

15A NCAC 02D .0529 FLUORIDE EMISSIONS FROM PRIMARY ALUMINUM REDUCTION PLANTS

(a) For the purpose of this Rule, the following definitions apply:

- (1) "Fluoride" means elemental fluorine and all fluoride compounds as measured by the methods specified in 15A NCAC 02D .2616 or by other methods demonstrated to be equivalent to those set forth in Rule 15A NCAC 02D .2616 approved by the Director on a case-by-case basis.
- (2) "Prebake cell" is an aluminum reduction pot using carbon anodes formed, pressed, and baked prior to their placement in the pot.
- (3) "Primary aluminum reduction plant" means any facility manufacturing aluminum by electrolytic reduction.

(b) This Rule shall apply to prebake cells at all primary aluminum reduction plants not subject to 15A NCAC 02D .0524.

(c) An owner or operator of a primary aluminum reduction plant subject to this Rule shall not cause, allow, or permit the use of the prebake cells unless:

- (1) 95 percent of the fluoride emissions are captured; and
- (2) 98.5 percent of the captured fluoride emissions are removed before the exhaust gas is discharged into the atmosphere.

(d) The owner or operator of a primary aluminum reduction plant subject to this Rule shall:

- (1) ensure hood covers are in good repair and positioned over the prebake cells;
- (2) minimize the amount of time hood covers are removed during pot working operations;
- (3) if the hooding system is equipped with a dual low and high hood exhaust rate, use the high rate whenever hood covers are removed and return to the normal exhaust rate when the hood covers are replaced;
- (4) minimize the occurrence of fuming pots and correct the cause of a fuming pot as soon as practical; and
- (5) if the tapping crucibles are equipped with hoses that return aspirator air under the hood, ensure the hoses are in good repair and the air return system is functioning by ensuring operation in accordance with the manufacturer's specifications.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
Eff. June 1, 1981;
Amended Eff. June 1, 2008; July 1, 1988; January 1, 1985;
Readopted Eff. November 1, 2020.*