Colombie, Jody J (DOA)

From: Seamount, Dan T (DOA)
Sent: Thursday, February 21, 2013 2:24 PM
To: Colombie, Jody J (DOA)
Subject: FW: STRONGER Draft Hydraulic Fracturing Guidelines - Request for Comments
Attachments: Draft Hydraulic Fracturing Guidelines with fed - 2-1-2013.pdf

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From: James Erb [mailto:jeerb@comcast.net]
Sent: Thursday, February 21, 2013 5:36 AM
To: jonathan.arthur@dep.state.fl.us; acoyner@govmail.state.nv.us; bjfield@gw.dec.state.ny.us; bsydow@nogcc.ne.gov; d.louis@kcc.ks.gov; Seamount, Dan T (DOA); david.asbury@dmme.virginia.gov; ntew@ogb.state.al.us; doug.shutt@illinois.gov; duane.pulliam@illinois.gov; elarrimore@mde.state.md.us; fitchh@michigan.gov; tshultz@idl.idaho.gov; hmcdivitt@dnr.IN.gov; James.A.Martin@wv.gov; jim.simons@ncmail.net; jim.welsh@la.gov; joe.gillman@dnr.mo.gov; Norman, John K (DOA); johnbaza@utah.gov; kim.collings@ky.gov; r.dunkin@occemail.com; larry.bengal@aogc.state.ar.us; leslie.savage@rrc.state.tx.us; lhelms@state.nd.us; livshin@ogb.state.ms.us; michael.k.burton@state.tn.us; ntew@ogb.state.al.us; Paul.Schmierbach@state.tn.us; rick.simmers@dnr.state.oh.us; ron.teissere@dnr.wa.gov; scperry@state.pa.us; steve.rauzi@azgs.az.gov; taylorgk@dhec.sc.gov; thom.kerr@state.co.us; tkustic@consrv.ca.gov; trichmond@mt.gov; vicki.mcconnell@dogami.state.or.us; butch.lambert@dmme.virginia.gov; r.dunkin@occemail.com; chris.vierrether@dnr.mo.gov; bob.king@wyo.gov; Lprice@govmail.state.nv.us; matt.lepore@state.co.us
Cc: Tom Stewart; Bruce Baizel; Perry,Scott; Wilma Subra; Don Garvin; Jim Collins; Bob Sandilos; Hal Fitch; Bonnie Robinson; Nancy Johnson; Wells, Steven
Subject: STRONGER Draft Hydraulic Fracturing Guidelines - Request for Comments

State Oil and Gas Directors -

In 2010 the State Review of Oil and Natural Gas Environmental Regulations (STRONGER) Board approved guidelines for state oil and gas regulatory programs relating to hydraulic fracturing. Stakeholder review teams have compared seven state programs (Pennsylvania, Ohio, Oklahoma, Louisiana, Colorado, North Carolina and Arkansas) against the guidelines.

Although the hydraulic fracturing guidelines were recently developed, several issues have been raised during reviews and STRONGER Board discussions. These include the management of source water supply (recycling/reuse, alternative sources such as acid mine drainage), criteria for groundwater protection through proper well construction)cementing and casing), groundwater monitoring, and monitoring of Bradenhead annular pressure during hydraulic fracturing operations. Consequently, the STRONGER Board decided to reconvene the Hydraulic Fracturing Workgroup to review these and perhaps other issues identified by the workgroup and to recommend revisions to the hydraulic fracturing guidelines.

In 2012 the Hydraulic Fracturing Workgroup developed revisions to the guidelines. These were shared with and reviewed by the U.S. Environmental Agency and the Bureau of Land Management in the Department of the Interior. Comments from both agencies were considered by the workgroup and proposed revisions to the hydraulic fracturing guidelines were sent to the Board with a recommendation that they be made widely available for review wand comments. OnFebruary 15, 2003 the Board approved that recommendation. Consequently, the proposed changes are being distributed for review and comments. They are attached to this email.

Please take the opportunity to review and comment on these guidelines and send any comments to James Erb at jeerb@comcast.net by March 29, 2013.

Thank you,

-- Jim Erb

SECTION 9

Hydraulic Fracturing

9.1. Background

The practice of completing oil and gas wells through hydraulic fracturing, while not new, has evolved into a key technology in the development of unconventional oil and gas resources, such as coal bed methane or shale gas. This has resulted in questions about the potential impacts on water resources due to the volume of water needed for hydraulic fracturing, the potential impacts to groundwater by the hydraulic fracturing process, and/or the proper management or disposal of waste and other fluids associated with hydraulic fracturing.

