

Georgia Mercury Rule – Preliminary Position

Part 1 – Technology Based Standard

This would be a state requirement and not submitted as part of Georgia's CAMR SIP.

I. Control Equipment Requirement

- a. Installation and operation of control technology listed below by the dates listed below. (FGD = Flue Gas Desulfurization, SCR = Selective Catalytic Reduction, SI = Sorbent Injection using sorbent designed for mercury reduction from subbituminous coal combustion)

Unit	Equipment	Installation and Operation Deadline
Bowen 1	FGD (already has SCR)	6/01/2010
Bowen 2	FGD (already has SCR)	6/01/2009
Bowen 3	FGD (already has SCR)	6/01/2008
Bowen 4	FGD (already has SCR)	12/31/2008
Branch 1	SCR and FGD	12/31/2014
Branch 2	SCR and FGD	12/31/2014
Branch 3	SCR and FGD	12/31/2013
Branch 4	SCR and FGD	6/01/2014
Hammond 1	FGD	6/01/2008
Hammond 2	FGD	6/01/2008
Hammond 3	FGD	6/01/2008
Hammond 4	FGD (already has SCR)	6/01/2008
McDonough 1	SCR and FGD	12/31/2012
McDonough 2	SCR and FGD	12/31/2013
Scherer 1	SI and Baghouse	12/31/2009
Scherer 2	SI and Baghouse	6/01/2009
Scherer 3	SI and Baghouse	12/31/2008
Scherer 4	SI and Baghouse	4/30/2010
Wansley 1	FGD (already has SCR)	12/31/2008
Wansley 2	FGD (already has SCR)	6/01/2009
Yates 6	SCR and FGD	6/01/2015
Yates 7	SCR and FGD	6/01/2015

- b. The owner or operator of each of the units listed above may submit an application to the Director for an alternative control technology that results in mercury emissions equivalent to or lower than the control equipment specified above.
- c. Force Majeure Clause – allows for delay of schedule beyond that listed above for reasons beyond control of the owner or operator.

II. Design, Operation and Maintenance Requirements

The owner and operator shall design, install, maintain, and operate devices that ensure that the control devices are operated and maintained using good air pollution control practice to minimize mercury emissions. Proper design of the controls will be reviewed with the permit application for the new controls. The owner or operator shall submit an application for a Title V permit amendment with recommended parameters including appropriate monitoring, recordkeeping, and reporting. This application shall be submitted by a specified deadline prior to 2010. EPD will amend the Title V permit to incorporate these parameters prior to 2010. Should a unit with multi-pollutant controls (SCR and FGD) be subject to an SO₂ and a NO_x limit, these limits may serve as a surrogate for proper mercury control (may also need to address mercury specific issues such as catalyst replacement/regeneration cycles, FGD re-emission).

III. Units not Listed in I

Should the annual heat input (from coal combustion) of a unit (or group of units) exceed the levels specified below, the owner or operator shall evaluate the feasibility of additional mercury controls on said unit(s) and submit the evaluation to EPD. EPD will determine if additional mercury controls are required and set control requirements and implementation schedules.

Unit	Annual Coal Combustion Heat Input Level
Kraft 1-3	17,911,898 MMBtu
McIntosh 1	14,557,638 MMBtu
Mitchell 3	8,621,580 MMBtu
Yates 2-5	33,608,398 MMBtu

IV. New Units

Option A – No technology based standard. New units would have to meet mercury limits specified in Federal New Source Performance Standard.

Option B – The rule would contain a mercury emission limit based on current best available control technology. (Not yet determined)

Option C – Mercury emission limits for new units would be established on a case-by-case basis based on best available control technology at the time of application.

V. Technology and Mercury Impact Review

EPD will review the state of mercury control technology and information regarding mercury contamination in surface waters and fish tissue in Georgia. EPD will issue a report on the findings and determination if additional controls should be required. If additional controls are required, EPD will propose revisions to this rule as it pertains to the installation and operation of controls on existing and new coal-fired units. In addition, EPD would propose revisions to the Phase II allocations of the Part 2 rule. The rule will specify the schedule for installing and operating controls.

Possible deadlines:

- a. Report deadline – 2016
- b. Revise Rule - 2017
- c. Additional Control Installation & Operation, Revised Part II allocations – no earlier than 2020

Part 2 – Allocation Based Standard

With the exception of III, this would be submitted as Georgia's CAMR program.

