

BEFORE THE BOARD OF OIL AND GAS CONSERVATION AND  
THE DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION OF THE STATE OF MONTANA

In the matter of the adoption of New                    )  
Rules I through V regarding oil and gas                )  
well stimulation    )

NOTICE OF ADOPTION

To: All Concerned Persons

1. On May 26, 2011, the Department of Natural Resources and Conservation published MAR Notice No. 36-22-157 regarding a notice of public hearing on the proposed adoption of the above-stated rules at page 819 of the 2011 Montana Administrative Register, Issue No. 10.

2. The department has adopted New Rules I (36.22.608), II (36.22.1015), III (36.22.1016), IV (36.22.1106), and V (36.22.1010) as proposed, but with the following changes from the original proposal, new matter underlined, deleted matter interlined:

NEW RULE I (36.22.608) WELL STIMULATION ACTIVITIES COVERED BY DRILLING PERMIT

(1) remains as proposed.

(2) For wildcat or exploratory wells or when the operator is unable to determine that hydraulic fracturing, acidizing, or other chemical treatment will be done to complete the well, the operator must submit a notice of intent to stimulate or chemically treat a well on Form No. 2 ~~obtain prior written approval of such activities from the board's staff at any time~~ prior to commencing such activities provided that:

(a) the written information describing the fracturing, acidizing, or other chemical treatment must be provided to the board's staff at least 24 48 hours before commencement of well stimulation activities.

(3) and (3)(a) remain as proposed.

(b) the trade name or generic name of the principle components or chemicals;

(c) the estimated amount or volume of the principle components such as viscosifiers, acids, or gelling agents;

(d) the estimated weight or volume of inert substances such as proppants and other substances injected to aid in well cleanup, either for each stage of a multistage job or for the total job; and

(e) ~~the anticipated surface treating pressure and the maximum anticipated treating pressure~~ or a written description of the well construction specifications which demonstrate that the well is appropriately constructed for the proposed fracture stimulation.

(4) In lieu of a well specific design the ~~The~~ owner, operator, or service company may provide:

(i) and (ii) remain as proposed.

NEW RULE II (36.22.1015) DISCLOSURE OF WELL STIMULATION

FLUIDS (1) The owner or operator of a well shall, upon completion of the well, provide the board, on its Form No. 4 for a new well or Form No. 2 for an existing well:

(a) through (c) remain as proposed.

(2) For hydraulic fracturing treatments the description of the amount and type of material used must include:

(a) remains as proposed.

(b) the chemical ~~compound~~ ingredient name and the Chemical Abstracts Service (CAS) Registry number, as published by the Chemical Abstracts Service, a division of the American Chemical Society ([www.cas.org](http://www.cas.org)), for each ~~constituent~~ ingredient of the additive used. The rate or concentration for each additive shall be provided in appropriate measurement units (pounds per gallon, gallons per thousand gallons, percent by weight or percent by volume, or parts per million).

(3) To comply with the requirements of this section, the ~~The~~ owner or operator may submit:

(a) the service contractor's job log;

(b) the service company's final treatment report (without any cost/pricing data); ~~or~~

(c) an owner or operator's ~~representative's~~ well treatment job log; or

(d) other report providing the above required information.

(4) The administrator may waive all or a portion of the requirements in (2) or (3) of this rule if:

(a) the owner or operator demonstrates that it has ~~provided~~ posted the required information to the Interstate Oil and Gas Compact Commission/Groundwater Protection Council hydraulic fracturing web site ([FracFocus.org](http://FracFocus.org)); or

(b) a successor web site to FracFocus.org or other publically accessible Internet information repositories that the board may choose to accept ~~can be accessed by the public.~~

NEW RULE III (36.22.1016) PROPRIETARY CHEMICALS AND TRADE

SECRETS (1) As provided in 30-14-402 82-11-117, MCA, where the use formula, pattern, compilation, program, device, method, technique, process, or composition of a chemical product is unique to the owner or operator or service contractor and would, if disclosed, reveal methods or processes entitled to protection as trade secrets, such a chemical need not be disclosed to the board or staff. The owner, operator, or service contractor may identify the trade secret chemical or product by trade name, inventory name, chemical family name, or other unique name and the quantity of such constituent(s) used.

