

## Notice Concerning Proposed Kansas Air Quality Construction Permit and Public Hearing

Notice is hereby given that the Kansas Department of Health and Environment (KDHE) is soliciting comments regarding a proposed air quality construction permit. Sunflower Electric Power Corporation (Sunflower) located at 301 West 13th Street, Hays, Kansas has applied for an air quality construction permit in accordance with the provisions of K.A.R. 28-19-300 to construct one (1) new 895 MW coal-fired steam generating unit and associated ancillary equipment (Holcomb expansion) at their generating station located at 2440 Holcomb Lane, Holcomb, Kansas. Emission of particulate matter (PM), PM equal to or less than 10 microns in diameter (PM<sub>10</sub>), PM equal to or less than 2.5 microns in diameter (PM<sub>2.5</sub>), volatile organic compounds (VOCs), oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) were evaluated during the permit review process.

The proposed permit is to be issued in accordance with the provisions of K.A.R. 28-19-350, *Prevention of Significant Deterioration* (PSD) which adopt the federal standards, procedures and requirements of 40 CFR 52.21 by reference. These air quality regulations apply to major stationary emission sources located in areas designated as “attainment” under the federal Clean Air Act (CAA). Attainment areas are areas where the air quality meets or is better than the national ambient air quality standards (NAAQS).

The PSD regulations require evaluation of emission reduction techniques to identify the best available control technology (BACT) for each regulated pollutant for which the emission rate exceeds the PSD significant level. The purpose of BACT is to affect the maximum degree of reduction achievable, taking into account energy, environmental and economic impacts for each regulated pollutant under review. Evaluation of the estimated emissions for the proposed Holcomb expansion project indicates that the emission rate of oxides of nitrogen, sulfur dioxide, carbon monoxide, particulate matter, volatile organic compounds, and sulfuric acid mist all exceed the significance levels. Sunflower conducted the required BACT analyses. The department has reviewed Sunflower’s BACT analyses and concurs with its findings that low NO<sub>x</sub> burners and overfire air with selective catalytic reduction is BACT for NO<sub>x</sub>, dry flue gas desulfurization (dry FGD) is BACT for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> and fabric filters is BACT for PM, PM<sub>10</sub> and PM<sub>2.5</sub> for the Holcomb expansion project.

A previous public comment period on this permitting action began on July 1, 2010 and ended on August 15, 2010. During that comment period it was determined that the meteorological data were not adjusted for differences in time zones prior to input into the dispersion model while conducting the ambient impact analysis. The model simulates how the proposed project will impact ambient air in surrounding areas.

The revised ambient impact analysis was performed by Sunflower on the potential air emissions of NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> and CO from the Holcomb expansion project.

- The NO<sub>2</sub> screening modeling demonstrated no significant impact on the annual ambient air quality standard and demonstrated that 0.9% of the annual Class II maximum allowable increment for NO<sub>2</sub> is expected to be consumed. Subsequent detailed modeling for the new 1-hour NO<sub>2</sub> ambient air quality standard demonstrates the planned source will not contribute significantly to any modeled ambient air quality violations. EPA has not established a 1-hour Class II maximum allowable increment for NO<sub>2</sub>. Accordingly, no calculation of the potential consumption of such increment is possible.
- The SO<sub>2</sub> screening modeling demonstrated no significant impact on the annual ambient air quality standard and that 2.5% of the annual Class II maximum allowable increment for SO<sub>2</sub> is expected to be consumed. Detailed modeling for SO<sub>2</sub> demonstrates that the emissions will not contribute significantly to any violation of the 1-hour, 3-hour, or 24-hour ambient air quality standards and that 13.4% of the 3-hour, and 12.6% of the 24-hour Class II maximum allowable increments for SO<sub>2</sub> are expected to be consumed. USEPA has not established a 1-hour Class II maximum allowable increment for SO<sub>2</sub>. Accordingly, no calculation of the potential consumption of such increment is possible.
- The PM<sub>10</sub> screening modeling demonstrated no significant impact on the annual ambient air quality standard and that 5.8% of the annual Class II maximum allowable increment for PM<sub>10</sub> is expected to be consumed. Detailed modeling for PM<sub>10</sub> demonstrates that the emissions will not contribute significantly to any violation of the 24-hour ambient air quality standard and that 40.9% of the 24-hour Class II maximum allowable increments for PM<sub>10</sub> are expected to be consumed.
- The PM<sub>2.5</sub> screening modeling demonstrated no significant impact on the 24-hour and annual ambient air quality standards and that emissions will not contribute significantly to any violation of the 24-hour or annual ambient air quality standards. USEPA has not established 24-hour or annual Class II maximum allowable increments for PM<sub>2.5</sub>. Accordingly, no calculation of the potential consumption of the 24-hour increment or annual increment is possible.
- The CO screening modeling demonstrated no significant impact on the 1-hour or 8-hour ambient air quality standards and that the emissions would not significantly contribute to any violation of ambient air quality standards. EPA has not established any Class II maximum allowable increments for CO. Accordingly, no calculation of the potential consumption of such increment is possible.

