



Muscatine Power and Water
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VIA EMAIL

October 11, 2021

IDNR
State Director,
c/o Ms. Wendy Heib, NPDES Industrial Permit Coordinator
502 East 9th Street
Des Moines, IA 50319

**RE: Notice of Planned Participation, Effluent Limitation Guidelines for Steam Electric Power Generation
Unit 9 Compliance Subcategory for Flue Gas Desulfurization Wastewater -Voluntary Incentive Program (VIP)
Muscatine Power and Water (MPW) - NPDES Permit 7048-016**

Dear Ms. Hieb,

On November 3, 2015, the Environmental Protection Agency (EPA) published a final rule updating and amending the Effluent Limitation Guidelines for the Steam Electric Power Generating Point Source category. On October 13, 2020 EPA published the final Steam Electric Reconsideration Rule (the Rule) with updated regulatory limits for existing wastewater categories and several new subcategories for Bottom Ash Transport Water (BATW) and Flue-Gas Desulfurization Wastewater (FGDW).

This letter provides Notice of Planned Participation (NOPP) for Unit 9 in the following ELG Compliance Subcategory for FGDW: Voluntary Incentive Program (VIP).

Projected Technologies used to comply with requirements: MPW studied existing technologies prior to the publication of the Rule and anticipates additional study will be required as many technologies remain non-commercial or unoptimized for FGDW. MPW anticipates the treatment system may consist of one or more of the following technologies: Physical/Chemical Separation, Membrane Filtration, Advanced Membrane Filtration, Brine Concentration, and/or Evaporative Spray Drying. Another important consideration will be to determine the best technology to process the concentrated brine. Based upon testing, the selected technologies in the system will be appropriate for the plant geography, local climate, and site-specific plant operating characteristics to allow effective treatment of FGDW to meet the Rule effluent limits.

As EPA noted in the Rule, technologies are expected to develop in the next several years and MPW will continue to evaluate emerging technological improvements that could support effective treatment of FGDW and allow more effective treatment of solid byproducts from filtration.

Timeline and Narrative: The Rule requires compliance by December 31, 2028. The attached Gantt chart showing engineering dependencies with associated treatment system evaluations provides the overall schedule to meet the compliance date. The chart includes time for evaluation of emerging technologies that may become available, as EPA noted existing technologies are expected to evolve.

The timeline includes a window for evaluation of the existing FGDW process equipment/effluent streams for which a treatment system could be applied. Engineering studies of available technologies and applicability to site processes will support selection for pilot testing. Pilot testing will support final technology selection and associated project planning. Coordination with the IDNR for the NPDES permit will be needed. Finally, a capital project will be designed, procured, installed, and tested before the compliance deadline of December 31, 2028.

Documentation: The above referenced Gantt chart showing planned progress and engineering dependencies is attached.

This letter and attachment provide information specified by the Rule for Unit 9 FGDW NOPP for VIP. Please contact me with questions you may have.

Sincerely,



Jean Brewster
Manager, Environmental Affairs, MPW

Attachment

CC: Doug White, Director Power Production and Supply, MPW