(2) If necessary to respond to a spill or release of a trade secret product the owner, operator, or service contractor must provide to the board or staff, upon request, a list of the chemical constituents contained in a trade secret product. The administrator may request information be provided orally or be provided directly to a laboratory or other third party performing analysis for the board. Board members, board staff, and any third parties receiving trade secret information on behalf of the board may be required to execute a nondisclosure agreement.

(3) and (4) remain as proposed.

NEW RULE IV (36.22.1106) SAFETY AND WELL CONTROL REQUIREMENTS – HYDRAULIC FRACTURING (1) New and existing wells which will be stimulated by hydraulic fracturing must demonstrate suitable and safe mechanical integrity configuration for the stimulation treatment proposed.

(2) Prior to initiation of fracture stimulation, the operator must evaluate the well. If the operator proposes hydraulic fracturing through, production casing or through intermediate casing, the casing must be tested to the maximum anticipated treating pressure in the unsupported (uncemented) portion of the casing exposed to treating pressure. If the casing fails the pressure test it must be repaired or the operator must use a temporary casing string (fracturing string).

(a) If the operator proposes hydraulic fracturing through a A fracturing string, it must be stung into a liner or run on a packer set not less than 100 feet below the cement top of the production or intermediate casing and must be tested to not less than maximum anticipated treating pressure minus the annulus pressure applied between the fracturing string and the production or immediate casing.

(3) A casing pressure test will be considered successful if the pressure applied has been held for ~~45~~ 30 minutes with no more than ~~five~~ ten percent pressure loss.

(4) A pressure relief valve(s) must be installed on the treating lines between pumps and wellhead to limit the line pressure to the test pressure determined above; the well must be equipped with a remotely controlled shut-in device unless waived by the board administrator should the factual situation warrant.

(5) remains as proposed.

NEW RULE V (36.22.1010) WORK-OVER, RECOMPLETION, WELL STIMULATION – NOTICE AND APPROVAL

(1) remains as proposed.

(2) Well repairs, including tubing, pump, sucker rod replacement or repair, repairs and reconfiguration of well equipment which do not substantially change the mechanical configuration of the well bore or casing, and hot oil treatments do not require prior approval or a subsequent report. Acid and chemical treatments of less than ~~5000~~ 10,000 gallons, ~~hot oil treatments~~, and similar treatments intended to clean perforations, remove scale or paraffin, or remedy near-well bore damage do not require prior approval, but do require a subsequent report of the actual work performed submitted on Form No. 2 within 30 days following completion of the work.

3. The department has thoroughly considered the comments and testimony received. The comments and responses have been divided into a general comment/response section and a rule specific comment/response section. The following is a summary of the public comments received and the department's response to those comments:

#### GENERAL COMMENTS/RESPONSES

##### GENERAL COMMENT 1: Disclosure

A number of commenters support chemical disclosure, "full disclosure," or similar expressions of support for public availability of the composition of fracturing fluids. Northern Plains Resource Council (NPRC) stated that they supported disclosure of all chemicals used in oil and gas drilling, not just those used in the hydraulic fracturing process. Some commenters suggest that the board should ban hydraulic fracturing or not permit its use altogether.

GENERAL RESPONSE 1: Disclosure

The rules as drafted do require all of the components used in hydraulic fracturing, including fluids which are nonhazardous, to be listed. However, NPRC's request that all chemicals used in drilling be identified is beyond the scope of the current rulingmaking, which is specific to hydraulic fracturing and similar treatments of drilled and cased wells.

