



New Mexico Environment Department Testimony in EIB 21-27 (R)

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Section 20.2.50.124 – Well Workovers



Overview of Well Workovers

- Repair or stimulation of an existing well for restoring, prolonging, or enhancing the production of hydrocarbons.
- Performed on completed wells that have produced reservoir fluids (water, oil, and/or natural gas). These wells have to be prepared before workover operations can begin.
- If the well is still producing and/or has pressure, the well will need to be blown down (i.e., vented) before it is safe to remove the tubing head and install the blowout preventers ("BOPs"). The well pressure can be decreased by venting to the atmosphere or by opening the casing to the sales line or the suction of a wellsite compressor.



Overview of Well Workovers

- Workovers are usually short duration projects that only last a few days or weeks at the most.
- After the well is prepared (i.e., blown down and BOPs installed), the workover operations can begin. For the safety of the rig crew, the well is usually allowed to vent to atmosphere via a tank for the duration of the workover.
- Since these operations are typically performed during daylight hours, the well is shut in or returned to the sales line at the end of the day.



Control Options for Well Workovers

- Best management practices are the best means of reducing emissions during well workovers. These include reducing wellhead pressure before blowdown to minimize the volume of natural gas vented; monitoring manual venting at the well until the venting is complete; and routing natural gas to the sales line, whenever possible.



Summary of Applicability and Emission Standards

- The owner or operator of an oil or natural gas well must use the following best management practices during a workover to minimize emissions, consistent with the well site condition and good engineering practices:
 - (1) reduce wellhead pressure before blowdown to minimize the volume of natural gas vented;
 - (2) monitor manual venting at the well until the venting is complete; and
 - (3) route natural gas to the sales line, if possible.



Summary of Requirements

- During a well workover, monitor wellhead pressure, natural gas venting flow rate, and elapsed venting time in order to calculate the volume and mass of VOC vented during a well workover.
- For each workover, the owner or operator must record ID, location; date; wellhead pressure; flow rate or maximum potential flow rate; duration; BMPs used; and the VOC released.
- If venting cannot be avoided, must notify all residents located within one-quarter mile of the well at least three days before the workover by certified mail, or by other means of notice if the notification can be documented.
- When a workover is required due to routine or emergency maintenance to restore production due to upsets of malfunction, the owner and operator must notify all residents located within one-quarter mile of the well at least 24 hours before the event.
- In addition, the owner or operator shall comply with the general monitoring, recordkeeping, and reporting requirements in Section 20.2.50.112.



Basis for Proposal

- The proposed requirements for workover operations are based on requirements in Colorado Reg. 7 and Wyoming's Permitting Guidance.
- Colorado Reg. 7 requires owners and operators to use best management practices to minimize hydrocarbon emissions associated with downhole well maintenance, well liquids unloading, and well plugging unless emitting is necessary for safety. It also requires operators be onsite and minimize emissions during the workover event to the maximum extent practicable.
- Wyoming's Permitting Guidance requires minimizing emissions to the extent practicable during manual and automated blowdown/venting episodes associated with liquids unloading, wellbore depressurization in preparation for maintenance or repair, and other well operations. The guidance requires personnel to remain onsite to ensure minimal gas venting occurs and requires that operators estimate VOC emissions from well workovers.



Estimated Emissions Reduction and Cost Estimates

- Emission estimates for workover operations are not currently available and no estimate of emissions reductions has been made.
- The proposed rule specifies certain best management practices that must be used when conducting well workover operations, but does not require the use of emission control devices. Costs associated with well workover best management practices are expected to be minimal as personnel will already be onsite conducting the well workover and any additional training may be incorporated into existing personnel training programs.



Summary of Applicability, Emission Standards, and Monitoring Requirements

20.2.50.124 WELL WORKOVERS

A. Applicability: Workovers performed at oil and natural gas wells are subject to the requirements of 20.2.50.124 NMAC as of the effective date of this Part.

B. Emission standards: The owner or operator of an oil or natural gas well shall use the following best management practices during a workover to minimize emissions, consistent with the well site condition and good engineering or operational practices:

(1) reduce wellhead pressure before blowdown to minimize the volume of natural gas vented;

(2) monitor manual venting at the well until the venting is complete; and

(3) route natural gas to the sales line, if possible.

C. Monitoring requirements:

(1) The owner or operator shall monitor the following parameters during a workover:

(a) wellhead pressure;

(b) flow rate of the vented natural gas (to the extent feasible); and

(c) duration of venting to the atmosphere.

(2) The owner or operator shall calculate the estimated volume and mass of VOC vented during a workover.

(3) The owner or operator shall comply with the monitoring requirements in 20.2.50.112 NMAC.

D. Recordkeeping requirements:

(1) The owner or operator shall keep the following record for a workover:



Summary of Recordkeeping and Reporting Requirements

(a) unique identification number and location (latitude and longitude) -of the well;
(b) date the workover was performed;
(c) wellhead pressure;
(d) flow rate of the vented natural gas to the extent feasible, and if measurement of the flow rate is not feasible, the owner or operator shall use the maximum potential flow rate in the emission calculation;

(e) duration of venting to the atmosphere;
(f) description of the best management practices used to minimize release of VOC emissions before and during the workover; ~~and~~
(g) calculation of the estimated VOC emissions vented during the workover based on the duration, volume, and ~~mass-gas composition of VOC; and-~~
(h) the method of notification to the public and proof that notification was made to the affected public.

(2) The owner or operator shall comply with the recordkeeping requirements in 20.2.50.112 NMAC.

E. Reporting requirements

(1) The owner or operator shall comply with the reporting requirements in 20.2.50.112 NMAC.

(2) If it is not feasible to prevent VOC emissions from being emitted to the atmosphere from a workover event, the owner or operator shall notify by certified mail, or by other effective means of notice so long as the notification can be documented, all residents located within one-quarter mile of the well of the planned workover at least three calendar days before the workover event.

(3) If the workover is needed for routine or emergency downhole maintenance to restore production lost due to upsets or equipment malfunction, the owner or operator shall notify all residents located within one-quarter mile of the well of the planned workover at least 24 hours before the workover event.

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