

Illinois Environmental Protection Agency

**Notice of Public Hearing
Concerning the Proposed Issuance of a Construction Permit/PSD Approval to
Christian County Generation in Taylorville**

Christian County Generation, LLC, 1044 North 115th St., Suite 400, Omaha, Nebraska, has applied to the Illinois Environmental Protection Agency (Illinois EPA) for a construction permit and Prevention of Significant Deterioration (PSD) approval for the Taylorville Energy Center (TEC) located at 1630 North 1400 East Road, northeast of Taylorville. The plant would use coal gasification technology to produce substitute natural gas (SNG) for sale or use on site to generate electricity. The gasification block at the plant would include two gasifiers with syngas cleanup train, an acid gas recovery unit, a methanation unit, and a sulfur recovery unit. The plant's power block would include two combustion turbines and a single shared steam turbine. The nominal net output of the power block would be 630 Megawatts. The power block would also be able to fire commercial pipeline natural gas and operate independently of the gasification block.

The plant would be a major project for emissions of nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter (PM/PM₁₀/PM_{2.5}), volatile organic material (VOM) and greenhouse gases under the federal PSD rules, 40 CFR 52.21. The Illinois EPA Bureau of Air has made a preliminary determination to issue a construction permit/PSD approval and has prepared a draft permit for public review.

The Illinois EPA Bureau of Air will hold a public hearing on December 1, 2011 at 7:00 pm at the Taylorville Junior High School, Cafeteria, 120 East Bidwell Street in Taylorville.

The hearing will be held to receive comments and answer questions from the public prior to making a final decision concerning the application. The hearing will be held under the Illinois EPA's "Procedures for Permit and Closure Plans," 35 IAC 166, Subpart A. The Illinois EPA will also be accepting written comments during the comment period beginning with the first publication of this notice until the end of the written comment period listed below. Lengthy comments and questions should be submitted in writing. Requests for interpreters (including sign language) must be made by November 15, 2011. Any questions about hearing procedures or requests to address special needs should be made to the Illinois EPA, Dean Studer - Hearing Officer, Re: Christian County Generation, 1021 N. Grand Ave. E., P.O. Box 19276, Springfield, IL 62794-9276, 217/558-8280.

Written comments must be sent to the Hearing Officer and postmarked by midnight, December 31, 2011, unless otherwise specified by the Hearing Officer. Written comments need not be notarized.

Persons wanting more information may obtain copies of the draft permit and project summary at <http://www.epa.gov/reg5oair/permits/ilonline.html>. These documents and the application can also be viewed at the Taylorville Public Library, 121 West Vine, Taylorville and the Illinois

EPA's offices at 1340 N. Ninth St., Springfield, 217/782-7027 (for either Illinois EPA location please call ahead to assure that someone will be available to assist you).

For information or requests about the application or draft permit, please contact:
Brad Frost, Community Relations, Illinois EPA, 1021 N. Grand Ave. E., Box 19506, Springfield, IL 62794-9506, 217/782-2113 or 217/782-9143 TDD.

Under the PSD rules, the emissions of pollutants from the plant for which it would be a major project must be controlled with Best Available Control Technology (BACT). The draft permit contains the Illinois EPA's proposed determination of BACT for the plant. A summary of the proposed BACT controls and limits can also be found in Attachment 2 of the project summary.

The air quality analysis submitted by Christian County Generation for this project shows that it will not contribute to a modeled exceedance of the National Ambient Air Quality Standards (NAAQS) for NO₂, SO₂, CO, PM, PM₁₀, and PM_{2.5} or contribute to a modeled exceedance of applicable PSD increments. Modeled exceedances of the PM₁₀ 24 hour averaging time NAAQS and PSD increments as well as the SO₂ and NO₂ one hour averaging times for the NAAQS occurred in the analysis. However, Christian County Generation demonstrated that the project would not have a significant impact on all exceedances and would therefore not be a cause or contribute to these modeled exceedances. For NO₂, the maximum modeled ambient concentrations would be 323 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) 1-hour average, compared to NAAQS of 188 $\mu\text{g}/\text{m}^3$. Christian County Generation would not make a significant impact for NO₂ with the annual averaging time, with a maximum impact of 0.56 $\mu\text{g}/\text{m}^3$, with the significant impact threshold of 1.00 $\mu\text{g}/\text{m}^3$ for this averaging time and pollutant. For SO₂, the maximum modeled ambient concentrations would be 200 $\mu\text{g}/\text{m}^3$ 1-hour average, 334 $\mu\text{g}/\text{m}^3$ 3-hour average, 54.1 $\mu\text{g}/\text{m}^3$ 24-hour average and 15.23 $\mu\text{g}/\text{m}^3$ annual average, compared to NAAQS of 196, 1,300, 365, and 80 $\mu\text{g}/\text{m}^3$, respectively. For PM₁₀, the maximum concentrations would be 186 $\mu\text{g}/\text{m}^3$ 24-hour, compared to NAAQS of 150 $\mu\text{g}/\text{m}^3$. For PM_{2.5}, the maximum modeled ambient concentrations would be 33.79 $\mu\text{g}/\text{m}^3$ 24-hour average and 12.42 $\mu\text{g}/\text{m}^3$ annual average, compared to NAAQS of 35 and 15 $\mu\text{g}/\text{m}^3$, respectively. For CO, the maximum modeled ambient concentrations would be 7962 $\mu\text{g}/\text{m}^3$ 1-hour average and 2193 $\mu\text{g}/\text{m}^3$ 8-hour average compared to NAAQS of 40,000 and 10,000 $\mu\text{g}/\text{m}^3$, respectively. Furthermore, a screening analysis performed to determine the projects impacts to ozone concentrations in the region indicates that the NAAQS for ozone will not be violated with a calculated concentration with background added to be 0.109 ppm for the one hour averaging time, which serves as a surrogate for the eight hour averaging time, for this particular screening process. The one hour NAAQS for ozone is 0.120 ppm.

Since the proposed plant would generate electricity that goes to the power grid, Christian County Generation must also obtain an Acid Rain permit for the plant. A draft of the acid rain permit is included as an attachment to the draft construction permit.