

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

A624055422

FACILITY: CARGILL SALT - ST. CLAIR		SRN / ID: A6240
LOCATION: 916 S. RIVERSIDE AVE., SAINT CLAIR		DISTRICT: Warren
CITY: SAINT CLAIR		COUNTY: SAINT CLAIR
CONTACT: Neil Byers , EHS Professional		ACTIVITY DATE: 02/18/2020
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

On February 18, 2020, I conducted a scheduled inspection of Cargill Salt, Inc. (Cargill) located at 916 South Riverside Avenue, Saint Clair, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules, and Permit to Install (PTI) Nos.167-14A, and 94-20.

This facility is uniquely identified with the State Registration Number (SRN) of A6240.

Cargill Salt manufactures granular and Alberger salt primarily for food-grade applications. Cargill also produces a compacted salt product for water softener applications. Cargill Salt uses a solution mining process to dissolve underground salt deposits and then uses steam to concentrate the solution, which causes salt to precipitate.

I entered the facility and met with Mr. Neil Byers, EHS Professional. Mr. Byers escorted me throughout the facility inspection and provided records. During this inspection I also met with Mr. Mark Whitson, Interim Plant Manager; Mr. Lee Westrick, Processing and Production Manager – Dry End & Duracube; and Mr. Matt Landschoot, Processing Supervisor.

PTI No. 167-14A

Permit to Install (PTI) No. 167-14A was approved on April 26, 2017. The emission units approved to operate per this PTI are EUSCREENING, EUPRETZEL (which are combined into flexible group FG000), EUBOILER15, EUDRURACUBE, and EUDRYER.

EUBOILER15

This emission unit provides steam for two steam turbine generators, and process steam for manufacturing Alberger salt and granular salt. Recordkeeping indicates compliance with the NO_x limits of 8.95 pph, and 0.20 lb./MMBtu heat input. Records indicate the boiler emits NO_x at a rate of 5.3 pph and 0.033 lb./MMBtu heat input.

SC I.2 and VI. 2

Records provided appear to demonstrate compliance with the NO_x limit of 0.20 lb./MMBtu heat input. Records indicate the boiler emits NO_x at a rate of 0.033 lb./MMBtu heat input.

The O₂ content of the exhaust gas ranged from 3.4 to 3.5 percent.

SC III

I reviewed the malfunction abatement program was provided. The latest update deleted sections for EUBOILER5 and EUBOILER10, added EUBOILER15, and updated language to align with the new version of the permit to install. NOTE: This MAP also includes EUSCREENING and PRETZEL, EUDURACUBE, and the Venturi Wet Scrubber.

SC III.2

I observed that EUBOILER5 and EUBOILER10 have been permanently removed. All remaining coal fuel had been shipped off-site. EUBOILER5 was shut down on April 7, 2015, and EUBOILER10 was permanently shut down on October 15, 2015.

SC IV.1

The nameplate indicated a maximum heat input rate of 248.5 MMBtu.

SC VI.3

I was provided with records of daily natural gas usage.

SC VI.5

EUBOILER5 was shut down on April 7, 2015.

EUBOILER10 was shut down on October 15, 2015.

Cargill conducts relative accuracy test audits on a scheduled basis. CEMS operations are verified each operating day with a calibration gas check.

EUDURACUBE

SC VI.1, VI.2, and VI.3.

I received records of non-certified 1-minute Method 22 visible emission observations, pressure drop measurements across the wet scrubber, and scrubber liquid flow rates. The water flow rate ranged from 53 to 55 GPM, which complies with the permitted minimum of 37 GPM. The pressure drop ranged from 3.0 to 3.8 inches of water, which complies with the permitted range of 2.4 to 4.2 inches of water.

EUDRYER

This dryer is used to dry only Alberger salt.

II.1 and VI.2

Throughput records indicate the permittee has not processed more than 30 tons of Alberger salt per hour on a daily basis. Records indicate that the routine maximum is less than 18 tons per hour.

IV. 1

The cyclone appeared to be installed, maintained, and operated in a satisfactory manner.

IV. 2

The wet scrubber appeared to be installed, maintained, and operated in a satisfactory manner.

VI.5, VI.6, VI.7 and VI.8

Records indicate a pressure drop between 5.0 and 5.6 inches of water. The flow rate records indicate a consistent rate of 200 GPM.

FGOOO

This flexible group consists of EUPRETZEL and EUSCREENING. The material limit is 245,000 tons of salt through each emission unit per a 12-month rolling time period. Records of the 12-month rolling total salt production from January 2017 through March 2018 were provided. The highest 12-month rolling total was 199,500 tons per year, which appears to demonstrate compliance with the material throughput limit during the reported period.

Records of the wet scrubber pressure drop and water flow rate appear to demonstrate compliance with the permitted process and operational restrictions. Visible emission records appear to indicate continued compliance.

CONCLUSION

Cargill Salt appears to be in compliance with all evaluated permit conditions.

NAME

Robert Umarechi

DATE September 29, 2020 SUPERVISOR

Joyce