

US EPA ARCHIVE DOCUMENT

Todd, Robert

From: Todd, Robert
Sent: Thursday, March 27, 2014 5:36 PM
To: 'Morris, Lon'
Cc: 'leann.plagens@cci.com'; 'Hamm, Lori'; Robinson, Jeffrey; Wilson, Aimee
Subject: CCI Corpus Christi Condensate Splitter and Bulk Terminal Application Information Request

Lon,
Below find the detailed technical information request necessary to complete review of CCI's permit approval request.

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CCI, Corpus Christi, LLC – Condensate Splitter and Bulk Terminal Facility, Nueces County, TX.

On page 3-1, Section 3-2, Auxiliary Boilers

Please verify reference to EPNs H-1 and H-2, should be BI-1 and BI-2, or expand on the discussion in this paragraph to explain the reference.

On page 3-2, Fugitive components

How were fuel gas and natural gas components addressed in deriving estimated fugitive emissions from the project? Was the use of an Audio/Visual/Olfactory inspection program to control these emissions considered?

On page 3-3, Section 3-6 Emergency Generator and Firewater Pump Engines

Is there a testing schedule proposed to affirm operability of the engines throughout the year? Is the schedule in line and consistent with vendors instruction? Are 100 hours per year in operation an exaggerated or minimized estimate?

On Page 4-1, Section 4

Potential Emissions from

- 1) The Jet Fuel Treater,
- 2) the Cooling Tower (estimated VOC fugitive emissions),
- 3) the Feed Preheater,
- 4) Filling / working losses from the Vertical Fixed Roof storage tanks (flared, combusted, vapor balanced?)
- 5) waste water generated at the site (potential light end VOC emissions), and
- 6) Truck Loading operations,

were not addressed. Please explain, in detail, the potential for GHG emissions (including combusted VOC emissions) from each of these sources.

On page 4-1, Section 4.1 Plant-Wide Sources

Under the CCS discussion, please provide the expected CO2 concentration on the exhaust stream, and reconsider the technical feasibility conclusion with that information in mind.

On page 4-4, Section 4.1 Plant-Wide Sources

Please expand on the CCS economic viability discussion, providing a detailed cost analysis to support the conclusion that CCS is not economically feasible.

On page 4-9, Section 4.4, Flare

Flare Gas Recovery as a control option for this facility was not addressed. Please include this control option in your analysis and make a case for technical and economic feasibility.

On page 4-12, Section 4.5, Marine Vapor Control, Step 1

Vapor balancing for loading emissions is not addressed as a potential control option
Please explain why this is not appropriate for this site or address it as a potential control.

On page 4-12, Section 4.5, Marine Vapor Control, Step 3

The last sentence of the Step 3 discussion indicates thermocouples, in this situation, will cause unnecessary combustion of fuel gas. Is this conclusion appropriate to your design?

On page 4-15 and 4-16, Section 4-6, Fugitives

The discussion on use of leakless technologies to control fugitive emissions indicates this is an inappropriate option based on creation of collateral emissions due to maintenance activities, as well as not an economically feasible option. Please justify this conclusion with a detailed analysis demonstrating the amount of collateral emissions expected and a detailed cost analysis that shows the cost per ton of controlled emissions.

In Table D-3 Flare operations

Under section B a molecular weight (MW) of 17.66 is given for the combined gas stream. Under Section C, 1 a MW of 17.62 is used in the values and calculations section. Please explain the difference between the two values and how any adjustment would impact the projected emissions from the facility.

In Tables D-3 and D-4, Flaring Operations

Under Table D-3 Section B and Table D-4, a detailed gas composition is provided. Please explain the source of this analysis and its justification. (i.e. Process knowledge, historic natural gas composition in the area, etc.)

Table D-5 Equipment Clearing

Please explain on how the "Total Equipment Volume" values were derived.

Table D-6 Temporary Control Device Emissions

How were the Events per year (and duration) assumptions derived?

In Table D-7 Fugitive Equipment components – Potential emissions

Does the component count include the fuel gas system?

Table D-8 Marine Vapor combustor, Section D

Please clarify the meaning of Note (3) "Annual and hourly vapor pressures are based on Tank 4.0.9d runs"

What are the design ratings for the heaters and boilers? What are their maximum and normal firing rates?

How will CCI address potential GHG emissions from SF6 circuit breakers at the new facility?

Does CCI intend to use vacuum breakers?

Does the 500,000 bbl/day loading capacity represent a cap on future production capacity?

When the cooling tower is in operation, does the facility expect to employ an intermediate closed loop medium for heat transfer? Is there a potential for light end VOCs to be lost to the system through the cooling water?

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Thanks and feel free to give me a call with any questions.

BTW, the revised application has been posted on the Region 6 Air Permits website. The biological, cultural and essential fish habitat reports will not be posted until they have been reviewed by our internal staff.

Robert M. Todd, P.E.

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