

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

JOHN DEERE DAVENPORT WORKS

1175 E. 90th Street
Davenport, Iowa 52807
(563) 388-4451

EPA RCRA ID No. IAD073489726

ON

April 11, 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 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 John Deere Davenport Works (John Deere), at 1175 E. 90th Street, Davenport, 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, used oil, and universal waste requirements as applicable. This report and its attachments present the findings of the CEI.

PARTICIPANTS

John Deere:

Amy Mumma, Environmental Engineering Manager
Reed Sanders, Environmental Engineer
Sean Schnepfer, Corporate Environmental Engineering Manager (observer)
Jeff Flashinski, (observer)

Toeroek Team:

William F, Starks, Environmental Consultant, (816) 286-6951

INSPECTION PROCEDURES

Prior to the CEI at John Deere on April 11, 2023, I conducted a drive-by visual inspection. I did not observe any areas of concern during the drive-by. Upon my arrival, I entered the main entrance, and explained the purpose of the CEI to the security guard. I asked to speak with Ms. Morgan Crawford, identified on the Notification Acknowledgement/Verification Report (Verification Report) as the site contact. The security guard advised me that Ms. Crawford was no longer at the facility and contacted her replacement, Ms. Mumma. The security guard asked me to watch a safety video, after which she issued a visitor's badge to me. Ms. Mumma arrived at the security area and escorted me to a conference room where we were joined by Messrs. Sanders, Schnepfer, and Flashinski. Ms. Mumma explained that Messrs. Schnepfer and Flashinski were at the facility to conduct an internal ISO-14001 internal audit, and asked if they could join the CEI, to which I agreed. I then conducted an entry briefing with Ms. Mumma and Messrs. Sanders, Schnepfer, and Flashinski.

During the entry briefing, I presented my business card and EPA credentials to Ms. Mumma and Messrs. Sanders, Schnepfer, and Flashinski. I explained the scope and procedures for the CEI. I explained the facility's right to make confidentiality claims and provided a Notice Regarding Proprietary/ Confidential Business Information. I stated that at the conclusion of the CEI, they would be presented with a Confidentiality Notice (Notice) with which they could make or not make a claim of confidentiality for the facility. I also provided Ms. Mumma and Messrs. Sanders, Schnepfer, and Flashinski 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. Ms. Mumma and Messrs. Sanders, Schnepfer, and Flashinski read both of these documents.

A copy of each of the following documents was left with the facility during the inspection:

- RCRA Facility Access Information Sheet
- Mr. Trevor Urban's business card
- 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
- Chemical Facility Anti-Terrorism Standards
- Solvent-Contaminated Wipes Final Rule Summary Chart
- E-Manifest Fact Sheet: Generators
- Small Quantity Generator Reminder to Re-notify
- Managing your Hazardous Waste: A Guide for Small Businesses
- EPA Region 7 Emergency Response Program
- Lead-Based Paint Activities: Handling and Disposal
- IDNR Excluded Solvent-Contaminated Wipes Rule: Management Practices for Wipes, Rags, and Shop Towels
- Management of Fluorescent Lamps for Businesses
- Incompatible Chemicals
- Universal Wastes – Including Aerosol Cans

- TCLP – Toxicity Characteristic Leaching Procedure

I reviewed the Verification Report with Ms. Mumma (Attachment 1). Based on this review, as well as observations during the CEI, I updated the Site Contact Information section on the Verification Report to include Ms. Mumma's contact information. I made no other updates or changes to the Verification Report.

I conducted the visual inspection and the records review on April 11, 2023, accompanied by Ms. Mumma and Messrs. Sanders, Schnepfer, and Flashinski. During the records review, I reviewed facility documentation such as inventory reports, inspection logs, RCRA Contingency Plan, training records, shipping records, and hazardous waste determination records. I prepared and completed a site-specific inspection checklist to document my observations.

At the conclusion of the CEI on April 11, 2023, I conducted an exit briefing with Ms. Mumma and Messrs. Sanders, Schnepfer, and Flashinski. During the exit briefing, I provided a Receipt for Documents and Samples, which Ms. Mumma signed, acknowledging receipt (Attachment 2). I provided Ms. Mumma the Notice, which she signed indicating no confidential business information had been provided (Attachment 3). I made no preliminary findings during the so a Notice of Preliminary Findings (NOPF) was not left with the facility at the conclusion of the CEI. However, I explained to Ms. Mumma that findings might be added by EPA after review of the inspection report.

A diagram of the facility was obtained during the CEI and is in Attachment 4. An aerial photograph of the facility was downloaded after the CEI and is in Attachment 5. The 20 photographs taken during the CEI are included in Attachment 6.

