RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

University of Florida
3076 Longleaf Road
Gainesville, Florida 32611
EPA ID: FLD000823393

3) Responsible Official

Matthew Doty
Hazardous Material Program Manager
Division of Environmental Health and Safety
University of Florida
Surge Area Drive, Building 831
PO Box 112725
Gainesville, Florida 32611

4) Inspection Participants

Matthew Doty	University of Florida
Tori Goodwin	FDEP Northeast District
Daryl R. Himes	US EPA Region 4

5) Date and Time of Inspection

March 25 & 26, 2021 at 8:15 a.m.

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], 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 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.

Final Operating and Corrective Action Permit 17756-006-HO, effective March 27, 2019

7) Purpose of Inspection

The purpose of the inspection was to conduct an RCRA compliance evaluation inspection (CEI) to determine the compliance of University of Florida, EPA ID# FLD000823393 with the applicable regulations.

8) Previous Inspection History

On August 18, 2020, EPA and FDEP conducted a RCRA CEI at the facility and RCRA deficiencies were discovered.

9) Facility Description

The University of Florida ("UF" or "University") is a state-supported, public, land-grant research university located in Gainesville, Florida. The property is owned by the State University system and consists of approximately 1,900 acres (main campus). The UF operates approximately 2,700 teaching and research laboratories distributed through approximately 132 buildings and 20 colleges. The University covers all areas of engineering, biomedical, genetic, nuclear, medical, and agricultural and natural science research studies. Each laboratory is a potential satellite accumulation area for hazardous waste generated within the laboratory. The UF operations also include several support services such as maintenance, grounds, motor pool and an athletic department. The UF also provides all areas of liberal and performing arts studies. The UF was founded in 1858 and has been operating at its present location since September 26, 1906. UF now serves over 46,000 students.

The UF's most recent Hazardous Waste Generator Notification (EPA Form 8700-12) dated August 30, 2018, characterized the facility as a large quantity generator (LQG) of hazardous waste, mixed waste (hazardous and radioactive) generator, a transporter of hazardous waste, and, on March 27, 2019, was issued FDEP Permit Number 17756-HO-006 for container storage of hazardous waste and site-wide HSWA Corrective Action. The expiration date of this permit is March 26, 2024.

Currently UF can generate hazardous waste streams, used oil 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, D003, D004, D005, D006, D007, D008, D009, D010, D011, D012, D015, D016, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D033, D034, D035, D036, D037, D038, D039, D040, F002, F003, F005, F027, P001, P003, P008, P010, P012, P014, P018, P022, P024, P028, P029, P030, P041, P042, P048, P050, P051, P059, P070, P071, P075, P077, P078, P081, P082, P087, P092, P098, P102, P105, P106, P110, P116, P119, P120, P123, P127, P198, P199, P202, P203, U001, U002, U006, U007, U008, U010, U012, U019, U029, U035, U041, U044, U046, U050, U053, U058, U067, U070, U075, U077, U080, U081, U082, U084, U085, U091, U103, U105, U106, U108, U112, U114, U115, U119, U122, U123, U125, U128, U130, U133, U134, U136, U138, U144, U147, U150, U154, U159, U161, U162, U165, U168, U169, U170, U190, U196, U200, U201, U204, U209, U210, U213, U218, U219, U220, U225, U236, U238, U239, U240, U246, U271, U279, U353, U367, U404 and U411.

10) Opening Conference

☒ Credentials Presented	☐ CBI warning to facility provided as necessary
☐ SBREFA fact sheet, if applicable	
☒ Health and Safety, Personal Protective Equipment discussion	☐ Additional equipment that will be used, if applicable (FLIR camera, PID, FID)

On March 25 & 26, 2021, EPA inspector, Daryl Himes, accompanied by FDEP inspector Tori Goodwin, arrived at UF to inspect the facility to determine its compliance status with both RCRA and the State of Florida hazardous waste regulations. UF was represented by Mr. Matt Doty. Upon entering the facility, the inspectors introduced themselves, showed their credentials and explained the purpose of the visit and 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 EPA inspectors. The inspectors requested a copy of the facility's generation points as listed in the Quick Reference Guide (QRG) of the facility's contingency plan. Numerous areas were selected from the QRG for inspection on the first day of the inspection. The inspectors performed a walk-through inspection these specific areas. The second day was spent inspecting the permitted storage and 90-day accumulation area. For all containers observed within satellite accumulation areas on the first day, unless noted otherwise, each of the containers of hazardous waste were observed to be labeled with the words "Hazardous Waste" and a description of the hazards associated with the contents of the container. In addition, unless noted otherwise, each of the containers was observed to be closed. Any containers or tanks managing used oil were labeled with the words "Used Oil" unless noted otherwise. Below is a description of the observations made during the inspection.

