15A NCAC 02D .2511 MERCURY EMISSION LIMITS

(a) Initial reductions. Initial reductions in mercury emissions shall be achieved as a co-benefit of installing controls for nitrogen oxide (NOx) and sulfur dioxide (SO2) emissions pursuant to G.S. 143-215.107D. No later than December 31, 2013, Duke Energy and Progress Energy shall install controls for nitrogen oxide (NOx) and sulfur dioxide (SO2) emissions under their respective plans for compliance with G.S. 143-215.107D. Duke Energy and Progress Energy shall each monitor mercury emissions at no fewer than four boilers identified for control pursuant to G.S. 143-215.107D consistent with the requirements of Paragraphs (d) and (e) of this Rule to document the reductions in mercury emissions realized as a result of installing controls for nitrogen oxide and sulfur dioxide emissions.

(b) Mercury control plans. Duke Energy and Progress Energy shall each submit a mercury control plan to the Director by January 1, 2013. The plan shall identify the technology proposed for use at each unit owned or operated by the utility; the schedule for installation and operation of mercury controls at each unit; and shall identify any units that will be shut down. For purposes of this Rule, controls for nitrogen oxide and sulfur dioxide installed in compliance with G.S. 143-215.107D are considered to be mercury controls. The plan shall provide for installation and operation of mercury controls on all units at the earliest date that is technically and economically feasible. Any unit that has not installed controls as specified in an approved mercury control plan by December 31, 2017 shall shut down unless the Commission has approved additional mercury reductions at a facility that has achieved initial mercury reductions under G.S. 143-215.107D in lieu of installing controls at the unit under the criteria set out in Paragraph (c) of this Rule.

(c) Review and approval of plans. The Director shall review the mercury control plans submitted pursuant to Paragraph (b) of this Rule and shall recommend that the Commission approve the plans, disapprove the plans or conditionally approve the plans. The Commission shall only approve a mercury control plan if it finds that the plan achieves the maximum level of reductions in mercury emissions at each unit that is technically and economically feasible without reliance on mercury allowances obtained through the allowance trading system under Rule .2510. Reductions in mercury are technically feasible if control technology exists that can reduce mercury emissions beyond the level achieved by an electrostatic precipitator for that particular unit. Economic feasibility is determined by considering environmental and health impacts; capital cost of compliance; annual incremental compliance cost; and impacts on local, regional and state economy. The Commission may approve additional mercury reductions at a unit that has achieved initial mercury reductions under G.S. 143-215.107D in lieu of installing mercury controls at a unit that has no mercury controls if the Commission finds that:

(1) installation of controls at the unit is not economically and technically feasible; and
(2) continued operation of the unit without mercury controls will not cause or contribute to mercury-related health problems.

(d) Source testing. Duke Energy and Progress Energy shall each test several of its boilers in North Carolina, but no less than four boilers in North Carolina each, for mercury emissions that represent boiler types and control device configurations in North Carolina. The tests shall be conducted before installation of sulfur dioxide control devices and after the installation of sulfur dioxide control devices, or if the unit has a sulfur dioxide control device already installed, the test shall be conducted before the sulfur dioxide control device and after the sulfur dioxide control device. All testing shall occur between the effective date of this Rule and January 1, 2009. Either continuous emission monitors that comply with Rule .2505 of this Section or Method 101 or 102 of 40 CFR Part 61 Appendix B shall be used to measure mercury emissions. Each company shall submit a testing plan within nine months from the effective date of this Rule to the Director for his approval. The plan shall include:

(1) the identity of the boilers to be tested and an explanation of why they were selected,
(2) a schedule for testing the boilers, and
(3) a testing protocol including testing procedures.

(e) Approval of testing. The Director shall approve the testing plan submitted under Paragraph (d) of this Rule if he finds that:

(1) the elements required under Paragraph (d) of this Rule have been submitted,
(2) the boilers selected represent the boiler types and control device configurations that the company has in North Carolina, and
(3) the testing protocol and procedures are appropriate for the testing to be done.

(f) New sources. Any coal-fired electric steam generating unit to which this Rule applies and which begins construction after the effective date of this Rule shall install and operate best available control technology for mercury. For purposes of this Rule, "best available control technology" means an emissions limitation based on the maximum degree of reduction of mercury from coal-fired electric steam generating units that is achievable for such units taking into account energy, environmental, and economic impacts and other costs. The Director shall identify best available mercury control

technology on a case by case basis. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR parts 60, 61, or 63.
(g) If implementation of the mercury control plan approved by the Commission under this Rule does not result in a level of reductions sufficient to meet the allocations under Rule .2503 of this Section, the utilities may acquire allowances for any excess emissions.

History Note: *Authority G.S. 143-215.3(a); 143-215.107(a)(5); 143-215.107D; Eff. January 1, 2007.*