

*Reg. 1142 Sec. 2: Review Committee Meeting 4, July 19, 2006.
Post-meeting correspondence between AQM and Valero*

From: Deemer, John J [John.Deemer@valero.com]
Sent: Wednesday, August 16, 2006 4:44 PM
To: Gao Frank F. (DNREC); Chelpaty, Heather A; Covert, Patrick; Arnosky, David
Cc: Amirikian Ronald A. (DNREC); Rangan Ravi (DNREC); Lutrzykowski Mark J. (DNREC); Steltzer Bruce (DNREC); Harris Bill (DNREC)
Subject: RE: Please provide additional info

Frank,

The baseline averages were based on the average of the 2003, 2004 emission inventory information. At this time, end of pipe controls were only evaluated for the FCCU (and based on my comment in my previous e-mail, for the FCU). Future emissions for the process heaters and boilers were based upon an emission rate of 0.04 lb/MMBTU at the maximum fired duty, for 8760 hours/year. The environmental and energy benefits were not evaluated for the information provided because the sole purpose of the exercise was to determine the cost effectiveness. As I have stated all along we feel that an evaluation of the cost effectiveness must be a component of the regulation. The reduction efficiency is a calculated value based upon the past actual and future potential emissions.

Annualized cost was calculated as follows using a standard capital recovery factor :

Annualized cost = (Capital Cost x $[(i \times (1+i)^n)/((1+i)^n - 1)]$) + O&M Cost

where:

i = interest rate,

n = years for capital recovery

Increment Cost (IC) was calculated as follows:

IC = (Annualized cost of control - annualized cost of the next most cost effective control) / (PTE from next most effective control - PTE for control)

I hope this helps.

Sincerely,

John J. Deemer
Environmental Manager
Valero McKee Refinery
6701 Farm-to-Market 119
Sunray, Texas 79086-2013
Telephone: 806-935-1276
Cell: 806-220-4370

From: Gao Frank F. (DNREC) [mailto:Frank.Gao@state.de.us]
Sent: Wednesday, August 16, 2006 12:55 PM
To: Deemer, John J; Chelpaty, Heather A; Covert, Patrick; Arnosky, David
Cc: Amirikian Ronald A. (DNREC); Rangan Ravi (DNREC); Lutrzykowski Mark J. (DNREC); Steltzer Bruce (DNREC); Harris Bill (DNREC)
Subject: RE: Please provide additional info

John, Heather, Pat and David,

Again, thanks for John's responses. However, by carefully reviewing his message, we realize that he did not provide information for most of the questions on our list. I understand that John is leaving his position. So, please Heather or her staff review our list again, and provide necessary information regarding each question.

In addition, please note that our next committee meeting will be at 10 AM, Wednesday, August 23. I look forward to meeting you in the meeting.

Frank

Air Quality Management-DNREC
New Castle, DE 19720
Phone: (302)323-4542 FAX: (302)323-4598

From: Deemer, John J [mailto:John.Deemer@valero.com]
Sent: Tuesday, August 15, 2006 1:26 PM
To: Gao Frank F. (DNREC)
Cc: Amirikian Ronald A. (DNREC); Rangan Ravi (DNREC); Lutrzykowski Mark J. (DNREC); Steltzer Bruce (DNREC); Harris Bill (DNREC); Covert, Patrick; Chelpaty, Heather A; Arnosky, David
Subject: RE: Please provide additional info

Frank,

My responses are provided below.

The FCC controls were estimated by an engineering contractor. An engineering evaluation of the control costs for the FCU was not conducted; therefore, I assumed the same cost for the FCU as the FCCU. Boiler 1 cost was based on the actual installed cost for Boiler 2 (installed in May of 2004). The control of Boiler 1 is currently in the Delaware City capital budget because we plan to control it to satisfy the federal CD NOx control requirements. I assumed the same cost for Boilers 3 and 4. The CCR (42-H-1,2,3) and H2 (37-H-1) heater costs were budgetary estimates developed internally. The operating cost for ULNBs is an assumption based upon 10% of the capital cost.

It was nice working with you as a stakeholder for Reg. 1142. Good luck on the rule development and your future endeavors.

Sincerely,

John J. Deemer
Environmental Manager
Valero McKee Refinery
6701 Farm-to-Market 119
Sunray, Texas 79086-2013
Telephone: 806-935-1276
Cell: 806-220-4370

From: Gao Frank F. (DNREC) [mailto:Frank.Gao@state.de.us]
Sent: Tuesday, July 25, 2006 12:31 PM
To: Deemer, John J
Cc: Amirikian Ronald A. (DNREC); Rangan Ravi (DNREC); Lutrzykowski Mark J. (DNREC); Steltzer Bruce (DNREC); Harris Bill (DNREC); Covert, Patrick
Subject: Please provide additional info

John,

Thank you for providing the committee with valuable information on controls and costs last week. We are reviewing the data right now and trying to get a better understanding of what they mean and depict. So we are asking you to provide the following additional information:

(1) What are the basis for the capital costs shown on your spreadsheet? Did you obtain specific quotations and/or estimates from vendors/licensors of specific technologies?

(2) Were the cost of end-of-pipe controls evaluated for the affected units? If so, please provide the associated cost effectiveness calculations.

(3) What are those baseline emissions?

(4) What is the basis for the future Potential Emissions?

(5) Please show the math supporting the Total Annualized Cost and incremental cost effectiveness.

(6) Why were environmental and energy impacts not determined? Did you consider the accompanying benefits, if any, that could alter the cost effectiveness calculations?

(7) What is the basis for the Reduction Efficiency for each of the control types considered?

We would appreciate very much your early responses to this request so that we can move our analysis and comparison forward. Is it possible for you to provide us an Excel file for your data? Please note that the data of last week and the data you will provide will become public records. Thanks.

By the way, Ravi said that you have been promoted recently and will be relocated soon. Who is your substitute for this committee? Please make sure that he/she will be attending the committee meeting next month and participating all off-meeting communications so that Valero's interests are represented.

Frank

Air Quality Management-DNREC
New Castle, DE 19720
Phone: (302)323-4542 FAX: (302)323-4598