

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

US NAMEPLATE COMPANY

2100 Business 30 W
Mount Vernon, Iowa 52314
319-535-5334

EPA ID Number: IAD054758958

On

October 24, 2023

By

TOEROEK ASSOCIATES, INC.

For

U.S. ENVIRONMENTAL PROTECTION AGENCY

Region 7

Enforcement and Compliance Assurance Division

INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division/Chemical Branch/RCRA Section (ECAD/CB/RCRA) of the U.S. Environmental Protection Agency (EPA) Region 7, Toeroek Associates, Inc., and its subcontractor CLAENE Group (Toeroek team) conducted a hazardous waste compliance evaluation inspection (CEI) at US Nameplate Company (USN) at 2100 Business 30 W in Mount Vernon, Iowa. The CEI was conducted under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA), as amended. The CEI covered hazardous waste generator requirements, used oil management, and universal waste requirements, as applicable. This report and its attachments present the results of the CEI.

PARTICIPANTS

USN:

Dustin McAtee, Production Manager
Buck Oelrich, Projects Manager-Compliance
David Bonilla, Vice President of sales (Exit Briefing only)

Toeroek Team:

Clifford Nelles, Inspector, 816-213-5192

INSPECTION PROCEDURES

Prior to the CEI at USN on October 24, 2023, I conducted a drive-by visual inspection. I did not observe any areas of concern during the drive-by. At approximately 8:00 a.m., I entered the main office and explained to the receptionist that I was there to conduct a CEI. I asked to speak with Mr. Dustin McAtee, who was listed as the RCRA site contact on the Notification Acknowledgment/Verification Report (Verification Report) provided by EPA prior to the inspection (Attachment 1). The receptionist contacted Mr. McAtee to inform him of my arrival. Messrs. McAtee and Oelrich arrived at the reception area approximately 5 minutes later. I introduced myself to Messrs. McAtee and Oelrich and explained the purpose and scope of the CEI. Messrs. McAtee and Oelrich and I adjourned to a conference room where I proceeded to conduct an entry briefing with them.

During the entry briefing, I presented my business card and EPA credentials to Messrs. McAtee and Oelrich. I explained the scope and procedures for the CEI. I explained the facility's right to make confidentiality claims for any or all the information obtained and provided a Notice Regarding Proprietary/Confidential Business Information. I stated that at the conclusion of the CEI, Mr. Oelrich would be presented with a Confidentiality Notice (Notice) with which he could make or not make a claim of confidentiality for the facility. I also provided Messrs. McAtee and Oelrich a copy of U.S. Federal Codes 1001 and 1002, concerning communication of false statements and documents to federal inspectors, and RCRA Section 3007, explaining EPA's inspection authority, both of which they read.

Copies of the following documents were left with Mr. Oelrich during the inspection:

- RCRA Facility Access Information Sheet
- RCRA Section 3007
- U.S. Federal Codes 1001 and 1002
- Instructions for Responding to a Notice of Preliminary Findings
- Notice Regarding Proprietary/Confidential Business Information

The following documents were left electronically with Messrs. McAtee and Oelrich.

- E-Manifest Fact Sheet: Generators
- Managing your Hazardous Waste: A Guide for Small Businesses
- U.S. EPA Small Business Resources Information Sheet
- Solvent-Contaminated Wipes Final Rule Summary Chart
- IDNR Excluded Solvent-Contaminated Wipes Rule: Management Practices for Wipes, Rags, and Shop Towels
- Recycling Electronics: A Guide for Businesses
- Lead-Based Paint Activities: Handling and Disposal
- Battery Recycling/Disposal
- Management of Fluorescent Lamps for Businesses
- Incompatible Chemicals
- Universal Wastes – Including Aerosol Cans
- TCLP – Toxicity Characteristic Leaching Procedure
- Part 279 Requirements: Used Oil Management Standards

- EPA Region 7 Emergency Response Program
- Chemical Facility Anti-Terrorism Standards
- Iowa Environmental Guide for Businesses

I reviewed the Verification Report (Attachment 1) with Messrs. McAtee and Oelrich during the CEI. Based on this review, I changed the facility's hazardous waste generator status from small quantity generator (SQG) to very small quantity generator (VSQG). I also changed the site contact information to reflect Mr. Oelrich as the site contact. I made no other changes to the Verification Report.

