REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

Borghi USA, Inc.
402 W. Division Street
West Burlington, Iowa 52655
(319) 758-6990

EPA ID Number: IAR000525451

On

October 19, 2022

By

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Enforcement and Compliance Assurance Division (ECAD)

1.0 INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division, I conducted a Resource Conservation and Recovery Act (RCRA) compliance evaluation inspection (CEI) at Borghi USA, Inc. (Borghi), located in West Burlington, Iowa, on October 19, 2022. The CEI was conducted under the authority of Section 3007(a) of RCRA, as amended. The facility had not been inspected previously for RCRA compliance. I collected the informationand data necessary to determine compliance with the applicable regulatory and statutory requirements. The inspection report and attachments present the results of the CEI.

2.0 PARTICIPANTS

Borghi:
Francesco Cremonini, Plant Manager, approximately 17 years with the company.
Matt Brakeville, Plant Superintendent, approximately one- and one-half years with the company.
Alec Rhea, Driver, approximately 12 years with the company.

U.S. Environmental Protection Agency (EPA):
H. D. “Doug” Bryant, CPP, PCI, Civil Investigator, SEE, ECAD/Chemical Branch/RCRA Section

3.0 INSPECTION PROCEDURES

Prior to beginning the inspection, I conducted a visual reconnaissance of Borghi on October 19, 2022, searching for areas of concern observable from the adjacent roadway. No environmental issues or areas of concern were observed during this preliminary examination. I arrived unannounced at Borghi at approximately 08:50 hours, October 19, 2022. I parked outside the facility in a small parking lot. I entered the facility through the main entrance and was greeted by an employee working behind a counter in the entry area. I signed a visitor ledger and asked for Mr. Lewis R. Worden identified as the client contact. The employee asked the nature of my business, to which I responded. She responded that she would summon the Plant Superintendent, Mr. Matthew Brakeville. She asked me to be seated in the lobby area while she reached out to Mr. Brakeville. Shortly thereafter, Mr. Cremonini approached me from an office located down a hallway adjacent to the lobby entry area. Mr. Cremonini took me to a conference room that was used throughout this inspection and welcomed me to the facility. He explained that Mr. Brakeville would join us shortly, as he was out of the facility attending to other business. Mr. Brakeville arrived shortly thereafter and joined us in the conference room.

After exchanging pleasantries and business cards with Messrs. Cremonini and Brakeville (Attachment 1), I started my entrance briefing. I presented my EPA credentials to Messrs. Cremonini and Brakeville. I next presented Messrs. Cremonini and Brakeville a copy of RCRA section 3007(a), which provides inspection authority. I explained my need to collect accurate information and presented them a copy of Title 18 U.S. Code, Sections 1001 and 1002. They were made aware of their confidentiality rights and were informed that a Confidentiality Notice would be provided at the end of the inspection to make or not to make any claims. Mr. Brakeville acted as the official Borghi representative throughout this inspection and Mr. Cremonini participated in the entry and exit briefings.

The inspection consisted of an entry briefing, a discussion of facility operations, waste generation and waste management, and a visual inspection of the waste generation and management areas, and an exit briefing. Mr. Brakeville provided a site map/diagram of the facility (Attachment 2). This attachment was annotated to document the location of each photo taken during the visual inspection of the facility.

Document photocopies and nine photographs were collected as inspection documentation (Attachments 1-13). The locations for each photo are annotated on Attachment 2. Information collected during the CEI was recorded on a checklist and in field notes. I followed the inspection procedures discussed in the RCRA Compliance Evaluation Inspection Standard Operating Procedure (No. 2321.01D), unless noted differently.

At the conclusion of the inspection, I conducted an exit briefing, during which I summarized my findings and recommendations with Messrs. Cremonini and Brakeville. I provided Mr. Brakeville a *Confidentiality Notice,* which he signed, indicating no confidentiality claims were made by the facility (Attachment 3). I provided Mr. Brakeville a *Receipt of Documents and Samples* which he signed acknowledging receipt (Attachment 4). I provided Mr. Brakeville a *Notice of Preliminary Findings* which he signed acknowledging receipt (Attachment 5).

