Addendum to letter dated September 10, 2012, API comments to RIN 1004-AE26, re BLM proposed rule to regulate hydraulic fracturing on public lands and Indian lands.

From the Preamble:

The Bureau of Land Management ("BLM") is proposing a rule to regulate hydraulic fracturing ("HF") on public land and Indian land. The proposed rule would provide disclosure to the public of chemicals used in HF on public land and Indian land, strengthen regulations related to well-bore integrity, and address issues related to flowback water. This proposed rule is described as necessary to provide useful information to the public and to assure that HF is conducted in a way that adequately protects the environment.

API Comment:

The scope and reach of the proposed rule is unclear with respect to non-federal minerals and needs to be clarified that the requirements of the proposed rule do not pertain to non-federal, non-Indian minerals. In states where public lands administered by the BLM are found, exploration and production operations for crude oil and natural gas frequently on lands on which leases of minerals administered by the BLM are pooled or unitized with leases of minerals owned by private individuals or by the states.

From the Preamble:

The BLM understands the time sensitive nature of oil and gas drilling and well completion activities and does not anticipate that the submittal of additional information related to hydraulic fracturing with an Application for Permit to Drill ("APD") will impact the timing of the approval of drilling permits. The BLM believes that the additional information that would be required by this proposed rule would be reviewed in conjunction with the APD and within the normal APD processing time frame. The BLM understands that delays in approvals of operations can be costly to operators and the BLM intends to avoid delays whenever possible.

API Comment:

There are no known documented cases of ground water contamination that have resulted from HF operations in properly constructed wells, as has been recently confirmed by then-BLM Director Bob Abbey and Environmental Protection Agency ("EPA") Administrator Lisa Jackson. In addition, Colorado, New Mexico, North Dakota, Montana, and Wyoming are each examples of states with federal public lands that have promulgated new regulations governing HF in the last two years that are protective of human health, resources, and the environment. BLM has failed to establish any record support for the proposed rule. It has been long established that agencies must provide some factual basis for their policy decisions, and "that those facts have some basis in the record," or they are arbitrary and capricious. *See*, *e.g.*, *NRDC v. SEC*, 606 F.2d 1031, 1053 (D.C. Cir. 1979).

Imposing new BLM regulations in addition to the comprehensive state regulation of oil and gas operations presents a high likelihood of inconsistencies between two overlapping regulatory regimes as these new rules are finalized, implemented, and enforced. API recommends that prior to promulgating a new rule the BLM should undertake a gap analysis of the agency's current regulations, onshore orders and other guidance, documentation or current administrative practices that seek to achieve coordinated approaches to regulation of drilling, well completion and production operations with states, and other related regulatory mechanisms prior to moving forward with a rule. A thorough review of current practices and an analysis of gaps and possible areas of overlap would provide information to BLM to ensure that an additional rule would more effectively promote best practices that reduce environmental risk from drilling and hydraulic fracturing operations on public lands. Without an explanation or basis in the record that a gap analysis would provide, the proposed rule is arbitrary and capricious.

The proposed rule creates uncertainty and potential delays for operators if approval of a well simulation plan is not reasonable, timely, and certain. Changes are likely to occur between the approved plan and the actual operations (which may occur several weeks to months apart), which would require re-submission and re-approval of the revised plan. The risk of a situation presented by the proposed rule in which an operator obtains approval to drill a well without the assurance that it will be able to complete the well using hydraulic fracturing is likely to prove a major disincentive to investing capital to develop federal minerals. In short, the proposed rule is likely to prevent a significant number of wells from being drilled.

The proposed rule presents the scenario of a federal permitting sequence in which:

- Operator submits APD and application for HF at same time
- Operator waits for BLM to grant APD
- Operator drills well, sets and cements casing in well
- Operator pressure tests casing shoe and runs Cement Bond Log ("CBL")
- Operator submits CBL and pressure test to BLM
- Operator waits for BLM approval of CBL and pressure test
- Operator waits for BLM approval of permit to HF
- Operator hydraulically fractures formation
- Operator submits completion report in 30 days

API requests that BLM work with its field offices and industry to carefully walk through the implication of any APD, HF and CBL review and approval process. Such review should considering various well configurations and field locations to better understand the realities of how BLM, operators and contractors will have to sequence their activities. Each of these separate steps creates uncertainty for operators that need to plan and conduct their activities in an efficient manner months and years in advance. Given the expansion of information required by the proposed rule, it is difficult to envision that permitting approvals can be granted without regulatory approval delays. Like all federal agencies, the BLM is facing budgetary constraints that are making it difficult to hire the number of qualified personnel needed to accomplish the agency's regulatory mission. The agency has said that it will hire 15 to 18 people per year for next 3 years, merely to address the requirements for administering the present set of regulations governing oil and natural gas operations on lands the agency oversees. It does not appear likely that BLM will maintain its current level of application processing once this proposed rule is in place, especially considering other priorities the agency must manage.

Under the Paperwork Reduction Act, BLM has requested comments to evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have a practical utility. The proposed rule does not establish how BLM will manage the large amount of information to be required from operators, and seems premature if considered in the context of the pending findings from the EPA study on potential HF impacts to drinking water.

API further requests that BLM clarify that where used in any final rule, or any notice that accompanies its promulgation, the phrase "mechanical integrity testing" shall not be interpreted so as to describe or refer to an activity undertaken in conformity with EPA regulations under the Safe Drinking Water Act 42 U.S.C §300f.

Last, API requests that BLM not make any final rule effective until 180 days after publication in the *Federal Register* to allow operators to conform their activities and adjust equipment schedules to the above new and untested timelines. The typical 30-day effective date would be too short for a final rule of this scope.

§ 3160.0-5 re definition of term "usable water" and removal of the definition of "fresh water" [*Usable water* means generally those waters containing up to 10,000 ppm of total dissolved solids ("TDS").]

API Comment Summary:

- Although BLM's stated goal is to complement state efforts by providing a consistent standard and to minimize duplication, the proposed definition requires BLM protection of subsurface waters containing between 5,000 and 10,000 ppm of TDS, without identifying the "uses" to be protected or the public benefit to be achieved. The definition of usable water means generally those waters containing up to 10,000 ppm of TDS.
- BLM's proposed definition of usable water relies solely on TDS content and does not take into consideration other naturally occurring constituents, such as hydrocarbons, heavy metals and toxic compounds that could make water unsuitable for use. With no factual record to support this requirement, the proposed rule, if finalized, would constitute arbitrary and capricious agency action. This new standard requires the surface hole to be drilled and cased to extended depths to protect aquifers which are not suitable for future sources of drinking waters significantly increasing production costs. The use of the word "generally" in the definition of Usable Water opens the door to exceptions, but without any parameters.
- The definition also requires operators to collect new information regarding aquifers that has little or no potential to be considered future sources of drinking water. In many cases the data to determine which zones meet the BLM's criteria for protection is not available. This requirement introduces significant cost and uncertainty without providing additional protection to underground sources of drinking water.
- Without an approved reference or database that identifies waters that meet the BLM's criteria for protection, BLM is introducing a significant cost and uncertainty for compliance to operators.

