

# *State of Georgia*



# **RULES** FOR *AIR QUALITY CONTROL*

## **Chapter 391-3-1**

GEORGIA DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL PROTECTION DIVISION

*September 2008*

### *AIR PROTECTION BRANCH*

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**(sss) Multipollutant Control for Electric Utility Steam Generating Units.**

1. **Effective December 31, 2008**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Bowen Unit 4 unless such source is equipped and operated with selective catalytic reduction and flue gas desulfurization.

(ii) Plant Bowen Unit 3 unless such source is equipped and operated with selective catalytic reduction and flue gas desulfurization.

(iii) Plant Wansley Unit 1 unless such source is equipped and operated with selective catalytic reduction and flue gas desulfurization.

(iv) Plant Hammond Unit 1 unless such source is equipped and operated with flue gas desulfurization.

(v) Plant Hammond Unit 2 unless such source is equipped and operated with flue gas desulfurization.

(vi) Plant Hammond Unit 3 unless such source is equipped and operated with flue gas desulfurization.

(vii) Plant Hammond Unit 4 unless such source is equipped and operated with selective catalytic reduction and flue gas desulfurization.

(viii) Plant Yates Unit 1 unless such source is equipped and operated with flue gas desulfurization.

2. **Effective June 1, 2009**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Bowen Unit 2 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

(ii) Plant Scherer Unit 2 unless such source is equipped and operated with sorbent injection and a baghouse.

(iii) Plant Scherer Unit 3 unless such source is equipped and operated with sorbent injection and a baghouse.

3. **Effective December 31, 2009**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Scherer Unit 1 unless such source is equipped and operated with sorbent injection and a baghouse.

(ii) Plant Wansley Unit 2 unless such source is equipped and operated with selective catalytic reduction and flue gas desulfurization.

4. **Effective April 30, 2010**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Scherer Unit 4 unless such source is equipped and operated with sorbent injection and a baghouse.

5. **Effective June 1, 2010**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Bowen Unit 1 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

6. **Effective December 31, 2011**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Scherer Unit 3 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse; provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.

7. **Effective December 31, 2012**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Scherer Unit 4 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse, provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.

(ii) Plant McDonough Unit 1 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

8. **Effective December 31, 2013**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Branch Unit 3 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

(ii) Plant McDonough Unit 2 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

(iii) Plant Scherer Unit 2 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse, provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.

9. **Effective June 1, 2014**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Branch Unit 4 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

10. **Effective December 31, 2014**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Branch Unit 1 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

(ii) Plant Branch Unit 2 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

(iii) Plant Scherer Unit 1 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse; provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.

11. **Effective June 1, 2015**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

(i) Plant Yates Unit 6 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

(ii) Plant Yates Unit 7 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).

12. **Effective January 1, 2018**, should the annual heat input (from coal combustion) of an affected unit or group of affected units exceed the levels specified in each subparagraph 12.(i) through 12.(iv), the owner/operator will comply with the requirements specified in subparagraphs 12.(v):

(i) Plant Kraft Units 1, 2, and 3 with a total annual heat input of 17,911,898 million Btu;

(ii) Plant McIntosh Unit 1 with a total annual heat input of 14,557,638 million Btu;

(iii) Plant Mitchell Unit 3 with a total annual heat input of 8,621,580 million Btu;

(iv) Plant Yates Units 2, 3, 4, and 5 with a total annual heat input of 33,608,398 million Btu.

(v) The owner/operator shall evaluate the economic and technical feasibility of additional mercury controls on the applicable affected unit(s) specified in subparagraphs 12.(i) through 12.(iv), and submit a report on their findings to the Division no later than September 1 of the calendar year following the calendar year that the annual heat input exceeded the applicable level specified in subparagraphs 12.(i) through 12.(iv).

(vi) The Division will review the report submitted in accordance with subparagraph 12.(v) and determine if additional mercury controls are required and, if additional mercury controls are required, establish deadlines for submission of a permit application(s) to the Division and for start-up of such mercury controls.

(vii) The Division will document the results of its evaluation conducted in accordance with subparagraph 12.(vi) and notify the owner and/or operator within a timely fashion whether additional mercury controls are required.

13. **Control Equipment Monitoring Design:** For the anticipated range of operations of the applicable EGUs specified in subparagraphs 1. through 11., the designated representative shall follow the procedures given in Section 2.124 of the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants** for the establishment of optimized operating parameters for the applicable control equipment installed as required in subparagraphs 1. through 11.

