

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

Tennessee Valley Authority – Gallatin Fossil Plant
1499 Steam Plant Road
Gallatin, Tennessee 37066
Sumner County
EPA ID: TN5640006677

3) Responsible Officials

Michael T. Gray
Environmental Scientist
mgray@tva.gov

4) Inspection Participants

Michael T. Gray	TVA Gallatin Fossil Plant
Corey Terry	TVA Gallatin Fossil Plant
Ralph Hillyard	TVA Gallatin Fossil Plant
Michael Horsley	TDEC – Nashville Field Office
Terry Carrier	TDEC – Nashville Field Office
Alan Newman	EPA Region 4

5) Date and Time of Inspection

February 24, 2022, 9:45 a.m. – 1:00 p.m. C.D.T.

6) Applicable Regulations

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; Tennessee Hazardous Waste Management Act of 1977, Tennessee Code Annotated (Tenn. Code Ann.) § 68-212-101 *et seq.*, and Chapter 0400-12-01 of the Rules and Regulations of the State of Tennessee.

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 Tenn. Comp. R. & Regs. 0400-12-01-.01(2)(a) [40 C.F.R. § 260.10], a large quantity generator of hazardous waste (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h) [40 C.F.R. § 262.17], a LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 68-212-108 of the THWMA, Tenn. Code Ann. § 68-212-108 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h) [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi) [40 C.F.R. § 261.4(a)(26)], solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that the conditions listed in Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)1.(xxvi) [40 C.F.R. § 261.4(a)(26)] are met (hereinafter referred to as the "Solvent-Contaminated Reusable Wipe Exclusion").

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)2. [40 C.F.R. § 261.4(b)(18)], solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation, provided that the conditions listed in Tenn. Comp. R. & Regs. 0400-12-01-.02(1)(d)2. [40 C.F.R. § 261.4(b)(18)] are met (hereinafter referred to as the "Solvent-Contaminated Disposable Wipe Exclusion").

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 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 Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(g)2. or 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(vii and viii) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in Ten Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.12(1)(i) [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, lamps, or aerosol cans, calculated collectively) at any time.

7) **Purpose of Inspection**

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Aegis Sciences Corporation compliance with the applicable requirements of RCRA and the corresponding Tennessee regulations. This was an EPA lead inspection.

8) **Previous Inspection History**

TDEC conducted two RCRA CEIs at the subject facility between 2011 and the present. The most recent CEI was conducted on January 17, 2016. There were no violations noted during either inspection.

9) **Facility Description**

The TVA-Gallatin is a government owned electric power generating facility. TVA-Gallatin operates four coal-fired turbo-generating units producing over 5 billion kilowatt-hours of electricity. TVA-Gallatin burns about 10-11,000 tons of coal per day. TVA-Gallatin also has eight smaller combustion turbines. The combustion turbines burn ultra-low sulfur fuel oil or natural gas. These combustion turbines are designed to start quickly and are only operated during peak demand periods.

The combustion turbines are also equipped with dry low-NOx burners to reduce NOx emissions. The plant is equipped with electrostatic precipitators that capture ash from burning the coal. The use of low-sulfur blend coal helps limit the emission of sulfur dioxide. Low NOx burners limit the production of nitrogen oxides. In support of environmental agreements, TVA added scrubbers and Select Catalytic Reduction (SCR) units on all four turbines in 2017. The Gallatin Fossil Plant sits on a 1,950-acre reservation on the north bank of the Cumberland River and employs approximately 160 people. It is named for the nearby town of Gallatin.

On February 24, 2020, TVA-Gallatin notified TDEC that they were operating as a small quantity generator (SQG) of hazardous waste, a generator of used oil, and a small quantity handler of universal wastes. TVA-Gallatin was operating under the NAICS code 221112 - Fossil Fuel Electric Power Generation. This facility began construction in 1953 and started producing power in 1956.

The table below includes the wastes generated at the facility from 2019 through 2020:

Waste Stream Number	Waste description	Volume reported to be generated.	EPA Waste Codes
Waste Stream #2 (WS#2):	Ignitable and toxic hazardous waste solvents from facility equipment cleaning, intermittently generated at an estimated rate of 147 kilograms per month.	Volume reported to be generated in 2020 was 251 kilograms.	D001, D006, D007, D008 and D009