I conducted a visual inspection of the facility, accompanied by Messrs. McAtee and Oelrich. After the visual inspection, I reviewed facility records including hazardous waste manifests with land disposal restriction (LDR) notifications and safety data sheets (SDSs). I prepared and completed a site-specific inspection checklist to document my observations.

At the conclusion of the CEI, I conducted an exit briefing with Messrs. McAtee, Oelrich, and Bonilla. During the exit briefing, I provided a Receipt for Documents and Samples, which Mr. Oelrich signed, acknowledging receipt (Attachment 2). I provided Mr. Oelrich the Notice, which he signed indicating no confidential business information had been provided (Attachment 3). I also provided Mr. Oelrich a Notice of Preliminary Findings (NOPF) which he signed to acknowledge receipt (Attachment 4).

A map of the facility obtained during the CEI is included in Attachment 5, and a Google Earth aerial photograph of the facility is included as Attachment 6. The 14 photographs taken during the CEI are included in Attachment 7, of which 12 are described in this report.

FINDINGS AND OBSERVATIONS

1. Facility Description and General Information

USN manufactures metal and flexible (typically vinyl) nameplates for equipment and other applications, decals, warning labels, and other printed materials. Manufacturing activities include metalworking (cutting and embossing), etching, and printing. Raw materials used by USN include metal (stainless steel and aluminum) sheeting, vinyl sheeting, caustics, solvents, spray ink, screen-printing ink, and top coating. Metal sheets are cut before and after the printing process, and plates are embossed and shaped in the fabrication areas. Refer to the USN website (www.usnameplate.com) for a further description of the facility and manufactured products.

The facility uses a bath to clean cutting oil from metal plates. Copies of the SDSs for HR-30 and Barsol A-3404, which are used in the baths to remove ink and impurities from the printing screens, are included as Attachments 8 and 9. Biweekly maintenance of this unit generates the waste solvent waste stream. Mr. McAtee stated that cutting oil is used up during the fabrication process, and the facility does not generate any used cutting oil. Aluminum plates may be etched on site using a sodium hydroxide solution. Aluminum plates may be treated with an adhesion promoter and ultraviolet protectant before printing. A copy of the SDS for SAATIGRAF CTS 9 is included as Attachment 10. Isopropyl alcohol is used to clean presses and print heads. A copy of the SDS for IPA 99-Isopropyl Alcohol is included as Attachment 11.

Products are printed using two main processes—a large-format, flat-bed jet printer and screen printing. In 2021, USN changed to digital image printing using ultraviolet (UV) light for curing the printed material. Copies of the SDS for the inks used (REV-W50 Blending White and REV-N50/G295 Blending Black) are included as Attachments 12 and 13. Before the change to digital printing, USN employed a process from MetalPhoto that used ammonium thiosulfate and silver to place images on photosensitive anodized aluminum. A copy of the SDS for Zip and Tray Fixer (which was used in the previous process) is included as Attachment 14. Copies of the SDS for inks used in the non-UV process (PD-LED/50/G295 Blending White and PD-LED/N50/G295 Blending Black) are included as Attachments 15 and 16.

Ink jets are currently cleaned using cotton swabs and wipes. The waste swabs and are inherently dry when discarded and are considered nonhazardous waste based on product and process knowledge. They are consolidated with the general trash. Screen printing screens are cleaned between and during printing runs by use of cloth rags. Solvents, usually Barsol A-3404 and HR-30, are applied to a rag, which is then used to wipe down the screen. Used rags, which are inherently dry when discarded, are considered nonhazardous waste based on product and process knowledge. They are accumulated in rag cans throughout the facility and collected by Aramark for laundering and return to the facility. An invoice from Aramark for used cloth rags collection (described as “Solvent Towel”) on October 2, 2023, is included as Attachment 17.

When screens are no longer in use, they are reclaimed in two units. The screens are run through a solvent power washer using HR30 to remove any remaining ink and some of the screen emulsion, cleaned with a squeegee to remove any surface solvent, and then washed in a water scrubber to remove the remaining emulsion. Spent solvent from the first washer is consolidated with the general waste solvent stream. Waste solvent is considered hazardous waste based on product and process knowledge. Solvent used in the squeegee process drains back to power washer process for continued reuse. Mr. Oelrich stated that the facility’s waste solvent generation rate has remained fairly consistent since the facility converted to the digital imaging process.