The following inspection documents and compliance assistance handouts were left with the facility:

Section 3007 Inspections Sheet (EPA Handout)
RCRA Facility Access Information Sheet (EPA Handout)
United States Code Annotated (EPA Handout)
Notice Regarding Proprietary/Confidential Business Information Submitted to or Collected by EPA in Connection with Inspections (EPA Handout)
Notice of Preliminary Findings (EPA Handout)
Instructions for Responding to a Notice of Preliminary Findings (NOPF) (Reverse of NOPF)
U.S. EPA Small Business Resource Information Sheet (EPA Handout)
Solvent-Contaminated Wipes Final Rule Chart (EPA Handout)
Excluded Solvent-Contaminated Wipe Rule (IDNR Handout)
Battery Recycling/Disposal (IDNR Handout)
Universal Wastes Including Aerosol Cans (IDNR Handout)
Environmental Compliance Assistance Centers (EPA Handout)
e-Manifest Fact Sheet (EPA Handout)
Emergency Response Program (EPA Handout)
Managing Your Hazardous Waste: A Guide for Small Business (EPA Handout)

4.0 FINDINGS AND OBSERVATIONS

4.1 Facility Information and Operations

Borghi manufactures hydraulic tubing using mild steel. Mild steel tubing ranging in diameter from approximately one-quarter inch to two and one-half inches is received in bulk, cut, washed with a degreaser, bent to specification, fitted with closure fittings as specified, prepared for zinc plating by cleaning with a degreaser and hydrochloric acid, plated with zinc, cleaned with nitric acid, quality inspected, and packaged for shipment. The facility treats process wastewater and discharges same under national pollutant discharge elimination system (NPDES) permit to the City of West Burlington. Borghi occupies a single building with approximately 80,000 square feet under roof that began operating in a light-industrial area of West Burlington, Iowa in 2001. Borghi employs approximately 165 personnel working twenty-four hours a day, seven days a week. The North American Industry Classification System code for this facility is 333618-Other Engine Equipment Manufacturing.

4.2 RCRA Status

The Hazardous Waste Site Info Verification Report for Inspector (Attachment 6) identifies the facility as a very small quantity generator (VSQG) of D002 characteristic hazardous waste (HW). Mr. Brakeville explained that Borghi experienced an episodic HW generation event April 12, 2022, involving a ruptured pipe filled with hydrochloric acid that resulted in a significant spill cleanup that included D002, D007, and D008 characteristic HW, contaminated absorbent material, debris, and personal protective equipment (PPE). This event is discussed below in Section 4.5. Mr. Brakeville stated that the facility is illuminated using conventional fluorescent lighting fixtures and generates spent fluorescent lamps that are managed as universal waste (UW). He added that lead-acid batteries are also generated by Borghi and are exchanged as cores for new replacement batteries using the services of a third-party vendor.

Mr. Brakeville added that Borghi generates used oil absorbents. Therefore, I inspected Borghi as a VSQG of HW, a small quantity handler of UW and a generator of used oil. However, a review of documentation after this inspection identified additional HW determinations that Borghi must conduct that could potentially modify their HW generator status.

4.3 Facility Waste Streams and Management

Mr. Brakeville stated that Borghi received HW episodic HW clean up support from Clean Harbors Environmental Services, Inc. (Clean Harbors) EPA ID# MAD039322250, 42 Longwater Drive, Norwell, Massachusetts. Clean Harbors picked up and transported episodic spill related HW to Spring Grove Recovery, Inc., (EPA ID# OHD000816629), 4879 Spring Grove Avenue, Cincinnati, Ohio, where the waste was stored/bulked and transferred with no treatment.
Mr. Brakeville explained that he is currently working with another environmental services company, Sustain, LLC (Sustain), (EPA ID# OHR000210260), 4684 Brentwood Road, New Waterford, Ohio to analyze the contents of numerous intermediate bulk container (IBC) totes located at the facility and dispose of same as appropriate. Mr. Brakeville stated that Borghi also receives environmental services from Valley Environmental Services (Valley), 3330 Highway S574S, Newton, Iowa for process wastewater filter press waste generated onsite.