Building 258 Weed Sciences Field Building

The building is used for the storage of materials used for the study of herbicide resistance, herbicide selectivity and their interactions with weeds and crops.

None of the products on the shelves were observed to be out of date.

One container of D016 characteristic hazardous waste pesticide (2,4-D) was observed. The lid on the container was not fastened and was deemed to be open.

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. 62-730.160(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.

Building 833 Post Lab Annex

The building is used for infectious disease testing. Two labs, discussed below, were observed to have

hazardous waste at the time of the inspection.

Room 4 – One 4-liter container of hazardous (D001) solvent waste (methanol and ethyl acetate) was observed without an indication of the hazard associated with the waste.

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 (ii) with an indication of the hazards of the contents.

Room 2 – One 5-gallon container of hazardous waste gloves, masks and methylene chloride contaminated wastes was observed without an indication of the hazard associated with the waste.

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 (ii) with an indication of the hazards of the contents.

Building 706 – Vehicle Maintenance Building

Routine vehicle maintenance is performed in this multi-bay automotive shop.

The shop was equipped with numerous 16-gallon and 5-gallon used oil receptacles for performing oil changes on vehicles. When the receptacles are filled, they are emptied into a 400-gallon used oil tank located just outside one end of the building.

Rags using a brake cleaner containing acetone and toluene are managed in a metal container labeled as "Excluded Solvent Contaminated Rags." The rags are managed as excluded solvent contaminated rags and are sent off-site to be laundered and returned.

Hazardous waste aerosol cans generated at this building are placed into a 5-gallon container. The container was empty at the time of the inspection.

Building 635 – Racing Lab Annex

Horse racing research involving drugs given to horses is performed in this building.

The building is equipped with numerous labs performing various testing on horses. Some of the labs are used to make standards and control samples for testing purposes.

Lab 1025 - Six 4-liter and one 30-gallon container of hazardous wastes were observed in this lab.
Lab 1023 - Three 5-gallon and three 4-liter containers of hazardous wastes were observed in this lab.
Lab 1024 – One 30-gallon, two 4-liter and one 2-liter containers of hazardous waste were in this lab.
Lab 1012 - Two 5-gallon and three 4-liter containers of hazardous waste were observed this lab.
Lab 1006– Two 5-gallon containers of hazardous waste were observed this lab.
Lab 10109 - Two 4-liter and one 5-gallon container of hazardous waste were observed this lab.
Lab 10110 - Two 5-gallon containers of hazardous waste were observed this lab.
Lab 10112 – One 30-gallon container of hazardous waste pipets was observed this lab.
Lab 10114 - One 30-gallon and five 4-liter containers of hazardous waste were seen this lab.

Lab 10115 – One 5-gal. and two 4-liter containers of hazardous waste were observed in this lab.

Building 131 – Percy Reed Lab

Road condition testing is performed in this building.

One ground floor lab housed a large centrifuge used for physical condition testing.
No hazardous wastes were observed in this lab.

Another ground floor lab performed driving simulations. No hazardous wastes were observed in this lab.

A second-floor lab performed asphalt testing. One 5-gallon container of used oil was observed to be labeled "Used Vacuum Pump Oil."

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."

One 5-gallon and one 1.5-gallon container of hazardous waste nitric acid were also observed in this lab.

Building 193 – Field Lab Forestry

Prep work for the taking of forestry samples is performed in this lab. No wastes were observed in this building at the time of the inspection.

Building 94 – Stephen C. O'Connell Center Maintenance Area

This building is a multipurpose arena used for various events on the university campus.

Two metal cabinets located in a maintenance area for the building contained various product paints and thinners.

One 12-gallon cardboard container was being used for hazardous waste aerosol containers.

A separate 5-gallon container contained a small amount of used oil.

Building 1070 – Water Treatment Facility Maintenance

Two 35-gallon containers of used oil from gear box maintenance were observed without labels in this area.

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."

One parts washer using a solvent having a flashpoint of greater than 200 degrees Fahrenheit was observed in this area. No hazardous waste is generated from the use of the machine.

Building 1022 – Veterinary Medicine Isolation Barn

Horses that are being tested in an isolated testing would be kept in this area. One 2-gallon container of product isopropyl alcohol was observed in this area. The alcohol is used on cloth swabs for cleaning purposes on horses. No hazardous waste is generated from use of the swabs.

