

15A NCAC 02D .1414 TUNE-UP REQUIREMENTS

(a) This Rule applies to boilers and indirect-fired process heaters subject to the requirements of Rule .1407 of this Section or stationary internal combustion engines subject to the requirements of Rule .1409 of this Section that are complying with Rules .1407 or .1409 of this Section through an annual tune-up.

(b) When a tune-up to a boiler or indirect-fired process heater is required for compliance with this Section, the owner or operator shall at least annually and according to the manufacturer's recommendations:

- (1) inspect each burner and clean or replace any component of the burner as required;
- (2) inspect the flame pattern and make any adjustments to the burner, or burners, necessary to optimize the flame pattern to minimize total emissions of NO_x and carbon monoxide;
- (3) inspect the combustion control system to ensure proper operation and correct calibration of components that control the air to fuel ratio and adjust components to meet the manufacturer's established operating parameters; and
- (4) inspect any other component of the boiler or indirect-fired process heater and make adjustments or repairs as necessary to improve combustion efficiency.

The owner or operator shall perform the tune-up according to a unit specific protocol approved by the Director. The Director shall approve the protocol if it meets the requirements of this Rule.

(c) When a tune-up to a stationary internal combustion engine is required for compliance with this Section, the owner or operator shall at least annually inspect, adjust, and repair or replace according to the manufacturer's recommendation, the following, as equipped:

- (1) engine air cleaners, fuel filters, and water traps;
- (2) turbochargers and superchargers;
- (3) spark plugs;
- (4) valve lash;
- (5) ignition systems, including ignition coils and wiring;
- (6) aftercooler cores;
- (7) any other component of the engine as necessary to improve engine efficiency; and
- (8) emission control systems.

The owner or operator shall perform the tune-up according to a unit specific protocol, including inspection, maintenance, and performance procedures as recommended by the manufacturer, approved by the Director. The Director shall approve the protocol if it meets the requirements of this Rule.

(d) The owner or operator shall maintain records of tune-ups performed to comply with this Section according to Rule .1404 of this Section. The following information shall be included for each source:

- (1) identification of the source;
- (2) the date and time the tune-up started and ended;
- (3) the person responsible for performing the tune-up;
- (4) for boilers and indirect-fired process heaters, the checklist for inspection of the burner, flame pattern, combustion control system, and all other components of the boiler or indirect-fired process heater identified in the protocol, noting any repairs or replacements made;
- (5) for stationary internal combustion engines, the checklist for engine air cleaners, turbochargers, sparkplugs, valve lash, ignition coils and wiring, aftercooler cores, and all other components of the engine identified in the protocol, noting any repairs or replacements made;
- (6) any stack gas analyses performed after the completion of all adjustments to show that the operating parameters of the boiler, indirect-fired process heater, or stationary internal combustion engine have been optimized with respect to fuel consumption and output; at a minimum these parameters shall be within the range established by the equipment manufacturer to ensure that the emission limitation for nitrogen oxides has not been exceeded; and
- (7) any other information requested by the Director to show that the boiler, indirect-fired process heater, or stationary internal combustion engine is being operated and maintained in a manner to minimize the emissions of nitrogen oxides.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5), (7), (10);
Eff. April 1, 1995;
Temporary Amendment Eff. August 1, 2001; November 1, 2000;
Amended Eff. July 18, 2002.