

15A NCAC 02D .1204 SEWAGE SLUDGE INCINERATION UNITS

(a) Applicability. This Rule shall apply to sewage sludge incineration units that meet all three requirements listed in 40 CFR 60.5060(a) through (c).

(b) The provisions of this Rule shall apply to any incinerator subject to this Rule. However, when the provisions of this Rule and provisions of 15A NCAC 02D .0524, .1110, or .1111 or provisions of 40 CFR Part 61, Subpart C; 40 CFR Part 61, Subpart E; or 40 CFR Part 503, Subpart E, regulate the same pollutant, the provisions of the more restrictive standards established in Paragraphs (e) and (f) of this Rule shall apply, notwithstanding provisions of 15A NCAC 02D .0524, .1110, or .1111 or provisions of 40 CFR Part 61, Subpart C; 40 CFR Part 61, Subpart E; or 40 CFR Part 503, Subpart E to the contrary.

(c) Exemptions. Sewage sludge incineration units shall be exempted from this Rule if they are subject to:

- (1) 40 CFR Part 60 Subpart LLLL by:
 - (A) commencing construction after October 14, 2010; or
 - (B) commencing modification after September 21, 2011; or
- (2) Rule 15A NCAC 02D .1210, if they are not located at a wastewater treatment facility designed to treat domestic sewage sludge as defined in 40 CFR 60.5065.

(d) Definitions. For the purpose of this Rule, the definitions in 40 CFR 503.41, 40 CFR 60.5250, and 40 CFR 60.2 shall apply in addition to the definitions in 15A NCAC 02D .1202.

(e) Emission Standards. Any incinerator subject to this Rule shall comply with all of the following emission standards:

- (1) Emissions of particulate matter from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165 or 40 CFR 60.152 as defined in Paragraph (b) of this Rule.
- (2) Fugitive emissions from a sewage sludge incineration unit ash handling process shall meet the requirements established in 40 CFR 60.5165. All other visible emissions from a sewage sludge incineration unit shall comply with 15A NCAC 02D .0521.
- (3) Emissions of hydrogen chloride from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (4) Emissions of carbon monoxide from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (5) Emissions of dioxin and furan (total mass basis) from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (6) Emissions of dioxin and furan (toxic equivalency basis) from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (7) Emissions of mercury from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165 and in 40 CFR 61.52(b) as referenced in 15A NCAC 02D .1110(a), (d), and (e).
- (8) Emissions of nitrogen oxides from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (9) Emissions of sulfur dioxide from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (10) Emissions of cadmium from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165.
- (11) Emissions of lead from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 60.5165. The daily concentration of lead in sewage sludge fed to a sewage sludge incinerator shall meet the requirements specified in 40 CFR 503.43(c).
- (12) Emissions of beryllium from a sewage sludge incineration unit shall meet the requirements established in 40 CFR 61.32(a) through (c) as referenced in 15A NCAC 02D .1110(a), (d), and (e).
- (13) The daily concentration of arsenic, cadmium, chromium, and nickel in sewage sludge fed to a sewage sludge incinerator shall meet the requirements specified in 40 CFR 503.43(d).
- (14) Emissions of toxic air pollutants from a sewage sludge incineration unit shall meet the requirements specified in 15A NCAC 02D .1100 in accordance with 15A NCAC 02Q .0700.
- (15) The monthly average concentration for total hydrocarbons, or for carbon monoxide as provided in 40 CFR 503.40(c), in the exit gas from a sewage sludge incinerator stack, corrected to zero percent moisture and seven percent oxygen as specified in 40 CFR 503.44, shall not exceed 100 parts per million on a volumetric basis using the continuous emission monitoring required in Paragraph (k) of this Rule.

(f) Operating limits. The owner or operator of a sewage sludge incineration unit shall meet:

- (1) as applicable, the operating limits and requirements specified in 40 CFR 60.5170 including Subparagraphs (a) through (d) and (h) according to the schedule specified in 40 CFR 60.5170(e);
 - (2) the operating limits and requirements specified in 40 CFR 60.5170 including Subparagraphs (a) through (d) by the final compliance date specified in Paragraph (n) of this Rule;
 - (3) monitor the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, as specified in 40 CFR 60.5170(f)(1) and (f)(2); and
 - (4) the operating requirements in 40 CFR 60.5170(a) through (d) and (h) shall meet any new operating limits, re-established in accordance with 40 CFR 60.5210.
- (g) Emission and operational standards and limits established in Paragraphs (e) and (f) of this Rule and in accordance with provisions in Paragraph (b) of this Rule shall apply at all times that sewage sludge is in the combustion chamber before the sewage sludge feed to the combustor is cut off for a period of time not less than the sewage sludge incineration residence time and during periods of malfunction as specified in 40 CFR 60.5180.
- (h) Initial Compliance:
- (1) Requirements with the emission standards specified in the Paragraph (e) of this Rule shall be demonstrated by using the procedures specified in 40 CFR 60.5185(a) through (e).
 - (2) Requirements with the site-specific operating limits specified in 40 CFR 60.5190(a) shall be established in accordance with the requirements specified 40 CFR 60.5190(a) through (f).
 - (3) Initial air pollution control device inspection specified 40 CFR 60.5220(c) shall be conducted by the date established in accordance with 40 CFR 60.5195(a). All necessary repairs shall be completed in accordance with 40 CFR 60.5195(b).
 - (4) A site-specific monitoring plan for continuous monitoring, bag leak detection, ash handling systems, and an initial performance evaluation date shall be developed in accordance with the requirements specified in 40 CFR 60.5200(a) and (d) through (h).
- (i) Continuous Compliance Requirements. The owner or operator of a sewage sludge incineration unit subject to this Rule shall demonstrate compliance with the emissions standards in Subparagraphs (e)(1) through (13) and (15) of this Rule by:
- (1) demonstrating continuous compliance as specified in 40 CFR 60.5205(a) through (f);
 - (2) demonstrating continuous compliance with the operating limits as specified in 40 CFR 60.5210(a)(1) and (b) through (d);
 - (3) demonstrating continuous compliance with the total hydrocarbon concentration of the incinerator stack exit gas according to 40 CFR 503.45(a) unless the requirements for continuously monitoring carbon monoxide as provided in 40 CFR 503.40(c) are satisfied;
 - (4) demonstrating continuous compliance with the oxygen content of the incinerator stack exit gas as provided in 40 CFR 503.45(b);
 - (5) demonstrating continuous compliance with the moisture content of the incinerator stack exit gas as provided in 40 CFR 503.45(c);
 - (6) conducting an annual air pollution control device inspection as specified in 40 CFR 60.5215(a);
 - (7) making all necessary repairs within the time periods specified in 40 CFR 60.5215(b);
 - (8) monitoring the concentration of beryllium and mercury from the sewage sludge fed to the incinerator as frequently as specified in 40 CFR 503.46(a)(1); and
 - (9) monitoring the concentrations of arsenic, cadmium, chromium, lead, and nickel in the sewage sludge fed to the incinerator as frequently as specified in 40 CFR 503.46(a)(2) and (3).
- (j) Performance Testing, Monitoring, and Calibration Requirements. The owner or operator of a sewage sludge incineration unit subject to this Rule shall demonstrate compliance with the emissions standards in Subparagraphs (e)(1) through (13) and (15) of this Rule by:
- (1) meeting the performance testing requirements specified in 40 CFR 60.5220(a)(1) through (11), 40 CFR 61.53(d) or 40 CFR 61.54, 40 CFR 503.43(e), and 40 CFR 61.33;
 - (2) meeting the monitoring requirements specified in 40 CFR 60.5220(b)(1) through (7), 40 CFR 61.55, 40 CFR 503.55, 40 CFR 503.46; and 40 CFR 60.153;
 - (3) performing the air pollution control device inspection requirements specified in 40 CFR 60.5220(b)(1) through (3); and
 - (4) meeting the bypass stack provisions specified in 40 CFR 60.5220(d).
- (k) The owner or operator of a sewage sludge incineration unit, subject to this Rule, shall install, operate, calibrate, and maintain the continuous parameter monitoring systems to ensure compliance with the operational limits set forth in Paragraph (f) of this Rule as specified in 40 CFR 503.45, 40 CFR 60.5225 (a)(1), (2), and 40 CFR 60.153.