I. Phase I: 2010-2017

- a. Participate in Federal Cap & Trade Program
- b. Existing Units
Units in operation as of 2005
 - i. Full federal allocations except as adjusted for new units, below
 - ii. Initial Allocations: 2010-2012, based on highest heat input for 2001-2005
 - iii. Annual Reallocations for 2013-2017, 4 years in advance (e.g., 2013 allocations submitted 10/31/2009, etc.), based on highest heat input during 5-year period prior to allocation submittal (e.g., 2013 allocations based on 2004-2008 heat input)
 - iv. Fuel adjusted allocations (lignite=3.0, subbituminous=1.25, all others=1.0)
- c. New Units
Units that go into operation after 2005.
 - i. New Source Set-Aside

Option A – 5% set-aside

Option B – no set-aside, new units must purchase allocations to cover emissions, allocations may be purchased from outside Georgia

Option C – 2.5% set-aside, if insufficient allocations to cover emissions, new units must purchase allocations to cover emissions, allocations may be purchased from outside Georgia

All 3 Options – Any unused new source set-aside allowances are allocated to existing units proportional to existing unit allocations. New units receive allocations as existing units after 5 years of operation.
 - ii. Allocation method for New Units

Option A – fuel neutral (all fuels=1.0)

Option B – fuel adjusted (lignite=3.0, subbituminous=1.25, all others=1.0)

II. Phase II: 2018 and beyond

- a. Participate in Federal Cap & Trade Program
- b. Existing and New Units
Allocation scheme same as in Phase I (b.iii. through c.ii.)
- c. Amount of allocations
 - i. Phase IIA: 2018-2023, determined in 2014

Lesser of:

- (I) Full Federal Phase II Allocation; or
- (II) Amount calculated using following formula:

Phase IIA Allocation = $HI \times EF \times 1.05$ (summed for all units in operation and that began operation on or prior to 1/1/2013)

HI = highest heat input 2004-2013 (option: 2009-2013)

EF = mercury emission factor (lb/trillion Btu) for 2010-2013 determined as follows:

A. Units in table I.a. of Part 1 whose listed controls began operation during or prior to 2010, units listed in table III of Part 1, Yates 1, and (if new source set-aside established) any “new unit” that began operation on or prior to 1/1/2013 – average annual mercury emission rate (lb/trillion Btu) as measured using mercury CEMS (emission rate for new units to be reduced proportional to amount of non-GA allocations used for such units, if applicable)

B. Units listed in table I.a. of Part 1 whose listed controls began operation after 2010 – average annual mercury emission rate (lb/trillion) for 2010-2013 averaged across units with similar mercury controls (e.g., SCR+FGD, SI+Baghouse) that has began operation during or prior to 2010. If a unit employs technology that is not comparable to controls that began operation during or prior to 2010, that unit’s emission factor will be based on (option A: average of all mercury emission factors for units listed in table I.a. of Part 1 whose listed controls began operation during or prior to 2010; option B: permittee submits a proposed emission factor to EPD based on best available information for the mercury control technology employed.)

1.05 = Factor to account for growth, uncertainty, and margin of compliance

- ii. Phase IIB: 2024 and beyond, determined in 2020

Same as IIA except:

HI = highest heat input 2010-2019 (option: 2014-2019)

EF = mercury emission factor (lb/trillion Btu) for 2016-2019 determined as average annual mercury for all units listed in table I.a. and III of Part 1, Yates 1, and (if new source set-aside established) any “new unit” that began operation on or prior to 1/1/2019, as measured using mercury CEMS. Units in table I.a. that have controls that began operation during or prior to 2010, units in Table III, and Yates 1 – option A: same emission factor as Phase IIA; option B – reset emission factor based on 2016-19, but no higher than Phase IIA (emission rate for new units to be reduced proportional to amount of non-GA allocations used for such units, if applicable)

- d. Reserve

The difference between the Total mercury determined in Phases II and the full Federal Phase II allocations, shall be held in reserve by Georgia EPD. The Division shall issued allocations from the reserve to any owner or operator that demonstrates that such allocations are necessary for the purpose of complying with this rule, the owner or operator has no remaining allocations, the owner or operator has not sold any mercury allocations issued by Georgia EPD, and the owner has properly designed, installed, and operated the mercury control equipment specified in Part 1 of the rule.

- III. Prohibition on Using Non-GA Allocations to Increase GA Mercury Emissions
This would be a state requirement and not submitted as part of Georgia’s CAMR SIP.

Except as may be allowed for new units, mercury emissions in Georgia may not exceed those allowed by allocations issued by Georgia (would be state-only provision, compliance determined by EPD).