

**BASIC APPLICATION FOR EQUIPMENT / AIR POLLUTION PERMIT
OR CERTIFICATE OF OPERATION**

FORM E001
03/2011

1. Name of Company McKee Foods Corporation
(If corporation or LLC, name on file with Tennessee Secretary of State Corporate Records Division)
2. NAICS Code: 2052
3. Company Official to Contact: John Sullivan
4. Phone No. 423-238-7111
5. Mailing Address: P.O. Box 750 Collegedale TN 37315
Street or P.O. Box City State Zip Code
6. Physical Location
(If different from line 5) 10260 McKee Road Collegedale TN 37315
Street City State Zip Code
7. Application for:
 Installation Permit Initial Certificate of Operation Renewal Certificate of Operation
- Previous Installation Permit or Certificate of Operation No.: _____


8. Type of equipment for which application is made:
- | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> Process Equipment (Form E010 or Form E010A) | <input type="checkbox"/> Previously Submitted | <input type="checkbox"/> Attached |
| <input checked="" type="checkbox"/> Fuel Burning Equipment (Form E011) | <input type="checkbox"/> Previously Submitted | <input checked="" type="checkbox"/> Attached |
| <input type="checkbox"/> Incineration Equipment (Form E012) | <input type="checkbox"/> Previously Submitted | <input type="checkbox"/> Attached |
| <input type="checkbox"/> Minor Pollution Source (Form E014)
<i>(Less than 1000 lbs/yr and less than 10 lbs/day total uncontrolled contaminant emissions)</i> | <input type="checkbox"/> Previously Submitted | <input type="checkbox"/> Attached |

The following forms are filed with this application:
Form E011 (HWB1), Form E011 (HWB2), Form E110

9. Equipment Name:
Water Heater No. 1, Water Heater No. 2
10. If application is for a Certificate of Operation (Initial or Renewal), are there any changes since previous application in the equipment or operation which might:

- A. Increase, decrease, or alter process materials, fuel, refuse type, etc.? Yes No
- B. Increase, decrease, or alter emissions or emission points? Yes No

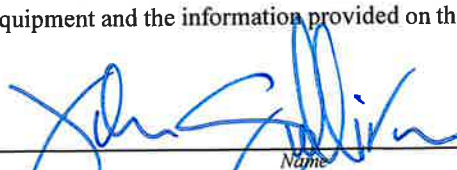
RECEIVED
JUL 10 2024

11. Process Weight, lb/hr, (Item 6 on Form E010), Incineration Rate, lb/hr, (Item 3C on Form E012), or Fuel Burning Rate, 1,000 Btu/hr, (Item 7C on Form E011): 

Chattanooga-Hamilton County
Air Pollution Control Bureau

This is to certify that I am familiar with operations concerning this equipment and the information provided on this application is true and complete to the best of my knowledge:

Mail completed form to:
CHATTANOOGA-HAMILTON COUNTY
AIR POLLUTION CONTROL BUREAU
6125 Preservation Drive, Suite 140
Chattanooga, TN 37416-3638



Name
Engineering Group Manager (Architectural, Industrial & Environmental)

Title
7/9/24

Date

This form must be completely filled out before it will be processed

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OR CERTIFICATE OF OPERATION**

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03/2011

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6. Physical Location
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Street City State Zip Code
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 Installation Permit Initial Certificate of Operation Renewal Certificate of Operation
- Previous Installation Permit or Certificate of Operation No.: _____

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| <input type="checkbox"/> Process Equipment (Form E010 or Form E010A) | <input type="checkbox"/> Previously Submitted | <input type="checkbox"/> Attached |
| <input checked="" type="checkbox"/> Fuel Burning Equipment (Form E011) | <input type="checkbox"/> Previously Submitted | <input checked="" type="checkbox"/> Attached |
| <input type="checkbox"/> Incineration Equipment (Form E012) | <input type="checkbox"/> Previously Submitted | <input type="checkbox"/> Attached |
| <input type="checkbox"/> Minor Pollution Source (Form E014)
<i>(Less than 1000 lbs/yr and less than 10 lbs/day total uncontrolled contaminant emissions)</i> | <input type="checkbox"/> Previously Submitted | <input type="checkbox"/> Attached |

The following forms are filed with this application:

Form E011 (HWB1), Form E011 (HWB2), Form E110

9. Equipment Name:
Water Heater No. 1, Water Heater No. 2
10. If application is for a Certificate of Operation (Initial or Renewal), are there any changes since previous application in the equipment or operation which might:
- A. Increase, decrease, or alter process materials, fuel, refuse type, etc.? Yes No
- B. Increase, decrease, or alter emissions or emission points? Yes No
11. Process Weight, lb/hr, (Item 6 on Form E010), Incineration Rate, lb/hr, (Item 3C on Form E012), or Fuel Burning Rate, 1,000 Btu/hr, (Item 7C on Form E011): [REDACTED]

RECEIVED

JUL 10 2024

Chattanooga-Hamilton County
Air Pollution Control Bureau

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CHATTANOOGA-HAMILTON COUNTY
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6125 Preservation Drive, Suite 140
Chattanooga, TN 37416-3638

John Sullivan
Name
Engineering Group Manager (Architectural, Industrial & Environmental)

7/9/24
Title

7/9/24
Date

This form must be completely filled out before it will be processed

FUEL BURNING EQUIPMENT APPLICATION

A separate form must be filed for each stack or emission point.

FORM E011

01/2001

1. **Name of Company:** McKee Foods Corporation
As shown on Line 1 of Form E001
2. **Equipment Name:** HWB1 (Water Heater) *As shown on Line 9 of Form E001*
3. **Stack Designation:** TBD
If there is more than one stack at this location, provide a written or numeric designation to identify each stack.
4. **Control Equipment Data:**

- | | |
|-----------------------------------------------------------------|----------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Emissions Uncontrolled | <input type="checkbox"/> Electrostatic Precipitator (File Form E104) |
| <input type="checkbox"/> Baghouse (File Form E102) | <input type="checkbox"/> Inertial Separators (File Form E105) |
| <input type="checkbox"/> Wet Collecting Device (File Form E103) | <input type="checkbox"/> Other (Specify):

_____ |

5. **Control Equipment Efficiency:**
Enter the control equipment efficiency for each pollutant emitted by this equipment as determined on the appropriate Form E102, E103, E104, E105, E107, or enter zeros if "A" is checked in Item 4.

	Pollutant	% Efficiency
	Particulates	
	PM ₁₀	
	SO _x	
	NO _x	
	CO	
	VOC	
Other:		

6. **Emissions Estimation:**

File Form E110 for each fuel used

Fuel No.1

Fuel No.2

Fuel No.3

Particulate Matter (Form E110, Item 6)	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr
SO _x (Form E110, Item 7)	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr
PM ₁₀	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr
NO _x (Form E110, Item 9E)	Uncontrolled	ppm	ppm	ppm
	Actual ¹	ppm	ppm	ppm
	Estimated ²	ppm	ppm	ppm
Other Air Contaminants (Specify)	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr

1. *Submit stack test report with full details.*

2. *Estimate the emissions using the formula below*

$$\text{Estimated Emissions (lbs/hr, ppm)} = \frac{100\% - \text{Control Efficiency (\%)}}{100\%} \times \text{Uncontrolled Emissions}$$

Company Name: **McKee Foods Corporation**

Equipment Name: **HWB1**

7. Equipment Data:

Manufacturer of Equipment: _____

Date of Manufacture: _____

Date of Installation: _____

Boiler No.	Fuel Type	Rated Capacity 10 ⁶ BTU/hr. Input	Type of Firing	Fuel Consumption			Percent Content		Heating Content of Fuel	(% Excess Air
				Ave.	Max.	Annual	Sulfur	Ash		
HWB1	Primary: Normal Operating Fuel(s)	[REDACTED]	Direct	[REDACTED]	[REDACTED]	[REDACTED]	< 0.5%	Neg.	1,020 Btu/CF	
	Standby: Fuel(s) used in emergency only									
	Primary: Normal Operating Fuel(s)									
	Standby: Fuel(s) used in emergency only									

- If more than one boiler per stack, list a separate code number to represent each individual boiler.
- List all fuels used.
- Give rated or maximum input capacity, whichever is greater.
- Specify the type of firing for each fuel used.
- Indicate consumption of each fuel used in tons/yr, gal/hr, or ft³/hr.
- Indicate annual consumption of each fuel used in tons/yr, gal/yr, or ft³/yr.
- The average sulfur and ash content of each fuel must be included - This information may be obtained from the fuel supplier.
- Indicate the heating content of each fuel in BTU/ton, BTU/gal, or BTU/ft³ - This information may be obtained from the fuel supplier.

