

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

BRADLEY IRON WORKS INC.
2345 Kerper Blvd.
Dubuque, Iowa 52001
563-588-0577 Installation Phone Number
563-581-0700 Site Contact Phone Number

EPA ID Number IAD984592550

On

May 17, 2022

By

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region VII
Enforcement and Compliance Assurance Division

1.0 INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division (ECAD), I performed a Resource Conservation and Recovery Act (RCRA) compliance evaluation inspection (CEI) at Bradley Iron Works Inc., Dubuque, Iowa. The inspection was conducted on May 17, 2022. The CEI was conducted under the authority of RCRA Section 3007(a), as amended. During the inspection, I collected the information and data necessary to determine compliance with the applicable regulatory and statutory requirements. This report and attachments present the results of the CEI. Based on the information obtained during the inspection, I inspected Bradley Iron Works as a very small quantity generator (VSQG) of known hazardous waste (HW), as well as a used oil generator. According to the U.S. Environmental Protection Agency (EPA) RCRAInfo database, the facility had been previously inspected by the EPA on June 29, 1994, but this appeared to be a limited "Post-Flood Inspection" and the report (more of a checklist) did not indicate any findings. The checklist did mention that the facility is within ½ mile of the Mississippi River, but indicated that the facility had not been affected by the flooding.

2.0 PARTICIPANTS

Bradley Iron Works:

Michael Bradley, Owner/President (24 years in current position) mike@bradleyiron.com
Tarri Schoenberger, Bookkeeper (15 years with company)

EPA:

Mark Holcomb, Civil Investigator (SEE) (Lead Inspector)
Edwin Buckner, Environmental Engineer (Training Preceptor)

3.0 INSPECTION PROCEDURES

On May 17, 2022, Mr. Buckner and I arrived unannounced at the facility's main entrance at about 0845 hours. Initially I conducted a visual reconnaissance of the building/facility searching for areas of concern observable from the adjacent public roadway and parking lot. I identified no environmental issues or concerns during this preliminary examination. Inside the front door, we met with the company president and bookkeeper. I introduced myself and I asked to speak with whoever would be the primary contact for hazardous waste. The EPA Notification Verification Report did not list a site contact. Mr. Bradley indicated he was the president/owner of the company as well as the EPA site contact. After introductions he escorted us to his office. Mr. Bradley stated that he had been with Bradley Iron Works for over 17 years. Mr. Bradley told us there were currently no specific COVID-19 staff or visitor requirements and the only safety personal protective equipment (PPE) requirements at this facility were safety shoes, safety helmets, and protective glasses.

At the opening conference, I again introduced myself and presented my EPA ID. I also introduced my colleague Mr. Buckner. I explained that I was the lead investigator, but I was also in training and that Mr. Buckner was my trainer and our credentialed inspector. Mr. Buckner presented his credentials. I explained the purpose and procedures of the inspection. I presented Mr. Bradley with a copy of RCRA Section 3007(a), which provides inspection authority. I explained my need to collect accurate information and presented him with a copy of Title 18 U.S. Code, Sections 1001 and 1002. I made him aware of his confidentiality rights and informed him that a Confidentiality Notice would be provided at the end of the inspection to make a confidentiality claim if he so desired.

The RCRA inspection consisted of a discussion of facility operations, waste generation, and waste management; a visual inspection of active waste generation and management areas; and a review of waste management records. Mr. Bradley was present throughout the entire inspection including the visual inspection. Mr. Bradley was also present for the opening and exit conferences.

I conducted a visual inspection of the following:

- East side of Main Shop
- Outside North Yard
- Outside Northwest Yard
- Outside West Yard
- Outside Southwest Yard – Dumpsters
- Outside South Yard
- Main Shop Building

See Attachment #1 the aerial and map views of the facility.

Document Photocopies and Photographs were collected as inspection documentation (see Attachments # 1-16 and Photos 1-19). The photo log is included in Attachment #2. Information collected during the inspection is documented on an Entry/Exit checklist, the hazardous waste

compliance checklists and in a notebook. I reviewed documents including the following: Safety Data Sheets (SDS); bills of lading; certificates of recycling; waste profiles; and manifests.

