

RCRA Inspection Report

1) Inspector and Author of Report

Héctor M. Danois
Environmental Engineer
RCRA Enforcement Section
Chemical Safety and Land Enforcement Branch
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
(404) 562-8556

2) Facility Information

Florida Transformer, LLC., DBA Emerald Transformer (FTI)
4509 State Highway 83 N
DeFuniak Springs, Florida 32433
EPA ID Number: FLR000168203
NAICS: 335311 - Power, Distribution, And Specialty Transformer Manufacturing

3) Responsible Official

Kimber Armstrong, Regulated Services Supervisor
Emerald Transformer
4509 State Highway 83 N
DeFuniak Springs, Florida 32433
karmstrong@emeraldtransformer.com

4) Inspection Participants

Jessica Pennington	FTI
Kimber Armstrong	FTI
Monica Hardin	FDEP Northeast District
Kayla Acosta	US EPA Region 4
Héctor M. Danois	US EPA Region 4

5) Date and Time of Inspection

February 24, 2021 @ 9:15 A.M. (central)

6) Applicable Regulations

Subtitle C of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §§ 6921 – 6939g), the Chapter 403 of the Florida Statutes (Fla. Stat.), Fla. Stat. §§ 403.702 et seq. 40 Code of Federal Regulation (C.F.R.), Parts 260 - 270, 273 & 279, and Rule 62-730 et seq. of the Fla. Admin. Code Ann.

Chapter 403 of the Florida Statutes, Fla. Stat. § 403.702 et seq., and rules 62.710.210 -.901, and 62-730 et seq. of the Florida Administrative Code Annotated (Fla. Admin. Code Ann.).

As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.

Pursuant to Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.17], an LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 403.722 of the Florida Statutes, Fla. Stat. § 403.722 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Section 403.722 of the Florida Statutes, Fla. Stat. § 403.722 [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to Fla. Admin. Code Ann. r. 62-730.185(1) [40 C.F.R. § 273.9], a "Small Quantity Handler of Universal Waste" (SQHUW) is a Universal Waste handler who does not accumulate 5,000 kilograms or more of Universal Waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time.

NOTE: As of June 18, 2018, the State of Florida has adopted the recently updated Federal hazardous waste rules, more commonly known as the Generator Improvement Rule.

7) Purpose of Inspection

The purpose of the inspection was to conduct a RCRA compliance evaluation inspection (CEI) to determine the compliance of FTI with the applicable regulations.

8) Previous Inspection History

On October 25, 2018, FDEP conducted a RCRA CEI at the facility and no RCRA deficiencies were discovered.

9) Facility Description

Florida Transformer, Inc. DBA Emerald Transformer (hereafter known as FTI or "the facility") is a power transformer repair and processing facility that includes transformer repair, used oil processing, and transformer sales and service.

The facility has been in operation for over 40 years and has approximately 93 employees working from one shift/6 day per week. The facility is situated on 25 acres, of which 15 acres are actively used. FTI has its fleet of trucks used to transport the transformers.

FTI's most recent Hazardous Waste Generator Notification (EPA Form 8700-12) dated February 19, 2020, characterized the facility as a large quantity generator (LQG) of hazardous waste.

Currently, FTI can generate hazardous waste streams, and universal wastes (such as spent batteries, certain types of lamps, and mercury-containing devices or equipment), waste solvent, spent aerosol cans, paint waste, and other wastes which include EPA Waste Codes D001, D002, D005, D007, D018, F003, and F005.

10) Opening Conference

☒ Credentials Presented

☒ CBI warning to facility provided

☐ SBREFA fact sheet, if applicable

☐ CBI was provided or discussed during the inspection

☒ Health and Safety, Personal Protective Equipment discussion

☐ Additional equipment that will be used, if applicable (FLIR camera, PID, FID)

On February 24, 2021, the EPA inspectors, Héctor Danois and Kayla Acosta, accompanied by FDEP inspector Ms. Hardin, arrived at FTI to inspect the facility to determine its compliance status with both RCRA and the State of Florida hazardous waste regulations.

FTI was represented by Ms. Pennington and Ms. Armstrong. Upon entering the facility, the inspectors introduced themselves, showed their credentials, and explained the purpose of the visit, and a description of the facility's process was discussed.

11) Findings

A brief explanation for the inspection was given, as well as an introduction of the FDEP and the EPA inspectors. The inspectors requested a description of the facility operations. The inspectors then performed a walk-through inspection of specific areas in the facility. Below is a description of the observations made during the inspection.

