

Memorandum of Meeting

DNREC – Air & Waste Management

Air Quality Management Section

Meeting Date: March 9, 2006

Location: DNREC AQM Conference Room, Priscilla Bldg., Dover, DE

Purpose: Workgroup Meeting #2, Delaware Electric Utilities Multi-Pollutant Regulation Development

The purpose of this workgroup is to establish a committee of interested parties to assist the Department in the development of the regulatory requirements and associated language to facilitate a reduction of sulfur oxides (SO_x), nitrogen oxides (NO_x), and mercury (Hg) from Delaware's coal and residual oil-fired electric generating units (EGUs). DNREC personnel, other state agencies, persons with environmental interests, persons impacted by power plant emissions, and power plant owners and operators were present at the meeting (please see attendance list following this memo).

This was the second in an anticipated series of five workgroup meetings. The specific purpose of this meeting was to allow affected industry, the owners and operators of coal-fired and residual oil-fired electric generating units rated at 25 MW or greater in Delaware, to present to the workgroup their position regarding the multi-pollutant regulation development and what changes could be made at their facilities to effect reductions in NO_x, SO₂, and Hg emissions from those facilities.

The meeting was conducted by DNREC's Ron Amirikian. After welcoming everyone, Ron re-stated that the goal of this effort was to require a significant reduction in air emissions from Delaware's coal and residual oil-fired power plants. Presentations were then made by the three owner/operator organizations that potentially would be directly affected by a completed multi-pollutant regulation.

McKee Run Generating Station

The first presentation concerned the City of Dover's McKee Run Generation Station. The McKee Run Generating Station has a single residual oil-fired electric generating unit, Unit 3, that has been identified as being affected by a completed multi-pollutant regulation. Representatives from the City of Dover provided a PowerPoint presentation that provided some background information concerning the McKee Run Unit 3, described past activities that reduced emissions from the unit, and described the McKee Run Unit 3's importance to the City of Dover's electric system and financial outlook. A copy of the PowerPoint presentation may be found on the DNREC multi-pollutant regulation website (http://www.dnrec.state.de.us/air/aqm_page/Multi-PRegulation.htm).

In addition to the presentation, City of Dover representatives provided other input to the developing regulation. The McKee Run Generating facility was described as not-for-profit. The representatives stated that they did not think that the McKee Run Unit 3 should be part of the regulation due to it being the only oil-fired unit identified in the regulatory process (it should be noted that Edge Moor Unit 5 is also residual oil-fired). The representatives stressed the unit was not a base load unit and only ran part of the time, indicating an 8% capacity factor. It was stated that any required changes could affect the continued financial viability of the unit which could result in a decision to shut the unit down, which could potentially negatively impact the electric reliability for both the City of Dover and the Dover Air Force Base. The representatives indicated that the cost to reduce emissions would affect the cost of power purchased by the City of Dover for its customers because the cost-cap provided by the existence of Unit 3 would have to increase. It was stated that considerable expenses were anticipated in upcoming years to ensure future operability.

Indian River Generating Station

The second presentation was given by representatives of NRG, the owner operators of the Indian River Generating Station. The Indian River Generating Station includes four coal-fired electric generating units that have been identified as being affected by a completed multi-pollutant regulation. Representatives from NRG provided a PowerPoint presentation that provided background information about the units, discussed the importance of the Indian River facility to the security of the regional electric grid security, discussed the economic impact of the facility to the area, and discussed the impact of increased costs on the amount of run-time (dispatch from the regional dispatch organization based on generation costs) and profitability. The PowerPoint presentation provided considerable detail and discussion concerning projects that could provide significant reductions of NO_x, SO₂, and Hg emissions from the existing units. NRG's presentation also addressed the potential of building an integrated gasification combined cycle (IGCC) unit at the Indian River facility. It was indicated that a new IGCC unit would provide low-pollution generation, improved efficiency, and improved electric grid security for the State of Delaware. A copy of NRG's PowerPoint presentation may be found on the DNREC multi-pollutant regulation website (http://www.dnrec.state.de.us/air/aqm_page/Multi-PRegulation.htm).

