

S/N- SGM322CLX
Model No. 400REZXB

The installation date was listed as July 2012. The hour meter on the generator read 84.5 hours. Next, we walked into Building M, where raw materials were stored. We then went into the Reactor Building. I observed several blend tanks. In the tanks, a base resin is combined with other materials to meet customer specifications. For the most part, the resins manufactured in the tanks for Foundry applications. Next, I observed the ammonia scrubber. The meter measuring the pH read 9.7. Next, we walked in the room housing the four reactors. Two reactors are dedicated to foundry resins, the other two are for Novalac resins. The scrubber controlling emissions from the reactors had a pressure drop of 1.1.

After observing the reactors, we walked outside. I observed the 200 tank farm. The tanks appeared to be in good condition.

We entered Buildings F and G. I observed the methanol storage log. The manometer was on the wall. Staff verify that there is a nitrogen blanket on the tanks and record the value.

I observed blend tanks 12, 13, and 17, which are used for manufacturing intermediaries. Blend Tank 16 was removed. Next, I observed the 400 tanks, which were out of service. Tank 322 was moved as well.

We then went into Building K. Building K has been out of service since 2012 and now is used primarily for raw material storage. The control devices, thermal oxidizer and scrubber were also out of service.

Next we went to Building E before going into Building H. Building H houses the pastillator process. Tanks 401, 402, and 403 are hold tanks which feed the process. Tanks 421 and Tanks 422 provide additional filtering. The two lines are fed resin, which are cooled through the line and form pellets at the end. The product is used in the hydraulic fracturing industry.

After observing the pastillator process, we walked back into the conference room and went over the inspection. I requested the records required by the permit. I left the facility at 3:30PM.

FACILITY BACKGROUND:

Alpha Resins manufactures organic resins primarily for the foundry industry. The facility is located North of McNichols Rd., West of Mound Rd., South of Nevada St., and East of Conant St. in Detroit.

COMPLAINT/COMPLIANCE HISTORY:

None

OUTSTANDING LOVs

None

OPERATING SCHEDULE/PRODUCTION RATE:

Alpha Resins operates two shifts, five days a week.

PROCESS DESCRIPTION:

Alpha Resins produces organic resins for the foundry industry.

5 Blend Tanks
3 Reactors
2 Boilers and 1 Emergency Generator
Several Loading Racks- 2 Inbound and 3 Outbound

2 Plastillator lines

APPLICABLE RULES/PERMIT CONDITIONS:

Permit to Install 157-10C was issued on December 4, 2014. Compliance with the permit conditions are evaluated below.

The following conditions apply to:

EUBOILER1

Compliance- Natural gas is only burned in Boiler.

Compliance- Boiler is rated at 16 mmBTU/hr heat input capacity.

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor, in a satisfactory manner, the natural gas usage rate for EUBOILER1 on a monthly basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d), 40 CFR 60.48c(g))**

Compliance- Records are kept and were received.

2. The permittee shall keep, in a satisfactory manner, all monthly fuel use records for EUBOILER1, as required by SC VI.1., on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d), 40 CFR 60.48c(g))**

Compliance- Records are kept and were received.

3. The permittee shall monitor emissions, operating information, and keep records for EUBOILER1 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc. The permittee shall make all records available to the Department upon request. **(40 CFR Part 60 Subparts A and Dc)**

Compliance- Emissions are calculated monthly and records were received demonstrating this.

VII. REPORTING

VIII. STACK/VENT RESTRICTIONS

	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER1	36	28.6	40 CFR 52.21(c) & (d)

Undetermined- Measurements were not taken but height and diameter of the stack appeared correct.
EUBACKUPGEN

DESCRIPTION: 500 kW (or less) natural gas fired emergency generator

II. MATERIAL LIMITS

Compliance- Facility only burns natural gas in generator.

Compliance- Records are kept and were provided. Hours are less than 500 hours.

2. The permittee may operate EUBACKUPGEN for no more than 100 hours per 12-month rolling time period as determined at the end of each calendar month for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. **(40 CFR 60.4243(d))**

Compliance- Less than 100 hours a year for maintenance checks and readiness testing. Records were provided.

3. The permittee shall install, maintain, and operate EUBACKUPGEN and any control device according to the manufacturer's emission-related written instructions, over the entire life of the engine. In addition, the permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the applicable requirements of 40 CFR part 1068. **((R 336.1205(1)(a) & (3), R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR 60.4234, 40 CFR 60.4243(a))**

Compliance- Facility is operating generator according to manufacturer's instructions.

Compliance- Hour meter is installed.

2. The nameplate capacity of EUBACKUPGEN shall not exceed 500 kW, as certified by the equipment manufacturer. **(R 336.1205(1)(a) & (3), 40 CFR 60.4230(a))**

Compliance- Capacity is 500kW.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

Compliance- Certification was provided.

Records shall be maintained on file for a period of five years. (R 336.1201(3))

Compliance- Calculations are done monthly.

2. The permittee shall keep, in a satisfactory manner, a record of testing required in SC V.1 or manufacturer certification documentation indicating that EUBACKUPGEN meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart JJJJ. The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4245(a))

Compliance- Certification was provided with application.

3. The permittee shall monitor and record the hours of operation of EUBACKUPGEN during emergencies and non-emergencies, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall record the time of operation of EUBACKUPGEN and the reason it was in operation during that time. (R 336.1205(1)(a) & (3), 40 CFR 60.4243(d))

VII. REPORTING

	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBACKUPGEN	12	28.6	R 336.1225

Undetermined- Stack height and diameter were not measured but appeared to be correct.