The following waste streams are managed by Borghi:

Waste Cutting Detergent: Mr. Brakeville stated that Borghi generates approximately two 250-gallon IBC totes of waste cutting detergent every four to six months. The cutting detergent is described as Zerust® AxxaClean™ 2048 Concentrate in Attachment 7. The waste cutting detergent has been determined to be non-RCRA hazardous, by virtue of product and process knowledge. The waste cutting detergent is collected in 250-gallon IBC totes and is picked up and transported off-site by Valley, 3330 Highway 574 S., Newton, Iowa.

Waste Degreaser/Water Rinse Solution: Mr. Brakeville stated that Borghi uses a degreasing product in the plating process called LectraClean® Heavy Duty Electrical Parts Degreaser (Attachment 8). A review of the product's safety data sheet (SDS) revealed that this product contains 90-100% tetrachlorethylene (perchloroethylene - perc). This product is the first solution used in Borghi's plating process to degrease and prepare steel parts for zinc plating. The steel parts are rinsed using water, generating a rinse that is discharged to the process wastewater treatment system. I asked Mr. Brakeville if Borghi had conducted a HW determination on the waste degreaser/water rinse solution, to which he responded "No." **Borghi must conduct an adequate HW determination on the waste degreaser/water rinse solution that is discharged to the process wastewater treatment system in accordance with 40 CFR § 262.11 (NOPF added after this inspection).** I informed Mr. Brakeville telephonically that this finding was being added to my inspection report on October 27, 2022. I followed this conversation up with an email (Attachment 13).

Process Wastewater/Sludge: Mr. Brakeville stated that Borghi generates process wastewater from the various water rinses of product going through stages in the plating process. Borghi treats the process wastewater on site using a coagulation and filter press process, generating treated water that is discharged by NPDES Permit, Attachment 9. The process wastewater is filtered before

release to the West Burlington City wastewater treatment facility.
The filter press collects wastewater sludge that consists primarily of zinc, according to Mr. Brakeville. He stated that the sludge is non-RCRA hazardous, by virtue of product and process knowledge. However, the wastewater sludge contains the waste degreaser/water waste stream discussed above and may potentially be HW. The filter is referred to as the "mud press" by Borghi and generates "mud press" sludge that is stored in a covered eight cubic-yard roll-off container that is picked up and transported off site monthly by GFL Environmental, 4700 North Sterling Avenue, Peoria, Illinois, for recycling. **Borghi must conduct an adequate HW determination on the process wastewater sludge in accordance with 40 CFR § 262.11 (NOPF added after this inspection).** I informed Mr. Brakeville telephonically that this finding was being added to my inspection report on October 27, 2022. I followed this conversation up with an email (Attachment 13).

Scrap Metal: Mr. Brakeville stated that Borghi generates approximately one 20-cubic yard roll-off container of scrap metal every two weeks. The scrap metal consists of mild steel tube cut-offs determined to be non-RCRA hazardous, by virtue of product and process knowledge. The scrap metal is picked up and transported off-site by Alter Metal Recycling-Burlington, 2101 NW Burlington Avenue, West Burlington, Iowa, for recycling.