There was considerable discussion following the formal presentation. Some of the discussion concerned the presented potential emissions reduction projects for the existing units. It was noted that while the identified projects presented considerable emissions reductions, the levels were not as great as some reductions identified in industry literature for other facilities. NRG provided discussion that units react differently to the various reduction technologies (unit designs make any particular emission reduction technology more or less effective than on other designs or configurations). When directly asked, NRG indicated that further reductions were technologically possible if financial impact was not a consideration. NRG also provided discussion of the potential impact on electric grid security that some projects might provide due to the necessity and time required to install, integrate, and start-up the emissions reduction technology.

Some of the other discussion concerned the potential of building an IGCC unit the Indian River facility. NRG indicated that Indian River is one of several sites (the others out of Delaware) being considered for the installation of an IGCC unit. Economics would likely dictate the ultimate site selection. The installation of an IGCC unit at Indian River would not likely result in the shutdown of all of the existing Indian River units. Emissions reduction projects would still be performed on the surviving existing Indian River units if the site is selected for an IGCC unit.

Edge Moor Generating Station

The third presentation was by representatives of Conectiv Energy, the owner/operator of the Edge Moor Generating Station. The Edge Moor Generating Station includes two coal-fired units and a residual oil-fired unit that have been identified as being affected by a completed multi-pollutant regulation. Representatives from Conectiv provided a PowerPoint presentation that provided background concerning the Edge Moor facility, discussion about the relationship of the facility to the non-regulated electric generation industry, discussion about the impact of the facility on regional electric grid security, and discussion of the economic and dispatch impact due to increased generation costs (such as by the installation of emissions reduction projects). The presentation addressed problems specific to the Edge Moor facility regarding space between the units and between the units and the Delaware River that have adverse impacts on the ability to install some emissions reduction technologies in timely and cost effective manner, have the effect of negatively increasing the operating impact of the technology relative to other facilities, and negatively impacts the amount of time (relative to other facilities) to install, integrate, and start-up the emissions reduction equipment (which could impact electric grid security). The PowerPoint presentation provided considerable detail and discussion concerning projects that could provide significant reductions of NO_x, SO₂, and Hg emissions from the existing units. Conectiv's presentation also addressed the potential of installing an IGCC unit at the Edge Moor facility, indicating that the potential is greatly affected by the restrictions presented by the size and configuration of the site. A copy of Conectiv's PowerPoint presentation may be found on the DNREC multi-pollutant regulation website (http://www.dnrec.state.de.us/air/aqm_page/Multi-PRegulation.htm).

There was some discussion following the formal presentation. Some of the discussion concerned the presented potential emissions reduction projects for the existing units that noted while the identified projects presented considerable emissions reductions, the levels were not as great as some reductions identified in industry literature for other facilities. Conectiv provided discussion concerning how different units may react differently to any given reduction technology (unit designs make any particular emission reduction technology more or less effective than on other designs or configurations). When directly asked, Conectiv indicated that further reductions were technologically possible if financial

impact and grid security not a consideration. Conectiv detailed the impact of unit shutdowns that would be required to install, integrate, and start-up some of the emissions reduction technologies at Edge Moor.

There was also some general discussion at the completion of the formal presentations and their ensuing discussions. Subjects brought up during these general discussions included question about the status of similar regulatory development in neighboring states, discrepancies between emission levels discussed in the presentations and past regulatory required reporting, and the potential impact of up-coming Federal regulations (such as CAIR and CAMR).

Following the presentations and subsequent discussion, the presenting organizations were thanked for their efforts and the meeting was closed.

During the next workgroup meeting, currently scheduled for April 6th, representatives from environmental groups and the public will have an opportunity to present their views regarding the development of this multi-pollutant regulation.

March 9, 2006 Meeting Attendance (Sign-In) List

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