

# Talking Points Regarding the Environmental Report

## 1. Discussion:

The draft response to request for additional information (RAI) 8a identified the assumed quantity for each type of construction equipment/vehicle listed in Tables RAI 8-a-1 and RAI 8-a-13. The final response to RAI 8a omitted this information.

### Clarification:

Were the equipment quantities assumed in the draft response used to calculate the monthly horsepower-hours listed in Tables RAI 8-a-1 and RAI 8-a-13 of the final response? If not, please provide the correct quantity for each type of construction equipment / vehicle listed.

### Goal:

Equipment quantities are needed to verify the applicant's assumptions and to more accurately estimate potential emissions.

## 2. Discussion:

We are unable to verify the horsepower-hours (Hp-hrs) per month provided in Tables RAI 8-a-1 and RAI 8-a-13 of the final RAI response. The revised Environmental Report (ER) indicates that emission rates were estimated for a 10-hour workday assuming peak construction activity levels were maintained throughout the year. This equates to 208 hours per month. However, the values in Tables RAI 8-a-1 and RAI 8-a-13 are less than the values that would be calculated using 208 hours per month.

### Clarification:

Please provide the monthly hours of operation for each type of construction equipment/vehicle listed in Tables RAI 8-a-1 and RAI 8-a-13.

### Goal:

The monthly hours of operation for construction equipment are needed to verify the applicant's assumptions and to more accurately estimate potential emissions.

## 3.

### A. Discussion:

The revised ER Section 4.6 states that construction in Phase 1 will last approximately 18 to 24 months.

### Clarification:

Does this timeframe include preconstruction?

### B. Discussion:

Tables RAI 8-a-1 and RAI 8-a-2 of the final RAI responses cover a 12-month period during Phase 1 construction. The timing of this 12-month period within the overall 18 to 24 month Phase 1 construction timeframe is unclear.

**Clarification:**

Please clarify the timing of this 12-month period within the overall 18 to 24 month Phase 1 construction timeframe. Also, please provide assumptions for Phase I construction emissions that would occur outside the 12-month period described in Tables RAI 8-a-1 and RAI 8-a-2 (e.g., emissions would decrease after the 12 months provided because...).

**Goal:**

Assumptions and calculations are needed to verify the applicant's assumptions and to more accurately estimate potential emissions.

**4. Discussion:**

We are unable to verify the emission factors provided in Table RAI 8-a-2 of the final RAI response. The revised ER Chapter 4, states that emission factors from FERC Docket PF06-13-000 and EPA-420-R-10-018 were used to estimate emissions of criteria pollutants and non-methane hydrocarbons from construction support vehicles and equipment. And AP-42 emission factors for diesel-powered construction equipment were used to estimate the total suspended particulates for these vehicles. But Table RAI 8-a-2 of the final RAI response indicates that the values listed are AP-42 non-road emission factors for diesel-fired equipment with transient adjustment and deterioration factors applied. AP-42 emission factors for non-road sources are from work performed in the 1970s and EPA stopped using those emission factors in 1991. EPA currently recommends using their NONROAD model to estimate emissions from construction equipment and other non-road sources. EPA-420-R-10-018 (ER reference EPA 2010) is a technical report that describes and documents the development of exhaust emission factors used for compression ignition (CI) engines in the EPA's NONROAD2008a emission inventory model.

**Clarification:**

Was the NONROAD model used to develop emission factors for the construction equipment or were emission factors from AP-42 used?

If the NONROAD model was used, please provide the copies of the model runs, including input assumptions and output tables.

If AP-42 or another document was used, please provide a copy of the reference document(s) and justification for its use. (AP-42 Volume II, which contains the emission factors for nonroad mobile sources is no longer available on the EPA website.) Also, please provide the original (unadjusted) emission factors, the transient adjustment factors, the deterioration factors, and the equations used to adjust the emission factors.

**Goal:**

It is not clear what assumptions, calculations, or sources were used for the emission factors. The model runs, assumptions, and output tables are to more accurately estimate potential emissions.

