



MEMO TO : All North Dakota Oil and Gas Operators

FROM : Terry L. O'Clair, P.E.
Director
Division of Air Quality *TLO*

RE : North Dakota Department of Health Clarification on VOC Emission
Responsibilities for Oil and Gas Facilities Producing Prior to June 1, 2011

DATE : July 19, 2011

The purpose of this memo is to reaffirm the air pollution control responsibilities of owners and operators that maintain active oil and gas production facilities in the State of North Dakota. As an Oil and Gas Operator in the State of North Dakota, you are subject to Chapter 33-15-07 and Chapter 33-15-20 of the North Dakota Air Pollution Control Rules (NDAPCR). This memo will address all existing oil and gas facilities (those where the first date of production occurred prior to June 1, 2011). The North Dakota Department of Health (Department) May 2, 2011 memorandum the "Bakken Pool Guidance Document," detailed the air pollution control responsibilities of owners and operators of existing oil and gas production that was specific to facilities located in the Bakken/Three Forks (Bakken) formation after June 1, 2011.

Background

Data from the Bakken VOC Task Force indicated VOC emissions associated with the oil production were significantly higher than anticipated. Chapter 33-15-07 of the NDAPCR specifies that, except under certain emergency conditions, no person may cause or permit the emission of volatile organic compounds (VOC) unless such VOCs are flared or subject to an equally effective method of control approved by the Department. To assist operators, the Department issued the *Bakken Pool Oil and Gas Production Facilities, Air Pollution Control & Compliance Guidance* (Guidance). The Guidance was drafted to help operators of Bakken facilities with the following:

- Consistently estimate VOC emissions from oil and gas production facilities
- Report the emissions to the Department
- Determine required air pollution control equipment
- Determine required compliance procedures

The Guidance accounts for data showing the VOC emissions from the production of Bakken formation oil and gas resources are significantly higher than previously understood. A copy of the Guidance can be found at: <http://www.ndhealth.gov/AQ/OilAndGasWells.htm>.

Submittals

To help ensure oil and gas operators comply with current regulations, all facilities (Bakken and non-Bakken facilities) in ND must be re-evaluated to ensure compliance is being obtained. The following information must be submitted to the Department:

Initially Registered Oil and Gas Wells

- For all oil and gas wells with a date of first production prior to June 1, 2011 (i.e., existing facilities), operators are to file a summary spreadsheet. To complete the spreadsheet, the operator must evaluate all its existing facilities and report the estimated emissions from each. DO NOT SEND IN DUPLICATES OF INITIAL WELL REGISTRATIONS (the Department only requires the information on the summary spreadsheet). All summary spreadsheets should be submitted in Excel format on a CD along with a paper copy. A blank electronic copy is available on the Department website at: <http://www.ndhealth.gov/AQ/OilAndGasWells.htm>. The Guidance workbook is to be used for calculation of emissions from Bakken formation wells only. The barrels of oil per day (BOPD) may be modified as necessary. The summary sheet key will give direction on how to calculate the modified BOPD.
- The operator must include a paper copy of one gas analysis for each producing field addressed to confirm the inputs used for the emission calculations reflected in the summary spreadsheet. One gas analysis will be considered representative of all the wells in that field. A gas analysis of any well in that field will be acceptable as long as it includes all required information.

Wells That Have Not Been Initially Registered

- For existing Bakken Pool O&G production facilities that have not previously been registered, the owners/operators must submit a new registration packet to the Department no later than December 1, 2011 or within 90 days after the first date of production, whichever is later. These registrants must follow the Guidance for all required submissions. The summary sheet discussed in this memorandum does not qualify as a registration for wells that have not previously been registered with the Department.
- For wells in formations other than the Bakken Pool that have not been previously registered, a new registration packet must be submitted to the Department no later than December 1, 2011. The well registration process can be found at: <http://www.ndhealth.gov/AQ/OilAndGasWells.htm>.

VOC Control Installation Requirements

After emission calculations on Bakken facilities are performed, the operator must evaluate the current control devices installed at each facility to determine if VOC emissions are being adequately controlled. For existing Bakken wells with a first date of production prior to June 1, 2011, a minimum 90% destruction and removal efficiency (DRE) for VOC emissions is required. A pit flare with 90% DRE is the minimum level control required for tank emissions. Depending upon VOC emissions, operators may need to consider additional controls for wells.

Note: if an existing well has a tank battery that was in place prior to June 1, 2011, the produced water tank will not be required to be tied in to a control device if the existing battery is already tied into a control device and the calculated emissions are under 20 tons/year (as calculated using the worksheet). If there is a change to the site or tank battery, such as if a new well is produced to the battery, the produced water tank will then need to be tied in to a control device.

Compliance Dates

Operators of existing Bakken wells with a first date of production prior to June 1, 2011 must comply with both the document submission requirements (as discussed above) and have well emission controls installed on all wells by December 1, 2011. Please be aware, operators of new Bakken wells must follow the Guidance document that applies to wells with a first date of production after June 1, 2011.

Failure to comply with the above stated document submission requirements and control equipment installation may result in enforcement actions and appropriate penalties by the Department.

If you have any questions, please contact Mark Dihle or Todd Peterson at (701)328-5188.

TLO/MAD:saj