On the afternoon of May 17, 2022, I held a closing conference. Participants included Mr. Bradley and Mr. Buckner. I provided Mr. Bradley with a Receipt for Documents (see Attachment #3) and a Confidentiality Notice (CBI) (see Attachment #4) which he signed as acknowledgement of receipt. No confidential business information (CBI) claims were made. I summarized my findings and recommendations and provided Mr. Bradley with a Notice of Preliminary Findings (NOPF), which he signed to acknowledge receipt (see Attachment #5). I provided inspection and compliance assistance documents during the inspection, some as paper versions and some in electronic PDF via email, that included the following:

- *RCRA Section 3007(a)*
- *Title 18 U.S. Code, Sections 1001 and 1002*
- *Confidentiality Notice (Top page of the completed carbonless transfer set)*
- *Notice Regarding Proprietary/Confidential Business Information Submitted to or Collected by EPA In Connection with Inspections Receipt for Documents and Samples*
- *Notice of Preliminary Findings (NOPF) with Instructions for Responding on back of form (top page of the completed carbonless transfer set)*
- *Instructions for Responding to a Notice of Preliminary Finding (NOPF) (EPA Handout)*
- *U.S. EPA Small Business Resource Information Sheet (EPA Handout)*
- *Solvent-Contaminated Wipes Final Rule Chart (EPA Handout)*
- *Recycling Electronics (IDNR Handout)*
- *Lead-Based Paint Activities (IDNR Handout)*
- *Excluded Solvent-Contaminated Wipe Rule (IDNR Handout)*
- *Battery Recycling/Disposal (IDNR Handout)*
- *Management of Fluorescent Lamps for Businesses (IDNR Handout)*
- *Incompatible Chemicals (IDNR Handout)*
- *Universal Wastes Including Aerosol Cans (IDNR Handout)*
- *TCLP Waste Determination Testing (IDNR Handout)*
- *Industry Sector Notebooks (EPA Handout)*
- *Environmental Compliance Assistance Centers (EPA Handout)*
- *e-Manifest Fact Sheet (EPA Handout)*
- *RCRA Online A Quick Reference Guide (EPA Handout)*
- *Requirements for Used Oil Management Standards (EPA Handout)*
- *Emergency Response Program (EPA Handout)*
- *Commercial Motor Vehicle Transportation System Security & Safety*
- *Security Awareness (EPA Handout)*
- *Chemical Facility Anti-Terrorism Standards (Homeland Security Handout)*
- *Iowa Life/Changing Iowa Department of Economic Development – Iowa Environmental Guide for Business*

I followed the inspection procedures detailed in the RCRA CEI Standard Operating Procedure (SOP) 2321.01D, unless noted otherwise.

4.0 FINDINGS AND OBSERVATIONS

4.1 Facility Information and Operations

Mr. Bradley stated that this facility location began operations in 1966. Bradley Iron Works has approximately nine employees, six shop employees and three office staff, operating eight hours per day Monday - Friday. The facility is approximately 30,000 square feet of which about 27,000 square feet is for manufacturing and 3000 square feet is office and storage. Bradley Iron Works is privately owned by the same owner and operator of the facility. See Attachment #1 for the facility aerial view and map location. Bradley Iron Works primary service is structural and miscellaneous steel manufacturing. They manufacture custom iron and steel products such as stairs, railings, fencing, ramps, etc. Their primary process is assembling, welding, and painting custom steel projects. Raw materials used include steel (carbon steel), stainless steel, red primer paint, VM&P naphtha, and high flash naphtha.

