

- Cost of Fuel Additive:
 - Table 12 Est. 2021 Additive Cost – EPA noted that "Additive costs are unknown. For this analysis, the EPA assumed the additive costs are the same, annually, as the sorbent costs." And lists costs as MRY Unit 1: \$227,410 and MRY Unit 2: \$147,267
 - Based on MRY operational costs for 2023, actual fuel additive costs for achieving current compliance with 4.0 lb/TBtu indicated MRY Unit 1 \$715,157 and MRY Unit 2: \$1,574,793.
 - Based on the actual 2023 fuel additive usage rates and costs, EPA's underestimate results in \$487,747 and \$1,347,383 that should have been included in the cost analysis for MRY Units 1 and 2, respectively.

3.1.2.Future Hg Compliance Cost Effectiveness (1.2 lb/TBtu)

EPA calculated unit-level cost-effectiveness to meet the proposed, more stringent, emissions standard using brominated activated carbon at an injection rate of 5.0 lb/MMacf for units with an ESP for PM control or at an injection rate of 2.5 lb/MMacf for units with fabric filter for PM control.

With respect to MRY, the EPA estimated the cost effectiveness (assuming 2021 operational characteristics) is shown below in an excerpt from Table 13 in 2023 Technology Review for the Coal- and Oil-Fired EGU Source Category (Docket ID. No: EPA-HQ-OAR-2018-0794):

TABLE 13. ESTIMATED COST-EFFECTIVENESS TO MEET A REVISED MERCURY OF 1.2 LB/TBTU AT LIGNITE-FIRED EGUS (ASSUMING 2021 OPERATIONAL CHARACTERISTICS)

Plant Name	PM Control	Est Hg Inlet (lb/TBtu)	Est Hg In (lb)	Hg Out (lb)	Br-ACt rates (lb/MMacf)	Est Br-AC Sorbent Used (lb)	Br-AC cost (\$)	C/E (\$/lb) assuming no chemical additives	C/E (\$/lb) assuming previous chemical additives
Spiritwood Station 2	FF	5.07	21.3	5.09	3.0	83,123	\$95,592	\$5,884	\$11,589
Ieland Olds 1	ESPC	7.79	91.8	14.15	5.0	385,175	\$442,951	\$5,702	\$9,444
Ieland Olds 2	ESPC	7.79	142.2	21.90	5.0	595,945	\$685,117	\$5,695	\$8,071
Milton R. Young 2	ESPC	7.79	150.1	20.05	5.0	545,751	\$627,616	\$5,702	\$7,040
Milton R. Young 1	ESPC	7.78	255.5	39.42	5.0	1,072,786	\$1,233,703	\$5,709	\$6,761
Major Oak Power 1	FF	14.62	193.6	15.89	3.0	259,507	\$298,433	\$1,679	\$2,434
Major Oak Power 2	FF	14.65	207.0	16.96	3.0	276,903	\$31,8439	\$1,675	\$2,429
Red Hills Generating Facility 1	FF	12.40	192.2	15.43	3.0	306,410	\$350,716	\$2,011	\$3,182
Red Hills Generating Facility 2	FF	12.40	209.4	20.26	3.0	330,893	\$380,526	\$2,011	\$3,067
Oak Grove 1	FF	14.60	980.0	80.56	3.0	1,115,485	\$1,512,808	\$1,682	\$1,765
Martin Lake 1	ESPC	8.23	392.7	57.35	5.0	1,260,741	\$1,794,852	\$5,352	\$6,257
Oak Grove 2	FF	14.88	887.2	71.55	3.0	1,168,333	\$1,343,583	\$1,647	\$1,826
San Miguel 1	ESPC	14.62	346.6	28.45	5.0	774,167	\$890,292	\$2,798	\$4,073
Martin Lake 2	ESPC	8.13	431.1	48.90	5.0	1,330,919	\$1,540,557	\$5,423	\$8,207
Martin Lake 3	ESPC	7.85	372.8	56.99	5.0	1,550,850	\$1,783,478	\$5,647	\$8,861

EPA's incremental cost-effectiveness per the 2024 Update to the 2023 Proposed Technology Review for the Coal- and Oil-Fired EGU Source Category (Docket ID. No: EPA-HQ-OAR-2018-0794) is based on a model 800 MW Gulf Coast lignite-fired EGU with a heat rate of 11,000 Btu/kWh operating at an 80% capacity factor and a Hg concentration of 25.0 lb/TBtu resulting in an incremental cost-effectiveness of \$28,176 per pound of Hg controlled. It assumes that the unit currently meets a Hg emission standard of 4.0 lb/TBtu using an injection rate of 2.5 lb/MMacf of non-brominated activated carbon at a sorbent cost of \$0.80/lb and that the