



Industrial User Facility Inspection Report U.S. EPA, Region 8

Name of industry and location:

Florida Cirtech
1309 North 17th Avenue
Greeley, CO 80631

Control Authority / NPDES Permit No.

City of Greeley
NPDES Permit No. CO-0040258

IU – NPDES ID

COPU00174

Date of visit:

January 30, 2024

Approximate Time of visit:

1100 – 1210

Name(s) / Affiliation / email of inspector(s):U.S. EPA:

Al Garcia, garcia.al@epa.gov

City of Greeley:

- Joseph Martinez, joseph.martinez@greeleygov.com
- Kayla Reed, kayla.reed@greeleygov.com
- Joe Kunovic, joseph.kunovic@greeleygov.com

General Facility Information:Representatives at Inspection:

- Danielle Scimeca – President-FCT Water
- Angel Gonzales – Warehouse Manager
- Riley Flickner – EHS Compliance Specialist
- Meg Hummel – Principal EHS
- Matt Wilder – EHS Consultant
- Mike Scimeca – owner

Type of Business Operations:

- Florida Cirtech and its subsidiaries provide the following operations at the facility located at 1309 North 17th Avenue:
 - Chemical blending and supply of chemical products for electronics assembly and printed circuit board industries.
 - DI water bottle regeneration services
 - Manufactures products for soldering with lead and lead-free solder, producing bar solder, solder paste and solder flux
 - e-scrap sorting and recovery

Facility Information:

- 10-12 employees
- five days/week, (Monday through Friday).

- 10-hour shift

Inspection Description:

Al Garcia from the U.S. Environmental Protection Agency (EPA) and Joe Kunovic, Joseph Martinez, and Kayla Reed from the City of Greeley (City) conducted a significant industrial user (SIU) inspection of the Florida Cirtech facility (facility) located on 1309 North 17th Avenue, Greeley, CO 80631. The SIU inspection was conducted as part of the EPA Pretreatment Audit of the City's Publicly Owned Treatment Works (POTW) and EPA-approved Pretreatment Program. The inspection of the facility provides current conditions of the facility's unit operations and consisted of an evaluation of the wastestreams generated from the unit operations, management of these wastestreams, including potential for spills and slug discharges. The facility discharges to the sewer collection system leading to the City's POTW.

Upon arriving at the facility on January 30, 2024, at approximately 11:00 a.m., Al Garcia of the EPA presented credentials to the facility representatives and explained the purpose of the inspection. During the opening interview, the facility representatives provided an overview of the operations and processes at the facility, wastestreams generated and management/discharge of these wastestreams. The opening interview was followed by a facility tour to visually inspect the unit operations. The EPA conducted a closing conference to discuss potential findings and recommendations identified during the inspection.

Process Description:

The facility located at 1309 17th Avenue, Greeley, CO 80631 consists of Florida Cirtech and 3 subsidiaries.

- FCT Water
- FCT Assembly – located in the SW back portion of the building
- FCT Recovery

The Google Maps view of the facility is shown in Figure 1.

