

# KNOX COUNTY DEPARTMENT OF AIR QUALITY MANAGEMENT

**FORM APC-6 (PAGE 1 OF 2)**  
(Please Type or Print)

**INCINERATION-SOURCE EMISSION DATA**  
Permit Application

FILL OUT A SEPARATE SHEET FOR EACH STACK OR EMISSION POINT.

1. BUSINESS LICENSE NAME OF CORPORATION, COMPANY, INDIVIDUAL OWNER OR GOVERNMENTAL AGENCY UNDER WHICH APPLICATION IS SUBMITTED:

\_\_\_\_\_

2. EMISSION SOURCE NUMBER \_\_\_\_\_

3. TYPE OF WASTE BURNED (USE CODE FROM TABLE ON PAGE 2 OF THIS FORM)

\_\_\_\_\_

4. AMOUNT OF WASTE BURNED

\_\_\_\_\_

**DO NOT WRITE IN THIS SPACE**

FACILITY NUMBER / / / / /

SOURCE NUMBER / / / / /

SIC CODE / / / / /

REVIEWER / / / / /

DATE SUBMITTED / / / / / / / /

DATE REVIEWED / / / / / / / /

CHARGING RATE (POUNDS/HOUR)		TONS BURNED PER YEAR (WASTE)
AVERAGE	DESIGN	

5. IS THE INCINERATOR FURNACE VOLUME 2.5 CUBIC FEET OR LESS? YES <input type="checkbox"/> NO <input type="checkbox"/>	IS THE UNIT USED SOLELY FOR DISPOSAL OF INFECTIVE DRESSINGS? YES <input type="checkbox"/> NO <input type="checkbox"/>
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6. INCINERATOR MANUFACTURER:	MODEL NUMBER	DATE INSTALLED
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7. INCINERATOR TYPE:	SINGLE CHAMBER	MULTI-CHAMBER	REFRACTORY LINED	AUXILIARY BURNERS
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8. INCINERATOR OPERATION SCHEDULE:	HOURS/DAY	DAYS/WEEK	WEEKS/YEAR	DAYS/YEAR
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9. PERCENT ANNUAL THROUGHPUT:	DEC. - FEB.	MARCH - MAY	JUNE - AUG.	SEPT. - NOV.
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10. BURNER DATA:	BURNER CAPACITY (BTU/HOUR)		AIR FLOW(CFM)	
	PRIMARY	SECONDARY/AFTERBURNER	OVERFIRE	UNDERFIRE
	DOES UNIT HAVE CONTROLLED OR STARVED AIR?			

11. AUXILIARY FUEL DATA:	PRIMARY FUEL TYPE (SPECIFY)	STANDBY FUEL (SPECIFY)
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FUEL	ANNUAL USAGE	HOURLY USAGE		% SULFUR	% ASH	BTU VALUE OF FUEL	(FOR APC ONLY) SCC CODE
		DESIGN	AVERAGE				
NATURAL GAS	10 <sup>6</sup> CUFT	CU FT	CU FT			1,000	
#2 FUEL OIL	10 <sup>3</sup> GAL	GAL	GAL				
LIQUID PROPANE	10 <sup>3</sup> GAL	GAL	GAL			85,000	
OTHER (SPECIFY TYPE & UNITS)							

12. STACK OR EMISSION POINT DATA:	HEIGHT ABOVE GRADE (FT)	DIAMETER (FT)	TEMPERATURE (°F)	DISTANCE TO NEAREST
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DATA AT EXIT CONDITIONS:	FLOW (ACTUAL FT3/MIN)	VELOCITY (FT/SEC)	MOISTURE (GRAINS/FT3)	PROPERTY LINE (FT)
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DATA AT STANDARD CONDITIONS:	FLOW (DRY STD. FT3/MIN)	VELOCITY (FT/SEC)	MOISTURE (GRAINS/FT3)	MOISTURE (PERCENT)
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13. AIR CONTAMINANTS	EMISSIONS (LBS/HR)		CONCENTRATION	AVG. EMISS. (TONS/YR)	EMISSIONS* EST. METHOD	CONTROL* DEVICES	CONTROL EFFICIENCY %
	AVERAGE	MAXIMUM					
PARTICULATES**			***				
SULFUR DIOXIDE			****				
NITROGEN OXIDES			PPM				
ORGANIC COMPOUNDS			PPM				
CARBON MONOXIDES			PPM				
FLUORIDES							
OTHER (SPECIFY)							
14. SCRUBBER DATA:	MANUFACTURER & MODEL NUMBER			WATER FLOW (GALLONS/MINUTE)		SCRUBBER PRESSURE DROP (INCHES WATER)	
OTHER CONTROL (DESCRIBE)							
15. CHECK TYPES OF MONITORING AND RECORDING INSTRUMENTS THAT ARE ATTACHED: OPACITY MONITOR ( ), SO2 MONITOR ( ), NOX MONITOR ( ), OTHER - SPECIFY IN COMMENTS ( )							
16. COMMENTS:							
17. SIGNATURE				DATE:			

\* REFER TO THE ENCLOSED INSTRUCTION PACKET FOR ESTIMATION METHOD AND CONTROL DEVICE CODES.  
 \*\* A VALID STACK TEST OF PARTICULATE EMISSIONS FROM MANUFACTURER SHALL BE INCLUDED WITH APPLICATION.  
 \*\*\* EXIT GAS PARTICULATE CONCENTRATION UNITS: GRAINS/DRY STANDARD FT (70°F).  
 \*\*\*\* EXIT GAS SULFUR DIOXIDE CONCENTRATION UNITS: PPM BY VOLUME DRY BASIS.

