

## MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

In the matter of the submission into the Montana State Implementation Plan (SIP) of Administrative Rules of Montana 17.8.1601, 17.8.1602, 17.8.1603, 17.8.1604, 17.8.1605, 17.8.1606, 17.8.1701, 17.8.1702, 17.8.1703, 17.8.1704, 17.8.1705, 17.8.1710, 17.8.1711, 17.8.1712, 17.8.1713, and 17.8.744 (“Oil & Gas Registration Program”).

### RESPONSES TO COMMENTS RECEIVED

Pursuant to public notice published July 15, 2011 and hearing held August 18, 2011.

The Montana Department of Environmental Quality (Department) received comments regarding this action from the Montana Petroleum Association, Continental Resources, and the U.S. Environmental Protection Agency (EPA). The Montana Petroleum Association (MPA) and Continental Resources expressed support for the submission of the Oil & Gas Registration Program rules into the SIP and offered comments substantiating facts and augmenting statements presented in the “110(l) demonstration” supporting the submission. EPA expressed appreciation for the effort and offered comments as “additional elements that need to be included. . .” The Department’s responses focus on comments received that are critical or adverse to the Department’s action to include the Oil & Gas Registration Program into Montana’s SIP.

#### Montana Petroleum Association

*MPA comment, re: “While MPA and others do not believe that all of the required controls, reporting and monitoring requirements are necessary for program approval, we agree to the program as a whole.”*

Response:

The Department worked with stakeholders to develop a set of rules for oil and gas well facilities that would control emissions, encourage compliance, promote innovative control technologies, and harmonize with existing regulatory programs. While anyone may take exception with one aspect or another, the extensive stakeholder involvement strengthens the Oil & Gas Registration Program against comprehensive challenge. The Department believes the Oil & Gas Registration Program represents a reasonable compromise of various interests and appreciates MPA’s support of the product of that compromise.

#### Continental Resources

Continental Resources supports the inclusion of the Oil & Gas Registration Program into Montana’s SIP. Continental Resources augments several statements set forth in the “110(l)” demonstration document with further facts and rationale, bolstering the Department’s conclusions regarding the adequacy of Montana’s SIP with the Oil & Gas Registration Program revision.

U.S. Environmental Protection Agency

*EPA comment, re: ARM 17.8.1601: “Can Montana clarify what technology is included in this definition as it appears somewhat ambiguous. For example: What are the types of ‘resource recovery’ activities and ‘technology’ that will result in ‘significantly lower emissions of VOCs’? It’s not clear what precise technologies this definition is referring to.”*

Response:

The term “emissions minimizing technology” may seem unclear because it is based more on performance and outcome than a narrow definition of compliance. The term “emissions minimizing technology” in this context is appropriately broad to incorporate methods, even those not yet invented, that decrease emissions while providing the benefit of product waste reduction.

The plain meaning of the term “emissions minimizing technology” reflects a line of thinking regarding effective modern regulation. One positive goal of modern environmental regulation is to change from doing what is inspected to doing what is expected. First-generation environmental regulatory systems depend entirely upon top-down intervention that prescribes a specific method instead of an environmentally-competent outcome. The Oil & Gas Registration Program represents a transition from old to new, contemporary regulatory systems. The Oil & Gas Registration Program, including this definition, depends on a set of practices and relationships between industry and the Department that goes beyond a conventional command-and-control rules approach to focus on motivating desired performance of a registered source. The concept of “emissions minimizing technology” is very similar to “best system of emission reduction (BSER).” Using BSER, a particular technology is not prescribed when compliance may be demonstrated by achieving a certain standard of performance.

Notwithstanding this observation, the Oil & Gas Registration Program results in use of several emissions-minimizing technology practices and equipment that have reduced emissions from oil and gas well activity. Vapor recovery systems, smokeless combustors, and capturing and routing usable/marketable gas to fuel equipment or a production pipeline all reduce emissions at an oil or gas well facility. In fact, EPA identified these same technologies as BSER for VOC and HAP emissions for oil and gas affected facilities in the recently proposed NSPS – Subpart OOOO-Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution.