FTI is located south of DeFuniak Springs, Florida. FTI is a TSCA-approved PCB storage facility under 40 C.F.R. § 761.65 that repairs, services, and decommissions oil-filled electrical distribution equipment for facilities in the southeastern states. According to FTI's "Approval to Commercially Store Polychlorinated Biphenyl (PCB) Waste", dated September 26, 2017, (PCB Approval Letter) only non-PCB units are scrapped on-site and all >50 ppm PCB liquids and drained equipment that contained >50 ppm PCB liquids are disposed off-site at TSCA approved PCB disposal facilities.

Also, on September 23, 2020, the EPA approved FTI to operate its PCB-1000 chemical dechlorination (CD) unit, a non-thermal alternative polychlorinated biphenyls(PCBs) disposal method, to destroy PCBs in mineral oil dielectric fluid (MODEF) subject to the conditions of the enclosed approval. This approval is issued according to Section 6(e)(1) of the Toxic Substances

Control Act (TSCA), 15 USC §2605(e)(1), and the federal PCB regulations, 40 CFR 761.60(e).

In-Processing Area (IPA)

The In-Processing Area is a roofed concrete floor with ten conveyor lines. Upon receipt, the transformers (units) are off-loaded onto one of the conveyor lines. Except for very large units, all units are received at the IPA off-loading dock. The transformers are unloaded and placed onto a conveyor system into one of ten assembly lines based on transformer type. Two unique numbers are assigned to each unit and a corresponding bar code label is attached to the unit. The other unique label is for oil sampling tracking purposes. After the numbers are assigned, the unit is evaluated to determine the concentration of PCBs. All units with a manufacturer plate indicating that it was manufactured on or after 1983 are designated as non-PCB units and no oil samples are collected. If the unit has no manufacturer plates or it was manufactured before 1983, an oil sample from the unit is collected and analyzed in the in-house laboratory to determine the concentration of PCBs in the oil. Once the PCB level in the units is determined, the units are segregated based on the PCB concentration ranges.

Units with PCB concentrations between 2 and 49 ppm (non-regulated PCB units) are drained to one of three above-ground 8,000-gallon used oil tanks for temporary storage until treated onsite. Oils that are found to have less than two ppm of PCBs are filtered, visually inspected for moisture, and placed into a storage tank. Oils that range between 2-49 ppm of PCBs are pumped to one of three holding tanks. These oils are then processed via the onsite oil processing equipment (Redragon) and subsequently stored in a 15,000-gallon tank. The processed oils are marketed as a lubricant. Transformer oils that have between 50 and 499 ppm of PCB content are pumped into one of four 1,295-gallon storage tanks located in the PCB storage room.

PCB Laboratory

The laboratory is adjacent to the In-Processing Area. The inspection team met with Teresa McKinney, Lab Tech. Unit samples are tracked through the bar code log that corresponds to a sample-processing log maintained by the laboratory. Samples are extracted from the transformers into pre-numbered 25mL vials that contain 10mL Hexane and 1mL of sulfuric acid and analyzed by gas chromatography to determine the PCB concentration. The sample residues from the PCB content determination exhibit the characteristics of ignitibility (D001) and corrosivity (D002). As for safety equipment, the lab has a safety shower and fire extinguisher outside the lab. At the time of the inspection, the laboratory was storing a 5-gallon SAA container of sample residue vials. The container was closed and labeled, but the label was missing a hazard identification (See Figure 1).

Pursuant to Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazards of the contents.

Central Accumulation Areas (CAAs)

FTI stores hazardous waste in different areas along the side and back wall of the IPA. The inspection team noticed that FTI was storing hazardous waste in three areas in the IPA (CAA1, CAA2, CAA3). At the time of the inspection:

- CAA1 is located at the southwest corner of the IPA. The CAA was storing four large boxes of lab waste. The boxes were closed, labeled, and dated. The inspection team noticed that the area did not have a “No Smoking” sign. These deficiencies were addressed after the inspection.
- CAA2 is located at the east side of the IPA besides the distillation unit located. The spent mineral spirits used in the decontamination process are accumulated in 55-gallon containers and reclaimed in an onsite distillation unit. The still bottoms from the mineral spirits reclamation unit are sent off-site for disposal as non-RCRA PCB-regulated waste. The reclaimed mineral spirits are reused in the decontamination process. The CAA was storing four 55-gallon containers of used mineral spirits, three 55-gallon containers of used oil (no secondary containment) and a 55-gallon container of hazardous waste rags. The containers were closed, labeled, and dated. The inspection team noticed that the area did not have a “No Smoking” sign. These deficiencies were addressed after the inspection.
- CAA3 is located at the southeast corner of the IPA. The CAA was storing, seven 55-gallon containers of paint filters (submerged in water) and eight 55-gallon containers storing PCB sludge. The containers were closed, labeled, and dated. The inspection team noticed that the area did not have a “No Smoking” sign. These deficiencies were addressed after the inspection.

