



Department of Environmental Quality
Air Quality Division
120 W. Chapin
Attn: Caryn Owens
Cadillac, MI 49601

December 5, 2015

RE: ASE 5B Permit to Install, SRN N6444

Dear Caryn,

This letter is in response to a Violation Notice dated December 1, 2015. The notice referred to FGENGINES Condition I.1. Condition I.1 stipulates that the Ajax DPC engine is limited to 22 tons/year NOx. This violation was issued because resultant permit recordkeeping for this engine consistently concluded that NOx levels exceeded permit thresholds (25.5 to 28.5 tons/year).

A thorough review of the Ajax DPC specification sheet and the associated fuel usage was conducted to confirm reported NOx levels in the monthly records. During the review it was noted that the potential to emit (PTE) for subject engine was 21.048 tons/year and the maximum potential fuel usage was 2260.88 mcf/month. Fuel usage numbers provided for emission calculations were based on fuel meter readings at the facility. Subject meter readings for the engine also includes fuel to the dehydrator burner. The dehydrator burner is rated at 125,000 Btu/hr which converts to 97 mcf per month. When the fuel from the dehydrator burner is subtracted from the fuel burned by the engine overall fuel usage still exceed the potential for fuel burned, hence NOx levels still exceed the permit condition. In conclusion, this discrepancy could be attributed to a faulty fuel meter which will be calibrated for error.

A more plausible explanation for the discrepancy is the fuel makeup. The fuel utilized at site consists of raw gas. Subject raw fuel includes such components as CO₂ and nitrogen which do not combust. CO₂ percent based from analytical reports have varied from as much as 10.4% to 24.9%. When the fuel usage is adjusted for noncombustible gases the overall fuel consumption is reduced significantly. The relationship between fuel consumption and NOx emissions is directly related, therefore when NOx levels are recalculated to include the reduction of noncombustible gases, NOx emission levels easily meet the permit thresholds.

In order to confirm compliance with permit condition I.1 subject records will be recalculated for the last two years and submitted for consideration.

It is our determination that emissions from the Ajax DPC compressor engine is within the limits set forth in the current permit to install. If you have questions or concerns please contact us at your convenience.

Regards,

A handwritten signature in black ink that reads 'Jeffrey A. Riling'.

Jeffrey A. Riling
Michigan Manager
EnerVest Operating, LLC
Office: 989-732-8499 ext.50627

ENERVEST OPERATING, LLC

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