



**Region 2 Enforcement & Compliance Assurance Division
Air Compliance Branch**

CAA Inspection Report

Inspection Date: 4/26/2022
Facility Name: Schnitzer Salinas
Facility Address: PR-3, Km. 156.4, Aguirre Ward, Salinas, PR 00751
ICIS-Air ID #: PR0000007212300029
Facility Contact: José E. Cedeño - Corporate Senior Environmental Manager
EPA Lead Inspector: Joseph Cardile
EPA Asst. Inspector: Richard Kan
State Inspector(s): None
Other Inspector(s): None

Facility Background Information:

Schnitzer Salinas is a metal recycling facility located in PR-3, Km. 156.4, Aguirre Ward, Salinas, Puerto Rico. Schnitzer Salinas is part of Schnitzer Steel Industries, Inc. (STI), which is one of the largest recyclers of scrap metal in the United States. In 2009, STI acquired three (3) metal recycling facilities in Puerto Rico and opened two (2) additional metal recycling facilities in 2012. The five (5) metal recycling facilities are located within the Bayamón, Caguas, Canóvanas, Ponce and Salinas municipalities. STI's Puerto Rico metal recycling facilities collect, broker, process and recycle metal, both ferrous and nonferrous. Scrap metal is purchased from industrial manufacturers, railroads, auto salvage facilities, metal dealers, and individuals. The metal typically comes from obsolete machinery and equipment such as autos, trucks, home appliances, and demolition metal from buildings and other obsolete structures. STI also purchases crushed auto bodies from auto recycling facilities. Once the scrap metal arrives at an STI facility in Puerto Rico, it is processed by sorting, shearing, shredding, torching, and baling. Below is an aerial image of the Schnitzer Salinas metal recycling facility located in Salinas, Puerto Rico.



Pertinent Regulatory Requirements

- 40 CFR Part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
- Puerto Rico – Environmental Quality Board (EQB) Regulations for the Control of Atmospheric Pollution (RCAP).

The primary focus of the inspection is to determine if the Schnitzer Salinas facility is complying with RCAP Rule 419 which prohibits the emissions of more than 3 pounds of VOCs at any time, and more than 15 pounds per day, in any article, machine, equipment or any other device without such equipment being provided with an acceptable control system, program or mechanism for emission reduction and prevention or both, as approved or required by the Puerto Rico Department of Environmental Natural Resources.

Entrance:

On April 26, 2022, EPA inspectors arrived at the facility at approximately 10:00 AM. Conditions were sunny and slightly windy. We observed a large line of various trucks, including pickup trucks, carry substantial amounts of metal waste in their cargo areas. We also observed several tow trucks towing cars for disposal to the facility. Initially, we spent a few minutes studying the facility from outside the property line. As we entered the facility, we could see that the shredder was operating and emitting periodic puffs of black smoke but these emissions were not consistent. We entered the facility at approximately 10:10 am introduced ourselves as EPA inspectors who would be conducting a facility inspection. After several minutes we were greeted by facility's Jose Soto who introduced himself as the facility general manager. Mr. Soto asked if we could wait a short amount of time until the company's corporate senior environmental manager, Mr. Cedenó, arrived from another Schnitzer location. After Mr. Cedenó arrived, we met with the following facility representatives in Mr. Soto's office.

Jose Soto - General Manager

José E. Cedenó - Corporate Senior Environmental Manager

After introductions, which included displaying our EPA credentials, we explained we were here to conduct a Clean Air Act inspection that would consist of an opening conference, facility tour, record review and closing conference.

Opening Conference:

EPA inspectors began the opening meeting by explaining EPA was there to conduct a Clean Air Act inspection and the primary focus of the inspection would be on the shredding operations. Mr. Soto explained that this facility was initially built in the 1980s for military purposes. Mr. Cedenó explained that Mr. Mink is the environmental manager for this facility but is currently on leave and he has significant knowledge and experience regarding the operation of this facility, including the shredding process. The facility is open Monday through Friday all year for 8 to 9 hours per day. Sometimes the facility opens on Saturday. The facility mainly accepts and processes autos, white goods, and tin metal roofs. Mr. Cedenó also explained that, in general, there are essentially three categories of clients or suppliers of scrap metal to the Schnitzer facilities in Puerto Rico. There are scrap metal dealers, commercial scrap shippers that provide commercial scrap from factories, industry, etc., and individuals. Schnitzer has agreements in place with their scrap metals dealers and commercial scrap shippers regarding the types and quality of scrap metal they will accept, and the facility inspects all loads they receive from individuals.