Pursuant to Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.17(a)(1)(vi) (B)], requires LQs must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to the following: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the large quantity generator must confine smoking and open flame to specially designated locations. “No Smoking” signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

Also, the inspection team noticed a large single-walled aboveground storage tank (AST) storing used oil (Tank Q). The tank is inside the building with a shallow metal secondary containment and did not have a capacity of 110% of the volume of the tank (See Figure 2).

Pursuant to 62-710.401(6), F.A.C., no person may store used oil in tanks or containers unless they are clearly labeled with the words “used oil,” are in good condition (no severe rusting, apparent structural defects or deterioration), and not leaking (no visible leaks). If tanks or containers are not stored inside a structure, the contents shall be closed, covered, or otherwise protected from the weather. If tanks or containers are not double-walled, they shall be stored on an oil-impermeable surface such as sealed concrete or asphalt and must have secondary containment which has the capacity to hold 110% of the volume of the largest tank or container within the containment area. For underground storage tanks with capacities greater than 110 gallons and above ground storage tanks with capacities greater than 550 gallons, the facility shall comply with Chapters 62-761 and 62-762, F.A.C. At the time of the inspection Tank Q and three 55-gallon containers did not have proper secondary containment.

PCB Storage Area

PCB Storage area is in the back end of the In-Processing Area. The PCB Storage area includes a bermed section abutting the IPA, which FTI refers to as the PCB Processing Storage Area. The concrete floors in these areas are coated with an acrylic concrete sealant.

Repairs Shop

As part of its operations, FTI repairs and refills transformers. Once retrofitted/refilled, the transformers are sealed, tested, and painted, if needed. FTI has three repair areas based on the transformer type and each area is equipped with a mineral spirits washer, a processed oil product tote, and used oil storage containers. The repair area for large transformers did not have a mineral spirits washer. Used oil containers are placed on secondary containment platforms. Each container observed was labeled and closed.

Fabrication Department

In addition to pole-mount and pad-mount transformers, FTI repairs and remanufactures voltage regulators and oil circuit reclosers. At the time of the inspection, the area was storing four used oil containers. The containers were closed and labeled.

Scrap Metal Recovery Oven (SMRO) Area

The SRMO is in the northeastern corner of the operations building. In this area, FTI manages PCB-contaminated transformer components and pole-top transformer carcasses (cans). The PCB-contaminated components are treated in the SRMO, while cans are decontaminated with mineral spirits using the double wash/rinse method.

PCB Transformers

Units containing PCBs at concentrations greater than 49 ppm aren't repaired but are designated for disposal. The unit lids are sealed, painted orange, and a red tag is attached to them. After this identification process, the units with PCB concentration up to 3,000 ppm are transferred to the PCB Storage area. Once in the PCB storage room, the units are drained according to the PCB concentration to one of four 1,295-gallon storage tanks under the facility's PCB Commercial Storage Permit. Oils with PCB concentrations between 50 and 1,499 ppm are kept segregated from oils with PCB concentrations between 1,500 and 3,000 ppm. At the time of the inspection, the area was storing a container of mineral spirits, four containers of PCB oil, and three containers of used oil. The containers were closed and labeled.

Regulator Repairs

FTI provides maintenance, repair, and refurbishing of customer's voltage regulators. During the inspection, the area was storing four 55-gallon containers of used oil, a 5-gallon container of used rags. Outside the repair area, FTI was storing a self-closing hopper storing dirty rags, and a roll-off container storing non-hazardous PCB industrial waste. All containers were closed and labeled.

Paint Area

This area includes three paint booths used to paint units after they have been refurbished in the blasting unit. Access to two of the paint booths is through interior doors and access to the third paint booth is through an outside door. Because of the painting operations, FTI generates a spent solvent (D001) from equipment cleaning, spent air filters from the paint booth filtration system, and spent grit from the abrasive blasting unit. FTI accumulates these waste streams in 55-gallon containers.

The blasting unit collects the blasting media and reuses it until the blasting media loses its ability to remove the paint. The blasting unit has three 55-gallon drums collecting the spent blast media (SBM) via hoses. The inspection team noticed that the hoses connected to the containers were not completely sealed and were leaving gaps (See Figure 3).

Pursuant to Fla. Admin. Code Ann. r. 62-730.160(1) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.

Tank Farm/Used Oil Processing Unit

The Tank Farm and the used oil processing unit are outside the process building south of the IPA. The tank farm has 14 ASTs that includes, one tank storing oils less than 2 ppm of PCB, three tanks storing oils between 2 and 49 ppm, two tanks storing new oil, and two tanks storing process oil. The tanks were labeled and inside a concrete secondary containment.