FINDINGS AND OBSERVATIONS

1. Facility Description and General Information

The John Deere facility at Davenport produces heavy equipment for the construction and forestry industries. Various pieces of equipment are assembled at the plant, including four-wheel loaders, motor graders, log skidders, wheeled feller bunchers, articulated dump trucks, and loader cabs. Each product has its own dedicated line(s) within the facility.

Fabrication includes welding, cutting, and blasting of sheet metal, steel, and pre-cast parts in preparation for assembly. Wet painting is performed on parts and assembled equipment. The John Deere facility in Davenport, Iowa does not perform foundry operations (e.g., metal casting), and does not perform metal plating.

Wastes from the fabrication processes include used oil, used oil debris, scrap metal, and waste aerosol cans. Used oil and used oil debris are managed as used oil according to provisions of Title 40 *Code of Federal Regulations* (40 CFR) Part 279. John Deere generates approximately 9,960 gallons of used oil and 43,930 pounds of used oil debris annually during equipment and fork truck maintenance. Used oil is transported to Safety-Kleen Systems Inc. (Safety-Kleen) in Davenport, Iowa, for recycling. Used oil debris is transported to CRI Environmental Solutions in Woodville, Wisconsin, for recycling. Scrap metal is considered to be excluded from the

definition of solid waste when recycled. Scrap metal is transported Alter Metal Recycling in Davenport, Iowa, for recycling. Waste aerosol cans are managed as universal waste according to provisions of 40 CFR Part 273.

John Deere paints the fabricated parts in automated and touch up paint booths. Wastes from the painting processes include waste paint and solvent, waste paint related material (WPRM) debris, wash booth wastewater slurry, waste paint debris, paint gun and line flush (waste paint and solvent liquids), and distillation unit (still) bottoms.

Waste paint and solvent is generated when upset conditions occur in the paint booth, requiring removal of paint and solvent from the process. The waste is not generated on a consistent basis. For example, waste paint and solvent from upset conditions was generated twice in 2022. WPRM debris is routinely generated during the painting process and equipment maintenance. WPRM debris consists of paint contaminated paint brushes and rollers, paint cans, paint pens, and rags from touch-up painting (which utilizes methyl ethyl ketone [MEK]-containing paints) and production painting (which does not utilize MEK-containing paints). Both of these wastes are considered hazardous (D001, D035) based on product/process knowledge and analytical testing, and are shipped off site for fuel blending.

Wash booth wastewater slurry is generated during maintenance of the parts washing process. Waste paint debris consists of paint booth filters, cardboard, peelcoat, and other solid wastes generated during paint booth maintenance. Wash booth wastewater slurry and waste paint debris are considered nonhazardous based on product/process knowledge.

Waste paint and solvent liquids are generated during paint gun cleaning and paint line flushing from production and touch up painting. The waste is managed as hazardous secondary material (HSM) and is reclaimed through use of a still. Waste paint and solvent liquids that cannot be reclaimed via distillation (for example, waste paint and solvent from touch up booth operations, waste paint and solvent with adhesives, or waste volumes in excess of still capacity) is considered hazardous (D001, D035) and shipped off site for fuel blending.

Distillation of HSM generates still bottoms. The facility considers still bottoms that are dry (that is, contain no liquids when removed from the still) nonhazardous based on product/process knowledge. Still bottoms that contain liquids when removed from the still are considered hazardous (D001) and shipped off site for fuel blending. Still bottoms are not considered D035 hazardous waste because only waste paint and solvent from production painting is reclaimed, and production paints do not contain MEK.

Facility maintenance activities also generate waste lamps, waste batteries, and used coolant. Waste lamps and waste batteries are managed as universal waste according to provisions of 40 CFR Part 273 and are shipped off site for recycling.

Production and maintenance activities generate unwanted/expired chemicals which are lab packed. John Deere has a medical clinic that generates expired/unwanted pharmaceuticals which are transferred to a 5-gallon satellite accumulation container (SAC) in the medical clinic. Waste determinations are made on lab pack and pharmaceutical wastes prior to shipment off site.

General trash is generated during production and facility maintenance, and includes office-type refuse and other nonhazardous wastes. General trash is accumulated and transported to Upper Rock Island County Landfill (Moline, Illinois) for landfill disposal.

John Deere is located in a rural area north of Davenport. John Deere began operations at this location in 1974. Ms. Mumma estimated that there are approximately 2.2 million square feet of floor space under roof, on approximately 900 acres of contiguous property. She estimated the facility employs approximately 1,200 full-time personnel, covering three shifts for continuous operation 24 hours per day, seven days per week. Shift times vary, but first shift employees typically begin work between 6:00 a.m. and 7:00 a.m. John Deere's primary North American Industrial Classification System (NAICS) code is 333120 (Construction Machinery Manufacturing).