4.2 Facility RCRA Status

RCRAInfo did not list any previous RCRA compliance inspections for Bradley Iron Works (other than the 1994 flood screening mentioned previously). According to the RCRAInfo Notification Acknowledgement/Verification Report, Bradley Iron Works last notified as a Very Small Quantity Generator (VSQG), but the report did not have a date or list any contact information. I updated the Notification Acknowledgement/Verification form with the current contact information provided by Mr. Bradley (see Attachment #6). The RCRAInfo Notification Acknowledgement/ Verification form report did not list any hazardous waste codes generated. Bradley Iron Works appears to be a very small quantity generator (VSQG) of hazardous waste (less than 220 pounds, or 100 kg, of non-acute hazardous waste generated per month), based on the facility's hazardous waste generation rate at the time of the inspection. In addition, Bradley Iron Works appears to be a handler of waste lamps and a used oil generator. The eManifest report showed only one hazardous waste stream (Petroleum Naptha) shipped over the last two years for a total of 1800 lbs.

4.3 Facility Waste Streams and Management

The following waste streams are managed by Bradley Iron Works:

Waste Petroleum Distillates Petroleum Naptha – Bradley Iron Works uses Petroleum Naptha for paint thinning and cleaning paint guns during their iron/steel manufacturing process. This waste stream is made up of several materials including: VM&P Naptha, Naptha High Flash, and Xylene, as well as waste paints such as: Silver-Brite Aluminum Paint, Primer White, and Kem Kromik Universal Metal Primer. Bradley Iron Works waste determination for this waste stream is that it is hazardous based on process and product knowledge and is given D001 and F003 waste codes. Mr. Bradley estimated their generation rate of this waste stream at approximately one 55-gallon drum per year. The attached Manifests (see Attachments #8 & 9) also show a similar generation rate of two drums, at 600 lbs, during the 24 months between the two shipments on the Manifests (5/29/2019 – 5/26/2021). Bradley Iron Works' Bookkeeper, Tarri Schoenberger, provided me with a handwritten summary of their thinner purchases over that last two years, which shows the estimated product usage breakdown in this waste stream: 165 gallons

of VM&P Naphtha, 10 gallons Naphtha High Flash, and 70 gallons of Xylene (see Attachment #7). See Attachments #10, 11, 12, 13, 14, and 15 for the SDS's for the thinners and paints used to generate this waste stream. Onsite management includes placing the spent Naphtha thinners and paint in a 55-gallon drum located in the main manufacturing shop area (see Photo 12). This area functions as a satellite accumulation area (SAA). Here I observed three 55-gallon drums. The white 55-gallon drum (center) and black 55-gallon drum on the right are product drums of VM&P Naphtha reducer (white) and Gray Primer paint (black). The left black drum was 1/3 full of waste paint & thinner. The waste drum is in good condition with the top closed, but the funnel was observed to not be fully clamped shut. There was no hazardous waste or nature of the hazard labels observed, but this is not required for a VSQG. Once the drum is full, it is relocated to the outside storage area and placed in the central accumulation area (CAA). See Photos 4, 5, and 6. In the CAA, I observed one full, 55-gallon drum, top shrink wrapped, hand labeled "Paint Waste", with no nature of the hazard label. I also did not observe a date on the drum, but labels and dates are not required for a VSQG.

In an outside west lot storage room (a converted shipping container), I observed seven 5-gallon buckets, four of which were open/uncovered, and each of the seven buckets were about 1/2 full of dried paint (see Photos 10 and 11). Mr. Bradley stated that they were apparently leftovers from various paint jobs, and they are generally disposed of in the trash once dry. He was not sure why they were in this storage room instead of disposed of in the waste paint drum. Mr. Bradley stated that they had not done a waste determination on the paint buckets.

Also, during the visual inspection, I observed three flammable cabinets full of used and partially used product cans of paints, cleaners, and solvents that are only used on rare occasions based on the job assignment. Taped to the inside of the green flammable cabinet door was an inventory list of the contents dated "4/12/21" (see Photos 16 and 17).

The 55-gallon CAA drums of naphtha/paint waste are transported by Coal City Cob Company to WWR Environmental Services in Eau Claire, Wisconsin for H061 processing (fuel blending prior to energy recovery).

