

unit can meet a Hg emission standard of 1.2 lb/TBtu using an injection rate of 5.0 lb/MMacf of brominated activated carbon at a sorbent cost of \$1.15/lb.

- Note that the example does not include fuel additives or any equipment upgrade costs.
- EPA made following changes to the calculations between 2023 and 2024 Technical Memo's:
 - EPA updated the Gulf Coast Hg concentration from 14.9 lb/TBtu (2023) to 25.0 lb/TBtu (2024). This resulted in the baseline annual uncontrolled Hg emissions to change from 919 lb Hg to 1,542 lb Hg.
 - EPA corrected the formula for conversion of sorbent injection rate from lb/MMacf to lb/hr by adjusting the conversion factor from (520 R / 785 R) to (785 R / 520 R). The conversion factor was applied incorrectly in 2023 Technical Memo.
 - EPA added an additional factor to update the formula for conversion of sorbent injection rate from lb/MMacf to lb/hr which was not previously accounted for in 2023 Technical Memo.
- For comparison with the values calculated by the EPA in Table 13, it should be noted that the 2024 calculated cost effectiveness of the 800 MW example used by the EPA to meet 1.2 lb/TBtu, without fuel additives, is \$5,083 per pound of Hg controlled.

Response: Flaws in EPA's cost analysis for future compliance with 1.2 lb/TBtu

- Est. Hg In (lb) & Hg Out (lb)
 - See previous responses on Table 12 for flipped MRY Unit 1 and MRY Unit 2 unit information/sizing and cost of fuel additive.
- BPAC Injection Rate:
 - EPA's cost analysis assumes lignite units with an ESP can achieve 1.2 lb/TBtu, which has not been demonstrated. The injection level has a direct bearing on the operational costs because it dictates the amount of BPAC necessary to reduce Hg emissions. Therefore, cost calculations are hypothetical because no project data demonstrates what the injection level would be, if 1.2 lb/TBtu is feasible.
 - Although the overall feasibility of complying with the proposed Hg limit is undetermined, the testing confirms that based on maximizing injection capabilities of the existing systems, MRY's current equipment configuration cannot achieve 1.2 lb/TBtu.
- Cost of BPAC:
 - Table 13 brominated PAC sorbent cost – EPA assumed of \$1.15/lb.
 - MRY Unit 1 test campaign brominated PAC cost = \$1.25/lb.
- Missing capital costs:
 - Irrespective of feasibility, EPA calculated cost-effectiveness shown in Table 13 does not include capital costs for modifying, upgrading and/or adding new equipment that would be necessary for the MRY Station due to limitations of existing equipment.
 - Modification to the existing PAC injection system, would include, but not be limited to, the following:
 - The materials of construction of the existing PAC silo (common to MRY Units 1 and 2) is not currently compatible to store halogenated PAC. The silo would require an internal coating to prevent corrosion in order to store brominated PAC.