14. **Alternative Control Technology:** The owner/operator of an affected unit specified in subparagraphs 1. through 11. may operate alternative control technology or alternative method of emissions reductions from that specified in the applicable subparagraphs 1. through 11. if the following requirements are met:

(i) The Division has approved the operation of the alternative control technology or the alternative method of emission reductions as being capable of achieving reductions of NO<sub>x</sub>, SO<sub>2</sub> and/or mercury emissions equivalent to or greater than the control technology requirement specified in applicable subparagraphs 1. through 11. for an individual emissions unit or the respective plant site as a whole; and

(ii) The owner/operator has submitted the appropriate permit application(s) to the Division at least twelve months before the effective date of the applicable subparagraph 1. through 11.

15. The owner or operator of any EGU subject to this subsection may submit a request to the Director to delay implementation of any of the controls required by subparagraphs 1. through 11. for a specific EGU if there is a delay caused by reasonably unforeseen circumstances beyond the control of the owner operator. Any delay allowed under this subparagraph is subject to review and approval by the Division. Reasonably unforeseen circumstances beyond the control of the owner or operator shall include, without limitation, the following:

(i) Failure to secure timely and necessary federal, state or local approvals, responses, notifications or permits to install the controls, provided that such approvals or permits have been timely and diligently sought;

(ii) Act of God, act of war, insurrection, civil disturbance, flood or other extraordinary weather conditions, vandalism, contractor or supplier strikes or bankruptcy, or unanticipated breakage or accident to machinery or equipment despite diligent maintenance; and

(iii) Any other delay caused by unforeseeable circumstances beyond the reasonable control of owner or operator as reasonably determined by the Director.

16. On and after the effective date of each subparagraph 1. though 11. for a specific EGU, the applicable owner or operator is not required to operate the required control technology under the following conditions:

- (i) Restarting an EGU when all EGUs at a facility are down and off-site power is not available (also known as a “Black Start”).
- (ii) Periods of startup of an EGU in accordance with best operational practices to minimize emissions.
- (iii) Periods of shutdown of an EGU in accordance with best operational practices to minimize emissions.
- (iv) Periods of scheduled and/or preventative maintenance of control technology equipment if such maintenance cannot reasonably be performed during a scheduled outage of the respective EGU.
- (v) Periods of malfunction of EGU and/or control technology equipment provided that such periods are consistent with the requirements of paragraph 391-3-1-.02(2)(a)7.
- (vi) Periods when the owner/operator is required to conduct the Relative Accuracy Test Audit on the Continuous Emissions Monitoring System located on the bypass stack pursuant to 40 CFR Part 75, Appendix B.
- (vii) Division approved periods of research and development of emission control technologies, provided that the unit does not exceed other applicable emission limits. For purposes of this subparagraph, the owner/operator shall submit a request for approval under this subparagraph at least 120 days prior to such date as well as including the following items: (1) length of time of research and development (R&D) period; (2) identification of steps to take to minimize emissions in accordance with best operational practices during R&D period.
- (viii) Any other occasion not covered by subparagraph 16.(i) through (vii), as approved by the Division.

17. The requirements of subparagraph 16 do not relieve the owner or operator from the requirement to comply with any other applicable requirements of Georgia Rules for Air Quality Control Chapter 391-3-1.

18. Technology and Mercury Impact Review – Periodic Evaluation: The Director shall submit a report to the Georgia Department of Natural Resources Board by December 31, 2023. The report shall constitute an evaluation of available and relevant information to determine if additional reductions of mercury emissions from EGUs are necessary or appropriate. This report shall include an evaluation that includes, but is not limited to, the following:

- (i) mercury concentrations in fish tissue in water bodies in the State and any changes or trends of such concentrations over time;
- (ii) the sources of mercury (including air, land, and water sources) that might influence in-state mercury concentrations in fish tissue;
- (iii) the state of the science regarding the relationship among sources of mercury, mercury speciation and mercury concentrations in fish tissue in water bodies in the State;

- (iv) the health impact of mercury contamination in fish tissue;
- (v) technically and economically feasible controls for the reduction of mercury emissions from coal-fired EGUs or other sources;
- (vi) whether additional reductions of mercury from coal-fired EGUs or other sources and/or whether additional time or study is appropriate and necessary in light of items (i) through (v);
- (vii) recommendations for any necessary revisions to paragraph (sss) or other actions as needed to address other sources; and
- (viii) recommendations for an appropriate timeline for the development of any such additional regulations; provided, however, that implementation and operation of any such additional controls shall be required no earlier than January 1, 2027.