On June 19, 2018, John Deere was inspected by an EPA contractor. During the CEI, the inspector left the following preliminary finding:

- Failure to make an adequate hazardous waste determination on RPS Washbooth Stage 1, as required by 40 CFR §262.11(a).

This preliminary finding was not repeated during this inspection.

2. RCRA Status

John Deere was identified as a large quantity generator (LQG) of hazardous waste (generating more than 1,000 kilograms [kg] of hazardous waste per month) on the Verification Report provided by EPA (Attachment 1). During the CEI, I confirmed John Deere's LQG status through a review of current operations, interviews with Ms. Mumma and Mr. Sanders, and a review of waste disposal records (manifests) and summary reports.

During the CEI, I reviewed hazardous waste manifests and hazardous waste summary reports for shipments of waste paint and solvent liquids from January 19, 2022 through April 5, 2023. The summary reports for 2022 and 2023 are included as Attachments 7 and 8. I noted that the quantity of waste paint and solvent liquids shipped off site ranged from 3,600 to 26,400 pounds (1,633 to 11,975 kg) per month. I also reviewed the 2021 Hazardous Waste Biennial Report, provided by the EPA, prior to the CEI (Attachment 9). Based on the biennial report, the facility generated 55,900 pounds (25,356 kg) of waste paint and solvent liquids in 2021. The generation rate of waste paint and solvent liquids shipped off site as hazardous waste exceeds the 1,000 kg per month LQG threshold. Therefore, I determined that John Deere is currently operating as a LQG of hazardous waste (D001, D002, D003, D008, D035 characteristic; and F003, P042, P081, U162 listed hazardous wastes), and inspected the facility as such.

I also reviewed summary reports for nonhazardous waste for 2022 and 2023 (Attachments 10 and 11). I determined that John Deere generates approximately 1,084 pounds (492 kg) of universal waste lamps and 2,757 pounds (1,251 kg) of universal waste batteries per year. Based on the universal waste generation rates and on-site accumulation observed during the CEI, I inspected John Deere as a small quantity handler (SQH) of universal waste (accumulating less

than 5,000 kg of universal waste at any time). I also inspected John Deere as a generator of used oil.

3. Waste Streams

This section of the CEI report describes 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 my interviews with Ms. Mumma and Mr. Sanders, the visual inspection, and my review of available documentation.

Waste paint and solvent liquids is generated during paint gun cleaning and line flushing in the paint booths. The waste is accumulated in 55-gallon containers at the paint booths. Waste paint and solvent liquids is considered HSM when reclaimed. HSM is accumulated in 55-gallon containers and transferred to the Still Room for reclamation. HSM that cannot be processed through the still, such as waste paint and solvent liquids with adhesives or HSM in excess of still capacity, is considered hazardous waste (D001, D035) based on product/process knowledge and analytical testing. Hazardous waste paint and solvent liquids containers are labeled as hazardous waste and transferred to the less than 90-day hazardous waste container accumulation area (CAA). Based on the 2022 and 2023 hazardous waste summary reports (Attachments 10 and 11), the facility generates approximately 155,000 pounds of hazardous waste paint and solvent liquids (non-HSM) per year. Hazardous waste paint and solvent liquids is collected by Veolia ES Technical Solutions (Veolia) and transported to Veolia in Menomonee Falls, Wisconsin, or Green America Recycling LLC in Hannibal, Missouri, for fuel blending. The waste was last collected on April 5, 2023 (Attachment 12).

A copy of an analytical report for waste paint and solvent liquids (identified as gun flush), dated June 22, 2022, is included as Attachments 13. Based on the analytical report, the waste determination for hazardous waste paint and solvent liquids appears to be adequate.

In the Touch-up booth, I observed a 55-gallon container of HSM (Attachment 6, Photograph 7). The container was labeled "used solvents and paint related material to be reclaimed" and held approximately 40 gallons of HSM. The HSM container was structurally sound and dated February 9, 2023.

According to Ms. Mumma, the HSM container located in the touchup paint booth typically contains more paint than solvent. When the container is taken to the solvent distillation room, if the paint content is too high causing the liquid to be too "sticky" and unable to be distilled, the operator will determine that the waste is hazardous waste at that time.

John Deere has two Finish Thompson distillation units in the Still Room. The units each have a 55-gallon capacity, and are currently operating at approximately 92% reclamation efficiency. A copy of documentation describing the John Deere distillation process is included as Attachment 14. At the time of the CEI, both distillation units were operating. I observed four 55-gallon containers of HSM awaiting reclamation. All four containers were labeled "used solvents and paint related material to be reclaimed" and were marked with accumulation start

dates. However, I inadvertently neglected to note the accumulation start dates on the containers. Due to safety concerns, I was unable to take photographs inside the Still Room.