USN is located in a rural industrial area on the west side of Mount Vernon. USN began operating at this location in 1970 and currently employs approximately 70 full-time employees, who work one of two shifts (6:00 a.m. to 4:30 p.m. and 12:00 p.m. to 10:30 p.m.) Monday through Thursday. The facility consists of one building with approximately 50,000 square feet under roof. USN’s primary North American Industrial Classification System (NAICS) code is 323113 (Commercial Screen Printing).

USN was last inspected by an EPA contractor on September 18, 2018, as a SQG of hazardous waste, generating more than 220 pounds (100 kilograms [kg]) and less than 2,200 pounds (1,000 kg) of hazardous waste per month. The inspector made the following preliminary findings:

- Failure to label five hazardous waste containers with the nature of the hazard
- Failure to mark one hazardous waste container with an accumulation start date
- Failure to demonstrate the length of time that a universal waste lamps container has been accumulated

- Failure to label a universal waste lamps container with the words “Universal Waste Lamps” or “Waste Lamps” or “Used Lamps”
- Failure to have DOT waste codes on one manifest, and reportable quantity on one manifest
- Failure to post locations of spill control and fire extinguishers on emergency contacts posting
- Failure to maintain records documenting arrangements with response agencies
- Failure to familiarize all employees with waste handling and emergency procedures relevant to their responsibilities
- Failure to identify all applicable EPA hazardous waste numbers
- Accumulation of hazardous waste greater than 270 days
- Failure to provide the correct hazardous waste codes on a Land Disposal Restriction Notification

These preliminary findings were not repeated during this inspection. Some findings, such as container labeling, would have applied if the facility was not a VSQG.

2. RCRA Status

The Verification Report (Attachment 1) indicates that USN is registered with EPA, under EPA ID IAD054758958, as a SQG of hazardous waste. During the CEI, I determined that USN currently generates one hazardous waste stream—general waste solvent (D001). Based on reviews of manifests, interviews with employees, and observations of waste currently in accumulation, it appears that USN currently generates approximately 113 pounds (51 kg) of hazardous waste per month. Therefore, I inspected USN as a VSQG of hazardous waste (generating less than 220 pounds [100 kg] of hazardous waste per month).

Mr. McAtee stated that USN finished the process of re-lamping the entire facility to light emitting diodes (LED) in 2018. Based on the quantities of universal waste lamps accumulated onsite between shipments and at the time of inspection, I inspected USN as a small quantity handler (SQH) of universal waste (accumulating less than 5,000 kg [11,000 pounds] of universal waste onsite at any time). I also inspected the facility as a generator of used oil.

3. Waste Streams

This section of the CEI report describes the waste streams generated by the facility, including the facility’s waste determination and waste codes, generation process and rate, management at the facility, and ultimate disposition. The following discussion of waste streams is based on conversations with facility representatives, the visual inspection, and my review of waste shipping documents. Messrs. McAtee and Oelrich accompanied me during the visual inspection. All inspection participants were provided a copy of U.S. Federal Codes 1001 and 1002, which they read.

General waste solvent is generated during cleaning of printing equipment at the screen reclamation cleaner and in the screen printing area. In addition, this waste stream receives waste aluminum topcoat and any off-specification inks or coatings. The facility considers general waste

solvent to be hazardous waste (D001) based on product and process knowledge. The waste is collected in 55-gallon hazardous waste accumulation containers (HWACs) in the facility's hazardous waste container accumulation area (HWCAA). Based on manifest records, interviews with employees, and observations of waste currently in accumulation, the facility generates approximately 113 pounds of general waste solvent per month. The waste is collected by ASE Environmental and transported to Drug and Laboratory Disposal in Plainwell, Michigan, for bulking and offsite transfer. The waste was last collected on November 21, 2022 (Attachment 18, Page 9).

During the CEI, I observed three HWACs of general waste solvent in the HWCAA. One 55-gallon HWAC was structurally sound and labeled with an indication of the nature of the hazard, but not labeled with the words "hazardous waste" or dated (Attachment 7, Photographs 2 through 4). Since the facility was determined to be a VSQG and was not accumulating more than 2,200 pounds of hazardous waste at the time of the CEI, hazardous waste container management requirements did not apply. However, the HWAC was open via an open funnel, which I determined to be potential treatment of hazardous waste without a RCRA permit, required by Section 3005 of RCRA (**NOPF No. 4**). NOPF #4 was not initially left with the facility but was added on November 2, 2023.