Building 350 – Bio-Control Lab

This lab was observed being reconfigured for a new research group at the time of the inspection. No wastes were observed in this area at the time of the inspection.

Building 59 – McKnight Brain Institute

This building is a comprehensive and diverse neuroscience research center that houses the UF College of Medicine's four "neuro" departments. The rooms listed below contain lab areas that were inspected.

Room L4-162

Radio amino assays were performed in this room. One 5-gallon, one 2.5-gallon and two 4-Liter containers of hazardous waste were observed in plastic trays on the floor in this area. The 5-gallon container was not marked with an indication of the hazard.

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 (ii) with an indication of the hazards of the contents.

Three small jars of hazardous waste from RNA extractions were observed lab hoods in this area. One of the jars was not marked with an indication of the hazard.

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 (ii) with an indication of the hazards of the contents.

Room L4-135

Several small containers of hazardous waste were observed in a metal cabinet and in a plastic tray in this lab without an indication of the hazard associated with the waste.

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 (ii) with an indication of the hazards of the contents.

Room L3-127

Fruit fly disorders were studied in this room. Numerous small containers of hazardous waste were observed in a lab hood.

Room L3-132

Breast and brain cell research were performed in this room. Two 4-liter and two small containers of hazardous waste were observed in plastic trays on the floor in this area. One 4-liter container of hazardous waste was observed in a lab hood.

Room L2-129

Microbiology studies were performed in this room. Two plastic bins were observed on the floor in this room with numerous small containers of hazardous waste. Several of the containers were missing an indication of the hazard associated with the waste in the containers.

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 (ii) with an indication of the hazards of the contents.

Day 2 Friday March 26, 2021 Observations

Building 831 – Permitted Container Storage

The permitted hazardous waste storage area is in Building 831. The hazardous waste codes for the waste stored in the permitted storage facility include D001 through D043, F001 through F005, F019, F027, and numerous U and P listed hazardous wastes. The permitted storage area is divided into Phase I and Phase II. The permit limits the volume of waste that can be stored in each phase. The permit also limits the container size for storage of hazardous waste to 1, 2, 5, 12, 30, and 55-gallon containers. This concrete building is equipped with a fire suppression system, fire extinguishers, and shower stations.

Seven full-time employees work in this building handling hazardous waste. The hazardous waste personnel pick up the containers from the campus laboratories and transport them in placarded trucks to Building 831. Bulking and lab packing are conducted in both the Chemical Hazardous Waste and Radiological storage areas.

Phase I Area

The Phase I Area is used for the management of non-radioactive chemical wastes and universal waste lamps. The Phase I Area, which is the northern half of the building, is separated into five container storage areas. Each of the five container storage areas is constructed with a six-inch reinforced concrete slab and is separated by a secondary containment berm. The long-term hazardous waste storage areas are in Area 2B and Area 5. These areas are permitted to store waste for one year.

Hazardous waste is also stored for less than 90-days within the Phase I Area. The inspectors observed closed, labeled, and dated containers staged on secondary containment pallets in this area. All drums were closed, labeled, and dated.

Area 2B Storage

Area 2B storage is the permitted storage area for non-reactive hazardous waste to be stored up to a year. The Area 2B storage is separated by a yellow berm from the Chemical Waste Staging and Storage Area. The inspectors observed all containers on secondary container pallets, closed, labeled, and dated. Outside the Area 2B storage, operators store super-sacks containing hazardous waste debris. At the time of the inspection, all containers were closed, dated, and labeled.

Area 5 Storage

The Area 5 storage is the permitted storage area for reactive (flammable) hazardous waste to be stored for up to a year. The reactive (flammable) hazardous wastes are stored in a walled room at the back of the Phase I Area. The inspectors observed twenty-five 5-gallon and two 12-gallon containers to be closed, labeled, and dated. All the containers were dated within one year of storage time.

Chem Swap Cabinets

The UF's "Chem Swap" cabinets are also located in the Phase I Area. When the EH&S personnel pick up a new, sealed chemical container as part of a regular waste pickup, EH&S evaluates the material for consideration in the Chem Swap program. Unopened containers of chemicals with no expiration date are kept in the cabinets for potential "resale." EH&S keeps a list of available materials on-line, and laboratories can order the materials from EH&S free of charge. This program began as part of the campus-wide "zero waste initiative."

Phase II Area

The Phase II Area is used for the management of radioactive and radioactive mixed wastes. The Phase II Area is separated into four container storage areas (6-radioactive, 7-poisons, 8-corrosive, and 9-flammable). Each of the four container storage areas is separated by a secondary containment structure. The entire container storage area is separated from the loading/unloading areas by a secondary containment structure.

