

1 15A NCAC 02D .2511 has been adopted as published in 20:21 NCR 1798-1799 with  
2 changes as follows:

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4 **15A NCAC 02D .2511 MERCURY EMISSION LIMITS**

5 ~~(a) Duke Energy. With the exception allowed under Paragraph (b) of this Rule, the owner or~~  
6 ~~operator of the facilities listed in this Paragraph shall shut down or install and operate mercury~~  
7 ~~control technology in compliance with mercury control requirements determined by the~~  
8 ~~Commission under Rule .2509 of this Section on eight of the units listed in this Paragraph by~~  
9 ~~December 31, 2017. Duke Energy shall not operate any unit listed in this Paragraph after~~  
10 ~~December 31, 2022 unless mercury control technology has been installed on each unit and is~~  
11 ~~operating as permitted. The owner or operator shall determine the eight units on which to install~~  
12 ~~and operate mercury control technology by December 31, 2017.~~

13 (1) — Duke Energy, Buck units 5, 6, 7, 8, and 9;

14 (2) — Duke Energy, Cliffside units 1, 2, 3, and 4;

15 (3) — Duke Energy, Dan River units 1, 2, and 3;

16 (4) — Duke Energy, Riverbend units 7, 8, 9, and 10.

17 ~~(b) Duke Energy alternative. Duke Energy may propose mercury reductions from one or more of~~  
18 ~~the Belews Creek; GG Allen and Marshall units in lieu of the installation of mercury control~~  
19 ~~technology on a unit regulated under Paragraph (a) of this Rule (a “regulated unit”). The Director~~  
20 ~~shall approve the alternative mercury reductions upon finding that they will result in at least 110~~  
21 ~~percent of the reductions in mercury emissions that would be achieved through control of the~~  
22 ~~regulated unit in compliance with the mercury control requirements adopted by the Commission.~~

23 ~~(c) Progress Energy. With the exception allowed under Paragraph (d) of this Rule, the owner or~~  
24 ~~operator of the facilities listed in this Paragraph shall shut down or install and operate mercury~~  
25 ~~control technology in compliance with mercury control requirements determined by the~~  
26 ~~Commission under Rule .2509 of this Section on four of the units listed in this Paragraph by~~  
27 ~~December 31, 2017. Progress Energy shall not operate any unit listed in this Paragraph after~~  
28 ~~December 31, 2022 unless mercury control technology has been installed on each unit and is~~  
29 ~~operating as permitted. The owner or operator shall determine the four units on which to install~~  
30 ~~and operate mercury control technology by December 31, 2017.~~

31 (1) — Progress Energy, L. V. Sutton units 1 and 2;

32 (2) — Progress Energy, Lee units 1, 2, and 3;

33 (3) — Progress Energy, W. H. Weatherspoon units 1, 2, and 3.

34 ~~(d) Progress Energy alternative. Progress Energy may propose mercury reductions from one or~~  
35 ~~more of the Asheville, Cape Fear, Mayo, and Roxboro units in lieu of the installation of mercury~~  
36 ~~control technology on a unit regulated under Paragraph (c) of this Rule (a “regulated unit”). The~~  
37 ~~Director shall approve the alternative mercury reductions upon finding that it will result in at least~~

1 140 percent of the reductions in mercury emissions that would be achieved through control of the  
2 regulated unit in compliance with the mercury control requirements adopted by the Commission.

3 (a) Initial reductions. Initial reductions in mercury emissions shall be achieved as a co-benefit of  
4 installing controls for nitrogen oxide (NOx) and sulfur dioxide (SO2) emissions pursuant to G.S.  
5 143-215.107D. No later than ~~January 1, December 31, 2013~~, Duke Energy and Progress Energy  
6 shall install controls for nitrogen oxide (NOx) and sulfur dioxide (SO2) emissions under their  
7 respective plans for compliance with G.S. 143-215.107D. Duke Energy and Progress Energy  
8 shall each monitor mercury emissions at no fewer than four boilers identified for control pursuant  
9 to G.S. 143-215.107D consistent with the requirements of Paragraphs (e) and (f) of this Rule to  
10 document the reductions in mercury emissions realized as a result of installing controls for  
11 nitrogen oxide and sulfur dioxide emissions.

