

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

B430240468

FACILITY: ESCO Company, LLC		SRN / ID: B4302
LOCATION: 1221 East Barney Avenue, MUSKEGON		DISTRICT: Grand Rapids
CITY: MUSKEGON		COUNTY: MUSKEGON
CONTACT: Bruce Katje, VP of Operations		ACTIVITY DATE: 06/26/2017
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY 2017 inspection to determine compliance status with permits (PTI No. 482-77, 658-84, 120-85, 467-87a and 207-06) and any other applicable air rules and regulations.		
RESOLVED COMPLAINTS:		

AQD staff Chris Robinson (CR) conducted a scheduled on-site unannounced inspection on Monday June 26, 2017 at Esco Company, LLC (Esco) located at 1221 East Barney Avenue, Muskegon, MI. CR arrived at the facility at approximately 11:00am. No odors or visible emissions were detected upon arrival or throughout the inspection.

CR met with Mr. Bruce Katje, Vice President of operations. CR presented proper AQD identification and a business card. CR also announced intent to conduct an inspection to determine compliance status with respect to the facility's permits (PTI No. 482-77, 658-84, 120-85, 467-87a and 207-06) and any other applicable air rules and regulations.

Facility Description

Esco began operations in the 1960's. They currently produce two types of color formers, thermal inks for thermochromics and laser imaging and pressure sensitive inks for carbonless receipt paper. Esco produces the color formers in a powder form and sells it to manufacturers.

Discussions with Mr. Katje indicated that the facility is in the process of permanently shutting down, which may be completed by September 2017. The facility was currently operating some of the equipment, however all production should be completed within a couple of days following this inspection. Mr. Katje will contact AQD to close out the facility's permits as soon as the equipment has been removed or rendered non-operational.

Compliance Evaluation

➤PTI No. 482-77

This permit covers a 2,000-gallon solvent recovery still. There is only one (1) Special Condition which limits the visible emissions from this process to 20% or less. No visible emissions were observed.

➤PTI No. 658-84

This permit covers a 10,000-gallon caustic tank. There is only one (1) Special Condition. This condition allows for the substitution of raw materials only if the substitution does not result in an appreciable change in the quality or an appreciable increase in emissions without notification. Per discussions with Mr. Katje, no substitutions or requests have been made.

➤PTI No. 120-85

This permit covers the rainwater holding tank or what is also known as the Pollution Prevention Plan (PIPP) Vault which is used to store rainwater runoff for the facility. There is only one (1) Special Condition. This condition limits visible emissions to 20% or less. No visible emissions were observed.

➤PTI No. 467-87A

This permit covers the methyl chloride storage tank. The only Special Condition of this permit requires the tank to be operated with a pressure of greater than 2-atmosphere absolute. Based on discussions with Mr. Katje the methyl chloride tank has been operationally closed since 2014. The installed and functional pressure gauge had a reading of zero (0) psi, confirming non-operational status.

➤PTI No. 207-06

EUSTRIPPER

The facility operates two (2) air stripping towers for removing contaminants from waste water and non-contact cooling water. The facility monitors and records the effluent water stream flow rate and VOC concentration

monthly. Required EUSTRIPPER records were provided by Mr. Katje and included in this report. This equipment is subject to a 3.2 tpy VOC emission limit. Based on records provided for June 2016 – May 2017, the maximum calculated VOC emissions were 1,344 lbs (0.672 tons) in December 2016, which is well below the permitted limit.

This equipment is also subject to a 0.72 pph VOC emission limit (Special Condition 1.1a), which appears to be the basis for the 3.2 tpy limit:

$$(0.72 \text{ pph} \times 8760 \text{ hours}) / 2000 \text{ tons} = 3.2 \text{ tpy}$$

Compliance with the 0.72 pph limit is unknown but likely considering that the facility's 12-month rolling VOC emissions were well below the permitted limit (3.2 tpy) and the facility appeared to be operating properly during this inspection. The facility does not monitor for this limit nor are there any Recordkeeping/Reporting/Notification or testing requirements for this limit.

Stack diameters and heights were not explicitly measured, however appeared visually to meet the maximum diameter requirement of 24-inches and minimum height requirement of 46-feet tall for each stack.