A system of pipes connects the Redragon unit to the Tank Farm and the rest of the facility. The dechlorinated oil is stored in a 15,000-gallon tank and sold to lubricant manufacturers. The system treats the PCB using a sodium reagent. In this process, the sodium reagent reacts with the chlorine atoms on the PCB molecule to form sodium chloride and chlorine-free biphenyl molecules. The centrifuge solids (sodium chloride) are accumulated in 55-gallon containers for off-site disposal. The Redragon solids exhibit the characteristics of corrosivity (D002) and toxicity for benzene (D018).

At the time of the inspection, the inspection team noticed approximately 15 275-gallon totes (See Figure 4) and four 55-gallon containers storing used mineral oil (See Figure 5) stored outside the Tank Farm. The totes and drums did not have secondary containment.

Pursuant to 62-710.401(6), F.A.C., no person may store used oil in tanks or containers unless they are clearly labeled with the words “used oil,” are in good condition (no severe rusting, apparent structural defects or deterioration), and not leaking (no visible leaks). If tanks or containers are not stored inside a structure, the contents shall be closed, covered, or otherwise protected from the weather. If tanks or containers are not double-walled, they shall be stored on an oil-impermeable surface such as sealed concrete or asphalt and must have secondary containment which has the capacity to hold 110% of the volume of the largest tank or container within the containment area. For underground storage tanks with capacities greater than 110 gallons and above ground storage tanks with capacities greater than 550 gallons, the facility shall comply with Chapters 62-761 and 62-762, F.A.C.

Non-PCB Transformer Repairs

This is the area where operators drain and repair non-PCB transformers. The building has a roof with concrete floors with conveyor lines to move the transformers. The transformers are drained on rolling tables (See Figure 6). The tables are drained into 5-gallon buckets. Then the used oil is stored into a single-walled used oil AST (See Figure 7). The draining tables and used oil AST were not labeled with the word “Used Oil”. Also, the used oil AST did not have secondary containment.

Pursuant to Fla. Admin. Code Ann. r. 62-710.210(2) [40 C.F.R. § 279.22(c)(1)], containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words “Used Oil.”

Pursuant to 62-710.401(6), F.A.C., no person may store used oil in tanks or containers unless they are clearly labeled with the words “used oil,” are in good condition (no severe rusting, apparent structural defects or deterioration), and not leaking (no visible leaks). If tanks or containers are not stored inside a structure, the contents shall be closed, covered, or otherwise protected from the weather. If tanks or containers are not double-walled, they shall be stored on an oil-impermeable surface such as sealed concrete or asphalt and must have secondary containment which has the capacity to hold 110% of the volume of the largest tank or container within the containment area. For underground storage tanks with capacities greater than 110 gallons and above ground storage tanks with capacities greater than 550 gallons, the facility shall comply with Chapters 62-761 and 62-762, F.A.C.

Recordkeeping

Per the EPA’s COVID-19 field operations guidance, required and relevant paperwork were submitted digitally by the facility per request of the EPA and FDEP. The following documents were reviewed off-site following the site inspection: biannual report (2019), HSWA and weekly inspections (2018-2020), contingency plan, quick reference guide (QRG) and arrangement with local authorities, employee training (2018-2020), Used Oil and HW Transporter registrations (FDEP Used Oil Approval 2020-2021 and FDEP Haz Waste Approval 2020-2021), Used Oil Shipments (2018-2020), Tank Inspections (2018-2020) and Waste Profile.

A review of the weekly inspection records did not reflect that FTI has three different CAAs. Because FTI has three CAAs, a weekly inspection should be performed in each CAA.

Pursuant to Fla. Admin. Code Ann. r. 62-730.180(2)[40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors.

12) Closing Conference

The RCRA inspectors completed their inspection on February 24, 2021. FTI was inspected as an LQG. At the time of the inspection, the facility was operating as an LQG. On March 30, 2021, an out-briefing on the findings of the inspection was provided by Hector Danois and Ms. Hardin to Ms. Armstrong and Alex Dowling, General Manager.

13) **Signed**

Héctor M. Danois
Inspector and Author of Report

Date

14) **Concurrence and Approval**

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date

Photo Log Summary

Photos taken on February 24, 2021

Kayla Acosta

Camera: Samsung WB250F

EPA Property Tag: S75914



Figure 1 - Container storing PCB vials. The container did not have the hazard indication



Figure 2 - Used Oil AST with secondary containment



Figure 3 - Containers storing SBM



Figure 4 - 15 Totes storing used oil near the Tank Farm



Figure 5 - 55-gallon drums of used oil stored near the Tank Farm



Figure 6 - Used oil draining tables



Figure 7 - Used Oil ABS located in the repair area