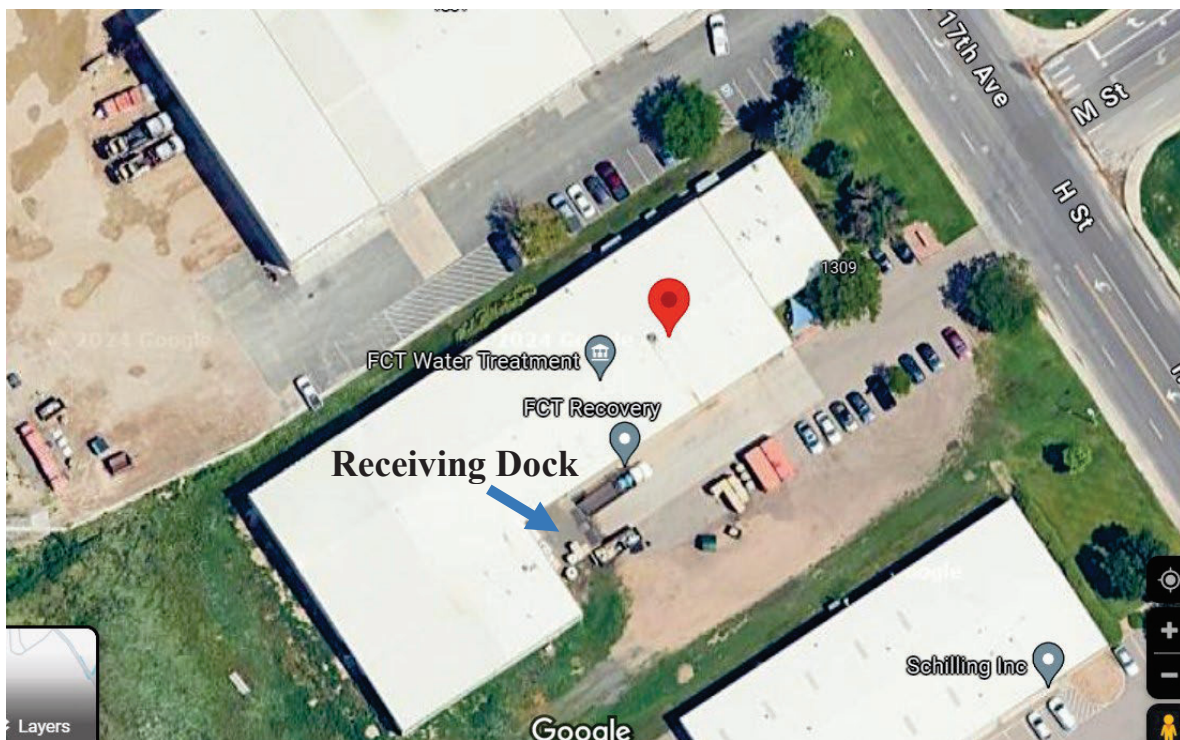


Figure 1 – Florida Cirtech -Google Maps View

Chemical and Raw Materials Storage –

The chemicals and raw materials for the unit operations are primarily stored in the warehouse storage racks. The facility in general uses surfactants, bases and acids contained within 55-gallon barrels or 330-gallon totes. The barrels are brought into the facility from the receiving dock using forklifts. The facility also stores sodium hydroxide in a 4,500-gallon storage bulk tank, which is filled about once every 1-2 months using a supply truck and supply hoses.

Florida Cirtech –

The facility has developed chemical blending recipes that it uses to supply chemical products to the electronics assembly and printed circuit board customers. The facility uses these recipes to ensure consistency and minimize off-spec batches of chemical products. According to facility representatives, the facility conducts about three chemical blends daily. The raw materials/chemicals are added to a 1,200-gallon blending tank, located inside the facility. The sodium hydroxide is transferred from the bulk tank and a diaphragm pump is used to transfer chemicals from 55-gallon or 330-gallon containers. The blending operation occurs over approximately 1.5 hours and the blended chemical products are transferred to 55-gallon barrels. The blending tank is cleaned between each blend and according to Mr. Gonzales, the facility uses about 250 to 300-lbs, or about 30 to 35-gallons, of water to steam-clean the tank for 15 minutes. The wastewater generated from the tank cleaning is discharged into a large trench. The trench is approximately 4 feet wide and is constructed in a T-shape that runs NE to SW for approximately 50 feet in the production area. The trench also tees off towards the SE for approximately 20 feet. The T-shaped trench does not have a sewer connection and is used to contain the wastewater generated from the blending tank cleaning. Note: the containment is located next to the bulk sodium hydroxide tank farm. In addition, approximately 20 chemical product barrels were observed stored or staged directly above the trench.

The facility pumps the contents of the trench into a 750-gallon treatment tank for equalization, mixing and pH neutralization using NaOH and H₂SO₄. The treatment tank is located within the tank farm SE of the trench. The pH of the tank is checked to ensure it is within the internal pH range of 6.5 to 10.5. If the treatment tank contents are within compliance limits, the facility connects a portable hose to the pipe designated as outfall 02 and then discharges to the sanitary sewer.

