



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

JUL 06 2012

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

RE: Cargill – Fort Dodge Prevention of Significant Deterioration Permit Comments

Dear Mr. Phelps:

On June 6, 2012, 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 Cargill – Fort Dodge (Cargill) to modify the existing ethanol plant in Fort Dodge, Iowa. We have completed our review of the draft permits and have the following comments.

Comment #1: The EPA and IDNR informally discussed several typographical errors and other minor permit formatting issues. As those issues are relatively minor in nature and generally no disagreement occurred between EPA and IDNR, the EPA is not specifically listing those issues in this letter. EPA recommends that IDNR make these generally non-disputed minor changes that were discussed.

Comment #2 – Page 80 of Cargill's application: Cargill provided an economic analysis associated with the installation and operation of a second regenerative thermal oxidizer (RTO) to be used during the maintenance of the first RTO. In that analysis, it appears Cargill compared the cost of the RTO and scrubber to the tons controlled by the RTO only. If this is the case, EPA recommends that Cargill revise the cost analysis using only the cost of the RTO.

Comment #3 – Page 6 of draft permit 07-A-838-P3, Table 10b: The VOC emissions are limited to 9.02 tons per year. This limit has a footnote of "6" but there is no documentation for footnote "6" below the table. EPA recommends that IDNR review this section to ensure that footnote "6" is appropriate and, if so, document the purpose of footnote "6".

Comment #4 – Pages 5 and 6 of draft permit 07-A-838-P3, Table 10a and 10b: The VOC emissions are limited to 7.43 tons per year in Table 10a. Footnote #8 applies to this VOC emission limit and states that this limit includes both RTO and bypass emissions. Table 10b lists the VOC emission limits during periods of RTO bypass. The VOC emission limit is listed at 9.02 tons per year in Table 10b. It appears that footnote #8 in Table 10a should include only periods when the RTO is in operation and does not include emissions during bypass operation. EPA recommends that IDNR review this section to ensure that the VOC ton per year limits in both Table 10a and 10b are appropriate.

Comment #5 – Page 7 of draft permit 07-A-838-P3, Table 10d: Footnote #3 refers to emission limits of NO_x and CO during RTO bypass. Assuming NO_x and CO do not have emission limits for NAAQS purposes, EPA recommends that IDNR clarify this footnote by removing the references to NO_x and CO. If NO_x and CO limits are needed to ensure that NAAQS exceedences do not occur, EPA recommends that IDNR include such limits in Table 10d.

Comment #6 – Pages 6 and 7 of draft permit 07-A-838-P3, Table 10d: There appears to be an error in the total HAP emission limit. It appears that the total HAP limit in Table 10d should be 22.75 pounds per hour. EPA recommends that IDNR review this total HAP emission limit to ensure that it is accurate.

Comment #7 – Page 8 of draft permit 07-A-838-P3, Emission Units Table: There is footnote #1 but footnote #1 does not show up in the table. EPA assumes that the footnote should be associated with the “Maximum Capacity” column. If so, EPA recommends that IDNR associate footnote #1 with this column.

Comment #8 – Page 8 of draft permit 07-A-838-P3, Table 12, Footnote #1: The third sentence includes a reference to “Tate and Lyle”. EPA recommends that IDNR replace “Tate and Lyle” with “Cargill”.

Comment #9 – Page 9 of draft permit 07-A-838-P3, Section 14, Paragraph C: EPA recommends that IDNR replace “40 CFR§489a” with 40 CFR§60.489a”.

Comment #10 – Page 5 of draft permit 07-A-847-P4, Table 10a, Footnotes #3 and #4: Both footnotes reference “percent reduction limits” only. However, footnotes #3 and #4 are attributed to the pound per hour SO₂ and VOC emission limits. EPA assumes that these pound per hour limits are applicable after the listed control device in the footnote but recommends that these footnotes be clarified to reflect this assumption.

Comment #11 – Page 7 of draft permit 07-A-847-P4, Table 10b (several other permits as well): The PM_{2.5} pound per hour emission limit is associated with footnote #3. Footnote #3 does not include the statement that PM_{2.5} limit is being established to limit emissions below levels that predict exceedences of the NAAQS. EPA recommends that IDNR clarify this by including a reference to PM_{2.5} in Footnote #3.

Comment #12 – Page 8 of draft permit 07-A-847-P4, Table 12: It appears that since footnote #6 is not associated with the total organic HAP limit, Cargill is not required to be test total organic HAPs during RTO bypass. EPA recommends that if it is IDNR’s intent to require a stack test during RTO bypass, IDNR should associate footnote #6 with the total organic HAP limit.

