

**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 **September 2015**. 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.

Fugitives

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Piping, Valves, Pumps, and Compressors - Pipeline Natural Gas Service

1. Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:
 - A. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
 - B. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
 - C. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request.
The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe to monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe to monitor times. A difficult to monitor component for which quarterly monitoring is specified may instead be monitored annually.
The unsafe-to-monitor and difficult-to-monitor components may be identified by one or more of the following methods:
 - (1) piping and instrumentation diagram (PID);
 - (2) a written or electronic database or electronic file;
 - (3) color coding;

- (4) a form of weatherproof identification; or
 - (5) designation of exempted process unit boundaries.
- D. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed.

If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- (1) a cap, blind flange, plug, or second valve must be installed on the line or valve; or
 - (2) the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.
- E. All new or reworked connections shall be gas-tested or hydraulically tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance. Once charged with natural gas, all new or reworked connections shall be inspected using a properly calibrated combustible gas indicator (CGI) tester to verify leak free performance [less than 50 parts per million by volume (ppmv)].
- F. At least once every eight hours, a visual, audio, and olfactory check of reasonably accessible piping components shall be made within the operation area. Should evidence of a leak be found, it shall be checked with a CGI to evaluate severity and determine maintenance actions required to correct the leak.
- G. Damaged or leaking piping, flanges, connectors, pump and compressor seals found to be leaking natural gas (as detected by auditory, visual, olfactory or CGI) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown provided the leak is less

than 15,000 ppmv (above background). If the leak is above 10,000 ppmv but less than 15,000 ppmv (above background), the component shall be monitored daily with a CGI until the component is isolated from the system and repaired. If the leak rate exceeds 15,000 ppmv (above background) and the component cannot be isolated, the system will be shutdown and leak shall be repaired or component replaced to achieve leak free status. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for repair by tagging within 15 days of the detection of the leak. At the discretion of the TCEQ Executive Director or designated representative, early unit shutdown or other appropriate action may be required based on the number and severity of tagged leaks awaiting shutdown.

- H. Accessible valves, flanges, connectors, and seals shall be monitored by leak checking for fugitive emissions at least quarterly using an approved combustible gas indicator (CGI). Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. Relief valves with pressure gauges indicating a ruptured disc shall be leak checked weekly until the rupture disc is replaced. Replaced components shall be re-monitored within seven days of being placed back into service. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.
- I. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.

Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.