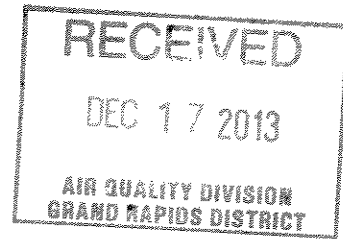




Zeeland Farm Services, Inc.\*



December 13, 2013

**Via E-mail and U.S. Mail**

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**Re: Zeeland Farm Services, Inc. (SRN: M4204)**

Dear Ms. Lazzaro and Mr. Wolf:

With this letter, Zeeland Farm Services, Inc. (“ZFS”) responds to both the draft consent order e-mailed by AQD on November 26, 2013, as well as the underlying November 26, 2013 Violation Notice addressing ZFS’ September 17, 2013 emissions testing for EULF/NGENGINES. ZFS is providing this combined response given the significant overlap between these two AQD communications.

Overall, ZFS remains committed to negotiating a resolution to AQD’s enforcement concerns, but believes that several of the issues raised by the draft consent order require additional consideration. Before proposing follow-up discussions with AQD to address these issues, this letter addresses: (1) the inapplicability of the RICE NSPS to Engine #2; (2) the emissions limits for EULF/NGENGINES and need for permit revisions; (3) the heat recovery system for EULF/NGENGINES; and (4) several concerns with the terms in the draft consent order. Each of these issues is addressed in turn below.

**1. RICE NSPS Inapplicability to Engine #2 (EULF/NGENGINES)**

Although ZFS’ prior communications with AQD contributed to the confusion surrounding this issue, the RICE NSPS does not apply to Engine #2 of EULF/NGENGINES. Prior discussions about Engine #2 focused on the date of engine installation at ZFS’ facility and how that milestone potentially triggered applicability of the RICE NSPS pursuant to 40 CFR § 60.4230(a)(3). Upon further review, however, this section does not apply to ZFS because it addresses “manufacturers.”

By contrast, 40 CFR § 60.4230(a)(4) applies to owners and operators like ZFS. That said, after revisiting the potential triggers for the RICE NSPS, ZFS has identified the date that it commenced construction as the key trigger date. Specifically, in the first paragraph of § 60.4230(a), the RICE NSPS clarifies that “[f]or purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.” As Exhibit A to this letter illustrates, Engine #2 (like Engine #1) was ordered in early 2005, i.e., the vendor proposal for the engines was accepted by ZFS on March 31, 2005, and countersigned by the engine supplier on April 1, 2005. As a result, both engines

in EULF/NGENGINES were ordered and, for purposes of the RICE NSPS, commenced construction before the June 12, 2006 trigger date. As such, the RICE NSPS is not triggered pursuant to 40 CFR § 60.4230(a)(4).

To the extent that AQD based its conclusion that the RICE NSPS applied based on the “modification or reconstruction” trigger at 40 CFR § 60.4230(a)(5), that reliance is misplaced. While AQD’s September 20, 2013 inspection report noted that Engine #2 underwent an “overhaul” in May 2013, that project did not constitute a modification; rather, it was an example of routine maintenance, repair, and replacement that is specifically exempted from constituting an NSPS modification. *See* 40 CFR § 60.14. Notably, Engine #2 was basically the same engine before and after the repair, e.g., it had the same use, capacity, fuel type, emissions, and serial number. Similarly, reconstruction did not take place because the relevant “fixed capital cost” for the Engine #2 overhaul in May 2013 was less than 20% of the roughly \$1.0M replacement cost for the engine. *See* 40 CFR § 60.15; *compare* Exhibit A (listing the 2005 cost for supplying and installing the two engines at approximately \$2.3M). Therefore, the May 2013 repair of Engine #2 does not trigger the RICE NSPS based on 40 CFR § 60.4230(a)(5).

Thus, despite some prior misstatements by ZFS that may have suggested otherwise, the RICE NSPS is not triggered for EULF/NGENGINES.

## **2. EULF/NGENGINES Emission Limits and Permitting Issues**

In ZFS’ view, the existing NO<sub>x</sub> and CO limits for EULF/NGENGINES represent the most significant issue because those limits were inappropriately set too low. While ZFS acknowledges that the recent emissions testing yielded emission factors in excess of the current ROP limits on NO<sub>x</sub> and CO, ZFS recently identified some critical problems—including some blatant errors—that require revision of those limits. After explaining ZFS’ concerns with the current ROP limits, this section of the letter discusses a potential approach for permitting these engines going forward.

