



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 N. 5<sup>th</sup> STREET  
KANSAS CITY, KANSAS 66101

AIR PERMITTING AND  
COMPLIANCE BRANCH

January 17, 2008

Jim Kavanaugh, Director  
Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, Missouri 65102

Dear Mr. Kavanaugh:

We appreciate the opportunity to evaluate the project and provide comments on the proposed PSD permit for the American Energy producers, Inc, (AEPI) proposed biodiesel production project in Carrollton, Missouri. EPA Region 7 has completed its review of the draft permit, and our comments focus on recommendations for improving the enforceability of permit conditions and concerns about the modeling data. We encourage MDNR to carefully consider our comments. Please refer to enclosure A for our comments.

As always, we appreciate MDNR's efforts in carrying out the PSD program. You may contact Tamara Y. Freeman at (913) 551-7094 or at [freeman.tamara@epa.gov](mailto:freeman.tamara@epa.gov) if you have questions regarding our comments.

Sincerely,

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

**Enclosure A**  
EPA Region 7 Comments on  
Draft PSD Permit for  
AEPI Biodiesel Production Project

- 1) The practice required by the draft permit in Special Conditions 2.A., states that AEPI periodically water, wash and/or otherwise clean all of the haul roads as necessary to achieve control of fugitive emissions from these roads. In order to be enforceable as a practical matter, the condition should include a specific watering frequency or average standard.
- 2) Meteorological Data: Wind directions are reported to the nearest 10 degrees at National Weather Service (NWS), FAA, and military meteorological stations. These can be, and should be, randomized the AERMET preprocessor for the AERMOD dispersion model. Receptors located on a 10-degree radial from a source will have higher concentrations than receptors that are not on a 10-degree radial, i.e., concentrations on a radial will be over predicted while concentrations off the radial will be under predicted, because of a higher frequency towards a receptor on a 10-degree radial. The meteorological wind directions were not randomized.
- 3) The permit states that there will be a barrier to prevent access to the property but there are no specifics as to where the barrier will be. There is a warning in the modeling memo that the fence must be on the fence property boundary that was modeled. The permit should specify the location of the fence based on the modeling.
- 4) There has been a change in emissions for AEPI point sources Boiler 1(STCK1), Silica Baghouse (STCK14), Fire Pump Engine (STCK15), Boiler 2 (STCK16), Meal Loadout Baghouse (STCK17), as well as changes in the meteorological data. Except for a slight decrease in emissions from Silica Baghouse (Stack14), there were increases in the point source emissions modeled by MDNR. There was also an increase in emissions for volume sources Bean Silo Vent 1 (VOL1) and Bean Silo Vent 2 (VOL2) The initial SZ parameter for these sources was also changed in the increment and NAAQS, but not in the Significant Area Impact (SIA), analyses to reflect a more realistic scenario. The predicted concentrations in the AEPI analyses for the SIA were higher but it not possible to compare predicted concentrations because of the legitimate changes. The basis for the changes should be documented for the record.
- 5) The haul roads were modeled as being used for only 12 hours per day (0800 AM – 0800 PM) but there is nothing in the permit that limits haul road traffic to these hours. Also, there should be a limit of number of trucks, or emission limits based on the number of trucks, in the permit. The meal loadout baghouse was modeled with different emission rates for the two 12-hour periods. These limitations must be in the permit.

- 6) The modeling review that MDNR did was very complete and professional but the permit did not include all of the modeling recommendations.
- 7) AEP used upper air data from Springfield, MO, that were also used for the recent AECI analyses. MDNR in its modeling used upper air data from the Lincoln, IL, radiosonde station. The selection/agreement on what meteorological data to use in the analyses should have been made in the pre-application meeting with the company/consultant. The reason for the change should have been in the modeling memo.
- 8) The modeling memo describes the project for a 50 million gallons per year bio-diesel production facility while the permit describes it as 60 million gallon per year project. This should be clarified.
- 9) I did not review the modeling for the toxics.