I requested copies of the Solvent Still Reclaim Log. Ms. Mumma provided copies of the log (Attachment 15). I noted the log contained entries from January 13, 2021, through January 5, 2022, and March 16, 2023, through April 11, 2023. Ms. Mumma explained that most of the logs for 2022 had been lost or destroyed. She stated that she would e-mail a copy of additional logs after the CEI. On April 12, 2023, Ms. Mumma sent an e-mail (Attachment 16) with attached Waste Solvent Process Log (Attachment 17) and Still Run Time Log (Attachment 18). I did not observe hazardous waste paint and solvent liquids in accumulation during the CEI. I noted no deficiencies with management of HSM or hazardous waste paint and solvent liquids during the CEI.

WPRM debris is generated during the painting processes, and accumulated in 2.5-, 7-, and 55-gallon satellite accumulation containers (SACs) at the point of generation. Full 55-gallon SACs are dated and transferred to the CAA. Smaller SACs are emptied into a 55-gallon hazardous waste accumulation container (HWAC) for transfer to the CAA. The facility considers WPRM hazardous (D001, D035) based on product/process knowledge and testing. The facility generates approximately 19,000 pounds of WPRM debris per year. The waste is transported to Veolia in Menomonee Falls, Wisconsin, or Green America Recycling LLC in Hannibal, Missouri, for fuel blending and/or recycling. The waste was last collected on April 5, 2023 (Attachment 12).

A copy of an analytical report for WPRM debris (identified as paint debris), dated June 22, 2022, is included as Attachments 13. Based on the analytical report, the waste determination for WPRM debris appears to be adequate.

During the CEI, I observed a 55-gallon SAC of WPRM debris in the Still Room, Lower Inspection, Touch-up Booth, Manual Paint, Paint Kitchen, and Paint Maintenance Locker areas. Photographs of representative WPRM debris SACs are in Attachment 6, Photographs 4, 5, and 8. All six SACs were at the point of generation, under control of an operator, structurally sound, closed, and labeled with the words “hazardous waste” and an indication of the nature of the hazard.

In the Primary CAA, I observed a 55-gallon HWAC of WPRM debris. The HWAC was structurally sound, closed, labeled with the words “hazardous waste” and an indication of the nature of the hazard, and marked with an accumulation start date of March 20, 2023. I noted no deficiencies with management of WPRM debris during the CEI.

Still bottoms (wet) are generated during the distillation process and accumulated in a 55-gallon SAC in the Still Room. Full SACs are dated and transferred to the CAA. The facility considers the waste hazardous (D001) based on product/process knowledge. The facility generates approximately 400 pounds of still bottoms (wet) per year. The waste is transported to Veolia in West Carrollton, Ohio, for fuel blending. The waste was last collected on January 19, 2022.

Ms. Mumma explained MEK is not a main ingredient in any of the production paints, but exists in a couple touch up paints. Therefore, the liquid/HSM from production paint booths, which is the material reclaimed in the still, does not contain MEK. Therefore, wet still bottoms would not

contain MEK. Still bottom analytical data have not tested above the 200 mg/L threshold for the D035 characteristic waste code. Based on this information, I concluded that the hazardous waste determination is adequate.

In the Still Room, I observed a 55-gallon SAC of still bottoms (wet). The SAC was at the point of generation, under the control of an operator, structurally sound, closed, labeled with the words “hazardous waste” and an indication of the nature of the hazard, and held approximately 50 gallons of still bottoms (wet). I noted no deficiencies with management of still bottoms (wet) during the CEI.

Still bottoms (dry) are generated during the distillation process and accumulated in a 55-gallon container in the Still Room. Full containers are transferred to the CAA. The facility considers the waste nonhazardous based on product/process knowledge. The facility generates approximately 15,650 pounds of still bottoms (dry) per year. The waste is transported to Veolia in Menomonee Falls, Wisconsin, or Green America Recycling LLC in Hannibal, Missouri, for fuel blending and/or recycling/reuse. The waste was last collected on April 5, 2023 (Attachment 12). I did not observe still bottoms (dry) in accumulation during the CEI.

Waste paint and solvent is generated during upset conditions in the paint booth and transferred to 55-gallon SAC in Paint Kitchen or 55-gallon HWACs upon generation, and transferred to CAA. The facility considers the waste hazardous (D001, D035) based on product/process knowledge and testing. The facility generates approximately 14,000 pounds of waste paint and solvent per year. The waste is transported to Veolia in West Carrollton, Ohio, or Menomonee Falls, Wisconsin, for fuel blending or storage, bulking and/or transfer off site. The waste was last collected on March 30, 2022.

