

DEVELOPMENT OF THE HYDRAULIC FRACTURING REGULATIONS FOR NEVADA

**PRESENTATION TO MINING OVERSIGHT AND
ACCOUNTABILITY COMMISSION (MOAC)**

September 24, 2014

**(updated to reflect final approval by Legislative
Commission on October 24, 2014)**

Richard Perry, Administrator, NDOM

Dave Gaskin, Deputy Administrator, NDEP



FOUR AGENCIES CAN BE INVOLVED WITH DRILLING AN OIL WELL IN NEVADA

- BLM – drilling on Federal lands, leasing process, NEPA process
- NDEP – Air permits for surface area disturbance, UIC permits if water is to be re-injected, water pollution control permits if water is to be discharged outside of containment.
- NDOM – Permits to drill on private/state lands, coordinates w/ BLM for drill permits on Federal lands.
- NDWR – For any water used in drilling, dust control or hydraulic fracturing

Team that developed regulations

- 2 Sr. Members from NDEP: Dave Gaskin and Alan Tinney
- 3 Sr. Members from NDOM: Lowell Price, Mike Visher and Rich Perry
- CMR Oil and Gas Commissioner Art Henderson
- Consultant: Tom Gallagher, formerly with State Engineer

DEVELOPMENT OF REGULATIONS

- 1. Reviewed regulations of 32 current oil-producing states**
- 2. Reviewed BLM proposed rule on hydraulic fracturing**
- 3. Utilized Interstate Oil and Gas Compact Commission (IOGCC) resources on HF**
- 4. Staff discussed what works and what does not with regulators in Arkansas, California, Colorado, Kansas, North Dakota, Ohio, Pennsylvania, Texas and Utah.**
- 5. Borrowed portions of “rule 609” from Colorado’s recent update: water well sampling.**
- 6. Benchmarked regulatory elements with other States**
- 7. Comments from public workshops in March in CC, Elko, LV**