TYPE OF WASTE BURNED CODE TABLE

PRINCIPLE COMPONENTS, USUAL SOURCE AND TYPICAL MOISTURE CONTENT	CODE
HIGHLY COMBUSTIBLE WASTE, PAPER, WOOD, CARDBOARD CARTONS (INCLUDING UP TO 10% TREATED PAPERS, PLASTIC OR RUBBER SCRAPS); FROM COMMERCIAL AND INDUSTRIAL SOURCES; 10% MOISTURE	0
COMBUSTIBLE WASTE, PAPER CARTONS, RAGS, WOOD SCRAPS, COMBUSTIBLE FLOOR SWEEPINGS, FROM: DOMESTIC, COMMERCIAL, AND INDUSTRIAL SOURCES; 25% MOISTURE	1
RUBBISH AND GARBAGE, FROM: RESIDENTIAL SOURCES; 50% MOISTURE	2
PREDOMINANTLY ANIMAL AND VEGETABLE WASTE FROM: RESTAURANTS, HOTELS, MARKETS, INSTITUTIONAL, COMMERCIAL AND CLUB SOURCES; 70% MOISTURE	3
CARCASSES, ORGANS, SOLID ORGANIC WASTES, FROM: HOSPITALS, LABORATORIES, SLAUGHTERHOUSES, ANIMAL POUNDS AND SIMILAR SOURCES; 85% MOISTURE	4
GASEOUS AND SEMI-LIQUID INDUSTRIAL PROCESS WASTE; VARIABLE MOISTURE. DESCRIBE IN DETAIL UNDER COMMENTS	5
SOLID AND SEMI-SOLID INDUSTRIAL PROCESS WASTE; VARIABLE MOISTURE. DESCRIBE IN DETAIL UNDER COMMENTS	6

INCINERATOR SOURCE DESCRIPTION FORM

This form should be completed for all new permit applications and all renewals where source conditions have changed since the previous application.

- Item 2. - Emission source number should be the same code as entered in Item 5 of the Permit Application Form (APC-1). Enter the Standard Industrial Classification Code (SIC) for the source if known.
- Item 3. - Show the type of waste burned by entering the code number found on the bottom of page 2 of the application which most nearly describes the material incinerated.
- Item 4. - Show the average and design charging rates and the approximate tons per year of waste burned.
- Item 5. - Indicate if the furnace volume of the incinerator is 2.5 cubic feet or less and indicate if the unit is used solely for the disposal of infective dressings and other similar material.
- Item 7. - Indicate the incinerator type by checking the appropriate boxes.
- Item 8. - Operational schedule should reflect the time that the unit is normally operational.
- Item 9. - Percent annual throughput should reflect the appropriate seasonal nature of the process. If the operation is not seasonal, enter 25% for each.
- Item 10. - Enter the design capacity of all auxiliary fuel burners and the approximate overfire and underfire air flow if applicable. Also indicate if the incinerator is designed to limit and control the amount of air to the primary chamber.
- Item 11. - List the type of auxiliary fuel used and the type of standby auxiliary fuel if applicable. Complete the table showing the annual and hourly usage of all auxiliary fuels. The SCC code is for AQM Division use only and should be left blank.
- Item 12. - Enter the indicated stack information.
- Item 13. - Particulate emission estimates should be based on stack sampling results. In most cases a valid stack test of particulate emissions from the manufacturer for the same or similar model incinerator will be acceptable. Emission estimates for other pollutants emitted from this point should be based on stack sampling results or engineering calculations. In certain cases other estimates or blanks may be accepted. Average emissions (lb/hr) should be representative of the following:
  - a. For continuous or long-run, steady-state, operations it is the total weight of pollutant emitted to the atmosphere for the entire period of continuous operation or for a typical portion thereof divided by the number of hours of such period or portion thereof.
  - b. For cyclical or batch type operations, it is the total weight of pollutant emitted to the atmosphere for a period which covers a complete or an integral number of cycles divided by the hours of actual process operation during such periods.

## APC-6 INSTRUCTION PACKET (PAGE 2 OF 2)

Maximum emissions (lbs/hr) should be determined by dividing the total highest emissions possible during any 3 hour period with control equipment working properly, by 3. This will be dependent upon such things, either singly or in combination, as maximum possible operating rate, a particular input material, product, or fuel which may result in increased emissions; periods of highest emissions for cyclical or batch type operations, etc. Concentrations should be determined for stack emissions only and should reflect average exit gas concentrations reported in the units specified on Form APC-1.

Emission estimation method and control device descriptions, along with corresponding codes, can be found on the Instruction Packet Table I and II. The codes which most accurately describe the estimated control equipment efficiency should be entered for each pollutant present. Any estimation methods or control devices other than those listed in the tables should be described in the comments (Item 16 on APC-6 Form).

Item 14. - If a wet scrubber is used to control emissions, supply the requested scrubber related information.

Item 17. - Unsigned and/or undated applications will not be processed.