

Attachment B

State-Only Rule Language

- Existing RICE – State-wide

XVII. ~~STATE-ONLY STATEWIDE STATEWIDE~~ controls for oil and gas operations and natural gas-fired reciprocating internal combustion engines

XVII.A. Definitions

- XVII.A.1 “Air pollution control equipment,” as used in this section XVII, means a combustion device or vapor recovery unit. Air pollution control equipment also means alternative emissions control equipment and pollution prevention devices and processes intended to reduce uncontrolled actual emissions that comply with the requirements of section XVII.B.2.
- XVII.A.2. “Atmospheric”, when used to modify the term “condensate storage tank”, means a type of condensate storage tank that vents, or is designed to vent, to the atmosphere.
- XVII.A.3. “Condensate Storage Tank” means any production tank or series of production tanks that are manifolded together that store condensate.
- XVII.A.4 A “glycol natural gas dehydrator” means any device in which a liquid glycol (including ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water.

XVII.B. General Provisions

- XVII.B.1. General requirements for air pollution control equipment, prevention of leakage, and flares and combustion devices.
- XVII.B.1.a. All air pollution control equipment required by this section XVII shall be operated and maintained pursuant to manufacturer specifications or equivalent to the extent practicable, and consistent with technological limitations and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications or equivalent on file. In addition, all such air pollution control equipment shall be adequately designed and sized to achieve the control efficiency rates required by this section XVII and to handle reasonably foreseeable fluctuations in emissions of volatile organic compounds during normal operations. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable.
- XVII.B.1.b. All condensate collection, storage, processing and handling operations, regardless of size, shall be designed, operated and maintained so as to minimize leakage of volatile organic compounds to the atmosphere to the extent reasonably practicable.
- XVII.B.1.c. If a flare or other combustion device is used to control emissions of volatile organic compounds to comply with section XVII, it shall be enclosed, have no visible emissions during normal operations, and be designed so that an observer can, by means of visual observation from the outside of the enclosed flare or combustion device, or by other convenient means approved by the division, determine whether it is operating properly.

- XVII.B.1.d. Any of the effective dates for installation of controls on condensate tanks dehydrators and/or internal combustion engines may be extended at the air pollution control division's discretion for good cause shown
- XVII.B.2. Alternative emissions control equipment shall qualify as air pollution control equipment, and may be used in lieu of, or in combination with, combustion devices and vapor recovery units to achieve the emission reductions required by this section XVII, if the Division approves the equipment, device or process. As part of the approval process the Division, at its discretion, may specify a different control efficiency than the control efficiencies required by this section XVII.
- XVII.B.3. Oil refineries are not subject to this section of the rule.
- XVII.B.4. Condensate tanks, dehydrators and internal combustion engines that are subject to a federal maximum achievable control technology ("MACT") standard under 40 CFR Part 63, a Best Available Control Technology ("BACT") limit, or a New Source Performance Standard under 40 CFR Part 60 are not subject to this section of the rule.
- XVII.C. Emission reduction from condensate storage tanks at oil and gas exploration and production operations, natural gas compressor stations, natural gas drip stations and natural gas processing plants.
- XVII.C.1. Beginning May 1, 2008, owners or operators of all atmospheric condensate storage tanks with uncontrolled actual emissions of volatile organic compounds equal to or greater than 20 tons per year based on a rolling twelve-month total shall operate air pollution control equipment that has an average control efficiency of at least 95% for VOCs on such tanks.
- XVII.C.2. For condensate storage tanks with past uncontrolled actual emissions of volatile organic compounds of less than 20 tons per year based on a rolling twelve-month total that may become subject to section XVII.C.1. by virtue of the addition of a newly drilled well or the recompletion or stimulation of an existing well, owners or operators of such tanks shall have until 90 days after the date of 1st production of the newly drilled, recompleted or stimulated well to install and operate any required air pollution control equipment. If the owner or operator determines that emissions of volatile organic compounds will be below the 20 ton per year threshold, the owner or operator shall notify the Division of this determination in writing and include an explanation of the methodology used to make this determination.
- XVII.C.3. Monitoring: The owner or operator of any condensate storage tank that is required to control volatile organic compound emissions pursuant to this section XVII.C. shall visually inspect or monitor the Air Pollution Control Equipment to ensure that it is operating at least as often as condensate is loaded out from the tank, unless a more frequent inspection or monitoring schedule is followed. In addition, if a flare or other combustion device is used, the owner or operator shall visually inspect the device for visible emissions at least as often as condensate is loaded out from the tank.
- XVII.C.4. Recordkeeping: The owner or operator of each condensate storage tank shall maintain the following records for a period of five years:

- XVII.C.4.a. Monthly condensate production from the tank.
- XVII.C.4.b. For any condensate storage tank required to be controlled pursuant to this section XVII.C., the date, time and duration of any period where the air pollution control equipment is not operating. The duration of a period of non-operation shall be from the time that the air pollution control equipment was last observed to be operating until the time the equipment recommences operation.
- XII.C.4.c. For tanks where a flare or other combustion device is being used, the date and time of any instances where visible emissions are observed from the device.