The metal recovery facility including the shredder was installed in 1990. Schnitzer bought the facility in 2009 and it is the only facility with an operational shredder in Puerto Rico. The entire facility, including the shredder, is powered by electricity and all electrical power to the facility is provided by generators located at the facility. All processed scrap metal product is sold and shipped overseas primarily to Turkey. Mr. Soto explained it's too expensive to ship processed scrap metal to the United States because of the Jones Act which requires that Schnitzer must use American ships to transfer goods to the USA.

The shredder is manufactured by Linderman Corporation, powered by a 1300 horsepower electric motor, and is capable of processing 40 tons per hour. The shredder box is 8 feet or 96 inches wide. The shredder normally runs during the daytime hours and maintenance on the shredder is performed after the shredder shuts down for about eight (8) hours each day. Shredder maintenance includes work on the mill's hammers, as well as work on belts, bearings, and any necessary welding. Mr. Soto stated that Schnitzer has lights available on site to perform daily maintenance activities during the evening hours. The facility tracks both scrap input and output from the shredder and about 60% of incoming scrap metal is from end of life (ELV) autos and the other 40% consists of other scrap metal items (i.e., household appliances, commercial scrap, etc.). The wear and tear of the shredder hammers are the major maintenance issue experienced by the facility.

Located downstream from the shredder is a cyclone with 125 horsepower motor and Z box separator used for particulate matter control. These control devices are used to regulate the amount of Auto Shred Residue (ASR), which is sometimes referred to as fluff. ASR is comprised of dirt, color plastics, and rubber. The output of the raw scrap metal fed into the shredder is approximately 70% ferrous material, 5% non-ferrous material and 25% ASR. The facility does not perform any depolluting activities onsite. The company has agreements in place with its feeder yards and other dealers that supply scrap to depollute any scrap prior to delivery to the site. Schnitzer also performs visual inspections onsite to ensure all vehicle gas tanks have been removed. Visual inspections are also performed for scrap received from peddlers. Mr. Soto stated that most vehicles from peddlers have had their engines and transmissions removed.

Facility Tour

We started the facility tour at approximately 12:00 PM. We first observed the weighing station where incoming vehicles full of scrap metal and outgoing empty vehicles are weighed. The amount of scrap metal that each supplier delivers to the facility is determined by subtracting the weight of the empty vehicle from the weight of the incoming vehicle filled with the scrap metal. We next inspected an area of the facility where white goods or appliances that contain refrigerant were stored. Facility representatives explained that once a week an HVAC technician under contract comes to the facility and recovers the refrigerants from these white goods prior to shredding.

We next toured the shredder which was operating at the time of the inspection. Company representatives explained that the shredder is a European design and somewhat unique because the output or the processed scrap metal is discharged from the top of the shredder box. We observed how raw scrap metal is loaded, via large cranes with claws, into the in-feed chute of the shredder. We observed the shredder box and the output of shredder which included processed ferrous and non-metal ferrous material and ASR. We next inspected the items downstream from the shredder including the Z-box and cyclone and we toured an area with a large portable shearing unit cutting various types of oversized metal items, such as metal containers, that were too large to fit into the in-feed chute of the shredder.

We next toured the powerhouse or engine room. The powerhouse contained three (3) Cummins engines, two were rated at 1,300 horsepower each and one (1) was rated at 1,206 horsepower. Facility representatives explained that these engines are used to generate power to shredder motor. There were also two (2) Caterpillar engines, each rated at 2,006 horsepower, that are used to power equipment downstream of the shredder (i.e., sorting equipment, etc.). One of these engines is used at a time, with the other serving as a backup. We completed the facility at approximately 1 pm and broke for lunch.

Record Review/ Closing Conference:

We returned to the facility at approximately 2:00 PM. We discussed the records we would ask for in a follow up email. These included:

1. Shredder VOC emissions calculations with a description of the calculations.

2. Operations Log for the two emergency generators at the facility, with a breakdown of the hours used for emergency/non-emergency situations.
3. Copies of the recent air emissions construction and operating permits.
4. 2020-2021 information on scrap purchased, processed, and produced in the shredder.
5. Updated information on the rate of autos vs. non-autos processed in the shredder.

We explained that EPA does not provide compliance determinations during inspections. We thanked the facility representatives for their assistance on our inspection and departed the facility at approximately 3:00 PM.

Lead Inspector's Name: Joseph Cardile

6/25/2022

X Joseph Cardile

Lead Inspector

Signed by: JOSEPH CARDILE

Assisting Inspector's Name: Richard Kan

6/25/2022

X Joseph Cardile for Richard K...

Assisting Inspector

Signed by: JOSEPH CARDILE

Supervisor's Name: Gaetano LaVigna

6/25/2022

X Julian D. Velez S (for)

Supervisor

Signed by: JULIAN VELEZ SANCHEZ