- **NOPF 1C: Failure to make waste determinations on the open paint buckets in shipping container on the west side lot, as required in 40 CFR 262.11(a)**

Used Oil - Mr. Bradley stated that the used oil waste stream is generated as part of the hydraulic equipment (see Photo 2) and forklift (see Photo 3 and 13) oil change maintenance process. But he also stated that currently most forklift and tug oil changes are done at a neighboring maintenance facility, Driveline Truck Repair. Mr. Bradley estimated the used oil generation rate at around 600 lbs per year. The eManifest and paper manifests (see Attachments #8 and 9) shows two shipments in the last two years: May 29, 2019 for 800 lbs and May 26, 2021 for 1200 lbs, for roughly 600 lbs per year. Bradley Iron Works has determined the used oil to be non-hazardous based on product and process knowledge and it is managed under 40 CFR 279 used oil. During the visual inspection I did not see any used oil containers, but I did observe two used oil drums in the outside CAA area. The two full 55-gallon drums of used oil were plastic shrink wrapped at the top, closed, appeared to be in good condition, and located on top of a containment base. I did not observe any "Used Oil" labeling (see Photos 4 and 6).

- **NOPF 2 - Failure to label two used oil containers as “Used Oil” as required in 40 CFR 279.22(c)(1)**

Spent Lamps – Mr. Bradley stated Bradley Iron Works had generated around 70 spent fluorescent lamps since September 2021. Mr. Bradley stated that he was interested in properly recycling them but was not sure what to do with them and had not done a waste determination on them. They were subsequently stacking them on the ground while he researched the options. During the visual inspection, I observed approximately 70 four-ft lamps (seven stacks of about 10 each) placed on a couple of 2x4 boards on the ground just outside the south side of the main shop (see Photo 19). The lamps appeared intact and in good condition. The lamps were not in a closed container, they had no labels, and they had no accumulation start date. Mr. Bradley stated he had stacked spent lamps here as far back as September 2019 (greater than one year).

- **NOPF 1B: Failure to make waste determinations on the spent lamps, as required in 40 CFR 262.11(a)**

Plasma Cutter Dust/Filters – Bradley Iron Works uses a large computer-controlled plasma steel cutter machine for cutting steel. The plasma steel cutter machine uses down draft and suction to pull plasma fumes and fine dust (“a metallic like powder”) into a large dust collector. The machine also has cylindrical four-foot filters that are changed out quarterly (see Photo 15). The practice has been to replace the filters quarterly and place them in the trash. The rest of the dust collector dust is collected in a garbage bag every six months and placed into the general trash. Mr. Bradley estimates the generation rate to be approximately one 55-gallon drum twice a year, or about 200 lbs per year, and four filters per year. Mr. Bradley stated they handled the filters as non-hazardous, but they had not conducted a hazardous waste determination on them. He explained that it is his understanding that the plasma dust collected is mostly iron oxide or common rust. Mr. Bradley provided a chemical composition document from their steel supplier (see Attachment #16) for a representative steel plate and beam that they typically use with the plasma cutter, which does not appear to contain any characteristic hazardous metals. Current onsite management is that the filters and plasma dust are disposed of in the general trash, which is collected by Waste Management in Dubuque, IA.

- **NOPF 1A: Failure to make waste determinations on the plasma cutter dust collector filters and sludge, as required in 40 CFR 262.11(a)**

Cloth Shop Rags – Mr. Bradley stated that they use disposable cloth rags to wipe off oil and grease. They make sure the rags are not soaked and contain no free liquids. Mr. Bradley stated he was not sure, but estimated Bradley Iron Works generates “a very small number” of used rags per day. Mr. Bradley stated that the rags, when generated, are collected daily and disposed of in the general trash. Their waste determination is that they are non-hazardous based on process and product knowledge. At the time of the visual inspection, I observed one red 10-gallon waste step can in the east side of the main shop, with only two cloth rags (see Photo 1). The rags appeared dry to touch. Mr. Bradley stated that the rags are disposed of in the general trash, which is collected by Waste Management in Dubuque, IA.