*EPA comment, re: inconsistent internal reference in ARM 17.8.1601 and ARM 17.8.1701. “The SIP submittal states the definition is located in [Mont. Code Ann.] 75-1-103(13) but the definition is in (15).”*

Response:

As correctly pointed out, an inconsistent internal reference to Mont. Code Ann. 75-2-103 (13) exists in ARM 17.8.1601(3) and 17.8.1701(5) because the Legislature changed the law after the rule was submitted to EPA for inclusion into the SIP in 2006. The Department does not view this inconsistency as any more problematic than the current delay in SIP processing. Montana’s rules are responsive and

Montana periodically corrects such inconsistencies when they are discovered. The Department intends to bring this matter to the attention of the Board of Environmental Review (Board) for correction in an expedient matter. Depending on the timing of EPA's approval, the Department could request the Board initiate a rulemaking action following EPA's approval at the next available Board meeting after approval.

If EPA takes a position that an inconsistent internal reference renders this submission "unapprovable," the Department recommends approving conditionally, i.e., approval is automatic if the Board approves revisions and evidence of the Board's action is submitted to EPA within 18 months following EPA final action to conditionally approve.

*EPA comment, re: "The section 110(l) analysis (demonstration of non-interference) needs to clearly identify all criteria pollutants whose emissions or ambient concentrations may change as a result of the new oil and gas rules" and "The purpose of a 110(l) analysis is to prevent changes that could interfere with attainment of the NAAQS or other applicable CAA requirements."*

Response:

EPA and Montana view the requirements contained in 42 USC 7410(l) from slightly different perspectives. In contrast to EPA's comment that the purpose of 110(l) analysis is to prevent changes that "could" interfere with NAAQS, the statute itself reads, in relevant part, "The Administrator shall not approve a revision of a plan if the revision **would** interfere with any applicable requirement . . ." Emphasis added. The Department sees a significant philosophical difference between a change that "could" occur rather than a change that "would" occur (if EPA approves the SIP revision). As result, the Department set forth in the demonstration document the data and circumstances regarding ambient air affected by registered oil and gas well facilities. The test in the statute does not call for proving a mere possibility. The statute does not direct EPA to approve a rule unless it can be demonstrated that a *possibility* exists that it *might* interfere with any applicable requirement. Rather the statute contemplates EPA to approve a change unless the change "would," in fact, yield interference with the NAAQS. Arguably, Congress, in using the word "would" contemplated certainty or a near certainty in evidence pointing to interference. The Department notes that no such evidence exists for this proposed SIP action. We are unaware of any evidence for any NAAQS pollutant in any area that establishes a near certainty that the Oil & Gas Registration Program interferes with any applicable requirement as set forth in the statute.

Therefore, in the absence of real and substantive evidence, it is more reasonable to conclude the effect of the SIP revision is negligible to ambient air quality based on actual ambient monitoring data. The Department does, however, recognize that supplementary data and investigations may provide and support evidence when identifying *potential* ("could") impacts to air quality. In the face of overwhelming evidence to the contrary, however, it would be very difficult for the Department to confirm an allegation that the Oil & Gas Registration Program would, indeed, interfere. The Department has implemented the Oil & Gas Registration Program for several years. Available evidence, including monitoring data, provides no indication that the Oil & Gas Registration Program would interfere with any applicable requirement.

*EPA comment, re: "Provide historical data, going back to when the oil and gas rules were implemented as a State-approved rule in 2006, showing criteria pollutant emission trends attributed to oil and gas well facilities through, for example, emissions inventory reports."*

Response:

By January, 2006, following a survey of oil and gas well facilities subject to MAQP, the Department received over 660 MAQP applications. The Department then began to develop a monitoring plan to characterize the air quality conditions in the predominant area of development. The Department worked diligently to find the resources to implement its monitoring plan and in approximately August 2008, actual monitoring began.

