

**From:** Amirikian Ronald A. (DNREC)  
**Sent:** Monday, March 27, 2006 8:00 AM  
**To:** 'John Austin'  
**Cc:** Clausen Robert L. (DNREC)  
**Subject:** RE: Answers to Questions

Dear Mr. Austin,

Thank you for your continued interest in, and comments regarding, the development of Delaware's Electric Generating Unit Multi-Pollutant Regulation. I would like to provide some information regarding your March 21, 2006 e-mail that may be of interest to you.

During the first workgroup meeting for the development of Delaware's Electric Generating Unit Multi-Pollutant Regulation, DNREC made a presentation that indicated that modeling performed in association with the Ozone Transport Commission (OTC) indicated that the emissions reductions associated with CAIR and CAMR would be insufficient to meet Delaware's needs. The presentation indicated that actual reductions from Delaware's large coal-fired and large residual oil-fired electric generating units would be necessary to assist Delaware in attaining the ground-level ozone NAAQS, assist in attainment of fine particulate NAAQS, help address local-scale fine particulate and mercury problems attributable to coal and residual fueled electric generating units, and help address Delaware's EGU-related regional haze obligations. It was indicated in the meeting also that the Electric Generating Unit Multi-Pollutant Regulation was felt to be necessary because EPA modeling predicted that without such a regulation, under the CAIR and CAMR cap-and-trade scenarios, market forces would result in few, if any, actual emissions reductions from Delaware sources. As you know, under the CAIR and CAMR model rules no unit is actually required to make any emissions reduction, but rather only be able to balance its allowance account at the end of the year or season in order to be in compliance.

The Department feels that the first workgroup meeting presentation, along with other information discussed in the meeting, made it clear to the owners and operators of Delaware's large coal-fired and residual oil-fired electric generating units that DNREC was seeking significant, real emission reductions from the subject units. The Department also feels that it was made clear that the Department was seeking reductions on the order of magnitude that has been demonstrated in industry by the use of highly cost-effective emissions reduction technology. In addition to the information presented and discussed in the meeting, DNREC has posted on its web page ([http://www.dnrec.state.de.us/air/aqm\\_page/Multi-PRegulation.htm](http://www.dnrec.state.de.us/air/aqm_page/Multi-PRegulation.htm)) data regarding Delaware unit actual emissions, comparative data from units in neighboring states, and information regarding emissions reductions for units outside Delaware. The information provided by the owners and operators of the subject electric generating units in the second workgroup meeting will be considered in the development of the multi-pollutant regulatory language, but ultimately is only a part of the information that DNREC will consider.

In your e-mail you mentioned that upon review of the 2004 TRI data, your calculations indicate that more mercury reductions will be required from the Edge Moor Electric Generating facility than from the Indian River Electric Generating facility. You did not specifically identify the data or calculations you performed, but it is felt that some of the information you used may be in

error. You may not be aware that it has previously been noted that in past years the mercury emissions from the Indian River facility were incorrectly accounted for, such that most of the mercury emissions were accounted for as land releases and not air releases. At the same time, the Edge Moor facility had correctly categorized the mercury emissions as air releases. This discrepancy in reporting procedures has been corrected. The incorrect historic data you may have viewed would skew the mercury emissions such that, on a percentage of the state total, it would appear that the Edge Moor mercury air emissions were higher than those of Indian River and would therefore require a larger (in lbs) annual reduction. In fact, on a lb/year basis, the CAMR-derived reduction at Edge Moor is lower than that of Indian River. But again, under the CAMR model rule, no particular unit is required to make reductions, but is only required to be able to balance its account at the end of the year.

Regarding the Premcor facility, you indicate that in 2004 a 311 MW unit emitted 17 lb of mercury for a heat input of 2,990,835 MMBTU. It is not quite clear what unit at Premcor you are addressing, as the largest generating unit at that site has a 92 MW nameplate rating. In any event, the 17 lb mercury emission you cite is the calculated/estimated mercury emissions for the entire facility, which would include any of the processes combusting pet coke and/or synthesis gas. Included in this total are two combustion turbines, two duct-fired heat recovery boilers, and four conventional boilers that make up the co-generation portion of the facility. The EPA's Acid Rain Database information indicates that the 2004 heat input to these devices totaled in excess of 16,000,000 MMBTU.

Under CAIR and CAMR guidelines, the Premcor units are considered co-generation units and are therefore not subject to CAIR and CAMR (notwithstanding the fact that they are not subject to CAMR since they are not coal-fired). These units also do not fit into the scope of the approved start action notice for the multi-pollutant regulation, which states applicability as "coal and residual oil fired EGU's with nameplate capacities equal to or greater than 25 megawatts." These other units are anticipated to be addressed in the rulemaking process for other regulations.

Any new large IGCC unit would be subject to the NSPS requirement for mercury specified in CAMR. CAMR provides a mercury NSPS for new large IGCC units as  $20 \times 10^{-6}$  lb/MWh, on a rolling 12 month average. This CAMR identified emission limit is not fuel specific. Other potential restrictions would be evaluated as part of the permitting process for any new unit.

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