

US EPA ARCHIVE DOCUMENT

From: Aisling, Kathleen
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Subject: Additions to Greenhouse Gas Permit Application
Date: Thursday, January 30, 2014 3:55:00 PM

Daren, as we discussed please provide the following additional information for the Domestic Crude Project greenhouse gas (GHG) permit application. Please add the Emitting Unit Information to the information you plan to submit next week. You might have documents that you already submitted to the Texas Commission of Environmental Quality that will address some of these items. The General Questions and Carbon Capture Sequestration may be submitted separately after that submittal.

Please let me know if you have any questions.

Emitting Units

- 1) For each unit (including each individual boiler) that will be debottlenecked or have increased utilization due to the project, please discuss the operating history of the unit (typical hours of operation, annual maintenance and other downtime, and firing rate in MMBtu on a monthly basis for the baseline years used in the permit). Has the unit ever been utilized at the maximum capacity? If so, how recently? How are you going to increase the utilization, for instance, is there any maintenance that will have to take place or is it solely an increase in firing or utilization?

Can the facility, as currently configured, utilize the maximum capacity of the unit? If not, is the unit physically constrained by other process equipment?

- 2) For the modified sources, please use the actual to projected actual test for the emissions calculation.
- 3) For all emissions baseline calculations and averaging calculations (for instance, obtaining the average fuel gas composition), please provide all spreadsheets and supporting documentation.

General

- 4) Page 55, last paragraph: Please modify the sentence and the table on the following page using CO₂ emission factors for the fuel gas and natural gas that are facility specific.
- 5) Page 27: Please add more detail about the stream from the Merox Treating Unit and the percentage that it contributes to the GHG emissions.

Carbon Capture Sequestration (CCS) Information

Please provide these items:

- 6) Supporting documentation of the estimated CO₂ concentration in streams from project combustion. (Page 58 of original application says the streams are “highly diluted.”)
- 7) Adverse environmental impact(s)/air emission estimates associated with CCS scenarios for both non-GHGs and GHGs. (In current application, it is non-specific.)
- 8) Water utilization increases and any associated issues that should be considered for the specific site/location such as water availability.
- 9) Whether or not you explored the availability of an Enhanced Oil Recovery contract? If so, with whom, and what was the response? Did you consider a pipeline to geologic storage or deep water saline injection nearby?
- 10) A numeric value or percentage for the energy penalty in using CCS. Page 66 states that there will be one, but is not specific.
- 11) A justification of why the facility needs the additional boiler for the amine capture unit associated with CCS. This discussion should include an energy balance of how much steam the facility can produce (current energy balance) and how much steam the Domestic Crude Project and CCS would use.
- 12) Facility Operation and Maintenance (O&M) costs without CCS. If the levelized O&M cost in the application on Page 66 is not annual O&M cost for CCS, please provide that number.
- 13) For the equipment on Page 66, state the method used to estimate the costs of these units and provide documentation, if you received vendor quotes.
- 14) Are there any technically infeasible aspects of using CCS at the facility due to the fact that the facility is a refinery with numerous existing units?

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