From: Amirikian Ronald A. (DNREC)
Sent: Tuesday, March 21, 2006 10:32 AM
To: 'John Austin'
Cc: Mirzakhalili Ali (DNREC); Clausen Robert L. (DNREC)
Subject: Answers to Questions

Thank you for your comments regarding Delaware's multi-pollutant regulation. I think the email below answers the questions in your prior emails.

As you know, Delaware's Department of Natural Resources and Environmental Control is currently in the process of developing a multi-pollutant regulation that affects large coal-fired and residual oil-fired electric generating stations and is seeking input from the affected utilities, environmental groups, and the general public. It is the Department's intent to post input it receives, including your comments, on the web page that has been created to provide public access to information relevant to the development of the regulation. That web page may be accessed at: http://www.dnrec.state.de.us/air/aqm_page/Multi-PRegulation.htm.

You're e-mail also included questions regarding mercury limits. The first question regards the mercury allocation that would result for the Edge Moor and Indian River generating stations under the EPA's Clean Air Mercury Rule (CAMR). Under the CAMR allocation methodology, allocations will be based on individual unit heat inputs; specifically the average heat input value of the three highest individual annual unit heat inputs for the year of 2000 through 2004. Individual unit 3-yr average high heat inputs at a facility can be summed to obtain the total 3-yr average high heat input for the facility.

Summing together the average 3-yr high heat inputs for the units for each of the two sites, the CAMR Edge Moor facility heat input is 33% of the total and the CAMR Indian River facility is 67% of the total.

Under CAMR this allocation percentage could shift somewhat depending upon the type of coal combusted at the facilities. For bituminous coals, the CAMR allocation average heat input is adjusted by a 1.0 correction factor, and for sub-bituminous coals (such as PRB) the average allocation heat input is adjusted by a 1.25 correction factor. For example, under CAMR, if the Edge Moor Facility burned only bituminous coal and the Indian River facility burned only sub-bituminous coal, the allocations would shift to 29% to the Edge Moor facility and 71% to the Indian River facility. At this time, the Edge Moor facility fires only bituminous coal while the Indian River facility has been permitted to test fire a percentage of sub-bituminous coal (the rest bituminous coal) in its efforts to seek NOx and SO2 emissions reductions.

Your second mercury-related question asked what, if any, were the mercury emission limits from the Premcor refinery IGCC units. There are currently no mercury emissions limitations for these IGCC units. Recall also that these IGCC units utilize petroleum coke, not coal, as the feedstock for the gassifiers.

The last mercury-related question concerned the cut off date for Delaware to formally accept or opt-out of the mercury trading in CAMR. CAMR requires a state to submit an implementation plan demonstrating compliance with the mercury caps by September 15, 2006 (18 months after the date that the EPA secretary signed the final rule, March 15, 2005). The Department anticipates that the mercury reductions that are being considered in the multi-pollutant regulation will be able to satisfy Delaware's requirement for mercury emissions reduction under CAMR. Analysis of this situation is part of the Department's activity in this regulation development process.

Your e-mail also questioned the applicability of the multi-pollutant regulation to the coal fired electric generating units at the NRG Energy Center/Kraft Foods (Cogen Unit 1) and DuPont Seaford (Invista Units 1,2 and 3). The NRG/Kraft generating unit has a nameplate electrical output rating of 18MW. Each of the three DuPont Seaford generating units have nameplate electrical output ratings of 10MW. The multi-pollutant regulation currently under development is intended to be applicable to coal-fired and residual oil-fired electric generating units with a nameplate electrical output rating of 25MW or greater. The selection of the 25MW cutoff reflects the considerable research and analysis by the USEPA which indicates that for this size of electric generating unit (25MW and up), there are highly cost-effective control technologies available for achieving significant SO2 and NOx emissions reductions. EPA's analysis was based on fully demonstrated flue gas de-sulfurization technology and selective catalytic reduction technology commercially available for this size of generating unit.

Despite the 25MW cutoff discussed above, DNREC is aware there are other sources in the State that warrant additional emission controls. As an example, DNREC has recently began development of regulation to control NOX emissions from refinery boilers and heaters greater than 200 mmBTU/hr is size. Along this same line of thinking DNREC is also considering the development of a regulation that would apply to the NRG Energy Center/Kraft Foods facility and the DuPont Seaford (Invista Units 1, 2 and 3) that you mentioned in your email.

Please do not hesitate to contact me if you have any additional questions or need additional information.