

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

B914254237

FACILITY: Lambda Energy Resources, LLC - Charlton 12		SRN / ID: B9142
LOCATION: 14116 HEATHERTON RD, JOHANNESBURG		DISTRICT: Gaylord
CITY: JOHANNESBURG		COUNTY: OTSEGO
CONTACT:		ACTIVITY DATE: 07/13/2020
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Field inspection for FCE		
RESOLVED COMPLAINTS:		

On July 13, 2020, I inspected the Lambda Energy Charlton 12 CPF. The facility is off Heatherton Road, east of Johannesburg. The facility looked as I remember it looking; I didn't notice any significant changes.

This facility is covered by Permit 43-04A, issued June 14, 2005. It is located just off Heatherton Road, which is paved, so there is no special difficulty in reaching it. It is one of the older facilities and contains considerable equipment which isn't used any more. Paint is faded and peeling, but the maintenance on the equipment still operating appears adequate.

Permit 43-04A references three Emission Units and two Flexible Groups. The emission units are EU-CH12DEHY, a glycol dehydrator; EU-CH12COMP1, a natural gas fired reciprocating engine, and EU-CH12COMP2, a second natural gas fired reciprocating engine. The flexible groups are FG-CH12COMPS, the two compressor engines, and FG-FACILITY, all equipment in the full facility.

According to Ms. Vicki Kniss of Lambda Energy, this facility has been shut down indefinitely as of late 2019. None of the process equipment was operating at the time of my inspection.

#### EU-CH12DEHY, Glycol Dehydrator(s)

Our permit lists one glycol dehydrator. In my inspection last year I noted there were two. The north dehydrator equipment is smaller than the south equipment. Each dehydrator has a glycol tank, an oval metal tank on stilts labeled Triethylene Glycol. The tank on the north dehy was labeled Do Not Fill. Therefore it appears the north dehydrator is out of service. The south dehy was not operating either at the time of my inspection.

There was a drum on stilts tank labeled Methanol outside the dehy shed. It was perhaps 500 gallons in volume. It was over a lined wooden berm structure.

Condition 1.1 prohibits operating EU-CH12DEHY unless a flare, condenser, or other equivalent control device is operating properly. The two still vents I saw appeared to have condensers on them; other parts of the dehy units appeared to be vented to control equipment elsewhere.

Ms. Kniss informed me that the glycol dehydrator is controlled by a vapor recovery unit, and that the vapor recovery unit had no downtime. There is a building south of the dehydrator shed, near some crude oil storage tanks. The tank vents are vented into this building. It is likely this building contains a vapor recovery unit. Therefore it is possible the dehy vents run to the VRU as well.

#### FG-CH12COMPS

Condition 2.2 requires each engine have a 3 way catalyst installed and operating properly. The southernmost of the two engines has a catalyst installed on the exhaust pipe inside the compressor shed. This engine was not operating during my inspection last year and is marked as out of service. The northernmost of the two engines has a catalyst installed on the exhaust pipe outside the compressor shed, to the north of the shed wall. This engine was not operating during this inspection, but was operating during my inspection last year. The 3 way catalysts are installed as required by permit. The engines were not operating, so the catalysts do not need to be operating at the moment.

There were two metal tanks on stilts near the south engine. They appeared to be engine oil. In my previous inspection I noted they were labeled as lubricating oil but I did not note their labels in this inspection.

#### FG-FACILITY

Condition 3.2 requires only sweet natural gas as fuel. I did not see or smell anything that would make me believe there was any sour gas being used as fuel on site.

#### COMMENTS

The compressor shed contains two Waukesha natural gas fired compressor engines with catalytic oxidizers; for the south engine, the catalytic oxidizer is inside the shed, for the north one the catalytic oxidizer is outside the shed. The south engine was tagged as out of service and was not running at the time of my inspection. The north engine was not tagged as out of service, but was not running either at the time. Lambda has informed us the facility is shut down temporarily at this time.

The north engine exhaust exits the compressor shed horizontally through the shed wall, to the catalyst, which is located outside the wall. From there exhaust runs to a horizontal muffler. Beyond the muffler is a pipe elbow which directs the exhaust unobstructed vertically upward. I estimated the exhaust dimensions as perhaps 16 feet above ground and 12 inches diameter.

The dehydrator shed seemed to have two dehydrators in it, although our permit describes one. As noted above, one of these was marked in a way to suggest it is out of service. Both appear to be old, probably original to the facility by the looks of them. In the previous inspection I thought the burner stacks were the same diameter, but this time I thought the south stack was about 8 inches diameter and the north one six inches. The still vents were about 14 feet above ground level, maybe 2 inches diameter. The heater stacks were unobstructed vertically upward, the still vents terminated in T shaped pipe fittings.

I didn't notice any builder's plates on the dehy, which might have given me their heat input ratings. However, the burners looked about the size of others I have seen which ran in the 100,000-125,000 BTU per hour heat input range, or perhaps a bit smaller.

There is a facility flare. It was not lit at the time of my inspection. It is about 50 feet high.

There are five standard size 400 barrel storage tanks, inside a berm, with a truck load out nearby. Two looked freshly painted. One was labeled as produced water. Four were labeled as crude oil. Their top vents are piped to a building near the tanks, which could contain a VRU.

Oil storage tanks, the compressors, and parts of the dehy seemed to have vent pipes attached which disappeared underground; likely these run to one or the other of the control devices, but I couldn't see whether any one went to the VRU or to the flare. I think these run to the flare.

I noted four heater treaters or inline heaters. One of these was east of the dehy shed, three were east of the compressor shed. One of the three heaters near the compressor shed had a builder's plate that appeared to say the burner was from Natco and had a capacity of 600,000 BTU per hour, although the plate was weathered and difficult for me to read. I didn't find builder's plates on the others. Physically they were the same overall size, or smaller. I estimated the stack for the heater near the dehy shed as 12 inches by 20 feet high. The "Natco" heater had a stack about 24 inches diameter and 14 feet high, while the two heaters near it were perhaps 18 inches diameter and 20 feet high, all estimated by eye. All these heater stacks were unobstructed vertically upward.

I saw a few other small drum on stilt tanks, but didn't note whether they were labeled to indicate their contents. All the small tanks I saw were over a berm structure of some kind.

I didn't see any leaks. I didn't see any stained soils which would make me think there had been spills or leaks recently.

William J. Rogers Jr. Digitally signed by William J. Rogers Jr.  
Date: 2020.08.12 13:11:57 -0400

Shane Nixon Digitally signed by Shane Nixon  
Date: 2020.08.12 13:15:22 -0400

NAME \_\_\_\_\_

DATE \_\_\_\_\_

SUPERVISOR \_\_\_\_\_