A copy of an analytical report for waste paint and solvent (identified as liquid paste waste), dated June 22, 2022, is included as Attachments 13. Based on the analytical report, the waste determination for waste paint and solvent appears to be adequate. I did not observe waste paint and solvent in accumulation during the CEI.

Wash booth wastewater slurry is generated during maintenance of the wash booth. The facility considers the waste nonhazardous based on product/process knowledge and testing. The facility generates approximately 41,220 pounds of wash booth wastewater slurry per year. The waste is transported to the Scott County Landfill in Davenport, Iowa, for landfill disposal. The waste was last collected on January 11, 2023.

A copy of an analytical report for wash booth wastewater slurry (identified as washbooth sludge), dated June 22, 2022, is included as Attachments 13. Based on the analytical report, the waste determination for wash booth wastewater slurry appears to be adequate. I did not observe wash booth wastewater slurry in accumulation during the CEI.

Waste paint debris consists of paint booth filters, cardboard, peelcoat, and other solid wastes generated during maintenance of the paint booths. The waste is containerized upon generation. The facility considers waste paint debris nonhazardous based on product/process knowledge. The facility generates approximately 58,632 pounds of waste paint debris per year. The waste is transported to Veolia in Menomonee Falls, Wisconsin, for energy reclamation. The waste was

last collected on February 1, 2023. I did not observe waste paint debris in accumulation during the CEI.

Waste diesel and filters are generated during assembly and repair. The waste is transferred to 55-gallon SAC upon generation. The facility considers the waste hazardous (D001) based on product/process knowledge. The facility generates approximately 1,200 pounds of waste diesel and filters per year. The waste is transported to Veolia in Menomonee Falls, Wisconsin, for storage, bulking and/or transfer off site. The waste was last collected on December 14, 2022.

During the CEI, I observed a 55-gallon SAC of waste diesel and filters in the Loader Inspection area (Attachment 6, Photographs 18 and 19). The SAC was at the point of generation, under the control of an operator, structurally sound, closed, labeled with the words “hazardous waste” and an indication of the nature of the hazard, and held approximately 45 gallons of waste diesel and filters. I noted no deficiencies with management of waste diesel and filters during the CEI.

Unwanted/expired chemicals are generated when chemicals from maintenance and production activities are no longer needed or expire. They are transferred to the lab pack cabinet HWAC adjacent to the CAA upon generation. The waste is considered hazardous (D001, F003, and/or U162; waste codes dependent on chemical) and nonhazardous based on product knowledge. The facility generates approximately 323 pounds of unwanted/expired chemicals per year. The waste is transported to Veolia in Beaumont, Texas, for incineration or Veolia in Menomonee Falls, Wisconsin, for storage, bulking and/or transfer off site. The waste was last collected on February 2, 2023.

During the CEI, I observed the lab pack cabinet HWAC in the CAA (Attachment 6, Photographs 2 and 3). The HWAC was structurally sound, closed, labeled with the words “hazardous waste” and an indication of the nature of the hazard, marked with an accumulation start date of February 3, 2023, and held approximately 25 gallons of unwanted/expired chemicals. I noted no deficiencies with management of unwanted/expired chemicals during the CEI.

Expired/unwanted pharmaceuticals are generated when pharmaceuticals are no longer needed or expire. They are transferred to a 5-gallon SAC in the medical clinic. The waste is considered hazardous (waste codes dependent on pharmaceutical) and nonhazardous based on product knowledge. The facility generates approximately 21 pounds of expired/unwanted pharmaceuticals per year. The waste is transported to Veolia in Beaumont, Texas, for incineration. The waste was last collected on January 10, 2023.

During the CEI, I observed a 5-gallon SAC of expired/unwanted pharmaceuticals in the medical clinic. The SAC was at the point of generation, under the control of an operator, structurally sound, closed, labeled with the words “hazardous waste” and an indication of the nature of the hazard, and held approximately 1 gallon of expired/unwanted pharmaceuticals. I noted no deficiencies with management of expired/unwanted pharmaceuticals during the CEI.

Scrap metal is generated during parts fabrication. It is accumulated in scrap metal containers and transferred to 30-cubic-yard roll-off containers. Scrap metal is considered to be excluded from the definition of solid waste when recycled. The facility generates between 1,500 and 1,750

tons of scrap metal per month. Scrap metal is transported Alter Metal Recycling in Davenport, Iowa, for recycling. I observed scrap metal accumulation during the CEI and noted no deficiencies with management of scrap metal.

Used oil is generated during facility and equipment maintenance. Used oil is collected and transferred to a 6,000-gallon used oil AST in the indoor tank farm. Used oil is managed according to provisions of 40 CFR Part 279. The facility generates approximately 9,960 gallons of used oil per year. Used oil is transported to Safety-Kleen in Des Moines, Iowa, for recycling. Used oil was last collected on November 16, 2022.

