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west virginia department of environmental protection

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Jim Justice, Governor  
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**MEMORANDUM**

**To:** Beverly McKeone, P.E. – NSR Program Manager  
**From:** Edward Andrews, P.E. - Engineer   
**Date:** November 21, 2017  
**Subject:** PD17-088 for Morgantown Energy Associates – (061-00027)

On September 7, 2017, Morgantown Energy Associates (MEA) filed a determination request for a fuel change at the Morgantown Energy Center (061-00027), which was assigned PD17-055. MEA is planning to receive fuel with up to 10% coarse limestone blended with the coal refuse that is fed to the circulating fluidized bed boilers (CFB). MEA's fuel supplier was going to blend the fuel with the coarse limestone offsite. This change would not involve any additional equipment or changes to any existing equipment. It was determined that the proposed change in PD17-055 did not require a permit in accordance with 45 CSR 13.

On November 13, 2017, MEA proposed to blend course limestone into the coal refuse by using the facility's existing fuel handling and storage equipment at the Morgantown Energy Center. MEA proposes to receive course limestone at a rate of one truck load for every 10 truckloads of coal refuse and offload the limestone into one of the two fuel storage silos during initial testing (i.e. one silo will store the coal refuse with 10% coarse limestone and the other silo with 100% coal refuse).

MEA noted that the fugitive emissions from the unloading of course limestone will be controlled with the exiting building enclosure. The same existing controls for the vibrating feeders, common transfer and weigh belt conveyors will be utilized. Coarse limestone contains far fewer fines as compared with pulverized limestone. MEA believes that the existing controls at the fuel receiving area are sufficient to minimize and maintain the emissions at the existing levels.

MEA's Morgantown Energy Center is currently cover by Permit R14-0007C, which allows the CFBs to burn coal refuse with limestone injected into the furnace. Permit R14-0007C allows for this activity to take place for the CFBs. 45 CSR 13-2.17.f.5. notes that the use of an alternative fuel or raw material does not constitute a "modification" provided that the source is designed to accommodate without an increase in emissions above the "modification" threshold levels.

MEA claims that this change would not increase potential emissions above the permitted limits for all pollutants.

MEA's Morgantown Energy Center is classified as a "major source" under 45 CSR 14. Therefore, the proposed change must be determined if it is a "change in the method of operation". 45 CSR 14-2.40.e. notes that the use alternative fuel does not constitute a change in the method of operation if allowed by a permit issued accordance with 45 CSR 14. The original Permit R14-0007 was issued to allow for coal refuse to be burned to the CFB with limestone added at the facility. The only different is that the coal refuse (fuel) will be blended with course limestone using the existing equipment at the facility.

Currently the coal fuse is classified as bituminous coal per ASTM D388-12. MEA has determined the expected analytic properties of the fuel with 10 % limestone and determine that the classification per ASTM D-388-12 is Bituminous coal. This change only changes the sub-classification from low-volatile to medium volatile bituminous coal. MEA calculated the change in gross calorific value to be less than 3%. To ensure no changes are necessary with regards to using continuously emission monitors (CEMS), MEA calculated the F-factor of the proposed to be 1,758 scf/MMBtu, which is within 3% of the EPA default value of 1,800 scf/MMBtu under 40 CFR 75.

MEA has preform and included a applicability test pursuant to 45 CSR §§19-8.a. and 19-8.b. MEA used the "actual-to-projected-actual" applicability test to demonstrate that the proposed change does not represent a "significant increase of emissions and net increase of emissions". The results of this test indicated that the proposed change will result in a decrease in projected actual emissions for all NSR pollutants.

MEA evaluated this change with regards to applicability under Subparts Da and OOO. This evaluation contented that "modification" as defined in the general provisions of Part 60 is not triggered. Therefore, no newer PM or SO<sub>2</sub> emission standard for modify sources under Subpart Da were triggered.

Subpart OOO defines "nonmetallic mineral" as material that contains minerals (limestone) or any mixture of which the majority is any of the listed minerals in 40 CSR 60.671. coal or coal refuse is not listed in 40 CSR 60.671. The proposed fuel would not meet the definition of "nonmetallic mineral" and the two fuel crushers with associated conveying equipment would not be affected sources under Subpart OOO of Part 60.

This writer has concluded that the proposed fuel blending does not trigger either a modification under 45 CSR 13 or a major modification under 45 CSR 14. Therefore, a no permit required letter is here by recommended by this writer for the proposed fuel to be received handled, and consumed by the Morgantown Energy Center owned and operated by Morgantown Energy Associates.