Recommendation:

- API recommends that BLM stipulate in the rule that the requirement for an operator to identify usable water is satisfied by setting surface casing at depths that protect usable water as established by BLM, by existing water wells, or by State authorities.
- API recommends BLM add a clarification that the requirement for isolation does not apply to usable waters that are coincident with a hydrocarbon producing formation.
- API recommends that BLM not require the operator to provide information in the Notice of Intent Sundry on the proposed measured depths of all occurrences of usable water. BLM should rely on available state data for the location of the deepest known underground source of drinking water (USDW) in the area of the well.

Explanation:

The existing BLM rule (see 43 CFR 3162.5-2(d)) provides for protection of freshwater and other minerals up to 5,000 ppm TDS. Onshore Oil and Gas Order 2, effective December, 1988, defines usable water to mean generally those waters containing up to 10,000 ppm of total dissolved solids. To avoid unnecessary costs and regulatory uncertainty, please stipulate in the rule that the requirement for an operator to identify usable water is satisfied by setting surface casing at depths that protect usable water as established by BLM, by existing water wells, or in accordance with State authorities.

Typically operators look to state authorities to identify usable waters. The present draft of the rule would put this responsibility on operators to develop the information and make this determination. Operators

would be required to identify which zones have TDS loads less than 10,000 ppm and would have to collect information about brine aquifers that have little or no potential to be considered as sources for freshwater. If the proposed rule were to be adopted in its present form, operators would have to conduct downhole tests of water-bearing strata to make this determination. To test these water sources would require downhole testing such as a DST, raising drilling costs by approximately $150,000 or more per test, since fluid would have to be captured and then analyzed, delaying development even further.

The proposed rule also does not explain where the concentration of TDS for a given formation is to be measured. Is it at the well, or from another well that would offer a better representative glance at subsurface water quality? Likewise, the proposed rule does not explain how salient gradients are to be taken into account and whether operators are expected to sample each zone. Further, we do not believe it is appropriate to rely on a waiver process to stimulate zones of <10,000 ppm TDS, since reliance on waivers puts some operators, states, and tribal lease holders at a disadvantage with a less predictable and inconsistent approval process.

The costs to industry of implementation of the proposed "usable water" definition are likely to be significant. Based on the testing results of non-usable water and where it is found, additional casing strings may be required to protect deeper brine water aquifers or to isolate high salinity water zones. Such requirements could raise drilling costs by adding 10-20 drilling days depending on water zone depths – with no evident benefit to users of freshwater resources in the vicinity of drilling and production operations. If the extra casing string is not used, cement above these brine aquifer zones would be required. Such requirements without benefit are exactly the type of rules the Administration has sought to prevent from becoming final. *See* Executive Order 13563 (agencies "must" craft regulations "only upon a reasoned determination that [their] benefits justify their costs," that they "impose the least burden on society," and "maximize net benefits….").

§ 3162.3-2 Subsequent well operations (a) [submittal by operator of Form 3160-5 for approval].

API Comment:

We urge that this provision of the proposed rule be stricken. In contrast to what the preamble states, this subsection calls for submittal "for approval by the authorized officer." In effect, BLM is proposing to require approval for an extended list of well maintenance and repair activities. Since casing repairs aid in environmental protection, there is no reason to require prior approval for or otherwise delay such repairs.

§ 3162.3-3 Subsequent well operations; Well stimulation (a) [draft rule to apply to all stimulation activities].

API Comment Summary:

The rule requires the approval of all "well stimulation" plans, describing well stimulation so broadly as to include routine maintenance activities such as acidizing that are intended to improve flow to original production levels as well as to maintain safe well operations. For these activities it is unreasonable to require a 30-day waiting period for the permit review and approval by the BLM.

Recommendation:

- API requests that the proposed rule be modified to clarify that it applies only to hydraulic fracturing.
- We recommend the following definition for hydraulic fracturing: "Hydraulic fracturing" shall mean the treatment of a well by the application of fluids under pressure (to which propping agents may be added) for the expressly designed purpose of initiating or propagating fractures in a target geologic formation in order to enhance production of oil and/or natural gas.

- API also recommends that BLM add specific language to the rule that makes clear that the proposed rule does not apply to enhanced oil recovery well operations or routine acid jobs.

Explanation:

The definition of "well stimulation" in the present draft of the proposed rule includes "activities conducted in an individual well bore designed to increase the flow of hydrocarbons from the rock formation to the well bore by modifying the permeability of the reservoir rock."

This definition describes "well stimulation" so broadly so as to include routine maintenance activities intended to improve flow to original production levels as well as to maintain safe well operations. It is unclear whether, for example, acidizing activities to repair wellbore damage are to be treated as well stimulation for the purpose of this proposed rule. Acidizing can cover a significant range of well activity, from using acid to clean the pores and return production levels that have begun to decline due to scale build up (well maintenance), to using acid to further expand fractures and increase production from past levels. Such acid treatments are generally undertaken as routine operations for the purpose of cleaning scale from pipe or casing, retrieving stuck pipe or packers from the hole, etc. These daily routines are identified once a workover or completion rig is placed on a well, and it is unreasonable to require a 30 day waiting period for the permit review and approval by the BLM – a time period which experience suggests may exceed 30 days in many instances. Indeed, if BLM were to require prior approval of routine acid jobs and casing repairs in addition to the foreseeable number of requests for approval for hydraulic fracturing fluids operations, the agency's workload would be overwhelming, and would offer the agency and the operators it regulates little hope of realizing a 30-day turnaround on such applications.

To summarize, the application of the rule should be limited to HF and be restricted only to stages of the treatment of a well by the application of HF fluid under pressure that is expressly designed to initiate or propagate fractures in a target geologic formation to enhance production of oil and natural gas. It should not be so broad as to apply to routine acid jobs, or to operations such as enhanced oil recovery, neither of which are designed to initiate and propagate fractures in a target geologic formation to enhance production of oil and natural gas.

§ 3162.3-3 Subsequent well operations; Well stimulation (b) [describing when an operator must submit a proposal for well stimulation].

API Comment Summary:

- By requiring approval of the sundry notice before these activities take place, this subsection will impose unreasonable delays and related costs on hydraulic fracturing operations. In many field offices the BLM already lacks sufficient staff to manage the workload associated with the number of approvals that may be anticipated under this subsection, or staff with the necessary expertise to interpret all the information being proposed.
- Changes are likely to occur between the approved plan and the actual operations (which may occur several weeks to months apart), which may constitute deviations and require re-approval of the revised plan.
- Separate approval requirements add uncertainty and compound the issues associated with planning and scheduling time.
- Since a well has no value to an operator unless and until it is completed, a regulatory system requiring this type of multiple-step approval would be a substantial disincentive to the drilling of wells.

