

**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/10<sup>3</sup> gal; lbs/10<sup>6</sup> ft<sup>3</sup>)*

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

7. Uncontrolled Sulfur Oxide (SO<sub>x</sub>) Emission Rate:

SO<sub>x</sub> Emission Factor: \_\_\_\_\_  
*Lbs/ton; lbs/10<sup>3</sup> gal; lbs/10<sup>6</sup> ft<sup>3</sup>*

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

8. Uncontrolled Hydrocarbon (HC) Emission Rate:

HC Emission Factor: \_\_\_\_\_  
*Lbs/ton; lbs/10<sup>3</sup> gal; lbs/10<sup>6</sup> ft<sup>3</sup>*

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

9. Uncontrolled Nitrogen Oxides (NO<sub>x</sub>) Emission Rate:

A. NO<sub>x</sub> Emission Factor: \_\_\_\_\_  
*Lbs/ton; lbs/10<sup>3</sup> gal; lbs/10<sup>6</sup> ft<sup>3</sup>*

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<sub>x</sub> Emission Rate in PPM by Volume at STP:

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

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

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

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

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**  
 6125 Preservation Drive  
 Chattanooga, TN 37416

\_\_\_\_\_  
*Company Official*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Date*

***Do Not Write Below This Line***

\_\_\_\_\_ Engineer Approval

This form corresponds to permit number: \_\_\_\_\_

Special Notations: \_\_\_\_\_  
 \_\_\_\_\_