One significant issue with the current NO<sub>x</sub> and CO limits is they simply adopt AP-42 emission factors as never-to-exceed emission limits. While this previously did not pose a compliance problem and therefore was not fully appreciated, ZFS believes that it is inappropriate to take an estimated measure of actual emissions and convert that estimate into a never-to-exceed emission limit, especially when the limits are expressed in units of lb/MMBtu. Since an AP-42 emission factor represents the typical or average emission rate for a type of emission unit based on the data available at that time, one would expect that future measures of emissions from that type of unit are just as likely to exceed that average figure as they are to fall below it (i.e., since the average will often represent the midpoint of a bell curve of underlying data).

Another concern is the fact that there is no applicable requirement that necessitates these current emission limits for these engines. As noted above, the RICE NSPS does not apply to either of these engines. In addition, there is no other state or federal emission standard that requires a NO<sub>x</sub> or CO emission limit. While the ROP cites to 40 CFR 52.21(c) and (d), selecting the AP-42 emission factors as never to exceed limits and then citing the federal PSD regulations does not explain why 0.14

lb/MMBtu for NO<sub>x</sub> or 0.44 lb/MMBtu for CO were required as specific emission limits. Based on the permitting information available, ZFS believes that these current NO<sub>x</sub> and CO limits are arbitrary.

More importantly, aside from incorporating NO<sub>x</sub> and CO emission estimates as a never-to-exceed emission limits and the lack of an underlying applicable requirement, it appears that incorrect and outdated emission factors were selected to characterize the EULF/NGENGINES emissions. For example, Exhibit B contains August 26, 2006 permitting correspondence with AQD that identifies the source of the 0.14 and 0.44 lb/MMBtu emission factors as AP-42 Table 3.1-1, which is titled: “Emission Factors for Nitrogen Oxides (NO<sub>x</sub>) and Carbon Monoxide (CO) From Stationary Gas Turbines.” Rather than adopting turbine emission factors, the engines’ permit should have focused on engine emission factors such as those calculated pursuant to Section 2.4-5 of the AP-42 guidance. While ZFS is responsible for incorrectly providing these erroneous emission factors, the fact remains that the current NO<sub>x</sub> and CO emission limits for EULF/NGENGINES are based on estimates of turbine emissions, a completely different type of equipment, and therefore warrant correction.

Further, ZFS also notes that the draft 2008 AP-42 guidance provides corrected estimates of NO<sub>x</sub> and CO emissions for engines (like those in EULF/NGENGINES) that are significantly higher than those listed in the outdated 1998 guidance. While the calculated CO emission factor increases from 2.01 to 2.26 lbs MMBtu when using the current guidance (i.e., a roughly 12% increase), the calculated NO<sub>x</sub> emission factor increased from 1.07 to 3.10 lbs/MMBtu (i.e., a 290% increase). *See* Exhibit C (containing AP-42 emission factor calculations). Thus, there are additional reasons why reliance on AP-42 is problematic for this equipment.

Taken together, there is ample cause for AQD and ZFS to revise the emission limits applicable to EULF/NGENGINES. In fact, doing so would also allow the parties to address other shortcomings in this section of the ROP, including: (a) clarifying that the emission limits apply to each engine—which was previously confirmed by AQD; (b) updating the outdated description of the engines (from the current PTI 94-04 description); and (c) potentially breaking the two engines into separate emission units.

In terms of the applicable emission limits going forward, ZFS proposes, as a potential concession to resolve this enforcement matter, to incorporate the RICE NSPS emission limits for each of the engines. Specifically, while ZFS contends that neither engine has triggered the RICE NSPS, it proposes to accept the RICE NSPS emission limits as the limits on NO<sub>x</sub> and CO emissions going forward and in lieu of the inappropriate limits that currently appear in the ROP. ZFS will submit a permit application to this effect, but wishes to make it clear that this permitting change is contingent on resolving this enforcement under acceptable terms.

Finally, while ZFS acknowledges its role in the prior permitting of the EULF/NGENGINES emission unit, the fact that the 0.14 and 0.44 lb/MMBtu limits on NO<sub>x</sub> and CO (respectively) are so inappropriate makes enforcement based on these emission limits improper. Rather, ZFS suggests that the parties focus on revising the permit to properly describe and regulate the engines.

