicworld.com

Inspector Wallace shared the following guidance documents with Facility representatives:

1. Guide to the Emergency Planning and Community Right-to-Know Act (Fall 2020)
2. EPCRA Quick Reference Fact Sheet (Fall 2020)
3. List of Lists (EPA 550-B-20-001, August 2020)
4. Small Business Resource Information Sheet (February 2020, EPA-300-F-20-002)
5. *National Response Center Oil and Chemical Spill Reporting* flyer
6. *Chemicals in Your Community* brochure (EPA 550-K-99-001, December 1999)

Inspector Wallace stated that, after the opening meeting, the inspectors would do a walk-through of the Facility. He also stated that the inspection team would be taking photographs of items and areas of interest and a copy of all photographs would be provided to the Facility representative after the inspection.

IV. PHYSICAL INSPECTION

The EPA inspection team conducted a walk-through of the following areas at the Facility:

- Fire Pump House and Water Tank
- Isobutylene Tank Farm
- Vault Area
- Other Exterior Areas
- Interior Areas
- Warehouse (500 BIC Drive)

Inspector Wallace took 91 digital photographs during the inspection to document observed conditions. These photographs are referenced throughout the inspection report. The following sections discuss areas of concern identified in each area during the physical inspection.

Before starting the physical inspection of the facility, the company issued a Working Hot Work Permit to take pictures in -Class I-Div II areas.

Fire Pump House and Water Tank

A 250,000-gallon emergency fire water tank is located on the northeastern portion of the site. Adjacent to the water tank is a fire pump house, which houses a diesel-fired emergency fire water pump and diesel tank. Two lead acid batteries were also observed in this area. EPA inspectors identified the following area of concern based on a tour of the area:

- The Fire Pump House was not labeled with a National Fire Protection Agency (NFPA) diamond, which is required based on the storage of diesel fuel inside the building (see photographs P1120458, P1120463).
- Vent piping for the diesel fuel tank in the Fuel Pump House appeared to be the same height as the fill pipe (see photograph P1120458)

Isobutylene Tank Farm

A-31 and A-50 material arrives on-site in tank cars and is unloaded into three tanks located on the northeastern portion of the Facility. Tanks are surrounded by blast walls on three sides and located within a separate fenced area inside the Facility fencing. Each tank is equipped with a deluge sprinkler system. EPA inspectors identified the following areas of concern based on a tour of the area:

- Visible alarms associated with gas detectors in the Isobutane Tank Farm were not labeled as to their function (see photograph P1120481). Similar alarm lighting schemes in the vault were also not labeled (see photograph P1120508).
- Isobutane piping in the Isobutane Tank Farm were not labeled as to its contents and direction of flow (see photograph P1120480 and P1120483).
- Piping supports were not removed to paint portions of the isobutane piping. Therefore, inspectors observed that at the time of the inspection certain segments of piping were not painted (see photograph P1120491).
- Spacer material were not in place between piping and piping supports to prevent rusting and corrosion (see photograph P1120491).

Vault Area

Isobutylene is transported to the Facility building from the tank farm via underground piping. The underground piping enters a below grade vault that surrounds the northern side of the building. Isobutylene piping runs through the vault and penetrates the building at required locations to enter manufacturing spaces. EPA inspectors identified the following area of concern based on a tour of the area:

- Integrity issues with air ducts in the vault area were observed (see photograph P1120505)
- Piping present in the vault area just outside of the fencing was not labeled as to its contents or direction of flow (see photograph P1120509).

Other Exterior Areas

The EPA inspection team conducted a walkthrough of all exterior areas of the Facility. Equipment observed included natural gas-fired emergency generators, storm drains, alarm beacons, emergency phones and other safety systems. EPA inspectors identified the following areas of concern based on a tour of the area:

- Facility egress points were not all labeled on the Site Emergency Plan.