During the CEI, I observed a 55-gallon used oil storage container in the Fork Truck shop. The used oil storage container appeared to be structurally sound with no apparent leaks, was marked with the words “used oil,” and held approximately 35 gallons of used oil.

I also observed the 6,000-gallon used oil AST in the indoor tank farm (Attachment 6, Photographs 16 and 17). The used oil AST appeared to be structurally sound with no apparent leaks and was marked with the words “used oil.” I did not obtain the volume of used oil in the AST during the CEI. The secondary containment structure appeared to be structurally sound and exhibited no evidence of leaks or free liquids. I noted no RCRA concerns with the management of used oil.

Used oil debris is generated during facility and equipment maintenance, and consists of punctured and hot drained oil filters as well as debris (such as rags and absorbents) contaminated with used oil. Used oil debris is transferred to 35- and 55-gallon used oil debris containers and 2-cubic-yard used oil debris containers. Used oil debris is managed as used oil according to provisions of 40 CFR Part 279. The facility generates approximately 43,930 pounds of used oil debris per year. Used oil debris is transported to CRI Environmental Solutions in Woodville, Wisconsin, for recycling. Used oil debris was last collected on February 14, 2023.

During the CEI, I observed a 35-gallon used oil debris container in the Fork Truck shop. The used oil storage container appeared to be structurally sound with no apparent leaks, was marked with the words “used oil,” and held approximately 30 gallons of used oil debris.

I also observed a 2-cubic yard used oil debris container in the Loader Inspection area (Attachment 6, Photograph 20). The container appeared to be structurally sound with no apparent leaks, was marked with the words “used oil,” and held approximately 50 gallons of used oil debris. I noted no RCRA deficiencies with management of used oil debris during the CEI.

Waste aerosol cans are generated during facility equipment maintenance. The waste is collected in 10- and 55-gallon universal waste accumulation containers. Waste aerosol cans are managed as universal waste according to provisions of 40 CFR Part 273. The facility generates approximately 66 pounds of waste aerosol cans per year. Waste aerosol cans are transported to Veolia in Menomonee Falls, Wisconsin, for recycling/energy reclamation.

During the CEI, I observed an empty 10-gallon container for waste aerosol cans in the cafeteria area. I also observed a 55-gallon universal waste aerosol can container in the Universal Waste Accumulation area (Attachment 6, Photograph 15). The universal waste accumulation container

was closed, held approximately 50 gallons of waste aerosol cans, labeled with the words “universal waste aerosols,” and date May 4, 2022.

Following the CEI, I noted that the container was not labeled with the specific words “universal waste aerosol cans,” or “waste aerosol cans,” or “used aerosol cans,” as required by 40 CFR 273.14(f). I contacted Ms. Mumma by telephone on April 18, 2023, and provided compliance assistance regarding labeling requirements for universal waste aerosol cans. Ms. Mumma stated she would re-label the containers with the wording “universal waste aerosol cans.” I did not issue a NOPF for failure to label universal waste aerosol cans with the words “universal waste aerosol cans,” or “waste aerosol cans,” or “used aerosol cans.”

Waste batteries are generated during facility equipment maintenance. They are collected in 10-gallon universal waste battery accumulation containers and transferred to a 55-gallon universal waste battery accumulation container in the Universal Waste Accumulation Area. Waste batteries are managed as universal waste according to provisions of 40 CFR Part 273. The facility generates approximately 2,757 pounds of universal waste batteries per year. The waste is transported to WCSC Electronic Demanufacturing Facility in Davenport, Iowa, for recycling. The last shipment of universal waste batteries was on February 1, 2023.

During the CEI, I observed a 10-gallon universal waste battery accumulation container in the Lower Inspection area (Attachment 6, Photograph 6). The universal waste battery accumulation container was labeled with the words “used batteries,” a June 8, 2022, accumulation start date, and held approximately 50 used batteries.

I observed a 10-gallon universal waste battery accumulation container in the Cafeteria area. The universal waste battery accumulation container was labeled with the words “used batteries,” a June 8, 2022, accumulation start date, and held approximately 30 used batteries.

I observed a 55-gallon universal waste battery accumulation container in the Universal Waste Accumulation Area. The universal waste battery accumulation container was labeled with the words “used batteries,” a June 8, 2022, accumulation start date, and held approximately eight waste batteries. I noted no deficiencies with management of waste batteries during the CEI.

Waste lamps are generated during facility maintenance. They are transferred to universal waste lamp accumulation containers upon generation in the Universal Waste Accumulation Area. The facility manages waste lamps as universal waste according to provisions of 40 CFR Part 273. The facility generates approximately 1,084 pounds of universal waste lamps per year. The waste is transported to WCSC Electronic Demanufacturing Facility in Davenport, Iowa, for recycling. The last shipment of universal waste lamps was on January 11, 2023.