If the delay in EPA acting on this submission worked to any advantage, it is that the Department has successfully implemented Montana's Oil & Gas Registration program (both subchapters 16 & 17) since 2006. As analyzed and presented in the demonstration document, the Department has no indication or data that NAAQS are threatened as a result of this implementation. The very reason the Department located ambient monitors in the midst of the highest concentration of oil and gas development was to be apprised of the status of pollution concentrations associated with oil and gas well activity. In the absence of specific machine-based monitoring, the use of emissions data, in conjunction with other data, may prove useful in calculating the status of the ambient air. However, the Department's methodology of using machine-based monitoring provides more conclusive evidence of ambient air quality.

Montana used this particular methodology, i.e., locating machine monitors and downloading the data, with the intention of tracking ambient concentrations of NAAQS pollutants as a continuous test of the effectiveness of the Oil & Gas Registration Program. If the Department's chosen methodology is so easily discredited, perhaps the assumptions about tracking ambient concentrations using monitoring are flawed. The Department is committed to both maintaining the NAAQS in the areas of oil & gas development and reducing misunderstandings and areas of conflict regarding the implementation of the Oil & Gas Registration rules. If a different methodology is preferred, the Department would certainly consider such opinions and incorporate them into its monitoring strategy as resources permit.

*EPA comment, re: ". . .provide more information on sour gas wells located in the state."*

Response:

The Department does not distinguish between sour gas wells and any other oil & gas well facility in determining applicability of either the MAQP or Oil & Gas Registration Program rules. If these facilities emit threshold amounts of regulated air pollutants, the owners/operators are subject to the requirements of either Montana Air Quality Permit rules or the Oil & Gas Registration Program. The Oil and Gas Registration Program specifically requires oil and gas well facilities with a detectable level of hydrogen sulfide from a well to submit an air quality analysis demonstrating compliance with ARM 17.8.210 and 17.8.214. No options exist to avoid any rule based on some designation as a "sour gas well."

*EPA comment, re: "The State's analysis needs to include a sufficient basis to show that the proposed regulatory additions and changes to the SIP will not interfere with each of the nonattainment areas in the State."*

Response:

While the Department is unsure what might be considered "sufficient," the Department structured its analysis to show the effect of the Oil & Gas Registration Program on each of the NAAQS. That analysis included an assessment of each non-attainment area for each pollutant. In order to provide another perspective consistent with the comment, the demonstration document has been reorganized to analyze the data from the perspective of using nonattainment areas as the reference point instead of each NAAQS pollutant. Following the rewrite and analysis, the Department reaches the same conclusion.

Even without taking into consideration the analysis of such factors as proximity, emissions, or monitoring data as shown in the existing document, no nonattainment control plan relies on MAQP or, implicitly, the Oil & Gas Registration Program (as an element in Montana's minor source control program). Therefore, the requested revision reaches the same conclusion. That is, the proposed SIP revisions will not interfere with any requirement relating to any nonattainment area for any pollutant.

*EPA comment, re: ". . .the 110(l) demonstration does not reference where the requirement can be found in the proposed SIP revisions, 'oil and gas well facilities are required to comply with all the rules generally applicable to other regulated emission sources.'"*

Response:

From a more grammatical point of view, the comment can be presented from the other direction. For example, ARM 17.8.304 places limits on opacity in various manners. More specifically, that rule states: "No person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source ..." That rule (as in all 'generally applicable' rules) requires that all persons, sources, emitting units, or ... must meet a particular requirement. Therefore the rule is applicable to all facilities. One cannot be exempt from these general requirements unless there is a more specific rule that addresses a waiver or exemption specifically. A review of the Oil & Gas Registration Program yields no such exemption or waiver. Therefore, one must conclude that these generally applicable rules are also applicable to oil and gas facilities.