The incoming wastes are tested for pH, oxidizer, and radiation levels. If possible, the wastes are neutralized before processing and storage. Radioactive wastes are segregated by individual radioisotope for storage and disposal at a permitted treatment, storage, and disposal facility. Radioactive mixed wastes are classified as poisons, flammables, or corrosives, and processed accordingly. The mixed wastes are either bulked or lab-packed in 30 or 55-gallon containers, which are placed directly into storage. Mixed wastes may be sent for incineration, energy recovery, or disposal.

The Radioactive Sources Area, listed as Radioactive Waste Bay Area 6 on the facility plan, contained only radioactive waste. The drums are stored together, and UF keeps the radioactive waste

to decay for 20 half-lives before shipping out. Along the back wall of this area, were drums of radioactive liquid being consolidated. All containers were observed closed, labeled, and dated.

At the time of the inspection, the Waste Bay Area 9 was storing one 55-gallon drum and one 5-gallon container of D001 hazardous waste. The drums were closed, labeled, and dated. The Waste Bay Area 7 is where UF keeps the poison waste; corrosives are stored in Waste Bay Area 8. The areas were empty during the inspection.

Freezer

The Phase II Area has a freezer storing animal carcasses that have been used in laboratory experiments and exposed to radiation. UF stores the carcasses for 20 half-lives before shipping out for disposal.

The Compound

The Compound was the original UF permitted storage area. Currently, the area is being used to store spent lead-acid batteries, universal waste batteries, a less than 90-day hazardous waste storage area, (HWSA) and used oil storage. The HWSA is used to store inorganic and organic hazardous acid waste to be neutralized.

A clamshell underneath a canopy contained spent lead-acid batteries (SLABs) to be recycled. The label on the clamshell was dated March 11, 2021. A portable building contained Universal Waste Batteries collected in cardboard boxes and sent out for recycling. At the time of the inspection, there were seven 5-gallon, four 12-gallon and eight boxes of universal wastes with accumulation dates of less than one year.

The area had a 550-gallon double-walled used oil tank and seven 55-gallon, six 30-gallon, five 12-gallon and more than twenty 5-gallon containers of used oil. Also, the inspection team noticed containers of non-hazardous latex paint stored in the area.

The incoming acid and base wastes generated by the facility are collected and neutralized with water and soda ash by the EH&S personnel. The neutralized acids and bases are discharged to the sewer to

be treated at the onsite wastewater treatment plant. At the time of the inspection, the facility stored the containers waiting to be neutralized in a shed. All containers were closed, labeled, and dated (oldest container July 7, 2020) within 90 days.

Fencing/Security

The fences around the building were clean and in good condition and signs were located every 100 feet.

Recordkeeping

Per the EPA's COVID-19 field operations guidance, required and relevant paperwork were reviewed in a socially distant conference room at the time of the inspection.

The inspectors requested Building 831's contingency plan. The plan included a current emergency contact list, a fire extinguisher map, an evacuation map, and a list of emergency response equipment.

The weekly and daily inspection records for Building 831's less than 90-day hazardous waste storage area (HWSA) included:

Phase I

- General Chemical Waste Storage Area 1
- Mixed and Chemical Waste Storage Area 2A and 2B
- Ignitable Waste Storage Area 3
- Corrosive Waste Storage Area 4
- Reactive Waste Storage Area 5
- Waste Management Compound

Phase II

- Storage Area 6
- Radioactive Mixed Waste Storage Area 7
- Corrosive Mixed Waste Storage Area 8
- Ignitable Mixed Waste Storage Area 9

The inspectors reviewed the inspection records and observed the current daily and weekly inspections for November of 2020. No issues were observed during the review.

Hazardous and non-hazardous manifests were reviewed since the previous EPA inspection. No issues were noted.

A review of the facility's training records included a check of Thomas Donovan (Hazardous Materials Technician) records. No issues were noted.

12) Closing Conference

The RCRA inspectors completed their inspection on March 26, 2021. The facility was inspected as a LQG and permitted storage facility. An out-briefing on the findings of the inspection was provided by Mr. Himes and Ms. Goodwin to the inspection participant.

13) Signed

DARYL HIMES Digitally signed by DARYL HIMES Date: 2021.04.21 13:40:37 -04'00'

Daryl R. Himes
Inspector and Author of Report

Date

14) Concurrence and Approval

ARACELI CHAVEZ

Digitally signed by ARACELI CHAVEZ
Date: 2021.04.28 16:12:13 -04'00'

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date