



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF OIL AND GAS MANAGEMENT

July 12, 2010

Dear Gas Well Operators:

On June 3, 2010, EOG Resources lost control of the Punxsutawney Hunting Club 36H well located in Clearfield County during post stimulation clean out activities. Over a period of 17 hours, gas and hydraulic fracturing wastewater flowed uncontrolled into the environment and impacted nearby waters. The Department of Environmental Protection (DEP) obtained the services of an independent expert to assist DEP in its investigation of the cause of the blow-out at the Punxsutawney Hunting Club 36H.

The DEP has concluded its investigation and as a result, DEP has determined that all operators drilling wells to produce gas from unconventional shale formations must take the following actions in accordance with the Oil and Gas Act and 25 *Pa. Code* Chapter 78 of DEP's regulations. These actions reflect DEP's interpretation of this law and the implementing regulations.

1) Every operator must develop a barrier policy that identifies acceptable barriers to be used during identified operations and employ, at a minimum, two barriers at all times between the open producing formation and the atmosphere during completion/ workover operations. If during the course of operations the operator only has one functioning barrier, operations must cease until additional barriers are added or the redundant barrier is repaired.

Section 209 of the Oil and Gas Act states: any person engaged in drilling any oil or gas well shall equip the well with casings of sufficient strength and with such other safety devices, as may be necessary in a manner as prescribed by regulation of DEP, and shall use every effort and endeavor effectively to prevent blowouts, explosions and fires.

DEP interprets this section to require a barrier policy and multiple barriers because the policy and barriers are necessary to prevent blowouts, explosions and fires. During the drilling phase, acceptable barriers include but are not limited to weighted drilling fluids, multiple ram BOPs and annular preventers. During completion / workover operations, acceptable barriers include but are not limited to weighted completion fluids, downhole plugs, ram BOPs and full opening valves. In no event can stripper rubber or a stripper head be considered acceptable barriers.

2) The operator or subcontractor employed by the operator must have present at the well site an individual who has a current well control certification from an accredited training program.

25 *Pa. Code* § 78.72(f) states: during drilling when conditions are such that the use of a blowout preventer can be anticipated, there shall be present on the rig floor a certified individual responsible to the operator. Satisfactory completion of a United States Geologic Survey (U.S.G.S.) approved well control course or equivalent study shall be deemed adequate certification for purposes of this subsection.

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Rachel Carson State Office Building | P.O. Box 8765 | Harrisburg, PA 17105-8765

717.772.2199

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Further, DEP interprets this section to require a blowout preventer during all post hydrofracturing cleanout operations and therefore, an individual with current well control certification must be onsite during those operations in addition to drilling operations.

3) Blowout preventers must be tested prior to being put into service. Testing BOPs after drilling or clean out operations have commenced does not ensure that the equipment is working properly before pressures at the well head are experienced and is a violation of 25 Pa. Code § 78.72(d). In addition, BOPs must have a set of actuators that are not associated with the rig hydraulic system and are located away from the rig so that the BOP can be operated if control of the well has been lost and the rig is shut down. Pursuant to section 209 of the Oil and Gas Act, DEP has determined that this equipment is necessary to prevent blowouts, explosions and fires

4) A coiled tubing rig or a snubbing unit must be employed during post completion clean out operations in horizontal shale wells. Pursuant to section 209 of the Oil and Gas Act, DEP has determined that this equipment is necessary to prevent blowouts, explosions and fires.

5) The operator's Prevention, Preparedness and Contingency plan (PPC plan) must be available at the well site during drilling and completion/ workover operations for DEP to review.

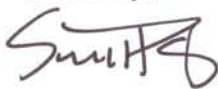
25 Pa. Code § 78.55(a) requires that a PPC plan be developed for the control and disposal of fluids and wastes from the drilling, alteration, production, plugging or other activity associated with oil and gas wells. 25 Pa. Code § 78.55(b) further requires that a copy of the plan be provided to DEP upon request. By this letter DEP requests that a copy of the plan be available at the well site during drilling and completion/ workover operations for DEP to review.

6) A list of emergency contact phone numbers for the area in which the well site is located must be prominently displayed at the well site. It is acceptable for this information to be displayed prominently in an office located at the well site. 25 Pa. Code § 78.66 and 25 Pa. Code § 91.33 require the operator to immediately notify DEP of an accident or other activity or incident that results in pollution or creates a danger of pollution to waters of the Commonwealth or would damage property. Having ready access to emergency contact numbers is necessary to meet this regulatory requirement.

The accident that occurred at the Punxsutawney Hunting Club 36H was not catastrophic but easily could have been. Following the requirements specified above should prevent or significantly minimize similar accidents in the future.

If you have any questions or need additional information, please contact me by e-mail at [scperry@state.pa.us](mailto:scperry@state.pa.us) or by telephone at 717.772.2199.

Sincerely,



Scott Perry  
Director