Hundreds of Montana oil and gas wells have been hydraulically fractured over the past sixty years. Over 700 modern horizontal oil wells have been fracture stimulated using current techniques without any incident of groundwater contamination either observed by the board or reported to it by any other regulatory agency in Montana. The practice of hydraulic fracturing allows recovery of oil and gas resources which could not be recovered economically in any other way. To prohibit fracturing as a completion practice is to prohibit drilling. That is an administrative action the board does not have the authority to perform, and which is not justified based upon Montana experiences with the technique.

GENERAL COMMENT 2: Notice and Baseline Water Sampling

Many commenters suggested that notice of hydraulic fracturing be given to landowners in advance of the well treatment to allow background water samples to be taken from an area within a specific radius of the well (some commenters suggested one or two miles, and one commenter suggested five miles).

Some commenters also tied chemical disclosure to background samples, indicating knowledge of the fracturing chemicals would be needed to perform the analysis. One commenter suggested notice be given one year in advance, while others suggest seven days; 30 to 60 days advance notice; and other suggested no specific timeline.

GENERAL RESPONSE 2: Notice and Baseline Water Sampling

Drilling permits outside of board delineated fields are only issued after notice has been published in a general circulation newspaper for the county where the land is located and in the Helena *Independent Record*. There is a ten-day waiting period after the notice is published before the permit is issued. This notice is in addition to the 20-day (minimum) actual written notice to the surface owner where drilling is proposed. The well site surveyor must also give notice prior to entering the land for well site location and boundary identification.

Hydraulic fracturing occurs after a well has been drilled and production casing set and cemented. There would be no particular advantage to delaying the taking of a

background water sample until the drilling operation is finished, and the board believes the mandatory notices, plus the presence of a drilling rig on the site, give an adequate opportunity to sample water sources before any fracturing stimulation might occur.

The board also considers requiring detailed chemical disclosure prior to performing a fracture stimulation to facilitate background water analysis as unlikely to accomplish the result desired by the commenters. There is no potential for groundwater contamination from hydraulic fracturing if a well has not been hydraulically fractured. Testing water for specific chemicals which have not been used is likely to be both fruitless and prohibitively expensive. The board does support disclosure of substances used in fracture stimulation after the work has been completed and the actual substances used are known with certainty.

GENERAL COMMENT 3: Trade Secrets and Confidential Business Information

Commenters asked the board to: (1) not protect proprietary or trade secret components used in fracturing fluid; (2) require disclosure of all chemicals; (3) and/or establish a process for the board to review and approve trade secrets. Several commenters added that the board "...must have access to this information in case of water well/spring contamination." Trout Unlimited (TU) and other commenters said that the need for public disclosure and the public's right to know far outweighs industry trade secrets.

GENERAL RESPONSE 3: Trade Secrets and Confidential Business Information

The board believes New Rule III (ARM 36.22.1016) adequately frames the trade secret issue for spills and other releases of fracturing components. As to the need for full disclosure (including proprietary chemicals) to determine the presence of contamination due to a fracture stimulation process, the board notes that it is not necessary to analyze a water sample for every chemical in fracturing fluid to determine a possible source of contamination. It would only be necessary to identify one or two constituents that are persistent and not naturally occurring in the groundwater to establish a premise for investigation of fracturing fluids as a potential source of contamination. As to the issue of trade secrets, New Rule III(2) (ARM 36.22.1016(2)) states: "If necessary to respond to a spill or release of a trade secret product the owner... must provide to the board ... a list of the chemical constituents contained in a trade secret product."

The board recognizes the concern over proprietary chemicals and techniques and confidential business information; however, Montana has a Uniform Trade Secrets Act (30-14-401 MCA) that provides for substantial sanctions for misappropriation of intellectual property or trade secrets. Industry must comply with Occupational Safety and Health Agency (OSHA) requirements as well as U.S. EPA's Emergency Planning and Community Right-to-Know Act (EPCRA); both OSHA and EPA recognize trade secrets and have procedures to justify the claim of trade secrets. The board may, under existing authority, request copies of either the OSHA required Material Safety Data Sheets (MSDS) or a copy of the EPA's trade secret justification form if it questions the validity of a trade secret claim. The board believes it has

insufficient statutory support in current law to re-invent procedures to deal with trade secrets that have already been addressed by current state and federal law. The only clear exception is in responding to spills, discharges, or medical emergencies which the board believes are adequately addressed in proposed Rule III (ARM 36.22.1016).