(l) Recordkeeping and Reporting. The owner or operator of a sewage sludge incineration unit subject to this Rule shall:

- (1) maintain on site in either paper copy or electronic format that can be printed upon request for a period of five years the following:
 - (A) the calendar date of each record as specified in 40 CFR 60.5230(a);
 - (B) increments of progress as specified in 40 CFR 60.5230(b);
 - (C) operator training records as specified in 40 CFR 60.5230(c)(1) through (4);
 - (D) air pollution control device inspections as specified in 40 CFR 60.5230(d);
 - (E) performance test reports as specified in 40 CFR 60.5230(e)(1) through (4);
 - (F) continuous monitoring data as specified in 40 CFR 60.5230(f)(1) through (4) and 40 CFR 60.153;
 - (G) other records for continuous monitoring systems as specified in 40 CFR 60.5230(g)(1) through (3) and 40 CFR 60.153;
 - (H) deviation reports as specified in 40 CFR 60.5230(h);
 - (I) equipment specifications and operation and maintenance requirements as specified in 40 CFR 60.5230(i);
 - (J) inspections, calibrations, and validation checks of monitoring devices as specified in 40 CFR 60.5230(j);
 - (K) monitoring plan and performance evaluations for continuous monitoring systems as specified in 40 CFR 60.5230(k);
 - (L) records indicating use of the bypass stack as specified in 40 CFR 60.5230(m);
 - (M) malfunction occurrence records as specified in 40 CFR 60.5230(n); and
 - (N) records showing compliance with standards for the use or disposal of sewage sludge listed in 40 CFR 503.47(b) through (n).
- (2) Submit to the Director in the format specified in 40 CFR 60.5235(h)(1) and by due dates established in Table 6 of 40 CFR Part 60 Subpart M the following:
 - (A) the initial compliance report as specified in 40 CFR 60.5235(b);
 - (B) the annual compliance report as specified in 40 CFR 60.5235(c);
 - (C) deviation reports (deviations from emission limits, emission standards, or operating limits, as specified in 40 CFR 60.5235(e)(1)) when it is required by 40 CFR 60.5235(d);
 - (D) notification of qualified operator deviation and notification of status of qualified operator deviation as specified in 40 CFR 60.5235(e)(1);
 - (E) notification of resumed operation pursuant to 40 CFR 60.5155(b)(2)(i) following shutdown (due to qualified operator deviation) as specified in 40 CFR 60.5235(e)(2);
 - (F) notification of a force majeure as specified in 40 CFR 60.5235(f);
 - (G) notification of intent to start or stop use of a continuous monitoring system, notification of intent to conduct a performance test, and notification of intent to conduct a rescheduled performance test as specified in 40 CFR 60.5235(g);
 - (H) performance test relative accuracy audit data (test reference method) and performance test data in the manner specified in 40 CFR 60.5235(h)(2); and
 - (I) semiannual reports as specified in 40 CFR 60.155.
- (3) With the Director's approval, the owner or operator may change the semiannual or annual reporting dates of the reports listed in Subparagraph (l)(2) of this Rule in accordance with the procedures established in 40 CFR 60.19(c) pursuant to 40 CFR 60.5235(i).

(m) Operator Training and Qualification.

- (1) A sewage sludge incineration unit subject to this Rule shall not be operated unless a fully trained and qualified sewage sludge incineration unit operator is at the facility or can be at the facility within one hour. The trained and qualified sewage sludge incineration unit operator may operate the sewage sludge incineration unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified sewage sludge incineration unit operators are temporarily not accessible, the procedures in 40 CFR 60.5155 shall apply.
- (2) Operator training and qualification shall be obtained by completing the requirements specified in 40 CFR 60.5130(c).
- (3) The owner or operator of a sewage sludge incineration unit subject to this Rule shall complete an annual review or refresher course covering the five topics specified in 40 CFR 60.5145(a) through (e) to maintain an operator qualification.

- (4) The owner or operator of a sewage sludge incineration unit subject to this Rule shall renew a lapsed operator qualification before he or she begins operation of the unit by one of the two methods specified in 40 CFR 60.5150(a) and (b).
 - (5) When a qualified operator of a sewage sludge incineration unit subject to this Rule is not at the facility and cannot be at the facility within one hour, the owner shall meet the criteria specified in 40 CFR 60.5155.
 - (6) The owner or operator of a sewage sludge incineration unit subject to this Rule shall maintain and review the operator training documentation as specified in 40 CFR 60.5160 (a) and (b).
- (n) Final compliance. The owner or operator of a sewage sludge incineration unit subject to this Rule shall achieve final compliance by the dates specified in 40 CFR 60.5035(a) or (b).

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(4),(5);
Eff. October 1, 1991;
Amended Eff. June 1, 2008; August 1, 2002; July 1, 2000; July 1, 1999; July 1, 1998; July 1, 1996; April 1, 1995; December 1, 1993;
Readopted Eff. March 1, 2018;
Amended Eff. December 1, 2021.*