FGPRODUCTION

Flexible Group "FGPRODUCTION" consists of the following:

Emission Unit ID	Emission Unit Description	Stack Identification
EU-RX-205	EtKeto acid process including tanks, reactors, pumps, filter and a dryer. The emissions from this process are controlled by a condenser.	SVCONDENSER
EU-RX-207	BuMAP and butyl bromide regeneration processes including tanks, reactors and pumps. The emissions from this process are controlled by a condenser and caustic scrubber.	SVCONDENSER; SVSCRUBBER
EU-RX-301	OBD-2 process including tanks, reactors and pumps. The emissions from this process are controlled by a condenser.	SVCONDENSER
EU-RX-310	BuKeto process including tanks, reactors and pumps. The emissions from this process are controlled by a condenser.	SVCONDENSER
EU-RX-101	Black XV/N-102 processes including tanks, reactors and pumps. The emissions from this process are controlled by a condenser.	SVCONDENSER, SVROOFSCRUB

FGPRODUCTION is subject to the following emission limits:

Pollutant	Limit	Time Period
VOC (Normal Mode)	* 16.8 pph	Test Method
VOC (Maintenance Mode)	* 67.4 pph	Test Method
VOC	27 tpy	12-Month rolling
PM	* 0.10 lbs./1,000 lbs. exhaust gas	Test Method
PM	* 0.5 pph	Test Method

A toxic impact evaluation was conducted during the application period for this PTI using maximum hourly emission rates. These emission rates are identified as "Emission Limits" in table 2 and noted with an asterisk (*) in the table above. Although, the facility does not monitor for these limits instantaneously nor are there any Recordkeeping/Reporting/Notification requirements, 12 month records and proper operation may likely indicate that the facility is in compliance with these limits.

Required FGPRODUCTION records were provided by Mr. Katje and included in this report. This Flexible Group has a 27 ton rolling 12-month VOC emission limit for these units combined. Based on records provided for June 2016 – May 2017, the maximum calculated VOC emission rate was 22,532 lbs (11.266 tons) in June 2016, which is well below the permitted limit.

Special Condition 2.2 restricts the facility from operating the VOC condenser system in maintenance mode for more than 5% of the time the process is operating (based on a 12-month rolling time period). Based on the provided site records, the facility's VOC condenser did not operate at all in maintenance mode during the months of June 2016 - November 2016. The facility did operate the condenser in maintenance mode for 0.22% during each month from December 2016 - May 2017. Based on discussions with Mr. Katje, ESCO continuously monitors hours of operation while FGPRODUCTION is in Maintenance mode. Monthly and 12-month rolling records are included in this report.

Special Condition 2.3 requires the facility to install, maintain and operate the condenser properly, which includes a vapor outlet temperature requirement of no greater than -10°C . The condenser is installed and maintained as necessary. Vapor temperature is monitored continuously and per shift. The instantaneous vapor inlet temperature was noted at -36.2°C . Shift records for 6/25/2017 and 6/26/2017 indicate that the condenser vapor outlet temperature was approximately -36.0°C .

Special Condition 2.4 requires the facility to install, maintain and operate the caustic scrubber properly, which includes the installation of low pressure and low flow alarms. Based on discussions with Mr. Katje the alarms are in place and functioning. The facility monitors flow and pressure continuously, which Mr. Katje can remotely monitor from his computer. Instantaneous readings demonstrated an operating flow rate of 38 gpm and a pressure of $-3.53''\text{H}_2\text{O}$.

At this time AQD is not requesting VOC testing, therefore no test report is required to be completed or submitted to AQD.

The following records were provided by Mr. Katje as required by Special Conditions 2.9 - 2.13 of this permit.

- Monthly batch records for ODB-2, BuKeto, Black XV, N-102 and EtKeto
- Maintenance Mode operating hours for FGPRODUCTION
- VOC condenser shift records
- Caustic scrubber flow records
- VOC Emission rate calculations

Stack diameters and heights were not explicitly measured, however appeared visually to meet the requirements specified in the permit.

FGFACILITY

Esco is subject to facility-wide HAPS limits of 10tpy for each individual HAP and 25tpy for Aggregate HAPs, both based on a rolling 12-month time period. HAP records were provided and included in this report. The facility's maximum calculated 12-month rolling HAP emissions, based on records provided for June 2016 – May 2017, were 6,777 lbs. (3.389 tons) individual for Toluene in September 2016 and 13,944 lbs. (6.972 tons) aggregate for both Toluene & Methanol combined in July 2016. Individual and Aggregate HAP emissions appear to be well below the permitted limits.

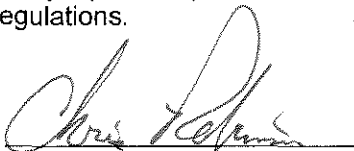
> Other (Benzene NESHAP)

Benzene records for 2016 were reviewed on-site. Per 40 CFR Part 61 Subpart FF, benzene in the facility's waste stream cannot exceed 1Mg/yr. Testing for this limit is conducted by an outside contractor and was determined to be 0.063 Mg for year 2016.

Conclusion

Based on observations made during this inspection and a records review, Esco appears to be in compliance with the facility's permits (PTI No. 482-77, 658-84, 120-85, 467-87a and 207-06) and any other applicable air rules and regulations.

NAME



DATE

7/5/2017

SUPERVISOR