GENERAL COMMENT 4: Nondisclosure Agreements

Commenters also addressed the use of nondisclosure agreements in New Rule III (36.22.1016). For example Mark Mackin comments that health information is confidential and protected and he does not see the need for a physician to sign a nondisclosure agreement. Mr. Makin further states that health officials should be obligated to disclose public health threats, implying that proposed Rule III (ARM 36.22.1016) would stop physicians from reporting potential public health problems and that the nature of any toxic, flammable, or explosive chemicals and materials as stored or mixed at or near the surface should be known to emergency services, particularly first responders.

GENERAL RESPONSE 4: Nondisclosure Agreements

New Rule III (ARM 36.22.1016) is only intended to address emergency treatment of individuals exposed to certain chemicals under limited circumstances (likely to be workers in immediate proximity to the worksite) where the board's regulatory authority may provide a process to expedite appropriate response. The board asserts no jurisdiction over the process of determining public health risks and does not believe the limited applicability of Rule III impedes the process. The board also believes that a proper nondisclosure agreement protects both the recipient of protected information as well as the owner of the information. EPA's EPCRA requirements already include providing chemical inventories to the State Emergency Response Commission (in Montana that is Disaster and Emergency Services and Montana Department of Environmental Quality), Local Emergency Planning Committees (LEPC), and local fire departments.

GENERAL COMMENT 5: FracFocus Web Site and Data Availability

Commenters suggested that the board avoid use of a national hydraulic fracturing information web site in favor of a site hosted and maintained by the board and/or state government in general. The Montana Environmental Information Center (MEIC) and other commenters said that the board's web site is the central repository and the rules should require operators to submit electronically to the web site. One commenter also suggested use of name, location, and permit number.

GENERAL RESPONSE 5: FracFocus Web Site and Data Availability

The board's technical staff maintains the board web site. Data is received in many formats and the permanent official records are the paper records maintained in Billings and Helena. Those records are open for public inspection and copying. The oil and gas data system captures well information, production filings, board orders and other key elements of well and regulatory data and makes them available without charge to the public. The staff has recommended the use the FracFocus web site, which is unique in the secure gathering of state specific hydraulic fracturing

data, putting data in a logical format, and through use of a data template, insuring the data is consistent and timely. Web site hosting is transparent to the user and whether the site is hosted in Helena, Billings, or elsewhere is immaterial.

FracFocus is hosted at a commercial web facility in central Oklahoma with secure virtual servers, back-up software and hardware, and back-up power and communications network. The site is at least as secure and reliable as any state-owned site and the board does not incur any cost in using FracFocus. Additionally, this site is managed by the Ground Water Protection Council (GWPC) and two of the board's staff are active in GPWC data management projects and have direct influence over the design and use of the system. There would be significant unbudgeted costs to design and develop a site as comprehensive as FracFocus solely with board funding.

Staff will continue to work with the Interstate Oil and Gas Compact Commission (IOGCC) and GWPC to improve the data template as well as making fracturing information more user friendly; to make available on the board's web site information from those operators not using FracFocus (or to develop a procedure for the board staff to submit the data on behalf of less active operators); and to plan for an alternative system if FracFocus does not meet long term needs.

Regarding the use of name, location, and permit number, the board uses the American Petroleum Institute (API) well number as the unique well identifier, not the sequential permit number. FracFocus allows searches by state, county, operator name, well name, or well API number. The search function works even if the only available data is the name of the state in which a hydraulically fractured well is located. The other criteria are used to narrow the search results. API well numbers can be found on the board's Webmapper application, from the online data portion of the board's web site, and from the weekly letter posted on the web site that lists all new permits.