Waste Aerosol Cans: Mr. Brakeville stated that Borghi generates approximately two RCRA-empty waste aerosol cans weekly. The waste aerosol cans include glass cleaner and similar cleaning products, brake cleaner, penetrating oil, and spray paint. Mr. Brakeville stated that the waste aerosol cans have been determined to be empty and non-RCRA hazardous by virtue of process knowledge. He stated that the RCRA-empty, non-hazardous aerosol cans are currently disposed in general trash. He added that any aerosol cans that are not empty are transported to the Des Moines County (DMC) Regional Landfill where they are managed as D001 characteristic HW. I provided compliance assistance regarding management of waste aerosol cans during my exit briefing.

Soiled Cloth Shop Rags: Mr. Brakeville stated that Borghi uses approximately 200 cloth shop rags weekly. I asked Mr. Brakeville if the cloth shop rags are used with commercial cleaning/degreasing products, to which he responded some cloth rags in the maintenance shop are used with commercial solvents, e.g., acetone. This topic is discussed further during my visual inspection of the facility. The soiled cloth shop rags are picked up, transported off-site, and laundered by Aramark Uniform Services (Aramark), 920 Nelson Drive, Burlington, Iowa. I provided compliance assistance regarding solvent contaminated wipes during my exit briefing.

Used Oil Absorbents: Mr. Brakeville stated that Borghi generates approximately 30 used oil absorbents monthly. The used oil absorbents are managed as used oil and are picked up and transported off-site by Closed Loop Recycling, 5555 Manchester Avenue, St. Louis, Missouri, for recycling.

Spent Lead-Acid Batteries: Mr. Brakeville stated that Borghi generates approximately one spent lead-acid forklift battery every two years. The spent lead-acid batteries are exchanged as required as cores for new batteries by MH Equipment, 8140 N. Harrison Street, Davenport, Iowa.

Spent Fluorescent Lamps: Mr. Brakeville stated that Borghi generates approximately 50 spent fluorescent lamps quarterly. The spent fluorescent lamps are managed as UW and are collected on site in a pre-paid EasyPak ® cardboard container purchased from McMaster-Carr that is sent to a recycling facility.

General Trash: Mr. Brakeville stated that Borghi generates approximately 11 cubic yards of compacted general trash weekly. The general trash consists of waste office paper, lunch wastes, and miscellaneous cardboard and packing materials. Mr. Brakeville stated that the general trash has been determined to be non-RCRA hazardous, by virtue of product and process knowledge. The general trash is picked up by LaVeine Sanitation Service (LaVeine), 1022 N. Gear Avenue, West Burlington, Iowa, and is transported off-site to the DMC Regional Landfill, 13758 Washington Road, West Burlington, Iowa, for sanitary landfill disposal.

4.4 Visual Inspection of Facility Waste Stream Management

I conducted a visual inspection of the facility with Mr. Brakeville. The visual inspection was conducted to observe waste stream management practices and document regulatory compliance. Photographs, checklists, and field notes were used to document observations made during the visual inspection. A Photo Log was created, and photos taken during the inspection appear in Attachment 10.

I observed containers of commercial products containing acetone and toluene used in the maintenance area (Photo 1, Attachment 10). I asked Messrs. Brakeville and Rhea if the commercial products could be used on the cloth shop rags used in the maintenance area to clean parts, to which they responded affirmatively. I asked Mr. Brakeville if Borghi had conducted a HW determination on the cloth shop rags contaminated with commercial products used to clean parts, to which he responded "No." **Borghi must conduct a HW determination on the soiled cloth shop rags used with commercial products in accordance with 40 CFR § 262.11 (NOPF No. 1, Attachment 5).**

I observed a closed, labeled cardboard container containing approximately 12 spent fluorescent lamps stored in the maintenance area (Photo 2, Attachment 10). Mr. Brakeville explained that Borghi purchases prepaid recycling containers for the spent lamps from McMaster-Carr and manages the spent fluorescent lamps as UW. When full, the prepaid cardboard containers of UW lamps are sent off-site for recycling. Mr. Brakeville stated that Borghi generates approximately 50 UW lamps quarterly.

