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Sent: Wednesday, August 17, 2011 12:18:58 PM
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Robert.Crynack@fmc.com
Subject: NOx Controls for Green
Importance: Normal
Attachments: [Big Rivers 081611 a.pdf](#) ; [BREC Peroxide Briefing 8.16.11.pdf](#) ;

Eric:

Thanks again for meeting with us yesterday to review the Peroxide NOx control technology and potential application to the Green Station. Attached is the material we presented for your further review and consideration.

As we discussed, we think use of the peroxide process at the Geen station may be sufficient to meet all your NOx reduction requirements for CSAPR. Our site visit to Green was also very encouraging (Kevin West was very helpful and professional). The ductwork between the economizer and AH appear well suited for peroxide injection and will permit the use of vertical injection lances - making both a demo and permanent installation much easier. It also will provide more than adequate residence time for reaction of the peroxide with the NOx at the elevated temperature. The FGD system is also well suited with good contacting, high SO2 removal, good chemistry, oxidation control with emulsified sulfur, and no flue gas bypass. Finally, the waste stabilization process at Green will ensure that the captured NOx species are encapsulated in the waste that is landfilled onsite, eliminating any discharges to water bodies.

The plant also appears to be a great candidate for a full-scale demonstration. Based on the ductwork configuration, we could successfully demonstrate the process by treating just half of one unit (since the gas path is segregated from the economizer outlet all the way to the scrubber outlet). With this approach, we think we can reduce the overall costs of the demonstration. Furthermore, we'd like to consider the involvement of the CRN (Cooperative Research Network, the research arm of NRECA) as a participant and possible co-funder of the demonstration with support from other interested Co-ops. A unit outage scheduled this fall would provide an opportunity to install needed injection ports in the economizer outlet ductwork, to support a demonstration.

Eric, both URS and FMC are interested in working with BREC to develop a low-cost approach and funding mechanism for a demonstration at Green by year end. Please consider this and let us know if this is of interest, and how we can move forward.

Kind regards, Sterling

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