#### GENERAL COMMENT 6: Other States and Issues

Several commenters discussed Pennsylvania and New York shale gas issues, Wyoming's Pavilion and Clark area issues and similar issues portrayed in the "Gaslands" movie. Concerns were also expressed by some about coal bed methane. The Coal Bed Methane Protection Act Committee suggested the board include special provisions for chemical disclosure for these seeking compensation under 76-15-902(5). Some commenters also suggested the board factor in consideration of other state fracturing rules, recently passed Texas statute, and the possibility of future federal rules.

#### GENERAL RESPONSE 6: Other States and Issues

Montana has had no incidents of hydraulic fracturing contaminating underground sources of drinking water either discovered by or reported to the board. Biogenic natural gas, which is composed almost entirely of methane, occurs naturally in coal seams and organic rich shale. Many aquifers in coal country are either composed partially or entirely of coal, or are in intimate contact with coal. The presence of

methane in water is likely in those areas and its presence is generally not associated with natural gas or oil development. There have been allegations of harm from exposure to hydraulic fracturing chemicals, yet there is no state or federal confirmation available to the board.

Groundwater contamination in the Clark, Wyoming, area was the result of an underground blowout at a well during drilling operations and was not associated with fracture stimulation technology. The Wyoming Department of Environmental Quality includes the following statement on its web site: "...There is no evidence that fracking has caused any water quality problems in Wyoming...", and "...In Pavillion, oil and gas development has been ongoing for about 50 years. It should be noted that in both Pavillion and Pinedale, domestic water wells have been drilled into shallow intervals containing natural gas...".

Regarding the comments from the Coal Bed Methane Act Protection Committee, hydraulic fracturing of coal seams has proved unnecessary to produce CBM in Montana. Coal seams currently producing in the state have very high natural permeability, which does not need artificial enhancement. The board is not inclined to make rules for specialized circumstances unlikely to occur. See General Response 2.

Board staff has met with officials of the Texas Rail Road Commission, Oklahoma Corporation Commission, Michigan Office of Geologic Survey, and the Nebraska Oil and Gas Commission about proposed hydraulic fracturing rules. Montana's rules and Texas statute are currently at least as comprehensive as any other state disclosure approaches. U.S. EPA is conducting a study of hydraulic fracturing and regulatory approaches, as are the Bureau of Land Management, and the U.S. Department of Energy. The board cannot predict the outcome of these efforts nor the timetable for any proposed rulemaking by others. Importantly, the board cannot predict the regulatory program(s) which the federal government might choose to use to implement any rules it proposes. The board is proposing rules which it believes adequately address the issues which can be addressed at this point in time.

#### GENERAL COMMENT 7: Additional Hearings and Affected Communities

Commenters suggested that the board should also hold a hearing in Park or Sweet Grass counties in addition to the one held in Sidney.

#### GENERAL RESPONSE 7: Additional Hearings and Affected Communities

The board has a statutory obligation to hold a public hearing in the community likely to be impacted the most by its proposed rules. Since 2007, Richland County has had 260 oil wells completed and hydraulically fractured as part of the well completion process. That averages out to one fracture stimulation job performed every week for the past five years. From 2007 to date, eleven total wells were permitted by the board in Park County: six were dry holes; four had the permits expire; and one was completed, but does not produce. Seven wells have been permitted in Sweet Grass County: four permits have expired with the wells never drilled; one well was a dry hole; one well was completed as shallow gas well in an existing (conventional) gas

field; and one was completed as a shale well that has never produced. There have been no new drilling permits issued in either county in the last year.

Park and Sweet Grass counties are well represented in the comments received. The board has considered all of the comments and does not consider written comments less valuable than those presented at a hearing. The board chose to hold a public hearing in Sidney because it predicted with certainty that hydraulic fracturing well stimulation would occur regularly and often in the northeastern counties of the state; a prediction it could not make for any other part of the state with the same certainty.

