Email chain from Bill Steiner, Fwd: FW: 210140-000-PR-TN-00002 - Alternate Feed Gas Composition Review.doc (4/24/2017) From: Bill Steiner

Sent: Monday, April 24, 2017 9:52 AM PDT

To: Bill Steiner

 Subject:
 Fwd: FW: 210140-000-PR-TN-00002 - Alternate Feed Gas Composition Review.doc

 Attachments:
 210140-000-PR-TN-00002 - Alternate Feed Gas Composition Review.doc

----- Forwarded message -----

From: Faretra, Keith < keith.faretra@pse.com >

Date: Mon, Apr 10, 2017 at 11:43 AM

Subject: FW: 210140-000-PR-TN-00002 - Alternate Feed Gas Composition Review.doc

To: "bill@steinnet.com" <bill@steinnet.com>

Recent memo from CBI addressing propane issue.

From: Hogan, Jim

**Sent:** Friday, March 17, 2017 10:46 AM

**To:** Faretra, Keith; Luebbe, Lorna

Subject: FW: 210140-000-PR-TN-00002 - Alternate Feed Gas Composition Review.doc

Here is the report from CBI. I will send some additional information as well.

Jim

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From: Hogan, Jim

**Sent:** Monday, March 13, 2017 4:28 PM **To:** Garratt, Roger; Harris, Jonathan

Cc: Kauhane, Jennifer

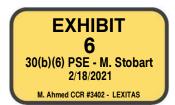
Subject: 210140-000-PR-TN-00002 - Alternate Feed Gas Composition Review.doc

Attached is a summary of plant performance with respect to our current feed gas. I have only had 15 minutes to study this, but I will be diving deeper into understanding our options in the coming days.

The current gas has negative impacts on 2 of the 3 plant constraints: Production, Methane Number, and Fuel gas that must be disposed of (most likely in the flare). Production of heavies is also impacted, but that has always been a variable constraint with no solutions short of the trucking option.

I disagree with CBI that Case 6B may be our best alternative, because I don't think 150,000 gallons per day is acceptable.

I think some solution associated with 1A may be more feasible assuming that we could perhaps build a CNG system at the plant and truck off our excess gas as CNG.



Jonathan: I have a couple questions for you.

- 1. Note section 3.0 comment 1: It is imperative that we understand the LNG quality requirements that the industry demands. Can you put together a summary of what fuel quality we need to be aiming for (beyond the TOTE FSA spec).
- 2. How feasible would it be to capture excess fuel gas and compress it into tube trailers for delivery/sale off site?

Roger: I will discuss further with you later in the week after I've had a chance to digest this and better understand CBI's assumptions.

Thank you. Jim

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Bill Steiner