Comment #13 – Page 10 of draft permit 07-A-847-P4, Section 14, Paragraphs H and P: EPA suggests replacing the language “0.5 plus or minus” with “plus or minus 0.5”.

Comment #14 – Page 10 of draft permit 07-A-847-P4, Section 14, Paragraph J: EPA recommends that IDNR provide justification for allowing the temperature of the RTO to be operated at this level at a temperature that is less than 50°F of the temperature during a successful stack test. It appears that such temperature may not be representative of the destruction efficiency that occurred during the performance test.

Comment #15 – Page 7 of draft permit 07-A-857-P3, Section 14, Paragraph C: EPA suggests that IDNR replace “within 0.5 plus or minus 7.5” with “7.5 plus or minus 0.5”.

Comment #16 – Page 5 of draft permit 07-A-860-P2, Table 10a, Footnote #4: It appears that footnote #4 should be referencing a pound per million Btu limit rather than a pound per hour limit. EPA recommends that IDNR review footnote #4 and, if appropriate, revise the footnote for clarification.

Comment #17 – Page 5 of draft permit 07-A-861-P3, Table 10a, Footnote #7: EPA requests clarification to the purpose of footnote #7. The correction to wet or dry basis and percent oxygen normally applies to concentration limits. In this case footnote #7 refers to a ton per year CO limit.

Comment #18 – Page 5 of draft permit 07-A-861-P3, Table 10a, NO_x limit: It appears that footnote #6 does not apply to the NO_x lb/MMBtu limit. EPA suggests that IDNR review this section and, if appropriate, remove footnote #6 from the NO_x lb/MMBtu limit.

Comment #19 – Page 8 of draft permit 07-A-861-P3, Section 13: The regulatory citations related to NSPS Dc should be changed from “40 CFR §60.40b through 40 CFR §60.49b” to “40 CFR §60.40c through 40 CFR §60.49c”.

Comment #20 – Page 7 of draft permit 07-A-861-P3, Table 12: EPA recommends that IDNR include CO₂ in the table and add “CEM” in the methodology column and “Continuously” in the frequency column to reflect the requirements in Section 16.

Comment #21 – Page 5 of draft permit 07-A-862-P3, Table 10, PM₁₀ Emission Limit Row: EPA recommends that “NAAQS” be replaced with “NA” in the reference column so that it is clear that no PM₁₀ emission limit applies. This issue occurs in other draft permits and EPA makes the same recommendation.

Comment #22 – Page 7 of draft permits 12-A-152-P, 12-A-153-P, 12-A-154-P, 12-A-155-P, 12-A-156-P, 12-A-157-P, and 12-A-160-P, Section 14: Since IDNR has concluded that BACT for PM is a baghouse, EPA recommends that IDNR specifically include a requirement that the emissions from these operations be routed to a baghouse.

Comment #23 – Page 5 of draft permit 12-A-158-P, Table 10a, Footnote #7: Similar to comment #17, EPA requests clarification to the purpose of footnote #7. The correction to wet or dry basis and percent oxygen normally applies to concentration limits. In this case footnote #7 refers to a ton per year CO limit.

Comment #24 – Page 8 of draft permit 12-A-158-P, Section 15, Paragraph A: 40 CFR §60.48c(g)(1) would not apply to these boilers since the boilers are not subject to NSPS Subpart Dc. Therefore, EPA recommends removing this regulatory citation.

Comment #25 – Page 7 of draft permit 12-A-158-P, Table 12: EPA recommends that IDNR include CO₂ in the table and add “CEM” in the methodology column and “Continuously” in the frequency column to reflect the requirements in Section 16.

Comment #26 – Page 9 of draft permit 12-A-158-P, Section 16: It appears this section may have been copied from draft permit 07-A-861-P3 (EP-47 – Boiler/Process Heater). For example, in paragraph 1 there is a reference to the boiler when it should be for two boilers and paragraph 2 applies to a process heater when there is no process heater associated with this emission point. EPA recommends that IDNR review Section 16 and modify the permit as appropriate.

Comment #27 – Page 7 of draft permit 07-A-872-P1, Section 13: IDNR states that “some” of the emission units at the plant are subject to NSPS VVa. Since the affected source is the group of all equipment within a process unit, EPA recommends that IDNR identify the process units that are subject to NSPS VVa to eliminate any confusion what components NSPS VVa applies to. As it is currently written, it appears a determination would have to made during each review of the facility or each inspection.

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,



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