GENERAL COMMENT 8: Future Rulemaking

Several commenters suggested amendments to cover other subjects related to hydraulic fracturing, but which were not originally proposed by the board as part of this rulemaking. For example, Bradly Shepard and Peter Fox suggested the board review requirements for closed system drilling. Rep. Kathleen Williams (HD 65) commented on requiring that the source of water used in fracturing be disclosed as well as the entity that might treat the wastewater. Rep. Williams suggested disclosure of depth and thickness of permeable/water zones be disclosed under the proposed rules.

Potential federal rules, EPA regulation of the use of diesel fuel in fracturing fluids, bonding requirements, transportation of fracturing fluids to the well and spill preparedness were also mentioned by several commenters.

GENERAL RESPONSE 8: Future Rulemaking

While these issues may have merit for future rulemaking, the board's current effort is to appropriately regulate the chemical disclosure, well integrity, and operational safety issues related to hydraulic fracturing and to clarify how those activities are permitted. While outside the scope of this rulemaking, the board's existing rules do not allow long-term storage of waste fluid in pits, and do require either closed systems or total removal of pits' contents in irrigated farmlands, areas of high groundwater and in floodplains.

The board has no regulatory authority over water use and the subject of the board regulating or requiring water sources is well beyond current rulemaking. Since most produced water in the Williston Basin—including flow back water—is highly mineralized, virtually all of the water is re-injected through permitted injection wells.

Current board rules require the owner or operator to run an electrical, radioactivity, or similar petrophysical log or combination of logs sufficient to determine formation tops from total depth to the base of the surface casing unless waived by the board administrator. "Electric" logs are a permanent part of the board's well files which are not confidential and are open for public use.

The board has bond rules that apply to all wells, regardless of type of well completion, in existing rules. Transportation is not under the board's jurisdiction, and

the effect of any federal rulemaking is unknown at this time, and involves a time schedule beyond the board's ability to predict.

The board is taking a specific direction with its rules that is unlikely to conflict with other jurisdictions; it has chosen to limit the scope of the rules to those necessary to address chemical disclosure, well integrity and safety, and to clarify hydraulic fracturing permitting process.

## RULE SPECIFIC COMMENTS/RESPONSES

### NEW RULE I (36.22.608)

#### COMMENT 1:

A number of commenters, including Devon, Newfield, and the Montana Petroleum Association (MPA) suggested that some fracturing design data requested as part of the drilling permit is difficult to determine ahead of the job being proposed.

Newfield, MPA and others comment that the anticipated and the maximum treating pressure in New Rule I(3)(e) (ARM 36.22.608(3)(e)) would be difficult to estimate at the permit stage of a well. TAQA commented that there should be casing design requirements for fracture stimulated wells and the maximum treating pressure should not exceed 80 percent of the maximum casing pressure rating. TU and Park County Environmental Council suggest Rule I(3)(b) (ARM 36.22.608(3)(b)) be reworded to require the trade name or generic name "...of the components or chemicals to be used in the...process". One commenter (Welter) suggested that disclosing procedures and products on the board's Form 2 should be sufficient and this could be done in a timely manner prior to the fracturing procedure. MEIC, NPRC, and several others suggested that 24 hours is too short a timeframe for the process of modifying the drilling permit to include fracture stimulation. Finally, comments from MPA, Devon, Western Energy, and others suggest the requirements in Rule I (e)(i) and (ii) apply to the entire rule, not just to paragraph (3). NPRC also suggested that chemical abstract numbers be associated with the pre-frac chemicals.

#### RESPONSE 1:

Where actual formation parameters are needed to determine the design, the well may need to be drilled, logged, and evaluated before a fracture can be designed. The board and staff understand that stimulation treatments are customized designs and the final design of the treatment may not be known at permitting. The request for basic information at the time a well is permitted is to assist staff's analysis of impacts anticipated from drilling.

