

# FORM C3

## CONTROL DEVICE (THERMAL OR CATALYTIC)

REVISED 09/22/16

NCDEQ/Division of Air Quality - Application for Air Permit to Construct/Operate

**C3**

**AS REQUIRED BY 15A NCAC 2Q .0112, THIS FORM MUST BE SEALED BY A PROFESSIONAL ENGINEER (P.E.) LICENSED IN NORTH CAROLINA.**

CONTROL DEVICE ID NO:	CONTROLS EMISSIONS FROM WHICH EMISSION SOURCE ID NO(S):
EMISSION POINT (STACK) ID NO(S):	POSITION IN SERIES OF CONTROLS NO. _____ OF _____ UNITS

MANUFACTURER:	MODEL NO:
<b>OPERATING SCENARIO:</b>	
_____ OF _____	

TYPE  AFTERBURNER  REGENERATIVE THERMAL OXIDATION  RECUPERATIVE THERMAL OXIDATION  CATALYTIC OXIDATION

EXPECTED LIFE OF CATALYST (YRS): \_\_\_\_\_ METHOD OF DETECTING WHEN CATALYST NEEDS REPLACEMENT:

CATALYST MASKING AGENT IN AIR STREAM  HALOGEN  SILICONE  PHOSPHOROUS COMPOUND  HEAVY METAL

SULFUR COMPOUND  OTHER (SPECIFY) \_\_\_\_\_  NONE

TYPE OF CATALYST:	CATALYST VOL (FT <sup>3</sup> ):	VELOCITY THROUGH CATALYST (FPS):
SCFM THROUGH CATALYST:		

DESCRIBE CONTROL SYSTEM, INCLUDING RELATION TO OTHER CONTROL DEVICES AND SOURCES, AND ATTACH DIAGRAM OF SYSTEM:

POLLUTANT(S) COLLECTED:	_____	_____	_____	_____
BEFORE CONTROL EMISSION RATE (LB/HR):	_____	_____	_____	_____
CAPTURE EFFICIENCY:	_____ %	_____ %	_____ %	_____ %
CONTROL DEVICE EFFICIENCY:	_____ %	_____ %	_____ %	_____ %
CORRESPONDING OVERALL EFFICIENCY:	_____ %	_____ %	_____ %	_____ %
EFFICIENCY DETERMINATION CODE:	_____	_____	_____	_____
TOTAL AFTER CONTROL EMISSION RATE (LB/HR) :	_____	_____	_____	_____

PRESSURE DROP (IN. H <sub>2</sub> O): MIN MAX	OUTLET TEMPERATURE (°F): _____ MIN _____ MAX
INLET TEMPERATURE (°F): MIN MAX	RESIDENCE TIME (SECONDS):
INLET AIR FLOW RATE (ACFM): (SCFM):	COMBUSTION TEMPERATURE (°F):
COMBUSTION CHAMBER VOLUME (FT <sup>3</sup> ):	INLET MOISTURE CONTENT (%):
% EXCESS AIR:	CONCENTRATION (ppmv) _____ INLET _____ OUTLET
AUXILIARY FUEL USED:	TOTAL MAXIMUM FIRING RATE (MILLION BTU/HR):

DESCRIBE MAINTENANCE PROCEDURES:

DESCRIBE ANY AUXILIARY MATERIALS INTRODUCED INTO THE CONTROL SYSTEM:

COMMENTS:

**Attach Additional Sheets As Necessary**