Percent (%) of Load Used	Space Heating	Process Heating	Other (Describe)

8. Emissions Impact:

Those emissions indicated in Item 6 that at times under normal operating conditions cause (check one or more):

- | | |
|------------------------------------------|--------------------------------------------------------------------|
| <input type="checkbox"/> Odors | <input type="checkbox"/> Health Effects |
| <input type="checkbox"/> Eye Irritations | <input type="checkbox"/> Other nuisances outside of plant property |
| <input type="checkbox"/> Property Damage | <input checked="" type="checkbox"/> No environmental damage |

9. Emission Point Data:

Stack Height (emission point) above ground:	Ft
Ground Elevation above sea level at stack base:	Ft
Stack Diameter:	Ft
Volume of gas discharged into atmosphere:	Cfm
Gas exit temperature:	°F

10. Average Equipment Operating Time:

Daily:	Hours
Weekly:	Days
Yearly:	Weeks

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 processed.

Mail to:
CHATTANOOGA-HAMILTON
COUNTY AIR POLLUTION
CONTROL BUREAU
6125 Preservation Drive
Chattanooga, TN 37416

Company Official



Title

ENERGY GROUP
MANAGER

Date

7/15/24

Do not write below this line

Engineer Approval

Lbs/hr Allowable particulate emissions

Lbs/10⁶ BTU allowable SO_x emissions

ppm allowable NO_x emissions

UTM Coordinate of Company: EW NS

This form corresponds to permit number:

Special Notations:

FUEL BURNING EQUIPMENT APPLICATION

A separate form must be filed for each stack or emission point.

FORM E011

01/2001

1. Name of Company: McKee Foods Corporation
As shown on Line 1 of Form E001
2. Equipment Name: HWB2 (Water Heater) *As shown on Line 9 of Form E001*
3. Stack Designation: TBD
If there is more than one stack at this location, provide a written or numeric designation to identify each stack.

4. Control Equipment Data:

- | | |
|-----------------------------------------------------------------|----------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Emissions Uncontrolled | <input type="checkbox"/> Electrostatic Precipitator (File Form E104) |
| <input type="checkbox"/> Baghouse (File Form E102) | <input type="checkbox"/> Inertial Separators (File Form E105) |
| <input type="checkbox"/> Wet Collecting Device (File Form E103) | <input type="checkbox"/> Other (Specify): |
-
-

5. Control Equipment Efficiency:

Enter the control equipment efficiency for each pollutant emitted by this equipment as determined on the appropriate Form E102, E103, E104, E105, E107, or enter zeros if "A" is checked in Item 4.

Pollutant	% Efficiency
Particulates	
PM ₁₀	
SO _x	
NO _x	
CO	
VOC	
Other:	

6. Emissions Estimation:

File Form E110 for each fuel used

<i>Fuel No.1</i>	<i>Fuel No.2</i>	<i>Fuel No.3</i>
------------------	------------------	------------------

	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
Particulate Matter (Form E110, Item 6)	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr
	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
SO _x (Form E110, Item 7)	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr
	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
PM ₁₀	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr
	Uncontrolled	ppm	ppm	ppm
NO _x (Form E110, Item 9E)	Actual ¹	ppm	ppm	ppm
	Estimated ²	ppm	ppm	ppm
	Uncontrolled	Lbs/hr	Lbs/hr	Lbs/hr
Other Air Contaminants (Specify)	Actual ¹	Lbs/hr	Lbs/hr	Lbs/hr
	Estimated ²	Lbs/hr	Lbs/hr	Lbs/hr

1. *Submit stack test report with full details.*
2. *Estimate the emissions using the formula below*

$$\text{Estimated Emissions (lbs/hr, ppm)} = \frac{100\% - \text{Control Efficiency (\%)}}{100\%} \times \text{Uncontrolled Emissions}$$

Company Name: **McKee Foods Corporation**

Equipment Name: **HWB2**

7. Equipment Data:

Manufacturer of Equipment: _____ Date of Installation: _____
 Manufacturer: _____ Date of Installation: _____

Boiler No.	Fuel Type	Rated Capacity 10 ⁶ BTU/hr. Input	Type of Firing	Fuel Consumption			Percent Content		Heating Content of Fuel	(% Excess Air
				Ave.	Max.	Annual	Sulfur	Ash		
HWB2	Primary: Natural	[REDACTED]	Direct	[REDACTED]	[REDACTED]	[REDACTED]	< 0.5%	Neg.	1,020 Btu/CF	
	Normal Operating Fuel(s)									
	Standby: Gas									
	Fuel(s) used in emergency only									
	Primary: Normal Operating Fuel(s)									
	Standby: Fuel(s) used in emergency only									