The board agrees that the apparent specificity required in New Rule I (ARM 36.22.608) may be problematic. Requiring CAS numbers for components would exacerbate the problem. At the same time, the board believes certain information about proposed well completion and anticipated stimulation activities must be available to the operator sufficiently ahead of time to request contractor bids, to inform partners of anticipated costs and to prepare well site locations and ancillary

facilities for potential stimulation operations. The board agrees that Form No.2, Sundry Notice, is the appropriate written notification of a change in plans, including well stimulation requests. The board also agrees that 24 hours, which was originally proposed to allow an opportunity to have a field inspector present during well treatment operations, is too short for processing a written notice and has increased the time to 48 hours.

The request for requesting treating pressure and maximum treating pressure data is to review well construction and potential pressure limitations of the design. The board appreciates TAQA's comment about pressure ratings and XTO's comment about requesting design specifications that provide confidence the well will be properly constructed for hydraulic fracturing stimulation.

During formatting of proposed Rule I (ARM 36.22.608), the sections (3)(e)(i) and (ii) were placed under (3) but were intended to apply to the entire New Rule I. The rule has been amended to reflect the original intent and to read that operators may file analog fracture designs from previously stimulated wells in the area or prefired generic designs, which form the basis for pre-frac design for a particular well.

#### NEW RULE II (36.22.1015)

##### COMMENT 2:

Comments were received from MPA, Halliburton Energy Services, Inc.(HESI), Devon, Samson, Newfield and others regarding the language in proposed New Rule II (ARM 36.22.1015), which appears to require additive level disclosure, but requires the Chemical Abstract Number (CAS) which is only appropriate at the component level. MPA and Newfield suggested dropping the requirement for CAS numbers and require disclosure at the additive level. Devon and Samson suggested retaining CAS numbers and clarifying the substances they refer to (the chemical components of the additives). HESI suggest retaining CAS number but requiring disclosure of those constituents listed on an additive product Material Safety Data Sheet (MSDS). HESI correctly interprets the proposed rule as requiring disclosure of all chemicals, including nonhazardous ingredients.

Commenters also addressed use of the FracFocus.org web site and suggested the Rule require the board administrator to waive reporting to the board if the FracFocus.org site (or a successor site) is used. Other commenters suggested that the board not use FracFocus.org, but use its own site.

##### RESPONSE 2:

The board thanks the commenters for their input. However, the board and its staff believe the board has an obligation under existing law to know the composition of all materials injected to enhance the recovery of oil or natural gas, including nonhazardous substances.

The board believes it must retain the authority over its reporting requirements. While it supports FracFocus, it must also develop rules which remain in effect whether or not there is a desirable reporting alternative. If no web site meets, or one only

partially meets the disclosure needs, the board must continue the direct requirement. The board appreciates Samson's comment about successor web sites, and has clarified the rule to recognize that it may accept other sites if they meet the board's disclosure needs.

The board may use its own web site to deliver electronic images of information submitted by companies; however, the board staff would not recommend developing a database of chemical disclosure data as was suggested because of the expense in both development and maintenance and the limited value such data represents to the regulatory program. Staff is participating in the ongoing design and management of FracFocus, and is confident the site will continue to grow more useful to the public. Also, see General Response 5.

#### NEW RULE III (36.22.1016)

##### COMMENT 3:

In addition to the general comments received about this proposed rule (see "General Comments/Responses"), HESI provided extensive comments about trade secrets and the statutes and case law in Montana. Devon offered clarifying language. While Park County Environmental Council objects to medical personnel being required to execute nondisclosure agreements, MPA, and Western Energy Alliance suggest such agreements be signed by any party receiving trade secret information.

HESI suggested the dependence of New Rule III (ARM 36.22.1016) on 82-11-117, MCA, may be seen to narrow the trade secret definition established in 30-14-402, MCA, and that Montana courts have already adopted the later standard.

##### RESPONSE 3:

Section 82-11-117, MCA, was adopted several years ago in support of the Underground Injection Control Program and may have limited applicability to hydraulic fracturing. Because 82-11-117, MCA, addresses injection into state waters and the purpose of the proposed hydraulic fracturing regulations is to prevent contamination of state waters, the board agrees that this code cite may be misleading. The rule's exemption for board or staff or third parties working for the board from executing a nondisclosure agreement was inadvertent. The rule has been amended to cite 30-14-402, MCA.