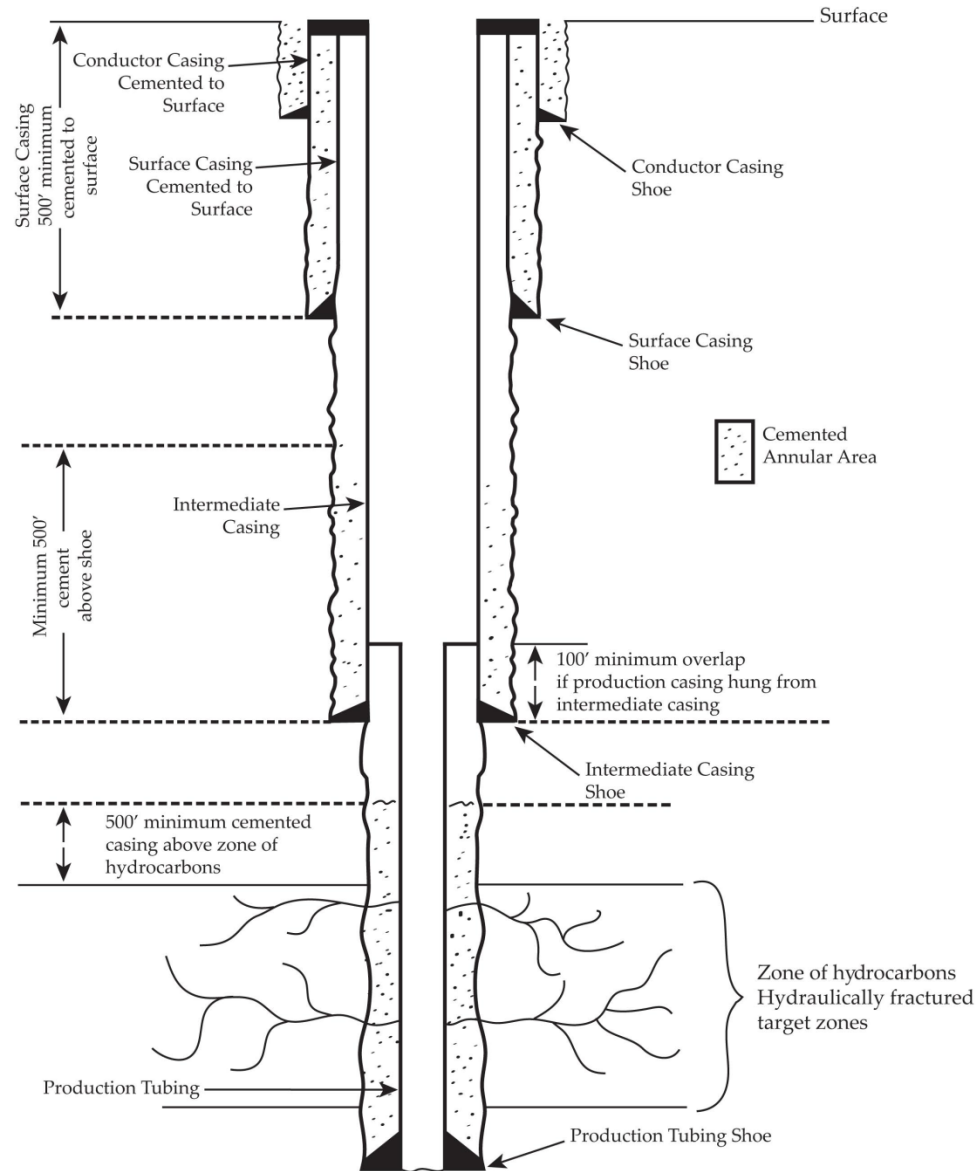
SB 390 NRS 522.119

- **NRS 522.119 Development of program; regulations.**
- **The Division of Minerals and the Division of Environmental Protection shall, jointly, develop a hydraulic fracturing program to:**

HOW PROGRAM AND REGULATIONS ADDRESS SB390

- (a) Assess the effects of hydraulic fracturing on the waters of the State of Nevada
 - Permit application to include 1-mile radius Area of Review (AOR)
 - Groundwater baseline sampling and monitoring of up to 4 available water sources within one mile radius of proposed well by operator before, and twice after HF treatment
 - Source-control monitoring of well bore
 - DRI study “Aquifer quality assessment program”, of upper Humboldt basin by Noble

Oil & Gas Resource Well Proposed for Hydraulic Fracturing Vertical



HOW PROGRAM AND REGULATIONS ADDRESS SB390

- (b) Require a person who engages in hydraulic fracturing to disclose each chemical used to engage in hydraulic fracturing;
 - Division has approved list of HF chemicals on web site
 - 30-day approval process for additions to list
 - Division can deny use of any chemical proposed if deemed unsafe
 - Operator to post information and chemicals used on a publically-available chemical disclosure registry <http://fracfocus.org>

HOW PROGRAM AND REGULATIONS ADDRESS SB390

- (c) Provide for notice to members of the general public concerning activities relating to hydraulic fracturing in this state
 - Approved Applications for Permit to Drill (APD's) and Conditions of Approval (COA's) on Division web site: <http://minerals.nv.gov/>
 - 14-day notification to land owners, county commission and Division prior to HF by operator
 - Recent presentations and peer-reviewed papers updated regularly on NDOM web site

NRS 522.119 (SB390)

- Program to be developed by July 1, 2014
- Regulations to implement the program to be adopted by January 1, 2015

UPDATES TO NAC 522 AND NAC 534A

- **500 feet minimum cemented surface casing**
- **500 feet of cemented intermediate or production casing from bottom of shoe or highest hydrocarbon producing zone**
- **Casing specification minimum A.P.I. 5CT**
- **Casing cement specification minimum A.P.I. 10A**
- **Cement and pressure test report submission to NDOM**
- **Administrator can require a cement bond log if cement/pressure reports are inconclusive**
- **B.O.P.E. rating 3000 p.s.i. Division to witness or approve**
- **Increase in administrative production fee from \$0.10 to \$0.15 per barrel**

SCHEDULE

- Development of draft regulations by NDOM and NDEP staff – August to November, 2013
- Stakeholder meeting – Nov 21, 2013
- Draft changes to NAC 522 – Dec. 2013
- Public meeting Jan 16, 2014. CMR-approved draft
- LCB pre-adoption review January, 2014.
- Public Workshops – March 17-21 in CC, Elko, LV
- Public comment ended 5 PM March 28th, 2014
- Edits based on public comments April-June, 2014
- LCB Pre-adoption review of edits – July, 2014
- CMR adopted regulations at August 28, 2014 hearing.
- MOAC approval - September 24, 2014
- Legislative Commission approval – October 24, 2014

HOW DO THESE PROPOSED REGULATIONS COMPARE WITH OTHER STATES ?

- Center of Energy Economics and Policy
“The State of State Shale Gas Regulation”
- Of the 20 regulatory elements evaluated in the benchmark study, Nevada’s proposed regulations address all 20:
 - 16 command-and-control regulations
 - 3 case-by-case permitting
 - 1 performance standard

http://www.rff.org/centers/energy_economics_and_policy/Pages/Shale_Maps.aspx







QUESTIONS ?