9.2. General

States should evaluate potential risks associated with hydraulic fracturing, taking into account factors such as depth of the reservoir to be fractured, proximity of the reservoir to fresh water resources, well completion practices, well design, and volume and nature of fluids. Where necessary and recognizing the local and regional differences discussed in Section 3.3, states should have standards to prevent the contamination of groundwater and surface water from hydraulic fracturing. State programs for hydraulic fracturing should ensure establishment and maintenance of well control; protection of groundwater zones and other mineral resources; and isolation of zones capable of corroding casing or interfering with cement integrity.

9.2.1. Standards

State programs for hydraulic fracturing should include standards for casing and cementing to meet anticipated pressures and protect other resources and the environment. The state program should address the identification of potential conduits for fluid migration in the area of hydraulic fracturing and the management of the extent of fracturing where appropriate. The program should require monitoring and recording of annular pressures during hydraulic fracturing operations. The program also should address actions to be taken in response to operational or mechanical changes that may cause concern, such as significant changes in annular pressures.

State programs for hydraulic fracturing should consider baseline groundwater monitoring protocols that address appropriate factors which may include distance/radius from the well, timing/frequency of testing, test parameters, reporting and management of and access to data, existing/new development or existing production in area, responsibility for sample collection, testing and cost, location/gradient, surface owner consent, laboratory accreditation, and remedial actions.

Surface controls, such as dikes, pits or tanks, should meet Sections 5.5 and 5.9 of the guidelines. In addition to pit technical criteria for authorization, construction, operation, pit integrity monitoring, and closure contained in Section 5.5 of the guidelines, states should address unique characteristics of impoundments associated with hydraulic fracturing, including the use of centralized and commercial facilities, operatorship, size, location, duration, and characteristics of contained fluids (such as flowback or a blend of fresh water and flowback). States should consider erosion and safety issues associated with fresh water impoundments associated with hydraulic fracturing.

Contingency planning and spill risk management procedures that meet Section 4.2.1 of the guidelines should be required. Waste characterization, including, as appropriate, testing of fracturing fluids, should be consistent with Section 5.2 of the guidelines. The waste management hierarchy contained in Section 5.3 of the guidelines (source reduction, recycling, treatment and disposal), including the provisions relating to toxicity reduction, should be promoted. The tracking of waste disposed at commercial or centralized facilities should meet the requirements of Section 5.10.2.3 of the guidelines. Procedures for receipt of complaints related to hydraulic fracturing should be consistent with Section 4.1.2.1.

9.2.2. Reporting

The regulatory agency should require appropriate notification prior to, and reporting after completion of, hydraulic fracturing operations. Notification should be sufficient to allow for the presence of field staff to monitor activities. Reporting should include the identification of materials used, aggregate volumes of fracturing fluids and proppant used, and fracture pressures recorded.

State programs should contain requirements for public disclosure of information on type and volume of base fluid and additives, chemical constituents, and actual or maximum concentration of each constituent used in fracturing fluids. The state should have the authority as necessary to require the conduct or submittal of diagnostic logs or alternative methods of determining well integrity. State programs should contain mechanisms for disclosure of chemical constituents used in fracturing fluids to the state in the event of an investigation and to medical personnel on a confidential basis for diagnosis and/or treatment of exposed individuals. Where information submitted is of a confidential nature, it should be treated consistent with Section 4.2.2 of the guidelines.

9.2.3. Staffing and Training

In addition to the personnel and funding recommendations found in Section 4.3 of the guidelines, state staffing levels should be sufficient to receive, record and

respond to complaints of human health impacts and environmental damage resulting from hydraulic fracturing. Staff should receive adequate training to stay current with new and developing hydraulic fracturing technology.

9.2.4. Public Information

State agencies should provide for dissemination of educational information regarding well construction and hydraulic fracturing to bridge the knowledge gap between experts and the public as provided in Section 4.2.2.2 of the guidelines. This is especially important in areas where development has not occurred historically and in areas where high volume water use for hydraulic fracturing is occurring.

9.2.5. Coordination

In addition to coordination as contained in Section 4.4 of the guidelines, states should consider interstate coordination of regional multi-state issues such as source water, transportation and waste management related to hydraulic fracturing.

9.3. Water and Waste Management

Fundamental differences exist from state to state, and between regions within a state, in terms of geology and hydrology. The state should evaluate and address, where necessary, the availability of water for hydraulic fracturing in the context of all competing uses and potential environmental impacts resulting from the volume of water used for hydraulic fracturing. The use of alternative water sources, including recycled water, acid mine drainage and treated wastewater, should be encouraged.

Waste associated with hydraulic fracturing should be managed consistent with Section 4.1.1. and Section 7 of the guidelines

States should encourage the efficient development of adequate capacity and infrastructure for the management of hydraulic fracturing fluids/wastes, including transportation (by pipeline or otherwise), recycling, treatment and disposal. State programs should address the integrity of pipelines for transporting and managing hydraulic fracturing fluids off the well pad.