

**STATE OF ALASKA
ALASKA OIL AND GAS CONSERVATION COMMISSION
333 West Seventh Avenue, Suite 100
Anchorage Alaska 99501-3539**

Re: Improper Class II Injection in)
Oooguruk Unit ODSK-38;)
Pioneer Natural Resources Alaska, Inc.) AOGCC Order No. 63
October 22, 2010

DECISION AND ORDER

The Alaska Oil and Gas Conservation Commission (Commission) issued a Notice of Proposed Enforcement Action (Notice) under 20 AAC 25.535(b) on August 20, 2010 stating Pioneer Natural Resources Alaska, Inc (PXD) engaged in improper fluid injection in Oooguruk Unit enhanced recovery well ODSK-38 (Oooguruk ODSK-38). The Commission proposed specific corrective actions and a \$10,000 civil penalty under AS 31.05.150(a).

In reply to the notice of enforcement, PXD:

- (1) provided a letter on September 2, 2010 not contesting the proposed enforcement action, requesting information regarding payment of the fine and seeking clarification regarding corrective training protocols.
- (2) delivered a check in the amount of \$10,000 on September 13, 2010 to the Commission office in payment of the civil fine.
- (3) delivered copies on September 30, 2010 of an implementation letter and two training documents; "AOGCC Area Injection Order -- Overview Training" and "Pioneer Management of Change -- Overview Training".

A. Summary of Proposed Enforcement Action

In its Notice, the Commission identified violations by PXD of Rule 3 of Area Injection Order No. 33 (AIO 33), specifically that on two occasions, PXD injected glycol-water mixtures which were not approved injection fluids authorized by Rule 3 or any subsequent Administrative Approvals. The Commission proposed the following corrective actions:

- (1) within 30 days from the effective date of the enforcement order, PXD shall submit for Commission review and approval new protocols established to ensure that all responsible PXD personnel are aware of the fluids approved for ER injection and the protocol necessary to request authorization of additional fluids as provided in AIO 33;
- (2) upon approval by the Commission, PXD shall train all personnel responsible for injection fluid management consistent with the new protocols; and
- (3) within 30 days of approval of the new injection fluid management protocols, PXD shall provide the Commission the list of trained individuals and date of completing the training.

In addition, the Commission proposed payment by PXD of a civil penalty under AS 31.05.150(a) in the amount of \$10,000 (\$5,000 per violation).

B. Misinjection of Glycol-Water Mixtures

Rule 3 of AIO 33 authorized 4 specific fluids for enhanced recovery injection and further stated:

“The injection of any other fluids, or mixtures of the above fluids, shall be approved by separate administrative action.”

Two administrative approvals were issued under AIO 33 regarding enhanced recovery injection,¹ but did not authorize glycol-water mixtures for such purposes.

C. Violation

Two separate improper injections of glycol-water mixtures were admitted by PXD in its April 23, 2010 letter to the Commission. Both occurred in the second quarter of 2009 while PXD commissioned the Oooguruk pipelines used to supply water for enhanced recovery injection. The letter detailed the circumstances of the improper injection and included a description of the steps taken to insure additional improper injection would not occur.

D. Mitigating Circumstances

Mitigating factors considered by the Commission include (1) PXD’s admission of the improper injection; (2) lack of injury to the public as demonstrated by the mechanical integrity of Oooguruk ODSK-38; (3) geologic confinement of all fluids injected into Oooguruk ODSK-38; and (4) compatibility of glycol-water mixtures with the Kuparuk formation in nearby fields such as Kuparuk River and Prudhoe Bay where such mixtures have been approved for injection as part of enhanced recovery.

PXD attributed this improper injection to operating personnel experienced in other North Slope enhanced recovery operations where glycol-water mixtures are authorized for injection. Reliance by these personnel on a waste handling reference document utilized by other North Slope operators was a causal factor.²

AIO 33 concluded there are no underground sources of drinking water in the affected area of Oooguruk-Kuparuk formation enhanced recovery injection. Coupled with the confirmed mechanical integrity of Oooguruk ODSK-38 and the geologic confinement of injected fluids to the Oooguruk-Kuparuk formation, the lack of underground sources of drinking water mitigates the concerns about harm to the surface and subsurface environments.

The Commission also considered mitigation provided by PXD's acceptance of responsibility and its efforts to develop the training protocols outlined in the September 20, 2010 correspondence. The training protocols, which address injection order requirements and management of change, are applicable to PXD employees and Oooguruk contract personnel.

E. Findings and Conclusions

For the reasons stated above, the Commission finds that PXD violated rules governing authorized fluids for enhanced recovery injection when it twice improperly injected glycol-water mixtures into Oooguruk ODSK-38. PXD did not contest the Commission's proposed enforcement action, paid the civil fine, and established and implemented training protocols for employees and contractors at Oooguruk governing injection operations and management of

¹ AIO 33.001 authorizes injection of biocide-treated and oxygen-scavenged (BT-OS) seawater extracted from Harrison Bay and BT-OS water from shallow source wells; AIO 33.002 authorizes injection of BT-OS effluent from the ODS reverse osmosis unit and a mixed stream of the fluids authorized by AIO 33.001 and AIO 33.002.

² Alaska Waste Disposal and Reuse Guide, Revision 8; December 2008; document jointly prepared by BP Exploration (Alaska) Inc. and ConocoPhillips Alaska Inc. for use by staff and contract personnel at all BPXA and CPAI facilities in Alaska.

change. The Commission finds PXD's new training protocols to be satisfactory effort to help prevent further occurrence of improper fluid injection at Oooguruk.

NOW THEREFORE IT IS ORDERED THAT:

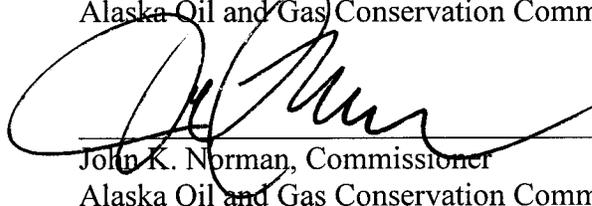
PXD shall:

1. Comply with the Commission's regulations, orders, approved administrative actions, and approval conditions relating to injection for enhanced recovery purposes at Oooguruk.
2. Implement and update as necessary the training protocols governing injection operations and management of change outlined in PXD's September 30, 2010. PXD shall maintain and make available for Commission inspection records to substantiate completed training for Oooguruk personnel.

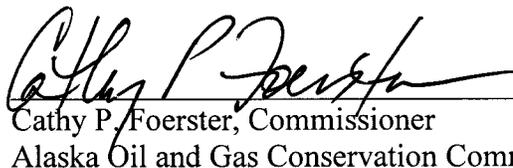
Done at Anchorage, Alaska this 22th day of October, 2010.



Daniel T. Seamount, Jr., Chair, Commissioner
Alaska Oil and Gas Conservation Commission



John K. Norman, Commissioner
Alaska Oil and Gas Conservation Commission



Cathy P. Foerster, Commissioner
Alaska Oil and Gas Conservation Commission