- Windsocks were not visible anywhere around the building (see photographs P1120433, P1120435, and P1120447).
- An NFPA diamond was not present on the door of the main facility entrance (see photograph P112036).
- Natural gas piping for the emergency generator and air handling units located to the south of the site building was not labeled as to its contents or direction of flow (see photographs P1120437, P1120438, and P1120444).
- NFPA diamonds were not present on the natural gas-fired emergency generator and air handling units to the south of the site building (see photographs P1120442 and P1120444).
- There was not sufficient clearance for natural gas piping associated with air handling units from flammable materials, specifically in regards to mulch surrounding the piping (see photographs P1120444 and P1120446).
- Evidence of corrosion on screws for natural gas piping supports at the air handling units was observed (see photograph P1120445).
- Inspectors observed insufficient labeling of natural gas piping at the intake point for the facility (see photograph P1120449).
- Wooden pallets were stored within ten feet of the building (see photograph P1120450). Combustible materials should not be stored outdoors within 10 feet of a building or structure containing flammable materials.
- Gasoline and propane were stored together in a flammable cabinet in a storage area on the eastern side of the site building (see photographs P1120456 and P1120457).
- The wastewater treatment shed located on the eastern side of the site building was not labeled as to its function (see photograph P1120451).
- The primary exit gate from the Facility along the northern property boundary was padlocked closed and not equipped with panic hardware (see photograph P1120492).
- Storm drains at the facility were not marked as to their point of discharge (see photograph P1120490).
- The isobutane tank high-level alarm was inaccurately labeled. Signage for the alarm states "Isobutane Tank High Level (82%) Alarm" (see photograph P1120493). Facility personnel stated that the high alarm is initiated at 78% of the tank's capacity.
- Alarm beacon and associated actuation buttons on the northern side of the facility, next to the Spill Control Cabinet, were not labeled as to their functions (see photographs P1120494 and P1120495).
- Actuation button and visual alarm beneath the Isobutane Tank High Level Alarm were not labeled as to their functions (see photograph P1120493).
- Emergency phone on the northern side of the building is not properly labeled (see photograph P1120497). Additionally, there were contradictory labels on the inside of the phone box cover. One label says the phone is "for emergencies." However, the label on the left side provides information for how to make non-emergency calls (see photographs P1120499 and P1120500).
- Electrical equipment was not marked with arc flash study information.

Interior Areas

The EPA Inspection team conducted a walkthrough of interior areas of the site including manufacturing and maintenance areas. Battery-powered equipment was observed throughout the production and maintenance areas. EPA inspectors identified the following areas of concern based on a tour of the area:

- The facility maintains more than 10,000 pounds of lead-acid batteries in various equipment, which exceeds the 10,000-pound Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312 threshold (see photographs P1120510 through P1120514). However, only sulfuric acid from batteries was reported on the 2022 Tier II submission for 565 BIC Drive, filed on February 14, 2023. During the inspection, the EPA team observed battery-powered equipment at the site, whose total battery weight exceeded 25,000 pounds.
- Acetylene and oxygen compressed gas cylinders were co-located in the maintenance area of the Facility (see photograph P1120515).
- No panic hardware was located on the interior fencing in the maintenance area.

Warehouse (500 BIC Drive)

The EPA inspection team toured the leased Warehouse located at 500 BIC Drive adjacent to the manufacturing Facility. Finished products containing isobutylene and isobutylene mixtures were stored in boxes. A sprinkler system was observed in the ceiling of the Warehouse. EPA inspectors identified the following areas of concern based on a tour of the area:

- An NFPA diamond was not present at the entrance to the warehouse at 500 BIC Drive (see photograph P1120522).
- Material at 500 BIC Drive is stored four pallets high.

V. OUT-BRIEF/CLOSING CONFERENCE

Due to COVID 19, an in-person out-brief/closing conference was not conducted at the conclusion of the on-site inspection. Inspector Wallace emailed a copy of the preliminary areas of concern identified during the April 7, 2023, inspection to Mr. Zanchetti on June 22, 2023 and conducted a virtual closeout meeting on June 26, 2023.