Recommendation:

- BLM should retain the current process of a single approval step in granting a permit, followed by post activity reporting of information and addressing any significant deviations. This is typical of states' permitting processes and respects well drilling and completion practices, which are proven effective. BLM should not interject additional approval steps between permit approval and well drilling and completion.
- Within the rule making period, BLM should conduct a review, with industry and its regional offices, to understand how the rule would be implemented in practice, to bring to light concerns and technical challenges.
- BLM should clarify the extent to which the rule applies retroactively to already permitted wells, including wells that are currently in production, or wells that have been plugged and abandoned. *See* proposed §§ 3162.3-3(b)(ii), (c).
- If BLM can justify retroactive application – which is strongly disfavored under the law –API further recommends that BLM should provide an exemption for already permitted wells from the new Notice of Intent Sundry requirement in proposed section 3162.3-3(b)(ii). API believes that any potential impacts arising from hydraulic fracturing or other stimulation of already permitted wells would or should have been reviewed by BLM as part of the APD process and there is no need for an additional, duplicative review. Indeed, BLM has not provided any justification for additional review of permitted wells, and if it does not, then the proposed rule is arbitrary and capricious.

This subsection's requirement that approval of the sundry notice issue before commencement of what the proposed rule defines as well stimulation activities will impose unreasonable delays and related costs on these operations. An approval requirement adds uncertainty and compounds the planning and scheduling time. In many field offices the BLM lacks sufficient staff to manage the workload associated with the number of approvals that may be anticipated under this subsection, or to interpret all the information being submitted. The technical nature of many of the issues that arise with hydraulic fracturing, acidizing or other methods to stimulate production raises the prospect of additional delays for operators as they await the opportunity to resolve potential questions and disputes with BLM staff, and for those additional operators that follow in the permitting queue.

With respect to already permitted wells, in general, U.S. jurisprudence does not favor retroactivity. Indeed, under the Administrative Procedure Act, rules created by administrative agencies are defined as an "agency statement having general or particular applicability and *future effect* designed to implement, interpret or prescribe law or policy…." 5 U.S.C. § 551(4) (emphasis added). Accordingly, rules and regulations are generally not applied retroactively, and the applicability of administrative rules and regulations are limited to the time following their promulgation. *See, e.g., Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988). Moreover, Congress typically does not provide administrative agencies authority to create rules that have retroactive effect, and thus rules will have only prospective effect, unless the language of the governing statute expressly provides for retroactive rulemaking authority. Nonetheless, one obvious implication of section 3162.3-3(b)(ii) is that BLM contends operators that have already received permits to drill – and, by extension, operators that are currently producing, or operators that have plugged and abandoned their wells – would be required to submit a Notice of Intent Sundry if they engaged in hydraulic fracturing activities at any time in the past. To avoid this uncertainty, and as matter of fairness, we urge BLM to justify and clarify the extent of the proposed rule's retroactive reach. We request that BLM further explicitly state that any liability for failing to submit and receive approval for a well stimulation Notice of Intent Sundry is prospective only from the date that the proposed rule is finalized.

In the alternative, BLM should provide an exemption for already permitted wells from the new Notice of Intent Sundry requirement in proposed section 3162.3-3(b)(ii).Under this subsection, if enacted, an operator will depend upon BLM approval before being able to schedule work with a service provider. The result will be the introduction of additional delays and inefficiencies that will raise the cost and uncertainty of operations on BLM managed land relative to privately held oil and gas leases. Inefficiencies and uncertainties in the permit process are already taking their toll on new investment in development of natural gas and oil resources that the BLM manages for the benefit of the American people. According to EIS Solutions, the number of new permits to drill on federal lands in the West is down by a significantly greater amount (-39%) than new permits to drill on non-federal lands (-20%) over the last 2 years. In 2010 alone, non-federal permits across the West actually increased by 31%, even as federal drilling permits dropped 13%. The EIS Solutions report shows that non-federal oil and gas production increased in 2009-2010, even as federal oil production plateaued and federal natural gas production declined in the same time frame.

In addition, the requirement that a proposal for any operation defined as well stimulation be approved by BLM would create a multiple approval track for such operations that would be subject to the same requirements for administrative and potentially judicial review that currently apply to the existing APD review process. BLM regulations allow "any adversely affected party that contests … an instruction, order, or decision of the authorized officer" to seek administrative review by the BLM State Director. 43 C.F.R. § 3165.3(b). For all APDs and Form 3160-5 Notice of Intent Sundries, BLM must "prepare an environmental record of review or environmental assessment, as appropriate." 43 C.F.R. § 3162.5-1. A third party can insert itself into the APD or Notice of Intent Sundry review process by, for example, challenging the underlying environmental review through submission of comments seeking to condition or deny the APD or Notice of Intent Sundry because of alleged adverse environmental impacts. Having submitted comments seeking a contrary result, if BLM approves the APD or Notice of Intent Sundry, the third party would become an adversely affected party with the right to seek State Director review of the approval. *See, e.g., Southern Utah Wilderness Alliance/Utah Chapter of the Sierra Club*, 122 IBLA 283, 286 (1992). After review by the State Director, a third party could also seek Interior Board of Land Appeals review of an adverse decision. *See* 43 C.F.R. § 4.410(a). And after IBLA review, an adversely affected party could seek judicial review.

As an initial matter, proposed section 3162.3-3(b) states that a proposal for well stimulation may be submitted either on Form 3160-5 or with an APD (for new wells), but that such a proposal must still be "approved by BLM." If a proposal is submitted with an APD, it is unclear whether BLM will issue a single approval (or denial) applicable to both the APD and the proposal, or whether BLM will issue separate approvals (or denials) for the APD and the proposal. If the latter, then the multiple approval track will arise for every single well intended to be stimulated under BLM's jurisdiction, an untenable result that will add unnecessary and costly layers of bureaucracy and substantial months of delay and cost with respect to approvals commented on and challenged by third parties.

§ 3162.3-3 Subsequent well operations; Well stimulation (b)(ii) [wells where additional surface disturbance is anticipated]

API Comment:

The proposed rule states, "[f]or wells permitted prior to the effective date of this section or for wells permitted after the effective date of this section …."; this includes all wells (except, of course, for wells permitted *on* the effective date). The distinction drawn by the disjunctive construction of this sentence is unnecessary and should be replaced with "For all wells …."

For a well plan where additional surface disturbance is anticipated (expansion of footprint), this subsection requires that the proposal for what the proposed rule defines as well stimulation operations must include a surface use plan.

API requests clarification on the requirements in this context for a "surface use plan." In the past BLM has interpreted "additional surface disturbance" to apply only to areas that were not previously disturbed, such as the case for a newly drilled well, or areas that have been interim reclaimed for long-term production operations. It is important to avoid any implication that surface disturbance on areas being maintained for operations, whether it be drilling or production operations, be be subject to a requirement to file a new surface use plan for approval.

§ 3162.3-3 Subsequent well operations; Well stimulation (b)(iii) [requirement for submittal of NOI sundry in case of changed circumstances]

API Comment:

This subsection provides that a new Notice of Intent Sundry must be submitted if the BLM approval of well what the proposed rule defines as well stimulation activities is over 5 years old, or if the operator has new information on the geology, the technology to be used, or about anticipated impacts of the covered activity.