During the CEI, I observed three universal waste lamp accumulation containers in the Universal Waste Accumulation Area. Two universal waste lamp accumulation containers were closed, labeled with the words “universal waste lamps,” marked with accumulation start dates of January 3, 2023, and March 27, 2023, and held approximately 85 waste lamps combined (Attachment 6, Photographs 9 through 12). The other universal waste lamp accumulation container was closed, labeled with the words “used lamps,” marked with an accumulation start

date of January 10, 2023, and held five waste lamps (Attachment 6, Photograph 14). I noted no deficiencies with management of waste lamps during the CEI.

General trash is generated during production and facility maintenance. It is accumulated in various containers throughout the facility and transferred to a compactor or roll-off container. General trash is considered nonhazardous based on product/process knowledge. The facility generates approximately 38 tons of general trash per month. General trash is transported to Upper Rock Island County Landfill in Moline, Illinois, for landfill disposal. I observed accumulation of general trash during the CEI and noted no deficiencies with management of general trash.

4. Container Accumulation Area

John Deere maintains three CAAs (Paint Kitchen, Solvent Room, and the Primary CAA). I inspected all three CAAs during the CEI. I observed fire extinguishers and spill control equipment at each CAA. According to Ms. Mumma, Mr. Sanders inspects the CAAs and has a facility-issued mobile phone to summon emergency assistance if needed.

At the time of the CEI, no wastes were in accumulation in the Paint Kitchen and Solvent Room CAAs. The Primary CAA is a containment building along the north wall of Building 2. The containment building had a locked door and signage identifying it as a less than 90-day CAA and that no smoking is allowed (Attachment 6, Photograph 1). I observed one 55-gallon HWAC of WPRM debris in the Primary CAA. The HWAC was closed, labeled with the words “hazardous waste” and indication of the nature of the hazard, and marked with a March 20, 2023, accumulation start date.

I also observed a 55-gallon container of nonhazardous lab pack waste, a 55-gallon used oil storage container, a 10-gallon container of debris being tested for flash point, and a 55-gallon container of Sika Tack Ultrafast awaiting hazardous waste determination in the Primary CAA. Ms. Mumma stated that hazardous waste determinations are made weekly.

Adjacent to the Primary CAA, I observed a flammable cabinet that housed unwanted/expired chemicals. I inspected the cabinet as a HWAC. The HWAC was closed, labeled with the words “hazardous waste” and an indication of the nature of the hazard, marked with an accumulation start date of February 3, 2023, and held approximately 25 gallons of unwanted/expired chemicals (Attachment 6, Photographs 2 and 3).

Mr. Sanders stated that he performs weekly inspections of the Primary CAA, Lab Pack HWAC, Paint Kitchen CAA, Solvent Room CAA, Universal Waste Accumulation Area, and polychlorinated biphenyls (PCBs) Storage Area. I reviewed the inspection logs from January 7, 2020, through April 4, 2023, and noted that inspections were performed each calendar week. A copy of the April 4, 2023, inspection log is included as Attachment 19. I noted no deficiencies with management of hazardous waste within CAAs during the CEI.

5. Manifests, Bills of Lading, Biennial Report

The facility generated 94 manifests from January 1, 2020, through April 11, 2023. I reviewed a total of 84 manifests and associated land disposal restriction (LDR) notifications during the CEI (16 of 26 from 2020 and all from 2021, 2022, and 2023 to date). Copies of manifest 002204992VES and the associated LDR notification, dated April 5, 2023, are in Attachment 12.

John Deere maintains a Manifest Tracker log to ensure manifests are received back within 45 days of shipment. A copy of the Manifest Tracker log from 2022 and 2023 is included in Attachment 20. I noted that the Designated Facility to Generator manifest copy for a shipment of PCB-containing equipment on February 22, 2023, had not been received. Ms. Mumma stated that she filed an Exception Report with EPA regarding the shipment. I did not obtain a copy of the exception report during the CEI. John Deere submitted the 2021 Hazardous Waste Biennial Report in February 2022 (Attachment 9). I noted no deficiencies during my review of manifests, LDR notifications, or the Biennial Report during the CEI.

6. Personnel Training Requirements

Personnel training is required by LQG regulations specified in 40 CFR 262.17(a)(7) to ensure that employees are thoroughly familiar with proper waste handling procedures relevant to their responsibilities. I did not request copies of all documents reviewed.

I asked Ms. Mumma what training is provided to John Deere employees who manage or transfer hazardous waste. Ms. Mumma stated John Deere provides environmental training to all employees who manage or transfer hazardous waste. I reviewed the training materials and noted the training included RCRA Contingency Plan emergency response procedures as well as management of hazardous waste, as required by 40 CFR 262.17(a)(7)(i)(C).

