



SIERRA CLUB

WEST VIRGINIA CHAPTER

P. O. Box 4142
Morgantown, WV 26504

Dec. 23, 2015

Division of Air Quality, DEP
601 57th Street SE
Charleston, WV 25304
Attn: Ed Andrews

RE: Permit modification for R14-0007C filed by Morgantown Energy Associates (MEA)

Dear Mr. Andrews:

Please accept the following comments on behalf of the West Virginia Chapter of Sierra Club. The Sierra Club appreciates the opportunity to comment on this application, because we believe it sets important precedents in meeting Mercury and Air Toxics Standard, especially as West Virginia moves forward with other air pollution controls and EPA requirements.

1. Public Notice Requirements:

The Sierra Club questions the validity of the legal notice for this permit modification. The notice was published on Nov. 25, 2015, and indicates that “Installation of the SNCR system will proceed upon issuance of the revised permit and is anticipated to start in fourth quarter 2015 and begin operating in January 2016.” However the permit application at Section 14A. indicates the date of the anticipated installation as “11/1/2015 – 2/28/2015” and indicates “Project commenced in accordance with WVDEP MATS extension dated 12/15/2014 and related MEA correspondence.” (past tense in the original). This it is not clear whether this project has commenced construction, but it seems unlikely that MEA can begin operation in January 2016 if a permit is not issued until after Dec. 24, 2015. We note with regard to “pre-construction” activities that, as specified in 45-CSR-13-5.3, “All activities ... shall be conducted solely at the risk of the owner or operator pf the stationary source and, in undertaking such activities, the owner or operator shall not assert as any argument, including legal or equitable, in any proceeding (administrative, civil or criminal) that such activities or investment has occurred.” This, if construction has begun, as implied in the application, that should have no bearing on any decision by DEP as to whether or not to issue a permit.

We further question whether the public notice is adequate because it fails to describe “the type and amount of air pollutants proposed to be discharged” as specified in 45-CSR-14 section 17.1. The legal notice indicates that “The applicant estimates that there is no increase in emission from the change...”, but there is no indication of what “type or amount of air pollutants” are proposed to be emitted. We note that MEA is the largest single source of air emissions within the City limits of Morgantown, but no one would be able to discern this from the public notice published Nov. 25. The SNCR system proposed would involve adding significant amounts of ammonia or urea injected into the flue gas, creating a significant potential for emissions and adverse impacts to the community. As noted below, SNCR systems require

precise mixing of the ammonia with flue gases, or significant emissions can result. **We recommend that the public notice be re-advertised with correct start dates and emissions projections, including notice of ammonia or urea usage, and that the public have an additional 30 days to comment on the proposed change.**

2. Mercury Pollution Emission Limits

The application (section D) indicates that the proposed change is to comply with the Mercury and Air Toxics rule, and would involve an increase in limestone injection rates and fuel feed, resulting in exceedances of NO_x emissions limits. To meet existing NO_x limits, MEA proposes to add Selective Non Catalytic reduction, but requests that emissions limits, except for SO₂, remain at current limits.

The whole reason for the change is to comply with the mercury rule, but no change in the emissions limit is specified for mercury in the application for the proposed revision, even though the application indicates a 1-3 % increase in coal gob being fed into the system. Furthermore, MEA proposes no actual reduction in the emissions limit of 0.021 lbm/hr in their existing Title V permit, nor does the proposed limit account for the increased fuel consumption. MEA's existing limit of 0.021 lbm/hr is equivalent to 183 lb/yr, well in excess of the level to qualify as a "Low Emitting Electric generating unit" (LEE); thus we believe that **continuous emissions monitoring for mercury is required under MATS**. MEA states that they anticipate that the facility will qualify as LEE, however no data or operating changes are proposed to demonstrate this. **We recommend that DEP reject the designation as LEE and require continuous monitoring to document compliance with the MATS. We further request that the mercury emissions limit be reduced as much as is practicable to reduce overall potential for mercury exposure in Morgantown.**

3. Ammonia Emission Limits

Attachment G of the MEA application (Process description) indicates that as much as 1500 gallons of either anhydrous ammonia or urea would be stored on site, and injected into the flue gas. In either case NH₂ radicals bind with NO_x. However, unreacted NH₂ would be exhausted through the stack, creating an "ammonia slip" which creates potential human health hazards (US-EPA at <http://www3.epa.gov/ttnecat1/dir1/fsncr.pdf>). **We recommend that emissions limits for ammonia be imposed at levels as low as practicable, and in no event should this exceed 10 ppm.**

In addition, ammonia in the flue gas can form ammonium sulfates which deposit in the ash, but which can off-gas as ammonium when in an aqueous environment. Because most of the coal combustion residues from MEA are disposed of at surface mines, it should be assumed that these will be in an aqueous environment, and ammonia off-gassing can occur. Ammonia content in ash greater than 5 ppm can result in ammonia off-gassing. **We recommend that ammonia content of ash be monitored, and unless MEA demonstrates that it never exceeds 5 ppm, emissions limits for ammonia at disposal sites must also be established and monitoring be required.**

4. Nitrous Oxides Emission Limits

When either ammonia or urea react with NO_x, significant amounts of N₂O can form. N₂O formation is greater with urea than ammonia (EPA 2002 at <http://www3.epa.gov/ttn/catc/dir1/cs4-2ch1.pdf>). Since N₂O is a greenhouse gas, its emissions must be monitored and controlled. **We recommend that emissions limits be established for N₂O at the lowest practicable level and monitoring be required.**

5. Nitrogen Oxides Emission Limits.

The whole rationale for installing SNCR is to reduce NOx emissions, yet MEA proposes no reduction in the existing NOx limits of 0.4 lbm/mmBtu. SNCR typically achieves NOx reductions of 30-50 %, and higher emissions reductions are achievable. **Therefore we recommend that the NOx limit be lowered to the lowest practicable level, not more than 0.28 lb/mmBtu, and preferably to 0.2 lb/mmBtu or lower. Alternatively, we recommend that Selective Catalytic Reduction be required.** SCR achieves far higher NOx reductions (90 % or more) and is an available control technology.

6. Acid Gases

The existing Title V permit has no emissions limits for acid gases such as hydrofluoric, hydrochloric, or sulfuric acids. These are extremely hazardous materials and appropriate limits are needed. **We recommend that these be established at the lowest practicable level.**

Thank you for the opportunity to comment on this application.

Sincerely,

James Kotcon, Chair
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