Waste Stream #10 (WS#10):	Ignitable, toxic and listed hazardous waste paints from painting of the facility and brush cleaning, intermittently generated at an estimated rate of six kilograms per month	Volume reported to be generated in 2019 was 137 kilograms.	D001, D006, D008, F003 and F005
Waste Stream #18 (WS#18):	Toxic hazardous waste from obsolete contaminated equipment and spill clean-up, intermittently generated at an estimated rate of 23 kilograms per month.	Volume reported to be generated in 2020 was 51 kilograms.	D009
Waste Stream #19 (WS#19):	Toxic hazardous waste from the removal of old paint during facility maintenance, intermittently generated at a rate of 37 kilograms per month.	Volume reported to be generated in 2019 and 2020 was 371 kilograms.	D005, D006, D007 and D008
Waste Stream #27 (WS#27):	Ignitable and toxic hazardous waste aerosols from facility maintenance, intermittently generated at an estimated rate of 27 kilograms per month.	Volume reported to be generated in 2020 was 101 kilograms.	D001 and D003

10) **Opening Conference**

On February 24, 2022, EPA inspector Alan Newman, accompanied by TDEC inspectors Mike Horsley and Terry Carrier, arrived at TVA Gallatin at approximately 9:45 pm C.D.T. Michael Gray immediately received the inspectors and was present for the opening conference.

The inspectors introduced themselves, showed their credentials to Michael Gray, and explained the purpose of the visit. The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The inspectors discussed the company's ability, pursuant to 40 C.F.R. §2.203, to assert a business confidentiality claim for information submitted to the EPA. The company did not assert a business confidentiality claim. The inspection participants also discussed health and safety protocols and required personal protective equipment before Michael Gray led the inspectors on a tour of the Facility operations.

Mr. Gray provided an overview of the facility's history and current operations during the opening conference. The company does not appear to meet the Small Business Regulatory Enforcement Fairness Act's classification of a "small business," which is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. Therefore, the EPA inspector did not provide a copy of the agency's information sheet for small businesses, which can be found at <https://www.epa.gov/compliance/small-business-resources-information-sheet>.

11) **Findings**

The inspection team arrived at the facility at 9:45 a.m. C.D.T. and began the inspection at 10:10

a.m. C.D.T. when joined by Michael Gray. Initially site security requested the inspector's driver's license, Personal identifiable information. Later it was explained that they needed to see the photo, name, and expiration date to confirm the inspector's identity. No information was recorded other than inspector's name and phone number, which were previously provide with business card. The EPA PIV card, although a federally issued identification card, was not accepted as a form of ID at this federal facility; only PIC cards issued by TVA were considered valid.

- Combustion Turbine Area

The inspection team toured multiple maintenance areas in the combustion turbine area. Used oil and universal waste lamps are generated and stored in the area. There were three 275-gallon totes and two 55-gallon containers of used oil in this area (Photos 1-2). These containers were labeled with the words "Used Oil" and in good condition. In one of the maintenance areas, there was a 4-foot cylinder for universal waste lamps. This container was in good condition, dated November 16, 2021, and empty (Photo 3). TVA Gallatin representatives pointed out the emergency equipment including a ceiling sprinkler system, emergency shower/eye wash unit, and fire extinguishers. Facility representatives stated that the fire extinguishers are inspected monthly and that they are tracked in an electronic system.

- Coal Plant Powerhouse

The inspection team inspected multiple SAAs and universal waste containers within the Coal Plant Powerhouse. The first SAA consisted of a 55-gallon metal container storing waste aerosols (WS #27) (Photos 4-5). TVA-Gallatin was storing waste paint related material (WS #10), waste paint debris (WS#19), and waste paint brushes and rags (WS#24) in the second SAA which consisted of three 55-gallon containers (Photos 10-12). TVA-Gallatin conducts maintenance of mercury parts in the Mercury Room. Waste mercury-containing debris (WS#18) generated in this operation is accumulated in a 55-gallon SAA container just outside the door of this room (Photos 16-17). The inspection team noted that all these containers were closed, in good condition, labeled with the words "Hazardous Waste" and an indication of the hazard. The SAA was equipped with secondary containment and a spill kit.

Universal waste lamps were storied in one 4-foot fiber cylinder dated October 15, 2021, a second 4-foot fiber cylinder dated September 27, 2021, and one 8-foot box dated November 16, 2021 (Photo 4, 6, and 7). Universal waste batteries were stored in a mail-in cardboard box which was dated September 21, 2021 (Photos 8-9). Each container was in good condition and labeled as Universal Waste.

A 1,250 gallon above ground storage tank (AST) was observed in the area storing used oil during this inspection (Photo 13). The AST was labeled with the words "Used Oil." Near this AST, there were multiple drums and tote containers that are dedicated for storing used oil during maintenance of oil-filled equipment located throughout the plant (Photos 14-15). Each container of used oil was labeled with the words "Used Oil." The used oil is pumped into the AST using a wand pump.