Well stimulation plans submitted at the APD stage will likely change because 1) the length of time it typically requires BLM to approve an APD (a year and longer) and 2) by then, new chemical ingredients or better techniques may have evolved requiring the plan to be resubmitted. However, the terms "significant new information," "geology of the area," "operation or technology," "anticipated impacts," and "any resource" are undefined and vague; and in any event, BLM has provided no justification for why "significant new information" on any of these matters would require a new Notice of Intent Sundry to be prepared, filed, and approved by BLM. If these terms are not defined, it is reasonable to expect that every BLM field office would develop its own guidance, further compounding issues of delay, uncertainty and inconsistency. As a result, operators would not be provided a predictable and consistent permitting process. Moreover, if such terms remain undefined and the requirement unjustified, the proposed rule is arbitrary and capricious.

§ 3162.3-3 Subsequent well operations; Well stimulation (c) [describing what a sundry notice must include].

API Comment Summary:

- This subsection describes what a sundry notice must include, with specific reference to certain geologic information and occurrences of "usable water." It is also the subsection in which the BLM introduces the new requirement that operators furnish a CBL to prove that strata containing usable water have been isolated to protect them from contamination. While this provision of the proposed rule would allow submission of certain geologic information with an APD, the approval for HF would not be issued until isolation of usable water (<10,000 ppm TDS) has been demonstrated by means of a CBL. This requirement means that operators must risk millions of dollars in investment to drill the well with no certainty that the BLM will approve hydraulic fracturing and in a timely manner.
- The rule requires submittal of a CBL after BLM has approved an APD with new requirements for information, including well construction designs and plans for completion, but before hydraulic fracturing is undertaken.

- BLM assumes that many operators routinely perform CBLs. This is inaccurate and the proposed requirement will create a significant burden. Rather than mandate CBLs, the BLM should recognize that CBLs should be considered *among* available diagnostic tools in the event that a problem with the cement job is indicated.
- CBL analysis and interpretation is a specialized competency. It is not clear that the BLM will have adequate resources to review and approve the CBL and allow hydraulic fracturing to proceed prior to a company's having scheduled the activity. Further the draft rule is silent as to standards or guidelines for interpretation of CBLs and for resolution of disputes over the interpretation of the CBLs.

Recommendation:

- API recommends that the operator submit relevant well integrity information indicating factors, tests, and diagnostics (potentially including but not requiring a CBL) with the sundry notice 90 days after completion of the hydraulic fracturing operation. API recommends that BLM provide a standard format for submission of this information.

API understands that proper well construction results in several layers of cement and steel that will protect underground sources of water and ensure well bore integrity in order that the well will hold pressure, produce safely, and protect groundwater. CBLs are but one of several potential tools that can be utilized to gauge various components of proper well construction and should not be mandated in all circumstances. Pressure tests and confirmation that cement has properly returned to the surface have long been mandated to demonstrate integrity of cement jobs by the states. For example, cement that is observed to have circulated to the surface during the surface casing primary cement operation can provide evidence that sufficient cement bond is present to achieve zonal isolation.[1] Onshore Order 2 also has specific requirements relative to wellbore integrity including cementing requirements and standards. Under state laws, drilling and well completion plans detailing casing and cementing operations must be approved by state regulators before operations commence. Nearly all states require that operators verify a tight seal between the surface casing string and the drilled wellbore. These requirements are tailored to meet local and regional variations.

BLM assumes that many operators routinely perform CBLs as the best method for analyzing cement integrity and therefore does not expect this step to be a burden for operators. This is inaccurate and the proposed requirement will create a significant burden. Rather than mandate CBLs, the BLM should recognize that CBLs should be considered among other available diagnostic tools to assess the integrity of an oil and gas well. For example, casing shoe integrity tests have historically proven to be adequate to confirm cement is set and the well is ready for the next stage of well construction. Casing shoe integrity tests in combination with casing integrity tests (*i.e.*, pressure tests) provide positive indication of both isolation and pressure integrity of the constructed wellbore. CBLs are indeed another tool for well analysis. For example, CBLs are performed in the relatively rare situation where there are indicators of anomalies during the drilling and cementing of a well (*i.e.*, loss circulation, no cement to surface).

Moreover, the accuracy of CBLs depends upon how they are interpreted – i.e. the conversion of raw data in the form of a sonic measurement into a graphic or a numeric value. CBL analysis and interpretation is a specialized competency. It is not clear that BLM will have adequate resources to interpret and approve substantial numbers of new required CBLs and permit hydraulic fracturing, nor is it clear how potential

[1] Practices for isolating potential flow zones, an integral element in maintaining well integrity, are provided in API Standard 65-Part 2 "Isolating Potential Flow Zones During Well Construction" (Second Edition, December 2010)

conflicts over interpretation of a CBL will be resolved if an operator and BLM disagree. Although CBLs by themselves are not proof of wellbore integrity, if it is accepted that CBLs reduce the risk of inadequate wellbore integrity on a statistical basis, there is still the question of how BLM will accept or reject the CBL once received. The proposed rule is silent as to standards or guidelines for interpretation of CBLs and for resolution of disputes over the interpretation of the CBLs.

Even if the APD is approved, approval of the CBL is still required and would add to the overall delay in commencing hydraulic fracturing operations. A typical CBL can cost approximately $20,000. In addition to the costs of running a CBL on surface casing, rig standby costs will be incurred during the time necessary to run a CBL log. At approximately $25,000 per day in idle rig costs, the CBL may cost a total of $30,000 to $60,000 per well with respect to surface casing, and may cost twice this amount ($60,000 to $120,000 per well) if CBLs are run on both surface casing and intermediate casing. Moreover, up to 7 days of additional delay may be incurred while the cement cures and develops adequate compressive strength to run a CBL. Last, deviations in the planned operation are likely to occur between the time the hydraulic fracturing plan is approved and the actual operation. Procuring materials and scheduling field equipment and labor is dynamic and subject to frequent change from proposed operations. If re-approval is necessary due to one or more deviations, this will result in delays and likely significant additional costs to operators.

§ 3162.3-3(c) Subsequent well operations; Well stimulation (2) [information on occurrences of usable water]

API Comment:

This subsection requires that the "proposed measured depths (both top and bottom) of all occurrences of usable water and the cement bond logs" must be included with the operator's Notice.

This subsection provides no guidance on how an operator is in a position to determine "all" occurrences of usable water. Common practice is to let the appropriate regulatory agency specify the depth of the lower-most groundwater aquifer or USDW. Each well is then planned to cover that interval with surface casing and cement as required to protect the ground water.

§ 3162.3-3(c) Subsequent well operations; Well stimulation (3) [measured depth of casing perforations, etc.]

API Comment:

This provision of the proposed rule would require the reporting of the measured depth to the perforations in the casing and uncased hole intervals (open hole). This information is already submitted to BLM in the APD under the drilling plan which is reviewed and approved by BLM. It is also reported to the BLM on the completion report once the well is completed. This provision adds an unnecessary triple reporting redundancy and should be deleted.

§ 3162.3-3 Subsequent well operations; Well stimulation (c)(3) [information on water supply, etc.]

API Comment Summary:

- It is unclear how the information the operator furnishes will be analyzed, how non-industry impacts will be included, and if there is protocol or guidance established for determining "mitigation."
- API is concerned that this requirement may be beyond BLM's authority by encroaching on state authority to control allocation of water resources.

