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To: "Melissa Byrnes" <byrnesm@michigan.gov>
Date: 8/14/2008 2:42 PM
Subject: WCEV Application No. 317-07 Proposed BACT Limit for Lead Background Information
CC: "Robert Sills" <SILLSR@michigan.gov>, "William Presson" <PressonW@michigan.gov>, "Brian Warner" <bwarner@wpsci.com>, "Kohl, Steven" <SKohl@wnj.com>, "Caudell, John F." <jfcaudell@FTCH.com>, "Linck, Jacquelyn" <jflinck@FTCH.com>, "Lagomarsino, John" <JLagomarsino@roe.com>, "Rainio, Aku" <ARainio@roe.com>

Melissa - During a telephone conversation on August 13 you asked if Wolverine would confirm how we arrived at the proposed BACT emission limit for from the CFB boilers of 1.3E-5 lb/MMBtu.

Based on input from Burns & Roe, the "worst-case" fuel from a lead perspective is Eastern bituminous coal. This conclusion is based on the United States Geological Survey (USGS) database for Illinois bituminous coals (16 data points). For those 16 data points, average lead content is 39 ppm (dry), with standard deviation of 79 ppm (dry). We expect 25% margin on top of the average lead content (as opposed the standard deviation) to be adequate because of the large boiler size and large coal flows will tend to average out spot variations in trace elements, for a maximum lead content of 49 ppm (dry). Based on that maximum lead content and AP-42 methodology, the predicted maximum lead emission rate is 1.3E-5 lb/MMBtu. Since there are no controls specifically targeting lead itself, we expect the vendor guarantee for PM to cover it. We've used the AP-42 methods together with an assumed lead content of 49 ppm (dry) in Illinois Basin coal to estimate the removal efficiency at 99.65% to achieve outlet emissions of 1.3E-5 lbs/MMBtu.

Please let me know if you have any further questions on this issue.

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