The second 55-gallon HWAC was structurally sound, closed, labeled with the words "hazardous waste," held approximately 10 gallons of general waste solvent, and dated August 24, 2023 (Attachment 7, Photographs 5 and 6). The container was not labeled with an indication of the nature of the hazard; however, since the facility was determined to be a VSQG and was not accumulating more than 2,200 pounds of hazardous waste at the time of the CEI, hazardous waste container management requirements did not apply.

The third 55-gallon HWAC was structurally sound, closed, labeled with the words "hazardous waste" and an indication of the nature of the hazard held approximately 15 gallons of general waste solvent and dated August 27, 2023 (Attachment 7, Photographs 8 through 10).

I initially left preliminary findings for failure to label a HWAC with the words "hazardous waste" (NOPF No. 2) and failure to label a HWAC with an indication of the nature of the hazard (NOPF No. 3). However, since the facility was determined to be operating as a VSQG at the time of the CEI, these preliminary findings were not applicable and were rescinded.

I provided compliance assistance regarding container management requirements applicable as best management practices for VSQG facilities and required if generation or accumulation volumes cross into SQG status. During the CEI, employees of USN affixed labeling indicating the nature of the hazard to the second HWAC (Attachment 7, Photograph 7). Employees also affixed labeling with the words "hazardous waste" to the first HWAC and closed the container during the CEI (Attachment 7, Photographs 13 and 14).

Aluminum etch bath and bottoms waste are generated during the facility's irregularly-scheduled tank clean-outs, which occur every 2 or 3 years. The facility considers this waste to be hazardous waste (D002) based on product and process knowledge. The etching chemical consists primarily of sodium hydroxide with a pH of greater than 12. When the etching bath is changed,

the facility generates approximately 220 gallons of waste per cleanout. The waste is collected by Hydrite Chemical and transported to Evoqua Water Technologies in Roseville, Minnesota, for reclamation. I did not observe aluminum etch bath and bottoms waste in accumulation during the CEI.

Etch wastewater is generated in the rinse stage of the aluminum etch process. USN considers the wastewater nonhazardous based on process and product knowledge. I reviewed the SDS for the aluminum etch chemical during the CEI. Although the etching chemical is corrosive, with a pH greater than 12, it does not contain any underlying hazardous constituents. The amount of etching chemical carrying over to the rinse water does not make the wastewater characteristically corrosive. Mr. McAtee estimated that the rinse batch generates approximately 30 gallons of etch wastewater per week. Etch wastewater is released into the sanitary sewer for treatment at the Mount Vernon publicly-owned treatment works (POTW) under a permit with the city of Mount Vernon. I did not observe etch wastewater in accumulation during the CEI.

Screen reclamation wastewater is generated from the screen reclamation process. USN considers the reclamation wastewater to be nonhazardous waste based on product and process knowledge. Mr. McAtee estimated that approximately 30 gallons of screen reclamation wastewater is generated every 4 months. Screen reclamation wastewater is released into the sanitary sewer for treatment at the Mount Vernon POTW under a permit with the city of Mount Vernon. I did not observe screen reclamation wastewater during the CEI.

Universal waste lamps are generated by maintenance replacing spent lamps. Prior to 2018, USN used both green-tipped and silver-tipped fluorescent lamps. USN considers the silver-tipped used lamps to be hazardous waste (D009), and the green-tipped fluorescent lamps to be nonhazardous waste based on product and process knowledge. USN manages all used lamps as universal waste according to provisions of Title 40 *Code of Federal Regulations* (40 CFR) Part 273. Mr. McAtee stated that the entire facility was re-lamped using LED fixtures and lamps in 2018.

During the CEI, I observed a fiberboard container in the HWCAA that held both green-tipped and silver-tipped fluorescent lamps (Attachment 7, Photograph 1). The universal waste accumulation container was structurally sound, closed, labeled with the words “universal waste lamps,” and marked with an accumulation start date of August 2, 2018. Based on the date, I determined the facility had accumulated universal waste lamps longer than one year, as prohibited by 40 CFR 273.15(a) (**NOPF No. 1**). During the CEI I provided compliance assistance on the management of universal waste.

