

## **Drury, Andrew (DEQ)**

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**From:** Drury, Andrew (DEQ)  
**Sent:** Monday, July 16, 2018 10:00 AM  
**To:** Thomas Repaal  
**Cc:** Dungey, Curt (Curt.Dungey@Foth.com); Donohue, Steve (Steve.Donohue@Foth.com); Baran, Kris K (Kris.Baran@Foth.com); Smith, Cindy (DEQ); Carlson, Nicholas (DEQ); Lancaster, Edward (DEQ); Ahammod, Shamim (DEQ); Maki, Joe (DEQ)  
**Subject:** Additional Information Request #2 for Copperwood Resources, PTI 180-11A

Mr. Repaal,

The AQD has reviewed the additional information received on 7/3 and 7/13, as well as the GHG and toxic air contaminant emission calculations and the Michigan NSPS Limits calculations and we have a few additional comments and questions:

1. While the PM10 and PM2.5 emissions are now below the Significant Emission Rates (SER), the NOx emissions are now above the 40 tpy SER, so none of the PTI exemptions can be used. A limit on LPG usage or hours of operation of the heaters could get the NOx emissions below 40 tpy if needed.
2. In the Surface Ore Transfer calculations, are the emission factors in Process F001 "Surplus Ore Feed Transfer (using FE) ..." (row 21) correct for a front end loader transfer, or should they be revised, as was done for Process F002?
3. For the TDF wind erosion calculations, can you provide the Particle Size Distribution graphs used to determine the particle size ratios referenced in the response to question 19?
4. In the underground blasting emission calculations, it appears the ton/yr normal production emission rates (row 74) were not updated to reflect the lower settling factor. While the "normal production" emission rates have not been used in the permit application review, please update these emission rates for completeness, if needed.
5. The top (row 7) of the "Summary PM, Toxics" sheet says "Maximum Facility Emissions for Criteria Pollutants". Please correct this if necessary.
6. The total emissions given at the bottom of the "Summary PM, Toxics" sheet do not appear to include the water truck, reagent truck, and explosives truck traffic and the ore stockpile wind erosion emissions. This does not cause problems, since these emission rates are not used anywhere else and appear to be for information only, but they should be corrected if needed.

Please provide the requested information as soon as possible, but not later than July 30, 2018. Once the emission calculations are complete, the revised dispersion modeling can be run.

Please let me know if you have any comments or questions.

Thank you,

Andrew Drury, Senior Environmental Engineer

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