

From:	Robbins, Gary D
То:	Wilson, Aimee
Cc:	<u>Hurst, Benjamin M</u>
Subject:	FW: Baytown Olefins Plant - A few more questions
Date:	Friday, February 08, 2013 4:15:36 PM

Aimee,

Our response to the CCS question is below in italics. I responded to the other questions yesterday. Let me know if there anything else.

On the CCS costs, we will need some more specific data on how the cost of CCS would affect the overall cost of this project. I understand you may not want to release the cost of this project, but we need at least some statement to qualify the increase in cost. Will the addition of CCS increase the project cost by more than 50%? Does the addition of CCS double the project costs?

The total annual cost of CCS is estimated at \$204,600,000 per year as noted in our October 16, 2012 submittal. The final project costs are not yet determined; however, the addition of CCS is expected to increase the total capital project costs by more than 25%. That cost likely exceeds the threshold that would make the project economically viable.

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From: Wilson.Aimee@epamail.epa.gov [mailto:Wilson.Aimee@epamail.epa.gov]
Sent: Wednesday, February 06, 2013 11:30 AM
To: Hurst, Benjamin M
Cc: Robbins, Gary D
Subject: Baytown Olefins Plant - A few more questions

I have a few questions that have come from internal review of the draft permit and statement of basis.

The application states that a blended gas composed of natural gas and tail gas will be fired in the steam cracking furnaces. Where does the tail gas come from?

On the CCS costs, we will need some more specific data on how the cost of CCS would affect the overall cost of this project. I understand you may not want to release the cost of this project, but we need at least some statement to qualify the increase in cost. Will the addition of CCS increase the project cost by more than 50%? Does the addition of CCS double the project costs?

Decoking - Is there an automated process that detects the coke buildup? How are operators notified that a decoke needs to occur? Is there some sort of electronic process? Are the estimated emissions based on a number of decokes?

Staged flaring operation BACT - Was a VRU considered for treatment of the low flow streams? How will the heating value of the waste gas be monitored or measured? Is there a specific method that will be used?

Firewater Pump engines - what are the sizes of these engines?

Train 5 Duct Burners - How will the CO concentration be monitored or calculated to ensure compliance with the 7.4 ppmvd CO limit?

Will the generator engine and firewater pump engines be tested at the factory - or will onsite testing be performed as well for NSPS IIII?

Feel free to call me if you have any questions.

Thanks, Aimee Wilson



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