Recommendation:

Based on BLM's stated rationale, at a minimum BLM should clarify that the requirement that the operator furnish information in the Notice of Intent Sundry on the source and location(s) of the water used in the hydraulic fracturing fluid is for informational purposes only and that BLM does not intend to regulate use of water in a way that interferes with existing state authority over water allocation.

Explanation:

API believes that the requirement in this subsection for "information concerning water supply, such as rivers, creeks, springs, lakes, ponds, and wells, which may be shown by quarter-quarter section on a map or plat, or which may be described in writing" relates to a simple identification of the proposed water source(s) via a map or text. It is unclear how this information along with anticipated fluid volumes will be considered by BLM. The scope of any BLM analysis of water sources to be required under this section is also not specified, nor is it clear how non-industry impacts will be included, and if there is protocol or guidance established for determining whether and to what extent "mitigation may be required" BLM should clarify that the requirement that the operator furnish information in the Notice of Intent Sundry on the source and location(s) of the water used in the hydraulic fracturing fluid is for informational purposes only and that BLM does not intend to regulate use of water that is not sourced from Federal and Indian lands. API further questions BLM's purpose in requiring operators to report "the access route, and transportation method for all water anticipated for use in stimulating the well." This should only apply if the operator requires a right of way/realty action from the BLM to access a supply of water. Therefore, this requirement should be limited to situations where federal realty actions are required for access across federal lands.

Section 3162.3-3(c)(3) would also require identification of "the source and location(s) of the water used in the stimulation fluid." BLM states that it "would use this information to determine the impacts associated with operations and the need for any mitigation applicable to Federal and Indian lands." 77 Fed. Reg. 27,696. As BLM is well aware, allocation of water rights in the West is a matter of state control. This includes the allocation of water rights on federal and Indian lands, subject to the judicially-created doctrine of federally reserved water rights. This doctrine provides that the federal government impliedly reserves enough water to serve the primary purpose of a reservation of federal lands (*e.g.*, as a national forest, national park, or national wildlife refuge, among other federal reservations). Notably, BLM lands generally do not have federally reserved water rights, although there are a few, narrow exceptions to this general rule. Subject to these exceptions, states generally control allocation of water rights on all lands within a state, including federal public lands.

In light of the comprehensive control by states over allocation of waters within their borders, BLM's directives could conflict with, and therefore undermine, a state's ability to allocate its water. For example, it is up to a state to determine whether and what kinds of mitigation are required when a new water right is granted or an existing water right is transferred. Also, each state-issued water right identifies the uses to which the water may be applied and the season(s) in which the water right may be used. Thus, to the extent BLM seeks to impose mitigation requirements for certain water uses, it may be usurping a state's authority to make this determination in the first instance. In addition, if BLM seeks to use water source and location information to deprive a water user of the ability to use water for a specified purpose (*e.g.*, hydraulic fracturing) or during specified times of the year, BLM would be interfering with and undermining state prerogatives to allocate water use, given that the type of use and season of use are attributes of a state-issued water right. Accordingly, API requests that BLM clarify that it does not intend to encroach upon state authority over water allocation, or alternatively that BLM explain why it believes it has statutory or judicial authority to usurp state control in this critical area.

§ 3162.3-3 Subsequent well operations; Well stimulation (c)(4) [operator to provide certification]

Summary:

- API believes requirements that operators certify certain information in sundry notice applications are not warranted. Generally, the operator's signature on the Sundry Notice (Form 3160-5 Sundry Notices and Reports on Wells) verifies that the information is correct and in compliance with all applicable rules and regulations.
- Entities other than operators are generally responsible for compliance with regulations related to product registration, notice and/or permitting.
- Operators should not be required to certify that other entities have complied with regulations.

Recommendation:

The proposed requirements in **§ 3162.3-3 (c)(4)** and **§ 3162.3-3 (g)(8) and (9)** are not warranted, are arbitrary and capricious, and should be removed from any final rule. In the alternative, API requests that these subsections be re-worded so as to make clear that the requirements for the operator under these sections are limited to certifying that the use of treatment fluids in a well conforms to the requirements of § 3162.

Explanation:

Subsection (c)(4) requires that the operator provide a signed certification that the proposed treatment fluid complies with all applicable permitting and notice requirements as well as all applicable federal, tribal, state, and local laws, rules, and regulations. Subsections (g)(8) and (9) require that the operator provide signed certifications that the treatment fluid used "complied with all applicable permitting and notice requirements" and that "wellbore integrity was maintained throughout the operation."

This subsection of the proposed rule introduces a major new requirement that greatly alters the existing enforcement scheme. Under federal law, a party that makes a false certification to BLM is subject to criminal penalties. For most other exploration and production operations on public lands, BLM controls the compliance and enforcement framework and issues notices of non-compliance for which civil (as opposed to criminal) enforcement and penalties are imposed. Under this proposed subsection, operators would now be subject to criminal sanctions for improper certifications – an enforcement approach that seems well beyond what is required to assure BLM that proposed treatment fluid complies with applicable regulations and permitting and notice requirements. Because BLM has made no attempt to justify why criminal penalties are necessary to enforce compliance, this requirement is arbitrary and capricious. With respect to the certification that wellbore integrity has been maintained, the monitoring data from the Bradenhead is adequate and will provide the BLM with well integrity assurance.

However, with respect to the more detailed description of the pressure monitoring requirement in § 3162.3-3 (e)(1), API requests that BLM clarify that either a chart record or digital record will be considered an acceptable method of documenting continuous monitoring for this requirement. Also, state regulations may already require Bradenhead test monitoring during hydraulic fracturing operations. If subsection (e)(1) is adopted, the BLM should recognize and accept the results of a test conducted pursuant to state regulations. An equivalency determination should be made that allows the use of one test to satisfy both BLM and state requirements. If HF is done down casing it seems that only the inner most casing annulus should be monitored. If a frac string is used then the frac string casing annulus should be sufficient. Under (e)(2) the 500 psig requirement should be replaced with language requesting the operator to identify the operating parameters for annulus pressure monitoring that indicate the integrity of the well casing being breached.

In some states such as Colorado, chemical disclosure regulations clearly state that the operator is not responsible for any inaccuracy in information that is provided to the field services company by a third party manufacturer of HF fluid. The opposite requirement would impose an undue burden on operators, and some required information may be unavailable to operators under existing confidentiality agreements with service providers.

§ 3162.3-3 Subsequent well operations; Well stimulation (c)(5) [detailed description of well stimulation design]

API Comment:

The proposed requirement does not establish a timeline for the approval process (*i.e.,* nodeadline for BLM to complete its reviews) and it is unclear whether BLM has staff trained to evaluate the engineering design details of HF. Proposed section 3162.3-3(c)(5)(iv) would require the operator to submit estimated or calculated fracture length and height so that BLM can verify the hydraulic fracturing operation will remain confined to hydrocarbon rock layers. It is unclear how BLM intends to evaluate or ultimately enforce this provision. The process is likely to be subjective because the proposed regulation provides no protocol for the interpretation of data, nor does it specify by whom data interpretation will be performed. BLM offers no standards or guidelines by which it would verify engineering design and the geologic application of the hydraulic fracturing plan, nor does the agency identify a process for resolution of potential differences of expert opinion.