- Chemical Laboratory

TVA-Gallatin operates a chemical laboratory to test river water quality for use in the boiler system. No hazardous waste is being generated in the chemical laboratory.

- Central Accumulation Area (CAA) – one non-hazardous 55-gallon container

TVA-Gallatin set aside a dedicated shed to house the CAA which is located north of the facility (Photo 18). There was no hazardous waste present during the inspection. The inspection team observed one 55-gallon container of non-hazardous waste. The CAA shed is kept locked when not occupied by employees. The CAA was equipped with secondary containment, a spill kit, and a land line telephone. TVA-Gallatin posted emergency contact information at the CAA.

- Record Review

The inspection team reviewed records at the facility including the manifests for shipments of hazardous waste, universal waste, and used oil, land disposal restriction forms, training documentation, posted information at the CAA, the waste reduction plan dated March 19, 2021, the annual notification of hazardous waste activity forms, weekly and monthly inspection records, and the contingency plan. There were no violations noted during the record review.

12) **Closing Conference**

The inspectors conducted the exit meeting at approximately 12:30 p.m. C.D.T. with Michael Gray. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

13) **Inspection Findings**

Based on the observations made during the inspection, TVA Gallatin was apparently in compliance with RCRA requirements.

14) **List of Appendices**

Appendix 1 – Photo Log:
18 Photos taken on: February 24, 2022
Photos taken by: Alan Newman
Photos taken with: Panasonic Lumix
EPA Property Tag: S75870

15) **Signed**

ALAN NEWMAN Digitally signed by ALAN NEWMAN
Date: 2022.03.30 15:33:56 -04'00'

Alan Newman
Environmental Engineer

Date

Concurrence

BROOKE YORK Digitally signed by BROOKE YORK
Date: 2022.03.30 15:29:49 -04'00'

for Araceli B. Chavez
Chief
RCRA Enforcement Section

Date

Photographs

Photos taken on February 24, 2022

Photos taken by Alan Newman

Camera: Panasonic Lumix

Serial Number: S75870



Photo 1: Combustion Turbine Area.



Photo 4: Coal Plant Powerhouse



Photo 2: Combustion Turbine Area.



Photo 5: Coal Plant Powerhouse.



Photo 3: Combustion Turbine Area.



Photo 6: Coal Plant Powerhouse.



Photo 7: Coal Plant Powerhouse.

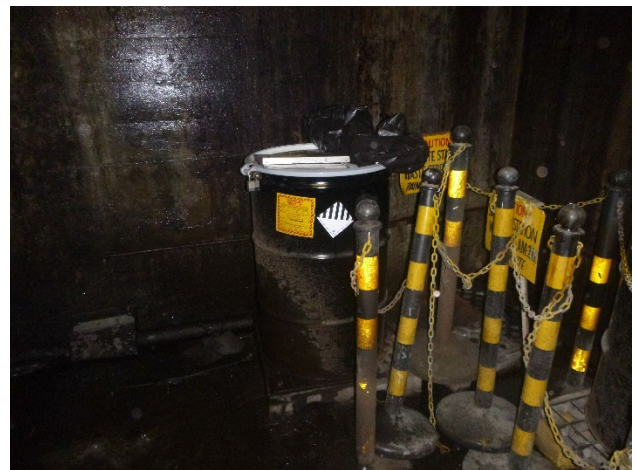


Photo 10: Coal Plant Powerhouse .



Photo 8: Coal Plant Powerhouse.



Photo 11: Coal Plant Powerhouse .

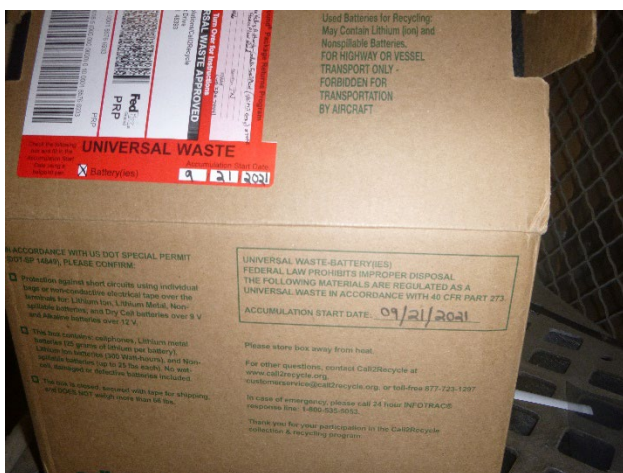


Photo 9: Coal Plant Powerhouse.



Photo 12: Coal Plant Powerhouse .