Scrap Metal – Bradley Iron Works generates about eight tons of scrap metal every two months. They sort by type separating stainless steel, carbon metal scrap, and shredded shavings (see Photos 8, 9, and 14). The scrap metal is stored in 55-gallon drums and a 4-cubic yard dumpster. When full, they call their scrap yard, Alter Company in Davenport, Iowa, to transport to their facility for recycling. Just outside of the west side of the main shop, I observed a stack of approximately twenty 55-gallon, and a few smaller, empty steel drums (see Photo 7). Mr. Bradley stated that these were empty drums being stored prior to shipping for recycling.

Paper and Cardboard – Bradley Iron Works generates general office recyclables such as paper and cardboard from packaging of parts and office operations. During the visual inspection I observed a pallet of about six inches high of broken-down cardboard boxes stored for future recycling, near the south side wall inside the main shop (see Photo 18). Mr. Bradley was unsure of their generation rate but stated that they self-transport the pallet to a local cardboard/paper recycling center when full.

Waste Lead-Acid Batteries – Bradley Iron Works generates only one to two lead-acid batteries per year used in tug and forklift maintenance (see Photo 13). The spent automotive battery cores are swapped out for a new battery and are not stored on-site. The batteries are managed under 40 CFR Part 266, Subpart G.

General Trash – General trash is generated by routine business operations. Mr. Bradley stated the trash consists of paper and plastic shipping wastes and food containers from employees and that it is non-hazardous. Their general trash is placed in a four-cubic yard dumpster (see Photo 8), is collected weekly by Waste Management, and transported to the local Dubuque landfill.

4.4 Other Regulatory Requirements

Outside Facility Perimeter - I did a limited inspection of the outside perimeter of the facility and observed no hazardous waste storage tanks and containers except as noted above. Bradley Iron Works does store most of their waste in containers located in the open lot outside of the main building structure. The Bradley Iron Works building is a single 30,000 square foot structure on a several acre lot. I did observe security fencing around the facility. See the aerial view in Attachment #1.

Central Accumulation Area (CAA) – The CAA is located outdoors in the northwest corner of the facility lot. I did not ask about weekly inspections since this is not required for VSQG, See Photos: 4, 5, and 6.

Preparedness and Prevention – Bradley Iron Works has numerous fire extinguishers throughout the facility. I did not ask additional questions about a contingency plan, or weekly CAA inspections since this is not required for a VSQG.

Personnel Training – I did not ask specifically about staff hazardous waste training and training documentation since this is not required for a VSQG.

5.0 SUMMARY OF FINDINGS

NOPF 1: Failure to make waste determinations, as required in 40 CFR 262.11(a), on:

- A) Plasma cutter dust collector filters and sludge**
- B) Spent lamps**
- C) Open paint buckets in shipping container on the west side lot**

NOPF 2: Failure to label two used oil containers with words “Used Oil” as required in 40 CFR 279.22(c)(1)

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.

MARK HOLCOMB
(Affiliate)

Digitally signed by MARK
HOLCOMB (Affiliate)
Date: 2022.07.06 16:35:44 -05'00'

Mark Holcomb
Civil Investigator

**AMBER
WHISNANT**

Digitally signed by AMBER
WHISNANT
Date: 2022.07.14 23:05:04
-05'00'

Amber Whisnant
RCRA Section Chief, ECAD/CB

Attachments:

1. Facility Aerial Photo (2 pages)
2. Photo Log (19 photos /10 pages)
3. Receipt for Documents (1 page)
4. Confidentiality Notice CBI (1 page)
5. Notice of Preliminary Findings NOPF (1 page)
6. EPA RCRA Notification Acknowledgement/Verification Report (1 page)
7. Purchase Orders List – Naphtha and Xylene 2020-Current (1 page)
8. Manifest 5.29.2019 (4 pages)
9. Manifest 5.26.2021 (5 pages)
10. SDS Naphtha (12 pages)
11. SDS High Flash Naphtha-100 (20 pages)
12. SDS Xylene (14 pages)
13. SDS Metal Primer Gray (14 pages)
14. SDS Primer White (10 pages)
15. SDS Silver-Brite Aluminum Paint (16 pages)
16. Steel Contents Analytical Report (1 page)