

July 20, 2020

Joyce Zhu
Warren District Supervisor

Department of Environment, Great Lakes, and Energy
Air Quality Division
27700 Donald Court
Warren, MI 48092-2793

Reference: PTI 10-20 (SRN P1109)

Dear Joyce,

This is in response to the Letter of Violation Notice Dated July 8, 2020.

We take exception to the characterization of this matter as a violation.

On July 3, I notified your office of the hours we had undertaken for the Diesel commissioning to get an understanding as to documenting that number as our beginning point for the operational period.

- We had not (and still have not) notified the District Office of our completion of our installation and testing prior to the commencement of the operational period for the engine (as required per §EUDIESEL VII.1)
 - Operations have not begun
 - We viewed commissioning activity to be outside the permit requirements
 - We have no other state or local permitting authority which views commissioning activity to be considered as a limitation to the permit itself
- Due to the mission critical aspect of the on-site power project (facility is NOT connected to the grid) and the importance of the diesel as an emergency back-up the system the genset had to be extensively tested to ensure:
 - Its ability to assume failover for any one or all the natural gas engines
 - Its ability to black start any and or all the natural gas engines in a failure situation
 - That Procedure and all the steps required for that testing are attached (*Attachment I*). The company providing insurance for the project required the procedure and testing validation
- Hours incurred during a test period are not at full load, but the diesel is metered only for hours – not electrical output which is more indicative as to actual load (and emissions output)
 - As there were no loads in the building requiring power, the engine was primarily idling once started
 - So, we do not have an exact calculation as to emissions
 - But it was considerably less than the 1 MW full load output

- We have attached an emissions calculations page for the hours undertaken on the commissioning activity (Attachment II)
 - The calculated full year run rate for emissions is considerably less than our anticipated run rate even including an additional 100 hours of NOx emissions for the diesel

The situation is not ongoing.

The actions taken to correct is the cessation of the commissioning activity.

No date is required for this action to occur (stopped July 3).

Unit will only be utilized as an emergency backup power source.

Background

When we were in Permit discussions on the morning of February 26 (Lauren, Janelle, Mark, Loran and myself) our objective was to obtain the permit without the obligation for air dispersion testing because of the undue influence of the nearby General Motors and Dodge facilities.

To do this, we relied on and referenced the Air Quality division Policy and Procedure *AQD-022 Table I* (attached), which evaluates emissions as a percentage of significant emissions rates (SER) and requirement for dispersion demonstration. In our application of January 30, we had submitted an equipment package that had our expected total NOx output at 19.8 tons or 40.5% of SER. To keep it under 20 tons, we limited the number of hours available for the standby diesel to 100 versus our initial request for 500 hours. Based on our minimum stack heights and roof heights, we should have been able to satisfy the procedural requirements at that output with no required demonstration.

This was not acceptable to the DEQ (EGLE), so we begrudgingly added a costly fifth SCR to put us in the range of less than 10 tons or less than 25% of SER which should have **NO** requirement for testing or Stack Requirements. However, we did agree to stack height requirements even though not specifically required.

The anticipated run rate with this emissions package would have put us at 7.8 tons at 100% run rate versus our anticipated load of 76% (which would equate to 6 tons per year). At that time, we could (should) have increased the hours of operation for the diesel and we still would have stayed well within the 10-ton target.

We do understand that we agreed to a target based on actual emissions based on hourly rates and hours, but we got there by developing a NOx target the is 90% lower than EPA Title V requirements.

Moving Forward

If your organization does not recognize the commissioning hours as outside the permit requirements, we would have no option other than to request an amendment which is in essence - a complete resubmittal.

We would request that the hours allocated to the Diesel be set at 250 hours which at full load on all engines would result in 8.8 tons of NOx in total. (*Attachment II*)

The diesel also is quite low on the two targeted HAPs.

Acrolein would result in 0.02 Pounds per year at 250 hours. Per 227 1 (c) this would equate to 70% on the 2nd ITSL ER so well within the 100% test.

Formaldehyde would be produced at 0.2 Pounds per year or less than 30% of the industrial site IRSL ER (227 1 (c))

Please advise how you wish us to proceed.

Thank you for your consideration

James G. Kelly
President, Cultivated Power, Inc.

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PS A review of the original and follow up PTI requests forms, indicated that I was authorized to act on behalf of the client.

CC: Hoover Road Real Estate
Todd Oltmans

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Warren District Office – Air Quality Division
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