UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

MAR 0 3 2014

Sarah Piziali, Supervisor, Construction Permit Section
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, Iowa 50324

RE: Iowa Fertilizer Company Project 13-355 Prevention of Significant Deterioration Permit Comments

Dear Ms. Piziali:

On January 31, 2014, the United States Environmental Protection Agency (EPA) Region 7 received notification of the Iowa Department of Natural Resources' (IDNR) intent to issue a Prevention of Significant Deterioration (PSD) construction permit to Iowa Fertilizer Company (IFC) to modify the PSD permit that was issued on October 26, 2012 for a new fertilizer manufacturing facility in Wever, Iowa. We have completed our review of the draft permit and have the following comments. We provide the comments to help ensure the project meets the federal Clean Air Act (CAA) requirements, that the permit will provide necessary information so that the basis for the decision is transparent and readily accessible to the public, and that the record provides adequate support for the permit decision.

Comment #1: EPA encourages IDNR to retain the provisions in the proposed PSD permit that address the potential future revision of the NO_x Best Achievable Control Technology (BACT) limits for the auxiliary boilers. Regardless whether these provisions are retained in the final permit, EPA concurs that a "new" BACT analysis would need to be conducted should IFC submit a permit application to revise these NO_x limits.

One of the significant differences between the currently proposed PSD permit and the PSD permit that was issued on October 26, 2012 is that IFC plans on installing two 305.7 MMBtu/hr natural gas-fired auxiliary boilers with an annual natural gas limit of 1,890.3 MMcf/yr rather than one 472.4 MMBtu/hr natural gas-fired auxiliary boiler with an annual natural gas limit of 865.44 MMcf/yr. This difference necessitated a re-evaluation of BACT for these auxiliary boilers. As was the case in the original PSD permit, selective catalytic reduction (SCR), the top identified NO_x control option, was eliminated during the economic portion of this analysis. The NO_x BACT limit in the currently proposed PSD permit was ultimately based on low NO_x burners (LNB) & induced flue gas recirculation (IFGR). IDNR stated in the Technical Support Document that it "was a difficult determination" to eliminate SCR. Based on information in the permit record, it appears that IFC is uncertain whether the 0.0125 lb/MMBtu limit can be achieved with LNB and IFGR. The proposed PSD permit contains provisions that address the process

of revising the NO_x BACT limit in the future should IFC be unable to achieve 0.0125 lb/MMBtu. EPA concurs that, should IFC apply to revise this limit, IFC would be required to conduct a new BACT analysis as indicated on pages 8 and 10 of the draft PSD permit whether or not this permit modifying procedure ultimately remains in the final PSD permit. EPA recommends retaining these provisions in the final PSD permit.

Furthermore, if IFC is unable to meet the 0.0125 lb/MMBtu NOx BACT limit, we note that EPA Region 7 believes that SCR has been shown to be technically and economically feasible at similar boilers in the United States and thus could be necessary to meet a BACT limit at this facility.

Comment #2: IDNR should ensure that the permit record adequately describes why LNB should be considered part of baseline.

When evaluating whether SCR was cost feasible, IFC included LNB in the baseline emissions. EPA was unable to locate any document in the permit record explaining why LNB should be considered in the baseline emissions and recommends that the IDNR add such justification to the permit record. This justification could include a consultation with the boiler manufacturer to determine whether boilers without LNB are being manufactured and are available for purchase. It is important to properly set the baseline to ensure that the economic analysis associated with SCR is performed correctly. A baseline that is higher would change the economic evaluation and could make SCR more cost effective to the point where it may not be eliminated on a cost basis. In addition, the setting of the baseline is important to ensure the integrity of the top-down BACT analysis.

Comment #3: The combination of ULNB and SCR could be included as a technically feasible control option.

ULNB and SCR were eliminated individually during the BACT analysis on an economic infeasibility basis. Although it is therefore unlikely that a combination control system consisting of both ULNB and SCR will be cost feasible based on information in the permitting documents, to ensure that the list of potentially available control systems is complete the combination of ULNB and SCR should still be identified as a technically feasible control system.

We appreciate the opportunity to provide what we hope you will find to be constructive comments. Please contact David Peter at (913) 551-7397 if you have any questions or comments regarding this letter.

Sincerely,

Mark A. Smith, Chief
Air Permitting and Compliance Branch
Air and Waste Management Division