It is likewise unclear why under this subsection the BLM is requiring both surface treating pressure range and maximum injection pressure. Treating pressures can be estimated based on offset/historical data. However, the fracture height and length will be a very preliminary estimate and will be based on numerous assumptions that may change as additional information is gained during the course of monitoring the formation during development. API recommends that the wording be revised to "...(ii) The estimated surface treating pressure range; (iii) The maximum anticipated injection treating pressure;"

Also, with respect to the general requirement that the operator submit a detailed description of the well engineering design for the hydraulic fracturing operation to BLM for approval, API recommends that BLM consider making use of "Master Chemical Plans" such as those provided for under the Wyoming Oil and Gas Conservation Commission Rules and Regulations for established oil and gas fields or Federal Units in which hydraulic fracturing operations occur on a repetitive basis. Items 3162.3-3(c) (5) through (c) (7) could be incorporated into the Fieldwide Master Chemical Plan and referenced in the Notice of Intent. The information in established and mature fields will be redundant and will require needless duplication of paperwork for each submittal. In addition, this information is already on file at the Wyoming BLM offices as a result of completion reports submitted by the operators for completed wells.

§ 3162.3-3 Subsequent well operations; Well stimulation (c)(6) [information on handling of recovered fluids]

API Comment:

Although Onshore Order 7 poses many of these same requirements for produced water, this section extends many of the same requirements to flowback water. The operator will only be able to provide a very preliminary estimate at this time based on field flowback experience. We question the value of estimated information and BLM's purpose in requesting this information.

§ 3162.3-3 Subsequent well operations; Well stimulation (c)(7) [authorized officer may request additional information]

API Comment:

This subsection presents the possibility that additional information would be requested at the discretion of a particular field office that would result in additional delays in an already very lengthy and unpredictable approval process. It is also vague, overly broad, and with respect to BLM's aspiration to collect "additional information pertaining to *any facet* of the well stimulation proposal," 77 Fed. Reg. 27,696, raises the same concerns regarding encroachment on state control over water allocation described in our comments to proposed section 3162.3-3(c)(3), *supra*.

§ 3162.3-3 Subsequent well operations; Well stimulation (e)(1) [monitoring and recording annulus pressure during stimulation]

API Comment:

This subsection presents the requirement that during hydraulic fracturing operations the operator "must continuously monitor and record the annulus pressure at the bradenhead." Also, state regulations may already require Bradenhead test monitoring during hydraulic fracturing operations. If this subsection is adopted, the BLM should recognize and accept the results of a test conducted pursuant to state regulations. An equivalency determination should be made that allows the use of one test to satisfy both BLM and state requirements. If HF is done down casing then only the inner most casing annulus should be monitored. If a frac string is used then the frac string casing annulus should be sufficient.

§ 3162.3-3 Subsequent well operations; Well stimulation (e)(2) [when annulus pressure increases more than 500 psi]

API Comment:

This subsection requires monitoring of annulus pressure during the hydraulic fracturing job. This is not currently a standard practice. Wells often contain cement up to the surface between the production and surface casings. If the BLM is trying to determine if a breach has occurred due to reduced pressure in the annulus, an increase in pressure in the annulus doesn't necessarily mean the casing has been breached. It is rare for a fracture to channel up the cement sheath to surface as a result of a poor cement job.

This subsection also stipulates that the operator promptly notify the authorized officer "If during the stimulation the annulus pressure increases by more than 500 pounds per square inch as compared to the pressure immediately preceding the stimulation." API notes that it is not unusual for annulus pressure to increase during HF treatments. A monitored rise in pressure is not a cause for concern if the well has been designed and pressure tested for the service. In some cases, the pressure rise may be modest, and in other cases the pressure rise may be more than 500 psi.

BLM did not provide a technical justification for the arbitrary limit of 500 psi for notifying the BLM. A rising annulus pressure may actually be following the expected path. This is common where the average treating fluid temperature is higher than the average wellbore temperature (like on the North Slope or in some other shallow completions in harsh environments). The issue is not whether a pressure threshold is reached, but whether a predicted trend of pressures clearly deviates from an expected trend.

The completion style and geometry of the wellbore are critical in determining pressure limits. What is the compressible volume in the annulus? Are there exposed casing shoes in the annulus? What are the physical properties of the fluids in the annulus? What are the physical limitations of the tubulars involved? What does the pore pressure/ fracture gradient profile look like? These factors and others are already typically considered by the operator and the regulator when determining critical pressures and trigger points for notification.

§ 3162.3-3 Subsequent well operations; Well stimulation (f) [re storage of recovered fluids in lined pits]

API Comment:

API supports the requirement for storage of all recovered fluids in either tanks or lined pits. However, we believe the reference to "additional measures" is overly broad and subject to an interpretation that could lead to unnecessary and/or burdensome additional restrictions. API suggests that BLM modify this requirement to expressly allow an operator to use "any other BLM-approved method," as advances in technology and industry best practices may offer better solutions in the future, and such a modification would avoid the time delay and cost to both operators and BLM in going through the usual variance process.

§ 3162.3-3 Subsequent well operations; Well stimulation (g) [information to be provided authorized officer after completion of operations]

API Comment:

This section details information that must be provided to the authorized officer in the Subsequent Report Sundry notice – within 30 days after hydraulic fracturing operations are completed. API requests clarification on the definition of the term "Completion of the job." API is concerned that due to multi-well pad operations, green completion flow back requirements, etc., operators are often not ready to file a completion report for at least 45-60 days after a well has been stimulated. Given the amount of information required under this proposed rule, the operator should be allowed 90 days so that they may conduct quality assurance of the data provided by its contractors before submitting to BLM for compliance or to conform the information to be reported with applicable state requirements for information to be filed with or following submittal of the completion report.

In addition, with respect to BLM's justification that this information "is required … to determine the impacts associated with operations and the need for any mitigation applicable to Federal and Indian lands," 77 Fed. Reg. 27,698, API reiterates its concerns regarding encroachment on state control over water allocation described in our comments to proposed section 3162.3-3(c)(3), *supra*.

§ 3162.3-3 Subsequent well operations; Well stimulation (g)(5) [disclosure of chemical makeup of completion fluids]

Summary:

- Although the preamble for the rule discusses the BLM's intent to consider use of the FracFocus website, the present text of the proposed rule does not refer to FracFocus, a site which was established to provide factual information concerning hydraulic fracturing and groundwater protection, and to provide the public access to reported chemicals used for hydraulic fracturing within their area.
- § 3162.3-3(g)(5) requires operators to provide the "percent mass value" for each component, and requires CAS numbers for all components, when in some instances no CAS numbers have been assigned. FracFocus and existing State regulations require maximum percent concentration for each chemical, rather than actual percent for each chemical, thus protecting proprietary information while providing disclosure.
- The proposed rules require the disclosure of the "complete chemical makeup" of the frac fluid and do not limit this requirement to intentionally added chemicals, which is inconsistent with disclosure regulations in Colorado as well as Oklahoma and Texas.
- BLM's proposed approach to trade secret protection will create disincentives to the use of innovative products. Under the proposed rules, trade secret information must be submitted to BLM along with a justification for the trade secret claim; BLM will determine whether trade secret claims have been sufficiently justified.