Compliance- Facility is compliance with provisions of Subparts A and JJJJ by keeping records of hour usage.

The following conditions apply to:

FG200TANKFARM

DESCRIPTION: 200 Tank Farm – solvents

Compliance- Nitrogen blanket system was installed. Received log of pressure readings for Tank207

Records shall be maintained on file for a period of five years. (R 336.1201(3))

Records shall be maintained on file for a period of five years. (R 336.1201(3))

The following conditions apply to:

FGBUILDINGD

	Limit	Time Period / Operating Scenario	Equipment	Compliance Determination
1. Formaldehyde	114 lb/yr ¹	12-month rolling time period as determined at the end of each calendar month	EUREACTOR5 and EUREACTOR6	Compliance- Emissions were well below 114 lb/yr. Records were received.

Compliance- Records were receive regarding resin production and emission calculations. Based on emission calculations and resin production, compliance with Rule 631 is met.

Compliance- Log of pressure drop readings was received. Review of the log indicates that compliance is being met.

Compliance- pH log is kept and was received. Readings appear to be above the minimum requirement of 9.0.

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the main scrubber pressure drop on a continuous basis. (R 336.1205, R 336.1631, R 336.1901, R 336.1910)

Compliance- Pressure drop meter is installed and measuring pressure drop continuously.

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor the ammonia scrubber liquid pH on a continuous basis. (R 336.1205, R 336.1631, R 336.1901, R 336.1910)

Compliance- A device is installed and monitoring pH on a continuous basis.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

Compliance- Pressure drop records are kept and were received.

2. The permittee shall keep, in a satisfactory manner, all daily records of the ammonia scrubber liquid pH for days that EUREACTOR3, EUREACTOR4, EUREACTOR5, or EUREACTOR6 is in operation on file at the facility and make them available to the Department upon request. (R 336.1205, R 336.1631, R 336.1901, R 336.1910)

Compliance- pH records are kept and were received.

3. The permittee shall keep records for FGBUILDINGD as specified in Rule 631(6) to show compliance with Rule 631. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205, R 336.1631, R 336.1901)

Compliance- Records on resin production and VOC emission calculations are kept.

4. The permittee shall keep, in a satisfactory manner, formaldehyde emission calculations determining the total annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month from EUREACTOR5 and EUREACTOR6, as required by SC I.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ (R 336.1225)

VII. REPORTING

	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSCRUBBER	32 ¹	56 ¹	R 336.1225

Undetermined- Height and Diameter were not measured but they appeared to be accurate during inspection. This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FGBUILDINGK

DESCRIPTION: Alkyd production housed in Building K. Consists of one active reactor (EUREACTORK1) and several other reactors used for other purposes.

Compliance- Building K has been out of service since 2012.

IV. DESIGN/EQUIPMENT PARAMETERS

Compliance- Building K has been out of service since 2012.

2. The permittee shall not operate EUREACTORK1 unless the thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes a minimum VOC destruction efficiency of 90 percent (by weight), and maintaining a minimum temperature of 600 °F and a minimum retention time of 0.5 seconds. (R 336.1205, R 336.1631, R 336.1901, R 336.1910)

Compliance- Building K has been out of service since 2012.

3. The permittee shall equip and maintain the FGBUILDINGK scrubber with a device to monitor the liquid flow rate, on a continuous basis, during operation of EUREACTORK1. (R 336.1205, R 336.1901, R 336.1910)

Compliance- Building K has been out of service since 2012.

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature, on a continuous basis, during operation of EUREACTORK1. (R 336.1205, R 336.1901, R 336.1910)

Compliance- Building K has been out of service since 2012.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

Compliance- Building K has been out of service since 2012.

2. The permittee shall keep, in a satisfactory manner, all daily records of the scrubber liquid flow rate for days that EUREACTORK1 is in operation on file at the facility and make them available to the Department upon request. (R 336.1205, R 336.1631, R 336.1901, R 336.1910)

Compliance- Building K has been out of service since 2012.

Compliance- Building K has been out of service since 2012.

4. The permittee shall keep records for FGBUILDINGK as specified in Rule 631(6) to show compliance with Rule 631. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205, R 336.1631, R 336.1901)

Compliance- Building K has been out of service since 2012.

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (Inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVOXIDIZER	16 ¹	29 ¹	R 336.1901

Compliance- Building K has been out of service since 2012.

IX. OTHER REQUIREMENTS

FGBUILDINGG

IV. DESIGN/EQUIPMENT PARAMETERS

Records shall be maintained on file for a period of five years. (R 336.1201(3))

Compliance- Emission calculations were provided along with resin production.

IX. OTHER REQUIREMENTS

NA

FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method Underlying Applicable Requirements
1. Each Individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	Compliance-HAP emissions consisted of formaldehyde and phenol of which are well below 8.9TPY each. Records were provided.
2. Aggregate HAPs	22.4 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	Compliance-HAP emissions consisted of formaldehyde and phenol of which are well below 8.9TPY each. Records were provided.

Compliance- Emission calculations were provided along with resin production.

NA

Records shall be maintained on file for a period of five years. (R 336.1201(3))

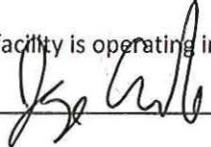
Records shall be maintained on file for a period of five years. (R 336.1201(3))

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:
N/A

Pollutant	2014 Emissions(TPY)
CO	3.83
NOx	0.893
PM	0.25
Sox	0
VOC	0.63

FINAL COMPLIANCE DETERMINATION:

It appears the facility is operating in compliance with applicable regulations.

NAME 

DATE 7-29-15

SUPERVISOR 