




MEMO TO : ND Oil and Gas Operators-Bakken Guidance Applicable
FROM : James L. Semerad 
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Air Quality Permitting/Compliance
RE : Air Pollution Control Equipment Operations
DATE : October 19, 2012

FILE

The ND Department of Health (Department), in conjunction with the US EPA Region 8, completed a second week of inspections of oil production facilities in Western North Dakota for 2012. The majority of the inspections were conducted at oil well sites in ND that are associated with the Bakken formation. The inspections included a review of pollution control equipment installed at each site. EPA and Department personnel utilized a FLIR GR-Series infrared camera and a Photo-Ionization Detector (PID) to detect gas leaking from tanks, valves, combustors and other gas-associated equipment.

In general, the Department found that proper pollution-control equipment has been installed in accordance with the Bakken Guidance Document.

However, a variety of compliance issues were discovered at the sites, which covered a range of equipment with multiple operators. These issues lead to the unintended release of vapors to the atmosphere. The most common issues were:

- Leaks on seals of thief hatches.
- Ends of tank lines or Pressure Relief Valves (PRVs) that were either open (or not properly sealed); venting opposite of the control equipment connections. This may be due to valve issues on the lines or pressure imbalances.
- Combustors that were unlit (but appeared to have gas for ignition available).
- Open thief hatch on a produced water tank.

The Department has notified the Operator who had an open thief hatch that they appear to be in violation of the Section 33-15-07-02 of the North Dakota Air Pollution Control Rules. "Requirements for organic compounds gas disposal" of this chapter requires the owner or operator of any oil or gas well completed or recompleted on/or after July 1, 1987, with volatile organic compounds (stated in part below)

"...which are generated as wastes as the result of storage, refining, or processing operations and which contain hydrogen sulfide, shall be incinerated, flared, or treated in an equally effective manner before being released to the ambient air. The emission from

all devices designed for incinerating, flaring, or treating waste organic compounds gases and vapor shall result in compliance with chapters 33-15-02 and 33-15-16....”

The North Dakota Oil and Gas Guidance document, effective May 2, 2011, outlines measures to be taken at oil production facilities to comply with the above requirements. This Guidance specifies that the tank vapors be routed to a control device.

Equipment, maintenance, and operator issues at the sites where these problems were noted must be addressed by Operators immediately. Properly used, the equipment can destroy the vapors, but it must be maintained and operational to do so. Because the Operators depend on this equipment working properly to claim control of vapors for permitting and compliance purposes, operators of equipment that is not operating properly will be sent letters of apparent noncompliance. These operators will be required to explain why the equipment was malfunctioning, and the Department will determine if further enforcement actions, including monetary penalties will be pursued.

The Department is making a concentrated effort to conduct more wellsite inspections and will note the issues when performing the inspections. Operators will be expected to be in compliance with the Guidance Document and with the North Dakota Air Pollution Control Rules.

Note: also attached is the new Oil and Gas Production Facility Registration Form (SFN 14334) that should be used immediately for new wells. On January 1, 2013 a fee of \$150 must be submitted with each registration.

JLS/MAD:csc

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