GHG BACT PERMITS UPDATE

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EPA Websites

- **Clean Air Act Permitting for Greenhouse Gases**
  - http://www.epa.gov/nsr/ghgpermitting.html
- **EPA Comment Letters on GHG Permitting Actions**
  - http://www.epa.gov/nsr/ghgcomment.html

Summary of Important Points

- Establish BACT numerical limits for CO_{2e}
- Include all the GHG emissions sources in the BACT determination
- Include all the GHG emissions in the limits
- Include startup and shutdown emissions in the BACT limit
- Document all your decisions, emissions calculations, compliance methods, etc.

EPA Comment Letters

- 29 letters posted
- 01/07/2011 Nucor Iron first
- 12/29/2011 Christian County LLC
- 03/15/2012 Milwaukee Metropolitan Sewerage District - Jones Island
- 04/17/2012 Newark Energy Center latest

Christian County LLC

EPA generally considers CCS to be an available technology for large CO_2-emitting facilities, such as fossil fuel-fired power plants and certain industrial plants with high purity CO_2 streams. As such, if IEPA cannot demonstrate why CCS is technically infeasible for the proposed facility, then please revise the BACT analysis to evaluate costs and other impacts of installing and operating a CCS system.

Milwaukee Metropolitan Sewerage District - Jones Island

It appears that Step I of the GHG BACT analysis only considered simple cycle turbines, and did not consider either combined cycle turbines or combined heat and power (CHP) systems. Increasing the efficiency of fuel burning equipment is a way to decrease the emissions of GHGs. Combined cycle turbines are generally more energy efficient than simple cycle turbines, and CHP systems can be even more energy efficient. Please revise the BACT analysis to consider both combined cycle turbines and CHP systems, along with simple cycle turbines, or provide an explanation in the record as to why these were not considered available control options for this particular source.

Newark Energy Center Project

The GHG (C02e) emissions are estimated, based on AP-42, at 1,030,168 tons per year per turbine. To minimize the GHG emissions, Newark Energy Center proposes as BACT to operate the turbines in combined-cycle mode at a heat rate limit of 6,005 BtulkW-hr to achieve the thermal efficiency of 58.4% (LHV) with no duct firing. In comparison, the Russel Energy Project in California proposed to achieve 56.40/0 efficiency and the Cricket Valley Project in New York proposed to achieve 57.4% efficiency.

Newark Energy Center Project

Although, we-agree with the proposed GHG BACT for this project because it is consistent with recent determinations, please note that the April 13, 2012, NSPS proposal requires that the power plants meet 1000 lbs/MW-hr carbon dioxide limit. You may also be interested to know that New York State's rule requires that such plants meet 925 lbs/MW-hr carbon dioxide limit.

Additional Issues

- Pollutant considerations that otherwise were not triggered
- BACT issues
- Impact issues
- Ozone modeling
- Synthetic minor limits for other pollutants
- NSPS and MATS limits for new sources

Going Forward

- State and Local permitting agencies will continue to track GHG BACT decisions
- For EGUs and other large combustion sources we will also pay close attention to the EGU MATS and the GHG NSPS
- This is all in addition to other PSD/NSR issues