#### NEW RULE IV (36.22.1106)

##### COMMENT 4:

Continental Resources (Aman) commented at the hearing that the proposed rule appeared to limit pre-fracturing testing by means other than the pressure test and requiring the casing pressure test be run even if the operator determined the use of a fracturing string was necessary. Newfield interprets New Rule IV(2) (ARM 36.22.1106(2)) as ignoring the contribution of cement to the pressure integrity of the casing. HESI commented that the concept of mechanical integrity in the context of section (1) of Rule IV is ambiguous. MPA, Western Energy Alliance, and others comment that 15 minute/5 percent pressure loss is too stringent. Northern Plains suggest the casing pressure test should be 110 to 150 percent of the anticipated

treating pressure. TAQA expressed concerns that wells can continue to be fracture treated down production casing, if appropriately configured, without the use of a fracturing string. Other commenters expressed concerns regarding the use of remotely controlled valves, and one comment was received about automatic pressure shut-downs on pump trucks as well as the use of pressure relief valves.

RESPONSE 4:

The board does not wish to preclude the operator from running other tests or tools to evaluate the need for a fracturing string, and does not intend the rule preclude the use of properly cemented production casing as the conduit for stimulation treatments. The board agrees that the broad requirement to demonstrate mechanical integrity may be ambiguous, and also generally agrees with the concept of requiring remotely controlled shut-down valves. Since these rules apply statewide, automatic shut-in valves may serve little purpose in those parts of the state with predominately low-pressure and limited deliverability wells. The 15-minute/5 percent loss test was taken from the board's mechanical integrity requirement for injection wells and is more stringent than many other states. The board appreciates that testing casing-tubing-packer mechanical integrity in an injection well that may operate continuously for five years without further testing is different from testing the casing of a well that will see treating pressure for a few hours or days. The purpose of the casing pressure test is to determine if there are leaks in the system being tested. A 30-minute/10 percent loss test is adequate to determine if significant leaks exist. There is risk of weakening the cement-casing bond by testing significantly above the pressure needed to determine significant leakage. The board's staff does not support testing production or intermediate casing above the maximum anticipated treating pressure.

NEW RULE V (36.22.1010)

COMMENT 5:

Devon suggests modifying New Rule V (ARM 36.22.1010) to allow a 48-hour notice of activities covered by rule V and allowing work to proceed at the expiration of the 48-hour notice. NPRC suggests requiring a subsequent report of the activities in (2) within 30 days. MPA, Western Energy Alliance, and others suggested increasing the amount of treatment materials that do not require notice in (2) from 5000 gallons to 10,000 gallons.

RESPONSE 5:

The essential difference between the activities covered in New Rule V (ARM 36.22.1010) and those covered under New Rule I (ARM 36.22.608) is that all of the New Rule V (ARM 36.22.1010) actions are performed on existing wells and are not part of a drilling permit. The reperforating, recompletion, and reworking activities in (1) trigger a review of well spacing/setback requirements that may take more than 48 hours to complete. The staff ordinarily processes these items quickly, but would not want an operator committed to well work that would result in the well being in violation of other board rules.

The board agrees with MPA that one twin trailer-truck load of material is a reasonable limitation, and with Northern Plains on the issue of requiring a subsequent report. The board has moved the hot oil treatment exemption into the first sentence of section (2), as hot oil treatments customarily involve small volumes of oil from the lease being treated, but will require a subsequent report for acid and chemical treatments.

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

/s/ Mary Sexton  
MARY SEXTON  
Director  
Natural Resources and Conservation

/s/ Tommy Butler  
TOMMY BUTLER  
Rule Reviewer

/s/ Terri Perrigo  
TERRI PERRIGO  
Executive Secretary  
Board of Oil and Gas Conservation

Certified to the Secretary of State August 15, 2011.