- a. If more than one boiler per stack, list a separate code number to represent each individual boiler,
- b. List all fuels used.
- c. Give rated or maximum input capacity, whichever is greater.
- d. Specify the type of firing for each fuel used.
- e. Indicate consumption of each fuel used in tons/hr, gal/hr, or ft³/hr.
- f. Indicate annual consumption of each fuel used in tons/yr, gal/yr, or ft³/yr.
- g. The average sulfur and ash content of each fuel must be included - This information may be obtained from the fuel supplier.
- h. Indicate the heating content of each fuel in BTU/ton, BTU/gal, or BTU/ft³ - This information may be obtained from the fuel supplier.

Percent (%) of Load Used

Space Heating	Process Heating	Other (Describe)

8. Emissions Impact:

Those emissions indicated in Item 6 may at times under normal operating conditions cause (check one or more):

- Odors
- Eye Irritations
- Property Damage
- Health Effects
- Other nuisances outside of plant property
- No environmental damage

9. Emission Point Data:


Stack Height (emission point) above ground: Ft
 Ground Elevation above sea level at stack base: Ft
 Stack Diameter: Ft
 Volume of gas discharged into atmosphere: Cfm
 Gas exit temperature: °F

10. Average Equipment Operating Time:

Daily: Hours
 Weekly: Days
 Yearly: Weeks

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 processed.

Mail to:
 CHATTANOOGA-HAMILTON
 COUNTY AIR POLLUTION
 CONTROL BUREAU
 6125 Preservation Drive
 Chattanooga, TN 37416

Company Official 
 Title **ENERG CORP. MANAGER**
 Date **7/9/24**

Do not write below this line

Engineer Approval
 Lbs/hr Allowable particulate emissions
 Lbs/10⁶ BTU allowable SO_x emissions
 ppm allowable NO_x emissions

UTM Coordinate of Company: EW NS

This form corresponds to permit number:

Special Notations:

POLLUTION ESTIMATION FORM
(Fuel Burning Equipment)

FORM E110
01/2002

1. Name of Company: McKee Foods Corporation
(As shown on Line 1 of Form E001)
2. Equipment Name: HWB1
(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): Natural Gas (Propane as backup fuel)

5. Source of Emission Factors: EPA AP-42, Section 1.4 & Section 1.5

6. Uncontrolled Particulate Emission Rate: See Attachment 2 of application

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: See Attachment 2 of application

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: See Attachment 2 of application

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: See Attachment 2 of application

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: (combined - five hot water boilers)

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

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

B.
$$\frac{\text{Uncontrolled NO}_x \text{ (Item 9B)}}{\text{Lbs/hr}} \div \frac{\text{CFH of Exhaust Gas (Item 10A)}}{\text{Lb/ft}^3 \text{ NO}_x \text{ (Item 10B)}} = 1.27 \times 10^{-5} \text{ Lb/ft}^3 \text{ NO}_x$$

C.
$$\text{PPM} = (8.37 \times 10^6) \times \frac{1.27 \times 10^{-5}}{\text{Lb/ft}^3 \text{ NO}_x \text{ (Item 10B)}} = \frac{106.2}{\text{PPM at STP and 15\% Excess Air (NO}_x \text{ calculated as NO}_2\text{)}}$$

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
 Engineering Group Manager - AI&E

 Title

7/9/24

 Date

Do Not Write Below This Line

_____ Engineer Approval

This form corresponds to permit number: _____

Special Notations: _____

POLLUTION ESTIMATION FORM
(Fuel Burning Equipment)