The following is a list of the preliminary areas of concern identified during the inspection at the Facility:

1. All documents originally requested in EPA's Notice of Inspection Letter emailed March 28, 2023.
2. Facility egress points were not all labeled on the Site Emergency Plan.
3. The facility maintains more than 10,000 pounds of lead-acid batteries in various equipment, which exceeds the 10,000-pound EPCRA Section 312 threshold (see photographs P1120510 through P1120514). However, only sulfuric acid from batteries was reported on the 2022 Tier II submission for 565 BIC Drive, filed on February 14, 2023.
4. An NFPA diamond was not present on the door of the main facility entrance (see photograph P112036).
5. Natural gas piping for the emergency generator and air handling units located to the south of the site building was not labeled as to its contents or direction of flow (see photographs P1120437, P1120438, and P1120444).
6. NFPA diamonds were not present on the natural gas-fired emergency generator and air handling units to the south of the site building (see photographs P1120442 and P1120444).

7. There was not sufficient clearance for natural gas piping associated with air handling units from flammable materials, specifically in regards to mulch surrounding the piping (see photographs P1120444 and P1120446).
8. Evidence of corrosion on screws for natural gas piping supports at the air handling units was observed (see photograph P1120445).
9. Inspectors observed insufficient labeling of natural gas piping at the intake point for the facility (see photograph P1120449).
10. Wooden pallets were stored within ten feet of the building (see photograph P1120450). Combustible materials should not be stored outdoors within 10 feet of a building or structure.
11. Gasoline and propane were stored together in a flammable cabinet in a storage area on the eastern side of the site building (see photographs P1120456 and P1120457).
12. The wastewater treatment shed located on the eastern side of the site building was not labeled as to its function (see photograph P1120451).
13. The Fire Pump House was not labeled with an NFPA diamond, which is required based on the storage of diesel fuel inside the building (see photographs P1120458, P1120463).
14. Vent piping for the diesel fuel tank in the Fuel Pump House did not terminate at least five feet from building openings or at least twelve feet above the finished ground level (see photograph P1120460).
15. Visible alarms associated with gas detectors in the Isobutane Tank Farm were not labeled as to their function (see photograph P1120481). Similar alarm lighting schemes in the vault were also not labeled (see photograph P1120508).
16. Isobutane piping in Isobutane Tank Farm were not labeled as to its contents and direction of flow (see photograph P1120480 and P1120483).
17. Piping supports were not removed to paint portions of the isobutane piping. Therefore, inspectors observed that at the time of the inspection certain segments of piping were not painted (see photograph P1120491).
18. Spacer material was not in place between piping and piping supports to prevent rusting and corrosion (see photograph P1120491).
19. The primary exit gate from the Facility along the northern property boundary was padlocked closed and not equipped with panic hardware (see photograph P1120492).
20. Storm drains at the facility were not marked as to their point of discharge (see photograph P1120490).
21. The isobutane tank high-level alarm was inaccurately labeled. Signage for the alarm states "Isobutane Tank High Level (82%) Alarm" (see photograph P1120493). Facility personnel stated that the high alarm is initiated at 78% of the tank's capacity.
22. Alarm beacon and associated actuation buttons on the northern side of the facility, next to the Spill Control Cabinet, were not labeled as to their functions (see photographs P1120494 and P1120495).
23. Actuation button and visual alarm beneath the Isobutane Tank High Level Alarm were not labeled as to their functions (see photograph P1120493).
24. Emergency phone on the northern side of the building is not properly labeled (see photograph P1120497). Additionally, there were contradictory labels on the inside of the phone box cover. One label says the phone is "for emergencies." However, the label on the left side provides information for how to make non-emergency calls (see photographs P1120499 and P1120500).
25. Electrical equipment was not marked with Arc flash study information.
26. Integrity issues with air ducts in the vault area were observed (see photograph P1120505).
27. Piping present in the vault area just outside of the fencing was not labeled as to its contents or direction of flow (see photograph P1120509).

28. Acetylene and oxygen compressed gas cylinders were co-located in the maintenance area of the Facility (see photograph P1120515).
29. No panic hardware was located on the interior fencing in the maintenance area.
30. NFPA diamond was not present at the entrance to the warehouse at 500 BIC Drive (see photograph P1120522).
31. Material at 500 BIC Drive were stored four pallets high.