*EPA comment, re: "There is no predictive analysis in this demonstration . . ."*

Response:

It is the Department's understanding that the term "predictive analysis" as used in this comment refers to dispersion (or receptor) air quality modeling. While the comment is acknowledged, we note that modeling is not required to demonstrate what is already a fact, i.e., six years of program

implementation and performance. Over the years, the Department has participated in several discussions with EPA regarding demonstrations that accompany and defend SIP submissions consistent with 42 USC §7410(l). The Department is aware of EPA's preference for modeling, however, air quality modeling that projects increases in oil and gas development in Montana over some undetermined future time period is not required.<sup>1</sup>

Besides the timing of the authorization to emit, there is no substantive difference to the air quality that results from an authorization under registration as opposed to Montana Air Quality Permit ("MAQP"). The control of emissions from registered oil and gas well facilities is equivalent to the Best Available Control Technology ("BACT") requirements that would otherwise be mandated by a Montana Air Quality Permit (MAQP). Therefore, by definition, it is not possible that the process and procedure of the Oil & Gas Registration Program would, in and of itself, worsen air quality, which is the Section 110(l) test EPA must apply in this case. This conclusion is confirmed by monitored air quality data collected over nearly six years of implementing the Oil & Gas Registration Program. In addition, the Department continually confirms this observation as a function of operating the ambient air monitoring network. This work ensures that, at a minimum, status quo air quality is maintained.

For purposes of oil and gas development and the Oil & Gas Registration Program, a particular concern is VOC, an ozone precursor. Montana has no ozone nonattainment areas. As part of the reconsideration of the 2008 ozone NAAQS, EPA projected probably ozone nonattainment and found all states in the continental US *except Montana* were facing nonattainment or near-nonattainment. Because no ozone nonattainment areas exist in Montana, no emissions reductions are required to achieve attainment of the ozone standard. The modern role of the NAAQS as a component of air quality in a performance-based world is, in addition to providing a uniform air quality standard applicable nationwide, to provide the yardstick against which to measure performance-based standards. The emissions controls imposed as a result of registration (in lieu of MAQP BACT) reduce VOC emissions from oil and gas well facilities in an area with the some of the lowest ambient ozone concentrations in the nation. Nothing about this approach indicates the revision will interfere with any applicable requirement concerning attainment and reasonable further progress.

To the extent emissions reductions may be needed to achieve attainment in other areas of the State for criteria pollutants other than ozone, the program has had no effect on those areas. SIP control plans do not rely on emission controls imposed pursuant to the Oil & Gas Registration Program or MAQP.

The Department is relying on nearly six years of program implementation and is uniquely qualified to evaluate the real world impacts of the program on ambient air quality and our air regulatory administrative practices. This demonstration confirms that the Oil & Gas Registration Program does not interfere with any requirement for attainment of NAAQS, while providing significant administrative

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<sup>1</sup> 42 USC §7410(l) prohibits EPA from approving a SIP revision that "would" interfere with an applicable requirement for attainment or RFP. This is not the same as deliberating the effects of a revision that "could" affect an area that is not nonattainment.

efficiencies, i.e., positive cost-benefit. Emissions from registered oil and gas sources are controlled at levels that are equivalent to the level of control (i.e., BACT) that would otherwise be required in an MAQP. While the Oil & Gas Registration Program provides for a more expeditious authorization process, it does not authorize emissions that would not have otherwise been approved anyway or authorize a level of control less stringent than BACT.

Besides streamlining the regulatory process, the Oil & Gas Registration Program does not eliminate the need to require emissions control technology and practices. On the contrary, it effectively ensures minor source BACT-equivalent control is timely applied to emissions from oil and gas development at the point it is determined any given individual operation will emit air pollutants. Given this fact, the Oil & Gas Registration Program does not make any substantive revision to our air regulatory program that *could or would* result in any change in emissions than would otherwise be authorized. The program does not relax any existing requirements and, on that basis, it does not alter “status quo air quality.” As such, EPA approval of the program will not interfere with attainment or maintenance of any NAAQS. A “predictive analysis” of undefined scope and cost is not necessary to either support this conclusion or EPA approval of the program.