FORM E110 01/2002

1. Name of Company: McKee Foods Corporation
(As shown on Line 1 of Form E001)

2. Equipment Name: HWB2
(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): Natural Gas (Propane as backup fuel)

5. Source of Emission Factors: <u>EPA AP-42, Section 1.4 & Section 1.5</u>

6. Uncontrolled Particulate Emission Rate: See Attachment 2 of application Particulate Emission Factor: _____ <small>(lbs/ton; lbs/10³ gal; lbs/10⁶ ft³)</small> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">_____</td> <td style="text-align: center;">X</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">=</td> <td style="text-align: center;">_____</td> <td style="text-align: right;">Lbs/hr</td> </tr> <tr> <td style="text-align: center;"><small>Maximum Fuel Consumption Rate</small></td> <td></td> <td style="text-align: center;"><small>Particulate Emission Factor</small></td> <td></td> <td style="text-align: center;"><small>Uncontrolled Particulate Emission Rate</small></td> <td></td> </tr> <tr> <td style="text-align: center;"><small>(tons/hr; gal/hr; ft³/hr)</small></td> <td></td> <td></td> <td></td> <td style="text-align: center;"><small>Rate</small></td> <td></td> </tr> </table>	_____	X	_____	=	_____	Lbs/hr	<small>Maximum Fuel Consumption Rate</small>		<small>Particulate Emission Factor</small>		<small>Uncontrolled Particulate Emission Rate</small>		<small>(tons/hr; gal/hr; ft³/hr)</small>				<small>Rate</small>	
_____	X	_____	=	_____	Lbs/hr													
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7. Uncontrolled Sulfur Oxide (SO _x) Emission Rate: See Attachment 2 of application SO _x Emission Factor: _____ <small>Lbs/ton; lbs/10³ gal; lbs/10⁶ ft³</small> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">_____</td> <td style="text-align: center;">X</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">=</td> <td style="text-align: center;">_____</td> <td style="text-align: right;">Lbs/hr</td> </tr> <tr> <td style="text-align: center;"><small>Maximum Fuel Consumption Rate</small></td> <td></td> <td style="text-align: center;"><small>SO_x Emission Factor</small></td> <td></td> <td style="text-align: center;"><small>Uncontrolled SO_x Emission Rate</small></td> <td></td> </tr> <tr> <td style="text-align: center;"><small>(tons/hr; gal/hr; ft³/hr)</small></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	_____	X	_____	=	_____	Lbs/hr	<small>Maximum Fuel Consumption Rate</small>		<small>SO_x Emission Factor</small>		<small>Uncontrolled SO_x Emission Rate</small>		<small>(tons/hr; gal/hr; ft³/hr)</small>					
_____	X	_____	=	_____	Lbs/hr													
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_____	X	_____	=	_____	Lbs/hr													
<small>Maximum Fuel Consumption Rate</small>		<small>HC Emission Factor</small>		<small>Uncontrolled HC Emission Rate</small>														
<small>(tons/hr; gal/hr; ft³/hr)</small>																		

9. Uncontrolled Nitrogen Oxides (NO _x) Emission Rate: See Attachment 2 of application A. NO _x Emission Factor: _____ <small>Lbs/ton; lbs/10³ gal; lbs/10⁶ ft³</small> B. _____ X _____ = _____ Lbs/hr <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><small>Maximum Fuel Consumption Rate</small></td> <td></td> <td style="text-align: center;"><small>NO_x Emission Factor</small></td> <td></td> <td style="text-align: center;"><small>Uncontrolled NO_x Emission Rate</small></td> <td></td> </tr> <tr> <td style="text-align: center;"><small>(tons/hr; gal/hr; ft³/hr)</small></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<small>Maximum Fuel Consumption Rate</small>		<small>NO_x Emission Factor</small>		<small>Uncontrolled NO_x Emission Rate</small>		<small>(tons/hr; gal/hr; ft³/hr)</small>					
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<small>(tons/hr; gal/hr; ft³/hr)</small>												

10. NO_x Emission Rate in PPM by Volume at STP: (combined - five hot water boilers)

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.
$$\frac{\text{Uncontrolled NO}_x \text{ (Item 9B)}}{\text{Lbs/hr}} \div \frac{\text{CFH of Exhaust Gas (Item 10A)}}{\text{CFH of Exhaust Gas (Item 10A)}} = \frac{1.27 \times 10^{-5}}{\text{Lb/ft}^3 \text{ NO}_x}$$

C.
$$\text{PPM} = (8.37 \times 10^6) \times \frac{1.27 \times 10^{-5}}{\text{Lb/ft}^3 \text{ NO}_x \text{ (Item 10B)}} = \frac{106.2}{\text{PPM at STP and 15\% Excess Air (NO}_x \text{ calculated as NO}_2\text{)}}$$

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
 Engineering Group Manager - AI&E

 Title
 7/9/24

 Date

Do Not Write Below This Line

_____ Engineer Approval

This form corresponds to permit number: _____

Special Notations: _____