I asked Ms. Mumma who makes the determination that waste paint and solvent liquids cannot be reclaimed as HSM and transfers the hazardous waste to the CAA. Ms. Mumma stated that the waste determination and transfer is performed by a Paint Technician. I reviewed the job descriptions for Messrs. Hoffman (Paint Technician) and Sanders (Environmental Engineer who performs weekly inspections) and noted both the job descriptions included the skills, education, and duties associated with each job, as required by 40 CFR 262.17(a)(7)(iv)(B).

I reviewed the training records for Messrs. Hoffman and Sanders in John Deere's training database and noted it included their names and job titles, as well as the introductory and annual training refresher courses needed, as required by 40 CFR 262.17(a)(7)(iv)(A and C). Mr. Hoffman completed environmental training on September 9, 2020, December 17, 2021, and November 9, 2022. Mr. Hoffman's environmental training test completed on November 9, 2022, is included as Attachment 21.

Mr. Sanders, who has been employed at John Deere for approximately 6 months, provided training certificates for completion of John Deere's on-line environmental training, Labelmaster Services On-Line Training, and Heritage Environmental Services training (Attachment 22). I noted this training occurred within six months, as required by 40 CFR 262.17(a)(7)(ii). I noted no deficiencies with RCRA personnel training during the CEI.

7. Preparedness and Prevention and Contingency Plan

As a LQG, John Deere is required to arrange for emergency response with local emergency agencies, to designate an emergency coordinator (EC) for the facility, and maintain a RCRA Contingency Plan. I reviewed the contingency plan, dated September 2022, during the CEI.

I noted the RCRA Contingency Plan included a description of actions needed to respond to fires, explosions, and spills, a description of arrangements with the local emergency agencies, a list of emergency response equipment (including capabilities and location), and a complete evacuation plan with a description of the signals used, as required by 40 CFR 262.17(a)(6) Referencing 262.261(a, c, e, and f).

The RCRA Contingency Plan included the telephone numbers of the primary EC (Ms. Mumma) and alternate EC (Mr. Sanders), as required by 40 CFR 262.17(a)(6) Referencing 262.261(d). It also included a Quick Reference Guide (Attachment 23), as required by 40 CFR 262.17(a)(6) Referencing 262.262(b). Ms. Mumma stated that the RCRA Contingency Plan, dated September 2022, had been delivered to all emergency agencies (Davenport fire and police departments, Genesis Medical Center [East and West], Scott County Sheriff, and Scott County Emergency Management Agency), as required by 40 CFR 262.17(a)(6) Referencing 262.262(a). I noted no deficiencies with content of the RCRA Contingency Plan during the CEI.

8. Summary of Preliminary Findings

In summary, as part of the CEI, I made no preliminary findings. However, I provided compliance assistance as opposed to a NOPF, regarding the containers of universal waste aerosol cans discussed in Section 3 above.

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.

William F
Starks

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William F. Starks
Environmental Consultant
CLAENE Group, LLC.

AMBER WHISNANT

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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. Facility Diagram (1 Page)
5. Google Maps Aerial Image of the Facility (1 Page)
6. Photographic Documentation (20 Photos and Photolog) (13 Pages)
7. Hazardous Waste Summary 2022 (2 Pages)
8. Hazardous Waste Summary 2023 (1 Page)
9. 2021 Hazardous Waste Biennial Report (14 Pages)
10. Nonhazardous Waste Summary 2022 (3 Pages)
11. Nonhazardous Waste Summary 2023 (1 Page)
12. Hazardous Waste Manifest 002204992VES and Associated LDR Notification (3 Pages)
13. Eurofins TestAmerica Analytical Report, Dated June 22, 2021 (22 Pages)
14. John Deere Solvent Distillation Process (7 Pages)
15. Reclaim Solvent Distillation Logs, Dated January 13, 2021 Through January 5, 2022; and March 16, 2023 Through April 11, 2023 (13 Pages)
16. Email From Amy Mumma, RE: John Deere Davenport Works – Solvent Distillation Logs, Dated April 12, 2023 (1 Page)
17. Waste Solvent Processing Log, Dated January 21, 2023 Through March 23, 2023 (3 Pages)
18. Distillation Run Times, Dated November 27, 2022 Through March 23, 2023 (3 Pages)
19. Weekly Inspection Log, Dated April 4, 2023 (7 Pages)
20. Manifest Tracker, Dated January 19, 2022 Through April 5, 2023 (7 Pages)
21. Jerry Hoffman Environmental Training Test, Dated November 9, 2022 (2 Pages)
22. Reed Sanders Training Certificates (3 Pages)
23. RCRA Quick Reference Guide (8 Pages)