12 (b) Mercury control plans. Duke Energy and Progress Energy shall each submit a mercury  
13 control plan to the Director by January 1, 2013. The plan shall identify the technology proposed  
14 for use at each unit owned or operated by the utility; the schedule for installation and operation of  
15 mercury controls at each unit; and shall identify any units that will be shut down. For purposes of  
16 this Rule, controls for nitrogen oxide and sulfur dioxide installed in compliance with G.S. 143-  
17 215.107D are considered to be mercury controls. The plan shall provide for installation and  
18 operation of mercury controls on ~~the all units to be controlled~~ at the earliest date that is technically  
19 and economically feasible. Any unit that ~~has not installed controls as specified in an approved~~  
20 ~~mercury control plan does not have mercury controls shall be shut down~~ by December 31, 2017  
21 ~~shall shut down~~ unless the Commission has approved additional mercury reductions at a facility  
22 ~~regulated that has achieved initial mercury reductions~~ under G.S. 143-215.107D in lieu of  
23 installing controls at the unit under the criteria set out in paragraph (c) of this Rule.

24 (c) Review and approval of plans. The Director shall review the mercury control plans submitted  
25 pursuant to Paragraph (b) of this Rule and shall recommend that the Commission approve the  
26 plans, disapprove the plans or conditionally approve the plans. The Commission shall only  
27 approve a mercury control plan if it finds that the plan achieves the maximum level of reductions  
28 in mercury emissions at each unit that is technically and economically feasible without reliance on  
29 mercury allowances obtained through the allowance trading system under Rule .2510.

30 Reductions in mercury are technically feasible if control technology exists that can reduce  
31 mercury emissions beyond the level achieved by an electrostatic precipitator for that particular  
32 unit. Economic feasibility is determined by considering environmental and health impacts; capital  
33 cost of compliance; ~~risk of closure~~; annual incremental compliance cost; and impacts on local,  
34 regional and state economy. The Commission may approve additional mercury reductions at a  
35 ~~facility regulated~~ unit that has achieved initial mercury reductions under G.S. 143-215.107D in lieu  
36 of installing mercury controls at a unit that has no mercury controls if the Commission finds that:

37 (1) installation of controls at the unit is not economically and technically feasible; and

1           (2) continued operation of the unit without mercury controls will not cause or  
2           contribute to mercury-related health problems.

3 ~~(e)~~(d) Source testing. Duke Energy and Progress Energy shall each test several of its boilers in  
4 North Carolina, but no less than four boilers in North Carolina each, for mercury emissions that  
5 represent boiler types and control device configurations in North Carolina. The tests shall be  
6 conducted before installation of sulfur dioxide control devices and after the installation of sulfur  
7 dioxide control ~~devices~~ devices, or if the unit has a sulfur dioxide control device already installed,  
8 the test shall be conducted before the sulfur dioxide control device and after the sulfur dioxide  
9 control device. All testing shall occur between the effective date of this Rule and January 1, 2009.  
10 Either continuous emission monitors that comply with Rule .2505 of this Section or Method 101 or  
11 102 pf 40 CFR Part 61 Appendix B shall be used to measure mercury emissions. Each company  
12 shall submit a testing plan within nine months from the effective date of this Rule to the Director  
13 for his approval. The plan shall include:

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

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

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

24 ~~(g)~~(f) New sources.

25 **Option 1:**

26 ~~Any coal-fired electric steam generating unit to which this Section applies and which begins~~  
27 ~~operation after January 30, 2004 shall reduce its emissions of total mercury to no more than~~  
28 ~~0.021 pounds per gigawatt hour on an output basis.~~

30 **Option 2:**

31 ~~Any coal-fired electric steam generating unit to which this Section applies and which begins~~  
32 ~~construction after the effective date of this Rule shall:~~

- 33           ~~(1) reduce its emissions of total mercury by 90 percent by weight across the control~~  
34           ~~device as calculated under Paragraph (b) of this Rule or to no more than 0.0060~~  
35           ~~pounds per gigawatt hour averaged over a 12-month rolling average, and~~
- 36           ~~(2) have enough allowances in its compliance account established under Rule .2510~~  
37           ~~of this Section to offset its actual emissions of mercury.~~

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2 **Option 3:**

3 Any coal-fired electric steam generating unit to which this Rule applies and which begins  
4 construction after the effective date of this Rule shall install and operate best available control  
5 technology for mercury. For purposes of this Rule, “best available control technology” means an  
6 emissions limitation based on the maximum degree of reduction of mercury from coal-fired  
7 electric steam generating units that is achievable for such units taking into account energy,  
8 environmental, and economic impacts and other costs. The Director shall identify best available  
9 mercury control technology on a case by case basis. In no event shall application of best  
10 available control technology result in emissions of any pollutant which would exceed the  
11 emissions allowed by any applicable standard under 40 CFR parts 60, 61, or 63.

12 (g) If implementation of the mercury control plan approved by the Commission under this Rule  
13 does not result in a level of reductions sufficient to meet the allocations under Rule .2503 of this  
14 Section, the utilities may acquire allowances for any excess emissions.

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16 *Authority G.S. 143-215.3(a); 143-215.107(a)(5); 143-215.107D*