

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

P038763608

FACILITY: RIVERSIDE - HILLBILLY CPF		SRN / ID: P0387
LOCATION: T31N-R3E, SEC 21, SW SW NE, HILLMAN		DISTRICT: Gaylord
CITY: HILLMAN		COUNTY: MONTMORENCY
CONTACT:		ACTIVITY DATE: 07/13/2022
STAFF: David Bowman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On 13 July 2022 I, David Bowman MI EGLE AQD, conducted an inspection of P0387 Hill Billy CPF (Minor sources) operating under permit to install 160-12. The site is located by traveling north of Atlanta on M33 for 2.7 miles then turn East onto Voyer Lake Rd for approximately 6.0 miles. The source is on the South East of the road and the gate is easily observable from Voyer Lake Rd. The site is located on state managed public land and there are no residential homes within several miles of the source. The site is clean and well maintained. There was no odors detectable from the gate or roadway, and there are no indications of any spillage on the site.

P0387 processes natural gas from the Antrim formation and compresses and dehydrates it. The dehy is exempt under rule 288(b)(ii). The original application lists two 400 bbl brine tanks, one rich burn CAT 398 with catalytic converter and air fuel ration controller (AFRC), and one 4015v glycol dehydration (r 290(a)) with process heater (R282(b)(ii)).

Glycol Dehydrator: The glycol dehydrator was operating at the time of inspection. There was a very slight glycol odor near it. The stack for the process heater on the glycol dehydrator appears to be at least 6" in diameter and 23' tall exhausting vertically (EUDEHY SC VIII. 1). There is a flash tank installed on the dehydrator.

EUENGINE1: GCS 804, a CAT 398 TA rich burn, 625 HP, with catalyst and AFRC, S/N 67B01601 was operating at the time of inspection. At the last inspection (Mar 16, 2020) listed the Catalyst temperatures at inlet temp of 843°F and outlet temp of 888°F. At the time of this inspection the inlet temp was 841°F and outlet temp of 850°F. I have sent an email to the source letting them know that there may be an issue with the catalyst as determined by the reduction in temp difference and that the difference appears to be much lower than normal range for proper operation. The recordings for the month of July averaged a 10° difference. Follow up from Natalie -- Regarding the temp difference, this unit is a weird one in the sence of temps. We do get inverted temps on it every now and then, and do checks and tests and it is fine. We did install new element in 2020 and it was good for a while. Then we got inverted temps again, and again did maintenance, cleaned/washed and it's ok. But passes tests every time. So quite possible it's getting to the point it needs to be cleaned again, although it's not been that long ago the guys did complete wash job. See report dated 19 Jul 2022 for information on the maintenance records of the catalyst.

Emissions summary from permit request (last updated 10/2/2012):

Emission	PTE	Limit Established
NOx	59 TPY	10 TPY

CO	64.5 TPY	20 TPY
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The expected catalytic control:

Emission	Catalytic control	Projected emission
NOx	90%	5.9 TPY
CO	80%	12.9 TPY

MAERS 2021 review has source below these amounts. Source calculations mirror AQD calculations. No issues found with the MAERS review.

Malfunction Abatement Plan was approved by AQD 6 Mar 2013 (meeting requirements of ENENGINE1 SC III. 1).

The site has a startup, shutdown plan that is completed through the monthly and is showing that it is filled out and complete through the month of June 2022.

SVENGINE1 appears to have 12" diameter minimum and be at least 35' tall exhausting vertically (meeting requirements of EUENGINE1 SC VIII. 1.).

There is only one 400 bbl tank present on the site. Previous inspections indicate that the second tank was removed (see MACES report dated 03/16/2020). The tank that was present is in very good state of repair and is labeled "Non-potable water liquid waste". It is in secondary containment.

NAME _____

DATE _____

SUPERVISOR _____