

POLLUTION ESTIMATION FORM
(Fuel Burning Equipment)

FORM E110
01/2002

1. Name of Company: _____
(As shown on Line 1 of Form E001)

2. Equipment Name: _____
(As shown on Line 10 of Form E001)

3. Percent excess air used in fuel burning (make allowances for leaks around doors and other openings): _____

4. Type of Fuel (file Form E110 for each fuel used): _____

5. Source of Emission Factors: _____

6. Uncontrolled Particulate Emission Rate:

Particulate Emission Factor: _____
(lbs/ton; lbs/10³ gal; lbs/10⁶ ft³)

$$\frac{\text{Maximum Fuel Consumption Rate}}{\text{(tons/hr; gal/hr; ft}^3\text{/hr)}} \times \frac{\text{Particulate Emission Factor}}{\text{Factor}} = \frac{\text{Uncontrolled Particulate Emission Rate}}{\text{Rate}} \text{ Lbs/hr}$$

7. Uncontrolled Sulfur Oxide (SO_x) Emission Rate:

SO_x Emission Factor: _____
Lbs/ton; lbs/10³ gal; lbs/10⁶ ft³

$$\frac{\text{Maximum Fuel Consumption Rate}}{\text{(tons/hr; gal/hr; ft}^3\text{/hr)}} \times \frac{\text{SO}_x \text{ Emission Factor}}{\text{Factor}} = \frac{\text{Uncontrolled SO}_x \text{ Emission Rate}}{\text{Rate}} \text{ Lbs/hr}$$

8. Uncontrolled Hydrocarbon (HC) Emission Rate:

HC Emission Factor: _____
Lbs/ton; lbs/10³ gal; lbs/10⁶ ft³

$$\frac{\text{Maximum Fuel Consumption Rate}}{\text{(tons/hr; gal/hr; ft}^3\text{/hr)}} \times \frac{\text{HC Emission Factor}}{\text{Factor}} = \frac{\text{Uncontrolled HC Emission Rate}}{\text{Rate}} \text{ Lbs/hr}$$

9. Uncontrolled Nitrogen Oxides (NO_x) Emission Rate:

A. NO_x Emission Factor: _____
Lbs/ton; lbs/10³ gal; lbs/10⁶ ft³

B. _____ X _____ = _____ Lbs/hr

$$\frac{\text{Maximum Fuel Consumption Rate}}{\text{(tons/hr; gal/hr; ft}^3\text{/hr)}} \times \frac{\text{NO}_x \text{ Emission Factor}}{\text{Factor}} = \frac{\text{Uncontrolled NO}_x \text{ Emission Rate}}{\text{Rate}}$$

10. NO_x Emission Rate in PPM by Volume at STP:

Cubic feet per hour (CFH) of Exhaust Gases at 15% Excess Air:

A.
$$\frac{V}{\text{See Table A}} \times \frac{\text{Maximum Fuel Consumption Rate}}{10^6 \text{ BTU/hr}} = \frac{\text{Exhaust Rate}}{\text{CFH}}$$

B.
$$\frac{\text{Uncontrolled NO}_x \text{ (Item 9B)}}{\text{Lbs/hr}} \div \frac{\text{CFH of Exhaust Gas (Item 10A)}}{\text{Lb/ft}^3 \text{ NO}_x} = \frac{\text{Lb/ft}^3 \text{ NO}_x}{\text{CFH}}$$

C.
$$\text{PPM} = (8.37 \times 10^6) \times \frac{\text{Lb/ft}^3 \text{ NO}_x \text{ (Item 10B)}}{\text{CFH}} = \frac{\text{PPM at STP and 15\% Excess Air (NO}_x \text{ calculated as NO}_2\text{)}}{\text{CFH}}$$

Table A	
Fuel	V
Bituminous Coal	11700
Fuel Oil	11400
Natural Gas	11200
Wood	12800

*This is to certify that I am familiar with the operations concerning this equipment and that the information provided on this application is true and complete to the best of my knowledge. **This form must be completely filled out before it will be acceptable.***

Mail to:
**CHATTANOOGA-HAMILTON COUNTY
 AIR POLLUTION CONTROL BUREAU**
 2034 Hamilton Place Blvd. Suite 300
 Chattanooga, TN 37421

Company Official

Title

Date

Do Not Write Below This Line

_____ Engineer Approval

This form corresponds to permit number: _____

Special Notations: _____
