

**Texas Commission on Environmental Quality
Air Permits Division**

New Source Review (NSR) Boilerplate Special Conditions

This information is maintained by the Chemical NSR Section and is subject to change. Last update was made **March 2014**. These special conditions represent current NSR boilerplate guidelines and are provided for informational purposes only. The special conditions for any permit or amendment are subject to change through TCEQ case-by-case evaluation procedures [30 TAC 116.111(a)]. Please contact the appropriate Chemical NSR Section management if there are questions related to the boilerplate guidelines.

Vapor Oxidizers (*for thermal, regenerative or catalytic*)

BACT

1. The (*type, identify as Thermal, Regenerative Thermal, or Catalytic*) oxidizer, (*EPN No. xxxx*) shall maintain the VOC (*or other contaminant*) concentration in the exhaust gas less than 10 ppmv (*or other concentration appropriate for the type of oxidizer*) on a dry basis, corrected to 3 percent oxygen, or achieve a VOC (*or other contaminant*) destruction efficiency greater than 99.9 percent (*or other DRE appropriate for the type of oxidizer*).

Temperature and O₂ requirements

2. The (*type*) oxidizer firebox exit (*or inlet for catalytic oxidizer*) temperature shall be maintained at not less than (*temperature, 1400 for example*) °F and exhaust oxygen concentration not less than 3 percent on a six-minute average while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six minute average temperature shall be equal to, or greater than the respective hourly average maintained during the most recent satisfactory stack testing required by Special Condition No. (*#. Oxygen monitoring may not be required for small oxidizers, see guidance document.*)

Temperature monitor

3. The (*type, identify as Thermal, Regenerative Thermal, or Catalytic*) oxidizer exhaust (*and inlet for catalytic oxidizer*) temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5°C.

Quality assured (or valid) data must be generated when the (*type*) oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent

of the time (in minutes) that the *(type)* oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. *(Monitoring inlet and outlet temperatures on a catalytic oxidizer allows the delta T to be tracked which can indicate significant potential problems with the catalyst but it is not sufficient to track catalyst activity.)*

Stack sample

4. *(Except for some small oxidizers, all oxidizers require initial stack sampling. See guidance document and stack sampling conditions to determine if stack sampling is required).*

O₂ monitor

(Include O₂ monitoring if an oxidizer does NOT have CEMS)

5. The oxygen analyzer used to satisfy Special Condition No. (#) shall continuously monitor and record oxygen concentration when waste gas is directed to the oxidizer. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.

The oxygen analyzer shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified Performance Specification No. 3, 40 CFR Part 60, Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

The analyzer shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. Necessary corrective action shall be taken for all CGA exceedances of ±15 percent accuracy and any continuous emissions monitoring system downtime in excess of 5 percent of the incinerator operating time. These occurrences and corrective actions shall be reported to the appropriate TCEQ Regional Director on a quarterly basis. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director. *(There may be other case specific ways that are used to ensure adequate oxygen concentration).*

Quality assured (or valid) data must be generated when the *(type)* oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the *(type)* oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. *(The applicant may demonstrate that the oxidizer is designed such that sufficient oxygen is always assured. An analyzer is not necessary if they can make that demonstration).*

CEMS

6. *(See BACT or guidance document to determine if CEMS is required).*

Thermal Oxidizers (additional specific requirement)

7. The exit temperature of the stand-by oxidizer firebox shall be maintained at not less than 800°F *(or as appropriate for the oxidizer).*

Catalytic Oxidizers (additional specific requirement)

8. *(If a catalytic oxidizer is used then temperature monitoring alone is not adequate. The catalytic oxidizer may require more frequent periodic tack samples, CEMS, or other monitoring).*