The Facility has provided updates on the status of these items. As of the update provided on July 3rd, 2023 response[1], items 4, 5, 6, 9, 19, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 30, and 31 have been corrected and documentation of the correction was provided.

VI. FACILITY COMPLIANCE STATUS AND ELEMENTS OF PROOF - EPCRA

EPCRA Section 302

(1**)** Does facility have on-site, at any one time, extremely hazardous substances (EHS) at or above the TPQ? They have Sulfuric Acid in Lead Acid batteries but base on their Tier 2 form they are below 1,000 pounds. Waiting for list batteries and their weights from the facility.

(2) List or obtain documentation: Inspector's observations and waiting for list from facility.

(3) How was maximum quantity on-site determined or calculated? Inspector's observations and information requested.

EPCRA Section 303

(1) Facility Coordinator identified per Sec. 303 and date LEPC was notified? Yes, Tier 2 form.

EPCRA Section 311

(1) Is facility required to maintain MSDSs under the OSHA Hazard Communication Standard 29 CFR 1910.1200 (no specific chemical list)? Yes

(2) Has the facility conducted a comprehensive audit to identify MSDS chemicals on-site and to determine if 500 lb./10,000 lb./TPQ thresholds were exceeded? Unknown

(3) List of OSHA chemicals manufactured, processed, used/stored, and obtained? Unknown

(4) How were the maximum amounts determined? Inspector's observations and Tier 2 form.

(5) Section 311 info supplied to the:

SERC (Y/N):	No
LEPC (Y/N):	No
Local Fire Department(Y/N):	No
Date	N/A
Chemical List	Waiting for facility to supply information.

MSDSs Waiting for facility to supply information.

(6) Have any new hazardous chemicals, mixtures, or substances been introduced into the facility in the last 5 years? Unknown

(7) If yes, has the facility submitted updated lists or MSDSs? Unknown

EPCRA Section 312 (due March 1 of year following reporting calendar year)
(1) Was Tier II form submitted for all required chemicals? Yes, Tier II reports provided for facility.

(2) What procedures are used to update Section 312 information for annual submittal and to ensure additional or new chemical data is submitted within 90 days? Unknown
(3) Was facility aware of annual reporting requirements under Section 312? Yes

(4) Had the facility completed and signed a list of all reportable chemicals on site on date of the inspection? Unknown

(5) Table of EPCRA 312 Reportable Substances: 565 BIC Drive

CAS #	Chemical	Approx. Max. Wt. on Site (Lbs.)	TPQ (Lbs.)	Approx. Ratio (Actual/TPQ)
	Flint	15,328	10,000	1.5
75-28-5	Liquid Petroleum Gas (Isobutane lighter fuel)	221,111	10,000	22.1
	Machine Oil	40,465	10,000	4.4
25231-38-3	Plastic (Delrin)	1,019,126	10,000	101.9
	Plastic (Polystyrene)	13,012	10,000	1.3
7664-93-9	Sulfuric Acid	621	1,000/500	.621/1.2

550 BIC Drive

CAS #	Chemical	Approx. Max. Wt. on Site (Lbs.)	TPQ (Lbs.)	Approx. Ratio (Actual/TPQ)
	Flint	183,895	10,000	18.3
75-28-5	Liquid Petroleum Gas (Isobutane lighter fuel)	101,943	10,000	10.1
25231-38-3	Plastic (Delrin)	2,479,517	10,000	247.9
	Plastic (Polystyrene)	307,776	10,000	30.7

VII. ENFORCEMENT HISTORY

A search of EPA's ECHO database found one informal enforcement action inspection related to RCRA from the state environmental agency on 12/20/2019 for the BIC Facility located at 500 BIC Drive in Milford, CT.

VIII. ENVIRONMENTAL JUSTICE

The demographic information in the environmental justice report for the communities surrounding the BIC Facility indicates that the Facility is located in an Environment Justice area as 7 metrics were at or above the 80^{th} percentile within a one-mile radius.

Attachment 1

Google Earth Image of BIC Consumer Products Manufacturing, Inc.