**5. Discussion:**

In the revised ER, all gas powered vehicles and construction equipment have been removed.

**Clarification:**

Is this correct? Will the gas pumping station also be removed?

**Goal:**

Needed to properly estimate emissions.

**6. Discussion:**

The emission estimate for each pollutant listed in Table 4-15 of the March 31, 2011 (final) response to RAI 9a is less than the corresponding estimate provided in Table RAI 9-a of the February 16, 2011 (draft) response to RAI 9a. While we were able to reproduce the estimates provided in Table RAI 9-a of the draft response to RAI 9a, we could not reproduce the revised estimates in the final response. No reason was provided to explain the changes to the emission estimates in the final response.

With the exception of NO<sub>2</sub>, the same emission factors were used in both the draft response and the final response. (The emission factor for NO<sub>2</sub> was changed from 1E-4 to 1E-5 in the final response, which appears to be an error.) Both the draft response and the final response indicate that one boiler would operate for 8,760 hr/yr and that emissions are uncontrolled. However, the emission estimates in the final response for PM, CO, and NO<sub>2</sub> (if an emission factor of 1E-4 is used for NO<sub>2</sub>) are about 20% of the corresponding estimated emissions in the draft response; and the emission estimate for SO<sub>x</sub> is about 25% estimated SO<sub>x</sub> emissions in the draft response. The draft response provided assumptions for fuel heating value (Btu/scf), boiler heat rate (MMBtu/hr) which are needed to determine the hourly fuel consumption rate (scf/hr). The final response did not include this information.

**Clarification:**

Please provide a complete list of the assumptions used to calculate the Boiler emissions provided in Table 4-15 of the final response to RAI 9a. This list should include fuel heating value (Btu/scf), boiler heat rate (MMBtu/hr), annual runtime (hr/year), and whether the boiler is assumed to operate at full capacity. If the boiler is assumed to operate at less than full capacity please describe how that affects the heat rate. If the use of control devices is assumed, please describe how the controlled emissions were calculated and include assumptions regarding the control devices (e.g., pollutant controlled, device type, control efficiency)

**Goal:**

The assumptions and calculations will provide data to more accurately estimate potential emissions.

**7. Discussion:**

The annual boiler emissions for Phase 2 are approximately three times greater than the boiler emissions for Phase 1 (Tables 4-25 and 4-18 in the ER, respectively). The assumptions for both Phase 1 and Phase 2 indicate that one boiler with a steam generation rate of 10,000 lb/hr would operate for 8,760 hr/yr and that emissions are uncontrolled.

**Clarification:**

Please explain why the Phase 2 boiler emissions are three times greater than the Phase 1 boiler emissions and a complete list of the assumptions used to calculate the annual boiler emissions provided in Tables 4-18 and 4-25 of the ER. This list should include fuel heating value (Btu/scf), boiler heat rate (MMBtu/hr), annual runtime (hr/year), and whether the boiler is assumed to operate at full capacity. If the boiler is assumed to operate at less than full capacity please describe how that affects the heat rate. If the use of control devices is assumed, please describe how the controlled emissions were calculated and include assumptions regarding the control devices (e.g., pollutant controlled, device type, control efficiency).

**Goal:**

Assumptions and calculations are needed to properly assess emissions presented by the applicant.

**8. Discussion:**

Emission estimates for CO<sub>2</sub> and VOCs were omitted from Table 4-15 of the final response to RAI 9a. No reason was provided for omitting this information and we are unable to calculate this number.

**Clarification:**

Please provide the omitted emission estimates and include a complete list of the assumptions used to calculate those emissions.

**Goal:**

Assumptions and calculations are needed to properly assess emissions presented by the applicant.

**9. Discussion:**

Response to RAIs (Table 3-59) shows several types of low-level radioactive waste (LLW) being generated during construction; however, we do not see a reason why construction would generate LLW, and the applicant stated in earlier discussion with NRC that no LLW would be generated during construction.

**Clarification:**

Please clarify the use of the term LLW as applied to construction.

**Goal:**

Need accurate information about waste types to assess impacts.