### **3. The Heat Recovery System for EULF/NGENGINES**

Both the September 24, 2013 Violation Notice and the draft consent order allege permitting violations based on the replacement of the EULF/ENGINES heat recovery system. ZFS' October 15, 2013 response letter explained the past work on the system and the company's rationale for why the work was exempt from the need for additional air permitting. As noted, the view that this work was exempt relied in part on the prior determination made by AQD for the original installation of the system. In the subsequent November 7, 2013 settlement meeting, AQD requested analysis of why the current heat recovery system met the exemption under Michigan Air Rule 285. In particular, AQD asked for a demonstration that the switch to the current heat recovery system did not result "in any meaningful change in the quality and nature or meaningful increase in the quantity of an air contaminant therefrom." *See* Michigan Air Rule 285(b).

Exhibit D to this letter contains an analysis by Cornerstone Environmental Group, LLC, which compares the prior 2006 HCl modeling analysis to a new 2013 HCl modeling analysis that assessed the parameters of the current heat recovery system. Based on that comparison, the maximum-modeled concentration of HCl emissions from the waste heat recovery system went slightly down based on the current system configuration, i.e., from a prior 10 µg/m<sup>3</sup> impact to a 9.67 µg/m<sup>3</sup> impact. This modeled impact information, along with the fact that the underlying source of the emissions did not change, provide evidence that the current waste heat recovery system did not require a permit-to-install.

To the extent that AQD would like to input the additional stack information for the agency's records, the Cornerstone analysis provides this information.

### **4. Miscellaneous Issues with the Draft Consent Order**

In light of the circumstances discussed above, ZFS believes that the draft consent order will likely require some revisions. While ZFS believes that a significantly lower civil penalty amount is in order, ZFS also believes that the parties should try to reach consensus on the substantive compliance issues—including permit revisions—before focusing on the final penalty amount. That said, ZFS provides a few comments on the draft consent order that AQD e-mailed on November 26, 2013:

- In the first paragraph of the consent order, some of the recitations about the allegations will require revision, e.g., regarding RICE NSPS, etc.
- In Paragraph 9.B.1, ZFS believes that a revision is necessary for the ROP (and possibly the underlying PTI) due to the inappropriate emission limits listed for EULF/NGENGINES.
- In Paragraph 12, ZFS believes that a lower penalty is appropriate given the points raised above.
- In Paragraph 13, ZFS believes that the suggested stipulated penalty of \$10,000 per day is excessive, as any future Rule 201 violation would automatically trigger the maximum statutory penalty provided by Part 55 of NREPA. Instead, ZFS suggests deleting the first sentence of Paragraph 13 and, in the next sentence, and deleting the word "other" from the phrase "any other provision."
- In Paragraph 15, the 12% interest rate is excessive; instead, ZFS proposes 1% + the six-month average of five-year treasury notes.
- In Paragraph 18, the proposed five-year duration is also excessive; instead, ZFS proposes a two-year duration, which is more consistent with other AQD consent orders.

Ms. April Lazzaro and Mr. Jason Wolf  
MDEQ – AQD  
December 13, 2013  
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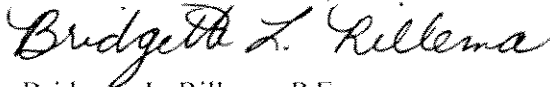
Most of these proposals should speak for themselves, but ZFS is happy to answer any questions that AQD may have concerning ZFS' reasoning for these suggested modifications.

**Next Steps**

Given the potential complexity of these issues, ZFS believes that the parties should consider scheduling a meeting to discuss whatever issues remain open after AQD's receipt and consideration of this letter. To that end, please advise if AQD would prefer to meet next, or whether AQD would instead prefer to exchange additional information before meeting. Please contact me (at 616-879-1711 or [bridgetter@zfsinc.com](mailto:bridgetter@zfsinc.com)) to discuss our next steps.

Sincerely,

Zeeland Farm Services, Inc.



Bridgette L. Rillema, P.E.  
Environmental Manager

Enclosures: Exhibit A: EULF/NGENGINES Equipment Order (Signed April 1, 2005)  
Exhibit B: August 26, 2006 Permitting Correspondence  
Exhibit C: Corrected AP-42 Emission Factor Analysis  
Exhibit D: Cornerstone Modeling Analysis

cc: Heidi Hollenbach, MDEQ-AQD  
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Kurt Kissling, Pepper Hamilton