Revised design data were presented for the ambient impact analysis and based on the results of the revised analysis, minor changes were made to the permit for the emergency generator, fire pump and booster fire pump. The modifications will result in lower emissions. The emergency generator will be designed to meet the requirements of 40 CFR Part 60 Subpart III Interim Tier 4 (changed from Tier 2). The post permit potential-to-emit for NO<sub>x</sub> is 1,910 ton/yr (changed from 1914 ton/yr). The emergency generator NO<sub>x</sub> limit is 0.50 g/HP-hr (changed from 4.8 g/HP-hr) and PM<sub>10</sub>/PM<sub>2.5</sub> limit is 0.10 g/HP-hr (changed from 0.15 g/HP-hr). The diesel fire pump (DFP) and DFP booster pump will not be restricted to what time of day they can operate (changed from requiring the maintenance and testing hours to occur between 9 a.m. and 6 p.m., only).

In June 2007, Sunflower performed a Class I visibility analysis using CALPUFF in response to a December 2006 inquiry by the federal land manager responsible for the Wichita Mountains Class I area. The Holcomb expansion project, as then proposed, included two new units totaling 1400 MW. The analysis determined the projected visibility impacts to be within allowable criteria. In addition, KDHE performed a source-specific CAMx model analysis, which concluded the visibility impacts from the expansion project on the Wichita Mountains Class I area to be within allowable criteria. The visibility impacts of the proposed 895 MW project will be lower than those previously determined. No adverse impacts on soils and vegetation in the area were expected. Any federal land manager who has reason to believe he/she may have a Class I area adversely impacted by the emissions from the expansion project has the opportunity to present KDHE with an analysis of the adverse impact on the air quality-related values of that Class I area during the comment period.

A public comment period has been established to allow citizens the opportunity to express any concerns they may have about the revised modeling analysis and proposed permitting action. The public comment period is to begin on September 23, 2010, and end on October 23, 2010. All comments should be submitted to KDHE as follows:

- 1) Presented orally or in writing at the public hearing;
- 2) Submitted in writing to Melissa Weide, Bureau of Air, 1000 SW Jackson, Suite 310, Topeka, KS 66612-1366; or
- 3) Submitted by email to: [SunflowerComments@kdheks.gov](mailto:SunflowerComments@kdheks.gov)

A public hearing has been scheduled on October 25, 2010 to receive comments on the proposed air quality construction permit at the following location:

Capitol Plaza Hotel and Convention Center (Sunflower Ballroom), 1717 SW Topeka Blvd., Topeka, KS

The public hearing will begin at 2:00 PM and run until all verbal and/or written comments have been submitted by participants.

All interested parties will be given a reasonable opportunity to present their views orally or by submission of written materials during the hearing. In order to give all parties an opportunity to present their views, it may be necessary to request that each participant limit oral presentations to a specific time limit.

Any individual with a disability may request accommodation in order to participate in the public hearing and may request the proposed materials in an accessible format. Requests for accommodation must be made no later than October 15, 2010 by contacting Linda Vandevord at (785) 296-6423.

A copy of the proposed permit, permit application, all supporting documentation, and all information relied upon during the permit application review process are available for public review for a period of 30 days from the date of publication during normal business hours (8:00 AM to 5:00 PM) at the KDHE, Bureau of Air (BOA), 1000 SW Jackson, Suite 310, Topeka, KS 66612-1366. A copy of the proposed permit and all supporting documentation can also be reviewed at the KDHE Southwest District Office, 302 West McArtor Road, Dodge City, KS 67801-6014 and the Northwest District Office, 2301 East 13<sup>th</sup> Street, Hays, KS 67601-2651. To obtain or review the proposed permit and all supporting documentation, contact Linda Vandevord, (785) 296-6423 at the KDHE central office, Allen Guernsey, District Environmental Administrator in the KDHE Southwest District Office, (620) 225-0596 or Dan Wells, in the KDHE Northwest District Office, (785) 625-5665. The standard departmental cost will be assessed for any copies requested.

These same materials are available, free of charge, at the KDHE Bureau of Air website, <http://www.kdheks.gov/bar/index.html>.

Roderick L. Bremby, Secretary  
Kansas Department of Health and Environment