I observed absorbent pads being used to absorb leaking hydraulic fluid from a bending machine, pictured in Photo 3, Attachment 10. Mr. Brakeville explained that the absorbent pads are managed as used oil and are picked up and transported off-site by CLR monthly for recycling. I observed a five-gallon container situated beneath a hydraulic fitting on the bending machine as pictured in Photos 3 and 4, Attachment 10. Mr. Brakeville explained that the container was placed beneath the fitting while the bending machine was undergoing repairs. He added that the hydraulic fluid contained in the five-gallon container was not a waste and would be returned to the bending machine after machine repairs were completed.

I observed the plating area identified in Attachment 2 as shown in Photo 5, Attachment 10. The plating area had a computerized robotic dipping system where racks of parts were dipped into vats that were either empty or contained various solutions used in the plating process. Mr. Brakeville explained that that Borghi did not generate any waste vats of degreaser, hydrochloric acid, zinc coating, or nitric acid. He stated that new product was added to the appropriate vat and no waste was generated, apart from rinse solutions. There were 30 vats located in the plating area. Borghi's plating sequence is as follows:

- Parts are loaded onto a rack that is connected to an overhead crane conveyor system.
- The rack is dipped into a heated, agitated vat containing LectraClean® Heavy Duty Electrical Parts Degreaser.
- The rack is dipped into a vat containing clear water for rinsing.
- The rack is dipped into a vat containing hydrochloric acid.
- The rack is dipped into a vat containing clear water for rinsing.
- The rack is dipped into a vat containing a zinc coating solution.
- The rack is dipped into a vat containing clear water for rinsing.
- The rack is dipped into a vat containing a nitric acid solution.
- The rack is dipped into a vat containing clear water for rinsing; and
- The rack is allowed to dry (drying may also occur between the various dipping steps).

I observed a large approximate 20 cubic-yard roll-off container filled with scrap metal located outside the facility (Photo 6, Attachment 10). There were no environmental issues or areas of concern.

I observed approximately 33 250-gallon IBC totes containing varying quantities of liquid as shown in Photo 7, Attachment 10. I observed an approximately 19 additional 250-gallon IBC totes containing various volumes of liquids as shown in Photo 8, Attachment 10. I asked Mr. Brakeville what was contained in the approximate 52 250-gallon IBC totes located outside the facility, to which he responded he "wasn't sure" and was in the process of working with Sustain to analyze the contents of the totes and disposed of them as appropriate. I asked Mr. Brakeville how long the totes had been accumulated, to which he responded that "they were accumulated during the pandemic and were on site when he started working in the facility approximately 18 months ago." I asked Mr. Brakeville if Borghi had conducted a HW determination on the totes, to which he responded "No." **Borghi must conduct a HW determination on the contents of the approximate 52 250-gallon IBC totes located outside the facility in accordance with 40 CFR § 262.11 (NOPF No. 1, Attachment 5).**

I observed a covered roll-off container of filter press sludge "mud" pictured in Photo 9, Attachment 10. Contents of the container are the subject of a NOPF added after the inspection. **Borghi must conduct an adequate HW determination on the process wastewater sludge in accordance with 40 CFR § 262.11 (NOPF added after this CEI).**

No other environmental issues or areas of concern were observed during this visual examination.

4.5 Documentation

Prior to this CEI, I determined that there were no electronic uniform hazardous waste manifests (UHWM) for HW generated by this facility, spanning the period of January 1, 2019, thru October 15, 2022. However, Mr. Brakeville provided a copy of a Clean Harbors waste profile for waste generated during the episodic event (Attachment 11) and a UHWM 017175614FLE generated June 30, 2022 (Attachment 12) showing that Clean Harbors picked up and manifested the following off-site:

- UN 3265 waste corrosive liquid (hydrochloric acid solution), seven temporary portable (TP) containers containing approximately 1,925 gallons of D002, D007, and D008 characteristic HW.
- UN 3266 Corrosive Liquid (sodium hydroxide), two TP containers containing approximately 550 gallons of non-RCRA hazardous sodium hydroxide.
- UN 3263 Corrosive Solid Base (caustic soda), 40 drums containing 8,000 pounds of D007 and D008 characteristic HW.