- Most states, including Colorado, Montana, New Mexico and North Dakota, allow companies to withhold trade secret information for routine, well-by-well reporting, and instead only require reporting of trade secret information to regulators when it is needed to respond to a spill or similar incident.
- The proposed requirements would force BLM to expend resources to manage trade secret information to ensure that it is not inadvertently disclosed, make determinations regarding whether companies have adequately justified trade secrets, determine whether information claimed to be a trade secret should nevertheless be disclosed to the public, and possibly defend lawsuits (such as the pending suit against the Wyoming Oil and Gas Conservation Commission).

Recommendation:

- Use of FracFocus for HF chemical disclosure represents the best way to harmonize BLM's regulatory requirements for such disclosure with the regulations of the states and will achieve BLM's stated goal of creating "a consistent oversight and disclosure model that will work in concert with other regulators' requirements."
- API recommends that in both applicable subsections, BLM commit to using FracFocus in the regulation by adding language about populating information in FracFocus, stating, for example: "(4) A report (table) in FracFocus or similar format that discloses all…"
- Limit the application of the proposed requirements regarding disclosure to the maximum potential concentrations of intentionally added chemicals, which is consistent with recent disclosure regulations adopted in Colorado as well as Oklahoma and Texas.
- The proposed regulation should require only the assertion of trade secret status by the party owning the trade secret, subject to a submission to BLM demonstrating how the information withheld constitutes a legitimate trade secret. BLM could seek to require the party owning a trade secret to disclose the trade secret for bona fide emergency response and medical provider needs, as other federal programs (e.g., OSHA Hazard Communication) and many states provide in their disclosure regulations.

Explanation:

Although the preamble for the proposed rule discusses BLM's intent to consider use of the FracFocus website, the present text of the proposed rule does not refer to FracFocus. FracFocus is managed by the Ground Water Protection Council and Interstate Oil and Gas Compact Commission, two organizations whose missions both revolve around conservation and environmental protection. The primary purpose of this site is to provide factual information concerning HF and groundwater protection. The site was created to provide the public access to reported chemicals used in HF. To help users put this information into perspective, the site also provides objective information on hydraulic fracturing, the chemicals used, the purposes they serve, and the means by which groundwater is protected. We understand that White House Deputy Assistant for Energy and Climate Change, Heather Zichal, has endorsed FracFocus as "an important tool that provides transparency to the American people."[2] Ms. Zichal has stated there was "no need to create a new means of disclosure at the federal level" and that the White House is "not looking to duplicate or create another platform that provides a bunch of uncertainty and creates more questions about transparency."[3]API notes that the requirements in § 3162.3-3(g)(5) do not – consistent with

[2] Mike Soraghan, White House official backs FracFocus as preferred disclosure method, E&E News (June 21, 2012).

[3] *Id*.

comparable state regulations – require that chemicals used in a frac fluid be identified based on their original source additives. However, unlike comparable state regulations, this subsection requires operators to provide the "percent mass value" for each component, and requires CAS numbers for all components, when in some instances no CAS numbers have been assigned. FracFocus and existing state regulations require maximum percent concentration for each chemical, rather than actual percent for each chemical, thus protecting proprietary information while providing disclosure.

API recommends that in both subsections, BLM commit to incorporating use of FracFocus into the regulation by adding language about populating information in FracFocus, stating, for example: "(4) A report (table) in FracFocus or similar format that discloses all…"

In this context, the provisions of the chemical disclosure requirements that several states have adopted are relevant. As an example, Colorado Oil and Gas Conservation Commission Order 1R-114 states:

- *Inaccuracies in information. A vendor is not responsible for any inaccuracy in information that is provided to the vendor by a third party manufacturer of the hydraulic fracturing additives. A service provider is not responsible for any inaccuracy in information that is provided to the service provider by the vendor. An operator is not responsible for any inaccuracy in information provided to the operator by the vendor or service provider.*
- *Disclosures not required. A vendor, service provider, or operator is not required to:*
    i. *disclose chemicals that are not disclosed to it by the manufacturer, vendor, or service provider;*

       [or

    ii. *] disclose chemicals that occur incidentally or are otherwise unintentionally present in trace amounts, may be the incidental result of a chemical reaction or chemical process, or may be constituents of naturally occurring materials that become part of a hydraulic fracturing fluid.*

§ 3162.3-3 Subsequent well operations; Well stimulation (g)(6) [information re estimates of fracture penetration]

API Comment:

The general intent and objective of any HF design is to treat only the known productive layers or formations, utilizing the aforementioned data and analysis. Operators avoid grossly fracturing "out of zone." Carefully managing the fracture penetration through proper design and practice eliminates unnecessary cost and wasteful usage of materials including water, and reduces the potential risk for communicating with overlying or underlying non-productive zones.

The majority of wells currently drilled in the US are horizontal wells in "unconventional resource plays" that are completed in multiple "frac stages." Understanding created fracture geometry is important to optimized completion design. Given the nature and extreme complexity of horizontal staged completions, the vast majority of horizontal well frac designs are accomplished using regional and local information that relates proppant pumped and injection rate to expected frac height and length. In some cases, the intended or designed fracture geometry is confirmed from well logs, production data, and "microseismic surveys." The fracture length and fracture height are based on numerous assumptions and are not directly measured. Fracture models are designed to give bi-wing single planar results which will result in a fracture wing or penetration greater than may commonly occur in complex fractures such as in tight reservoirs.

Proposed section 3162.3-3(g)(6) allows the option of estimating or calculating the fracture length and height but then seems to impose a more stringent verification process based on the statement "would require the operator to show that the well stimulation activity was successfully implemented as designed." This appears to put the burden on the operator to prove the frac length and height. While operators have a general understanding of the resultant frac length and height based on modeled inputs and execution plans, subsurface measurements of fracture dimensions are impossible.

With this subsection, it appears that the BLM is attempting to verify that hydraulic fracturing does not have unintended consequences on other rock layers including aquifers. Similar to API's concerns with the requirement for CBLs and the 500 psi annular reporting requirement, this rule cannot provide the assurance that the BLM is seeking. Instead, BLM must recognize that operators do not implement HF treatments that result in wasteful or uneconomic fracture growth. Where aquifers, faults, and other subsurface features might exist, operators will commonly reduce injection rates or make other changes to prevent unintended communication. Again, most horizontal well fracture design is based on available data and local/regional experience. Even today, rigorous, computer-based frac designs are the exception rather than the rule.

API does not agree that the information described in this subsection should be a requirement and accordingly recommends that it be deleted. In the event the BLM retains this subsection, API requests that the BLM identify what guidance and method the agency will follow to interpret subsurface fracture modeling results. API recommends that BLM clarify acceptable variance and geometric methodology for estimation of effective fracture lengths within a formation so that an operator can certify to engineering design applied to boundaries and containment for that zone instead of well by well.