Used rags and wipes are generated during and after screen printing jobs and during general facility maintenance. During the screen printing process, solvent (HR-30 and Barsol A-3404) is applied to the cloth rags used to wipe screens. When a rag is deemed to be too soiled for continued use, it is placed into one of several rag and wipes cans throughout the facility. Because the used rags and wipes are inherently dry when discarded, the facility considers them to be nonhazardous waste based on product and process knowledge. Mr. McAtee estimated that USN generates approximately 700 rags per week. Used rags and wipes are collected by Aramark of Cedar Rapids, Iowa, on a weekly basis to be laundered and returned to the facility. I observed accumulation of used rags and wipes during the CEI and noted no deficiencies.

Used oil is generated during the maintenance of hydraulic equipment. Mr. McAtee estimated that USN generates less than 30 gallons of used oil per year. The facility manages used oil according to provisions of 40 CFR Part 279. I did not observe any used oil in accumulation during the visual inspection. I asked Mr. McAtee about the fork trucks I observed at the facility during the CEI. He stated that the forks trucks were rented from MH Equipment of Cedar Rapids, Iowa, and that MH Equipment takes each fork truck from USN to perform all maintenance, including oil changes, at the MH Equipment facility in Cedar Rapids, Iowa.

General trash is generated during facility maintenance and manufacturing. The facility has determined that general trash is nonhazardous waste based on product and process knowledge. General trash includes, but is not limited to, floor sweepings, paper, and cardboard packaging. General trash is transported by Wapsi Waste of Anamosa, IA, and is landfilled at Cedar Rapids/Linn County Solid Waste Agency landfill in Marion, IA. During the CEI, I observed accumulation of general trash and noted no deficiencies.

4. Manifests

USN generated five uniform hazardous waste manifests from October 24, 2020, to October 24, 2023. During the CEI, I reviewed all five uniform hazardous waste manifests and LDR notifications. I noted no deficiencies during my review of uniform hazardous waste manifests and LDR notifications. Copies of the uniform hazardous waste manifests for all five shipments of hazardous waste, dated April 9, 2021, September 7, 2021, May 9, 2022, November 21, 2022, and May 29, 2023, are included in Attachment 18. The waste transported under the May 29, 2023, manifest was the last of the unused silver and ammonium thiosulfate from the discontinued printing process. Because the facility is a VSQG they can accumulate up to 2,200 pounds (1,000 kg.) of hazardous waste as long as they do not generate over 220 pounds (100 kg.) per month before disposing of it.

5. Summary of Preliminary Findings

In summary, as part of the CEI, I made the following preliminary findings:

- Accumulation of universal waste lamps longer than one year, as prohibited by 40 CFR 273.15(a) (**NOPF No. 1**)
- NOPF No. 2 rescinded
- NOPF No. 3 rescinded
- Potential treatment of hazardous waste without a RCRA permit (RCRA 3005) (**NOPF No. 4**)

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

Clifford A.
Nelles

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A. Nelles
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Clifford A. Nelles, Inspector
CLAENE Group

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Amber Whisnant, Section Chief
ECAD/CB/RCRA, EPA Region 7

Attachments:

1. Notification/Acknowledgement Verification Report (2 pages)
2. Receipt for Documents and Samples (1 page)
3. Confidentiality Notice (1 page)
4. Notice of Preliminary Findings (1 page)
5. Site Map (1 page)
6. Google Earth Aerial Photograph (1 page)
7. Photographic Documentation (Photolog and 14 Photographs) (9 pages)
8. Copy of SDS for HR-30 (10 pages)
9. Copy of SDS for Barsol A-3404 (10 pages)
10. Copy of SDS for SAATIGRAF CTS 9 (5 pages)
11. Copy of SDS for IPA 99 (12 pages)
12. Copy of SDS for REV-W50 Blending White (11 pages)
13. Copy of SDS for REV-N50/G295 Blending Black (11 pages)
14. Copy of SDS for Zip and Tray Fixer (4 pages)
15. Copy of SDS for PD-LED/W50/G295 Blending White (12 pages)
16. Copy of SDS for PD-LED/N50/G295 Blending Black (11 pages)
17. Copy of Aramark Invoice dated October 2, 2023 (1 page)
18. Copies of Manifests and LDRs from shipments dated April 9, 2021, September 7, 2021, September 9, 2021, May 9, 2022, November 21, 2022, and May 24, 2023 (14 pages)