XVII.D. Emission reductions from glycol natural gas dehydrators

Beginning May 1, 2008, any still vent and vent from any gas-condensate-glycol (GCG) separator (flash separator or flash tank), if present, on a glycol natural gas dehydrator located at an oil and gas exploration and production operation, natural gas compressor station, drip station or gas-processing plant shall reduce uncontrolled actual emissions of volatile organic compounds by an average of at least 90 percent through the use of air pollution control equipment. This section XVII.D shall not apply to any single natural gas dehydrator, or several dehydrators at a single oil and gas exploration and production operation/site, natural gas compressor station, drip station or gas-processing plant, with uncontrolled actual emissions of volatile organic compounds of less than 15 tons per year based on a rolling twelve-month total. The control requirement in this section XVII.D. shall not apply to a natural gas dehydrator with emissions below the APEN reporting thresholds in Regulation No. 3, Part A, Section II.D that is part of a grouping of dehydrators, but the emissions from such dehydrator shall be included in the calculation used to determine whether the grouping of dehydrators exceeds the 15 tons per year threshold.

XVII.E. Control of emissions from new and relocated natural gas fired reciprocating internal combustion engines.

XVII.E.1. THE REQUIREMENTS OF THIS SECTION XVII.E. SHALL NOT APPLY TO ANY ENGINE HAVING ACTUAL UNCONTROLLED EMISSIONS THAT ARE EXEMPT FROM OBTAINING A CONSTRUCTION PERMIT UNDER REGULATION NO.3, PART B.

XVII.E.2. NEW AND MODIFIED NATURAL GAS FIRED RECIPROCATING INTERNAL COMBUSTION ENGINES

XVII.E.2.A. Except as provided IN SECTION XVII.E.2.B. below, the owner or operator on any natural gas fired reciprocating internal combustion engine that is either constructed or relocated to the state of Colorado from another state, ON OR after the date listed in the table below shall operate and maintain each engine according to the manufacturer's written instructions or procedures to the extent practicable and consistent with technological limitations and good engineering and maintenance practices over the entire life of the engine so that it achieves the emission standards required in ~~the table~~ SECTION XVII.E.2.B.'S TABLE 1, below:

XVII.E.2.B. ACTUAL EMISSIONS FROM NATURAL GAS FIRED RECIPROCATING INTERNAL COMBUSTION ENGINES SHALL NOT EXCEED THE EMISSION PERFORMANCE STANDARDS IN TABLE 1 BELOW AS EXPRESSED IN UNITS OF GRAMS PER HORSEPOWER-HOUR (G/HP-HR).

| Maximum Engine Hp | Construction or Relocation Date | Emission Standards is (Gg/hp-hr) | | |
|---|------------------------------------|---|-----------|-----------|
| | | NOx | CO | VOC |
| <u>< 100 Hp</u> | <u>ANY</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| <u>>100 Hp</u> <u>AND</u> <u>< 500 Hp</u> | <u>ON OR AFTER</u> January 1, 2008 | 2.0 | 4.0 | 1.0 |
| | <u>ON OR AFTER</u> January 1, 2011 | 1.0 | 2.0 | 0.7 |
| <u>≥ 500 Hp</u> | <u>ON OR AFTER</u> July 1, 2007 | 2.0 | 4.0 | 1.0 |
| | <u>ON OR AFTER</u> July 1, 2010 | 1.0 | 2.0 | 0.7 |

~~requirements of this section shall not apply to any engine that is exempt from obtaining a construction permit under Regulation No. 3, Part B.~~

XVII.E.3. EXISTING NATURAL GAS FIRED RECIPROCATING INTERNAL COMBUSTION ENGINES

XVII.E.3.A. ALL RICH BURN RECIPROCATING INTERNAL COMBUSTION ENGINES WITH A MANUFACTURER'S DESIGN RATE GREATER THAN 500 HORSEPOWER SHALL INSTALL AND OPERATE BOTH A NON-SELECTIVE CATALYST REDUCTION AND AN AIR FUEL CONTROLLER BY MAY 1, 2010. A RICH BURN RECIPROCATING INTERNAL COMBUSTION ENGINE IS ONE WITH A NORMAL EXHAUST OXYGEN CONCENTRATION OF LESS THAN 2% BY VOLUME.

XVII.E.3.B. LEAN BURN RECIPROCATING INTERNAL COMBUSTION ENGINES

XVII.E.3.B.(i) EXCEPT AS PROVIDED IN SECTION XVII.E.3.B.(ii), ALL LEAN BURN RECIPROCATING INTERNAL COMBUSTION ENGINES WITH A MANUFACTURER'S DESIGN RATE GREATER THAN 500 HORSEPOWER SHALL INSTALL AND OPERATE AN OXIDATION CATALYST BY MAY 1, 2010. A LEAN BURN RECIPROCATING INTERNAL COMBUSTION ENGINE IS ONE WITH A NORMAL EXHAUST OXYGEN CONCENTRATION OF 2% BY VOLUME, OR GREATER.

XVII.E.3.B.(ii) ANY LEAN BURN RECIPROCATING INTERNAL COMBUSTION ENGINE OPERATING PRIOR TO JUNE 1, 2004, FOR WHICH THE OWNER OR OPERATOR DEMONSTRATES TO THE DIVISION THAT RETROFIT TECHNOLOGY CANNOT BE INSTALLED AT A COST OF LESS THAN \$ 5,000 PER TON OF VOC EMISSION REDUCTION IS EXEMPT COMPLYING WITH SECTION XVII.E.3.B.(i). INSTALLATION COSTS AND THE BEST INFORMATION AVAILABLE FOR DETERMINING CONTROL EFFICIENCY SHALL BE CONSIDERED IN DETERMINING SUCH COSTS. IN ORDER TO QUALIFY FOR SUCH EXEMPTION, THE OWNER OR OPERATOR MUST SUBMIT AN APPLICATION MAKING SUCH A DEMONSTRATION, TOGETHER WITH ALL SUPPORTING DOCUMENTS, TO THE DIVISION BY AUGUST 1, 2009.