The waste profile prepared by Clean Harbors (Attachment 11) and the UHWM prepared when HW was picked up and shipped off-site are not consistent and EPA should follow up on the generation of D007 and D008 characteristic HW, as existing waste streams currently generated by Borghi do not include these wastes.

During preparation of this report, I determined that Borghi had not notified the EPA of the episodic event and RCRA Subtitle C activities and had not submitted the EPA 8700-12 form as required. Therefore, I asked Mr. Brakeville via email for any documentation submitted by Borghi documenting this event. I did not receive a response. It appears that Borghi operated as a large quantity generator (LQG) of HW during the month of April 2022. The HW generated during the April 12, 2022, episodic event was accumulated on site did not exceed 13,200 pounds. Therefore, I concluded that Borghi returned to VSQG HW generator status during the months of May and June 2022. I asked Mr. Brakeville if Borghi has a HW contingency plan, conducted weekly inventories of the episodic HW accumulated on site, and conducted HW personnel training. He responded that Borghi has a contingency plan but did not conduct weekly HW inventories and did not conduct HW training of assigned personnel during the month of April 2022. Therefore, I added the following NOPF and notified the facility of same via email (Attachment 13): **Borghi failed to operate as a LQG of HW in April 2022 in accordance with 40 CFR §262.17 (NOPF No. 2 added after this CEI).**

5.0 SUMMARY

I documented the following preliminary findings during this CEI and during report preparation:

NOPF No. 1: 40 CFR § 262.11: Conduct a HW determination on the following:

a. Approximately 52 250-gallon IBC totes containing unknown liquids stored in a lot located on the northwest end of the facility.

b. **Cloth shop rags used with commercial products, e.g., acetone and contact parts cleaner (Attachment 5).**
c. **Waste degreaser rinse containing perc and water and discharged to the process wastewater treatment system (NOPF added after this CEI).**
d. **Process wastewater sludge that is generated during the wastewater filtering process (NOPF added after this CEI).**

NOPF No. 2: 40 CFR §262.17: Failure to operate as a LQG of HW in April 2022 (NOPF No. 2 added after this CEI).

Other than the items specifically noted in this narrative, I observed no additional issues or potential findings. However, further EPA review may change or add to my findings.

HURLEY BRYANT (Affiliate) Digitally signed by HURLEY BRYANT (Affiliate) Date: 2022.11.03 07:13:47 -05'00'

_____ Date: 10/27/2022

H. D. “Doug” Bryant, CPP, PCI
Civil Investigator, SEE

_____ Date: _____

Amber Whisnant
Chief, RCRA Section, Chemical Branch
Enforcement and Compliance Assurance Division

Attachments:

1) Business Card (1 page)
2) Site Map/Diagram (1 page)
3) Confidentiality Notice (1 page)
4) Receipt of Document and Samples (1 page)
5) Notice of Preliminary Findings (2 pages)
6) Hazardous Waste Site Info Verification Report for Inspector (2 pages)
7) Zerust® AxxaClean™ 2048 Concentrate SDS (6 pages)
8) LectraClean® Heavy Duty Electrical Parts Degreaser SDS (9 pages)
9) IDNR NPDES Permit No. 2985001, issued 08/01/2021 (30 pages)
10) Photo log (1 page) and Photos (9 pages)
11) Clean Harbors Waste Profile No. CH23314448 dated 9/30/2022 (4 pages)
12) UHWM 017175614FLE, dated 06/30/2022 (3 pages)
13) E-mail, H. D. Bryant to Matthew Brakeville, Subject: Revised NOPF, RCRA CEI 10/19/2022, dated November 1, 2022 (1 page)