§ 3162.3-3 Subsequent well operations; Well stimulation (g)(8) and (9) [additional operator certifications]

API Comment:

The proposed requirements in these two subsections are not warranted. These subsections require that the operator provide signed certifications that the treatment fluid used "complied with all applicable permitting and notice requirements" and that "wellbore integrity was maintained throughout the operation." Neither certification is necessary. The monitoring data from the Bradenhead is adequate and will provide the BLM with well integrity assurance. Manufacturers and importers are responsible for compliance with regulations related to product registration, notice and/or permitting. Operators should not be required to certify that manufacturers and importers of the fluids have complied with these regulations. Please also see API comments above made with reference to **§ 3162.3-3 Subsequent well operations; Well stimulation (c)(4),** ***supra*****.**

§ 3162.3-3 Subsequent well operations; Well stimulation (g)(10) [information on handling of recovered fluids]

API Comment:

This subsection requires that the disposal of fluids produced during the flowback from the hydraulic fracturing process must follow the requirements set out in Onshore Order Number 7, Disposal of Produced Water, Section III. B. However, Onshore Order Number 7 does not pertain to disposal of fluids produced during flowback. Onshore Order #7 is specific to produced water disposal of completed wells and the design, construction, and maintenance requirements for pits as well as minimum standards to satisfy the requirements and procedures for seeking variance from the minimum standards. Furthermore, flowback water is recovered over an extended time and in some cases, flowback is intentionally delayed.

API recommends that "flowback volume" in the context of this subsection be restricted to mean the volume reported at the time the subsequent sundry notice is required. Additionally, API requests that the rule provide for acceptance of a general fluid management plan where appropriate such as when methods of fluid handling are managed at a field or unit level.

§ 3162.3-3 Subsequent well operations; Well stimulation (g)(11) [re explanation of deviations from approved stimulation operations plan]

API Comment:

Reporting of deviations from the approved plan is problematic for the operator due to the amount of information that BLM is requiring for approval and the number of times such information may change over an extended period of time. This level of reporting would be a significant administrative burden for both the operator and the agency. Also, it is not clear whether deviations reported would be subject to enforcement. Although the BLM states in this section that "understanding the complexities of well stimulation, the BLM expects there to be slight differences between the proposed plan and the actual operations," BLM's rationale indicates they will maintain a record of deviations from the approved plan. API believes that if this subsection is to be adopted provision must be made for agency acceptance without penalty of variances between the proposed and final plans to avoid additional unnecessary paperwork for routine operations.

§ 3162.3-3 Subsequent well operations; Well stimulation (h) and (i) [re claim of exemption of information from public disclosure]

API Comment:

§ 3162.3-3(h) and (i) address identification of information claimed to be exempt from public disclosure. The proposed rules contemplate that operators will make trade secret claims, but in many instances it is the service companies and vendors that own the trade secrets. The rules should expressly afford robust trade secret protection to service companies and vendors.

The proposed regulations require disclosure of trade secret information rather than the assertion of the trade secret. Such a requirement jeopardizes the ability to protect trade secret status. The proposed regulation should require only the assertion of trade secret status by the party owning the trade secret, subject to a submission to BLM demonstrating how the information withheld constitutes a legitimate trade secret. BLM could seek to require the party owning a trade secret to disclose a trade secret for bona fide emergency response and medical provider needs subject to appropriate conditions to maintain the trade secret status of the information, as other federal agencies (such as OSHA) and many states provide in their disclosure regulations.

Of additional concern, companies will not know that their proprietary information will be publicly disclosed until the chemicals have already been used and it is too late to withhold use of the chemicals. As a result, any use of trade secret chemicals will put the trade secret status of the chemicals at risk. Without robust trade secret protections, BLM will create disincentives for industry to develop and use innovative products. If companies cannot be assured of protection for their trade secrets, then significant advances in oil and gas production and environmental benefits will be lost.

It is unnecessary and a significant burden for operators to repeat this exemption process for each hydraulic fracturing operation, when field service companies are responsible for determining their trade secret information and complying with applicable protection requirements.

Most states, including Colorado, Montana, New Mexico and North Dakota, allow companies to withhold trade secret information for routine, well-by-well reporting, and instead only require reporting of trade

secret information to regulators when it is needed to respond to a spill or similar incident. The proposed requirements would force BLM to expend resources to manage trade secret information to ensure that it is not inadvertently disclosed, make determinations regarding whether companies have adequately justified trade secrets, and determine whether information claimed to be a trade secret should nevertheless be disclosed to the public. Furthermore, a requirement to disclose trade secret information would be inconsistent with BLM's expressed interest in using FracFocus given that FracFocus is not set up to receive and hold trade secret information.

§ 3162.3-3 Subsequent well operations; Well stimulation (j) and (j)(4) [requesting variances]

Summary:

- Section §3162.3-3 (j)(4) states, "…the BLM reserves the right to rescind a variance or modify any conditions of approval." With this language, an operator would not be able to rely on a variance obtained for concern that it would be later revoked.

Recommendation:

- API recommends deleting this section from the rule.

Explanation:

Section §3162.3-3(j)(4) states, "Due to changes in Federal law, technology, regulation, BLM policy, field operations, noncompliance, or other reasons, the BLM reserves the right to rescind a variance or modify any conditions of approval. The authorized officer must provide a written justification if a variance is rescinded or a condition of approval is modified." This regulatory language removes all accountability from the BLM in granting variances and revoking variances over time. With this language, an operator would not be able to rely on a variance obtained for concern that it would be later revoked. It is important to note that operators may have made significant investment after obtaining a variance for equipment or other hardware. If the variance is later revoked, the operator could be facing unexpected cost implications and operational interruptions to revert back to a previous standard. API believes this proposed provision is arbitrary and capricious, and should be removed.

§ 3162.5-2 Control of wells (d)

API Comment:

This section expands beyond 3160.0-5 and 3162.5-2(d)'s usable water definition to include "other mineral-bearing formations." It would remove references to fresh water and remove the phrase "containing 5,000 ppm or less of dissolved solids." This revision would align the current regulation with the Onshore Order #2 definition. While making definitions internally consistent, there is no consideration of other constituents that would make such water unusable. This could severely impact several production areas by prohibiting the existing and currently allowed practice of using water from oil bearing zones and also the disposal of produced water into oil bearing zones. BLM should clarify that this requirement does not apply for waters that meet this definition, but are associated with hydrocarbon producing zones

It is not clear what tests and surveys should be conducted by the operator "using procedures and practices approved or prescribed by the authorized officer" means. Please see API Comments above with reference to proposed rule section §3160.0-5 "Definitions" for discussion of the proposed term "Usable water." BLM should identify its plans for approval procedures and practices and define qualifications for an authorized officer and what tests and surveys are required. Also, it is not clear whether this subsection can be read to require operators to run CBL on surface casing, and whether it imposes a requirement on operators to protect certain "mineral bearing formations" that may already be contaminated. BLM should

also stipulate in the rule that the requirement for an operator to identify usable water is satisfied by setting surface casing at depths that protect usable water as established by BLM, by existing water wells, or in accordance with state authorities.