FCT Water –

The facility receives and regenerates DI canisters/bottles used in the industry to treat supply water into high purity water. The facility has two parallel regeneration lines but according to Mr. Gonzales, currently only uses one line at a time. The resin from the DI canisters is transferred into a 4-cubic foot separator tank and are backwashed using about 100 gallons of water and 60 gallons of brine salt water. The cation or anion resins undergo a separate regeneration process, but each regeneration step is similar. The anion resins undergo the following regeneration steps:

- Backwash using 100-gallons water.
- Regeneration using 5% NaOH (the NaOH is not supplied by the bulk tank but is contained in 33-gallon containers).
- Hot DI rinse for about 45 minutes using approximately 300 to 400-gallons water.
- Wastewaters from the process are discharged into a 10,000-gallon treatment tank.

The cation resins undergo the following regeneration steps:

- Backwash using 100-gallons water.
- Regeneration using HCl solution.
- Rinse for about 45 minutes using approximately 300 to 400-gallons water.

- Wastewaters from the process are discharged into a 10,000-gallon treatment tank.

The wastewaters generated from this process are collected in treatment tank, where it is mixed with a recirculation pump. The facility also has a 4,500-gallon treatment tank used as overflow or backup. The wastewater is neutralized to a pH range of 6.5 to 10.5 and if within limits, discharged through outfall 03.pumped through an overhead pipe where it combines with wastewater from the blending operation and discharged to the sanitary sewer.

FCT Assembly –

The facility melts tin ingots and reforms them into smaller bars for sale as bulk solder material. It appears that there is no wastewater generated from this process.

FCT Recovery –

Sorting and recovery of e-scrap for off-site transport. It appears that there is no wastewater generated from this process.

EPA Classification of the Industrial User

Based on observations and information received during the inspection, the facility is categorized as a significant industrial user, subject to the City of Greeley’s local limits.

Summary of Findings

Florida Cirtech
NPDES ID# COPU00174
January 30, 2024

Pretreatment Inspection Findings	Follow up Action Items
1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vi) require the facility to control slug discharges defined as any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, local limits or Permit conditions. During the facility inspection, the following observations were identified: - About 20 chemical product barrels were staged or stored directly above the large trench used to contain chemical blending process wastewater. - The large trench borders the bulk tank farm and there does not appear to be adequate containment for any spills/slug discharges from the tank farm, - The discharge from the chemical blending treatment tank is conducted through portable	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vi) <u>Corrective Action Item</u> The facility needs to minimize or eliminate its spills/slug discharge potential in the chemical blending production area by implementing specific procedures to prevent adverse impacts from accidental spills, including inspection and maintenance of storage areas, handling/transfer of materials, loading and unloading operations, worker training, building of containment structures or equipment, and spill response measures and equipment. The EPA recommends the facility further minimize/eliminate its potential for spills or slug discharges in the chemical blending production area by evaluating its current

hose leading from the treatment tank to outfall 02.

- d. The wastewater from the discharge pipe leading from combined outfalls 02 and 03 enters into a standpipe leading to the City's sanitary sewer. Based on the EPA's observations, it does not appear that the standpipe leading to the sanitary sewer is adequately sealed to protect against spills or slug discharges from entering the sanitary sewer.

Based on the EPA's review of the Florida Cirtech Pretreatment permit #1CM-031, the facility is regulated at outfall 02 for process wastewater generated from the chemical blending process and the laboratory. Part 2.A of the permit states "Only those wastewaters specified in this permit are authorized for discharge. The permittee is specifically prohibited from discharging any other wastewaters or pollutants not disclosed to the City or not specified in this permit or accompanying fact sheet." The permit does not allow treatment or discharge from potential spills or slug discharges.

Based on observations at the facility, there appears to be a significant potential for spills or slug discharges to occur from the bulk tank farm, staging of chemical product directly above the trench and the inadequately sealed standpipe leading to the sanitary sewer. In addition, the use of portable hoses for transfer/discharge from the chemical blending/laboratory treatment tanks by inadequately trained operators may lead to slug/illicit discharges.

discharge practice from the chemical blending tank into the trench and then pumping the contents of the trench to the chemical blending treatment tank.

Report Review and Signature		
Drafter Name	Address/Phone Number	Date
Al Garcia	U.S. EPA Region 8 1595 Wynkoop Street 8WD-CWW Denver, Colorado 80202 303-312-6382	02/07/24
Reviewer Name	Address/Phone Number	Date
Stephanie Passarelli	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NP Denver, Colorado 80202 303-312-6803	02/12/24

Supervisor Signature/Name	Address/Phone Number	Date
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Michael Boeglin	303-312-6250	