
BEFORE THE AIR QUALITY CONTROL COMMISSION, STATE OF COLORADO

In the Matter of Proposed Revisions to Ambient Air Quality Standards Regulation, Regulations No. 3, 7, and 11 for the Denver Metropolitan and North Front Range Ozone Action Plan

JOINT REBUTTAL STATEMENT OF ANADARKO PETROLEUM CORPORATION, NOBLE ENERGY, INC., and WILLIAMS PRODUCTION RMT COMPANY

Anadarko Petroleum Corporation (“Anadarko”), Noble Energy, Inc. (“Noble”), and Williams Production RMT Company (“Williams”) (collectively the “Well Operators”) jointly submit this Rebuttal Statement (“Rebuttal”) pursuant to the Air Quality Control Commission’s (“AQCC” or the “Commission”) procedural rules, 5 CCR 1001-1, Section 1.5.5(5)(c), in connection with the Commission’s consideration of proposed revisions to the Ambient Air Quality Standards Regulations, Regulations No. 3, 7, and 11, for the Denver Metropolitan and North Front Range Ozone Action Plan (“Ozone Action Plan”).

The Well Operators’ Rebuttal consists of: an Executive Summary (Section I); a statement of factual and legal issues (Section II); a list of rebuttal exhibits that will be introduced at the hearing (Section III); a list of rebuttal witnesses, some or all of whom may be called to provide testimony and respond to questions at the hearing (Section IV); reservations made by the Well Operators (Section V); and a brief conclusion (Section VI).

I. EXECUTIVE SUMMARY

In this Rebuttal, the Well Operators respond to numerous aspects of the Division’s Alternatives 1 and 2 to their noticed proposal, as well as many points raised in the prehearing statements of other parties. Chief among these points are (1) the Division’s retention of a “system-wide” approach to controls for condensate tanks in name only, (2) the lack of benefits associated with the Division’s proposed state-wide reciprocating internal combustion engine (“RICE”) controls for the oil and gas industry, (3) the lack of support for a number of the Division’s assertions, and (4) the Division’s lack of written witness testimony and listed exhibits. These and other points are briefly addressed in this executive summary, and are more specifically examined in the balance of this Rebuttal.

A. The Division’s Proposed 2012 Tank Controls are “System-Wide” in Name Only

While the Well Operators greatly appreciate the Division’s retention of the system-wide approach to controlling emissions from condensate tanks for 2009-2011, the decisions to (1) require 95% system-wide control in 2012 and (2) retain a Regulation No. 3 Reasonably Available Control (“RACT”) requirement for individual tanks emitting as low as 2 tons per year (“tpy”) means the flexibility of the system-wide approach is largely lost by 2012.

This is particularly unfortunate and unnecessary given the lack of need to specify now what additional tank controls, if any, will be necessary in 2012. What the Division fails to recognize is that 95% system-wide control of tanks emitting greater than or equal to 2 tpy means 100% control of such tanks (no flexibility) times the 95% capture and destruction efficiency currently required by rule. This is the threshold approach in all but name, and the incentive to over-control is relegated to assembling a buffer from placing flares on ever smaller-emitting tanks, down to 1 tpy. Very little buffer can be afforded in this way, and it comes at the highest cost and least benefit per well or tank. And the Division's Regulation No. 3 revisions would require flares on new or modified tanks emitting greater than or equal to 2 tpy, thereby also constraining the desired flexibility of the system-wide approach.

B. Supplemental Modeling Shows the Division's Proposed State-Wide RICE Controls Provide Very Little Benefit

Supplemental Modeling by the Division and the RAQC's modeling contractors has isolated the asserted benefits and suspected disbenefits of state-wide RICE controls. The Division's modeling runs coupled those engine controls with State Implementation Program ("SIP") only benefits to be obtained by 2010 (Control Strategy 1), as well as State-only tank controls proposed for 2011 and 2012, and North Front Range ("NFR") vehicle Inspection and Maintenance program ("I/M Program") benefits associated with a fictitious 2008-2010 implementation of the proposed I/M 240 program. See Section II.E, below; Rebuttal Exhibits, WO Exhibit 49 (PowerPoint Presentation by ENVIRON and Alpine), WO Exhibit 50 (ENVIRON Results of Control Strategies), and WO Exhibit 51 (Control Strategies Chart). The Division's Control 2 did not allow for separate evaluation of the proposed RICE controls, because they were lumped in with post-2010 tank controls and a non-existent NFR I/M Program. The supplemental modeling of Control Strategy 2b, stripping out the post-2010 tank controls and the NFR I/M Program emission reductions, reveals that the proposed state-wide RICE controls provide "very little," if any, benefit to ozone concentrations projected for the NAA, no benefit at the most problematic monitors, and scattered disbenefits across a broad area west of the NAA. This information, coupled with the fact that federal new source performance standards ("NSPSs") will deliver emission reductions from a much broader class of engines in the next several years, without the confusion or conflicts created by adoption of state-wide RICE controls on top of the new federal engine standards, weighs heavily against their adoption by the Commission.

C. The Well Operators Support a Revised NFR Vehicle I/M Implementation Start Date of July 1, 2010

It is apparent from the rebuttal statement of Environmental Systems Products ("ESP") that the Division has indicated its support of July 1, 2010, as an appropriate start date for implementing the I/M Program proposed for adoption in the NFR. While the Well Operators continue to believe a January 1, 2010 start date is achievable, they will support the Division's apparent willingness to revise its Alternatives 1 and 2 to include a July 1, 2010 start date, instead of a January 1, 2012 start date. Accordingly, the Well Operators hereby withdraw their Alternate Proposal concerning revisions to Regulation No. 11 implementing the vehicle I/M Program for the NFR, in favor of building consensus support for the Division's revised start date.

D. The Division's Prehearing Statement Makes Assertions for Which No Support is Offered or Identified

The Division's Prehearing Statement is remarkable in its failure to identify exhibits, provide any written testimony for the seventeen (17) individuals identified (one of which is legal counsel for the Division) or cite a basis in scientific data or modeling results for many of its assertions. These failings put the parties and the Commission in the difficult spot of being unable to discern the basis for many of the Division's assertions, and thereby being prevented from challenging that basis in a timely fashion. While the Well Operators appreciate that the Division's decision to propose alternatives to its noticed proposal dictated many changes to its prehearing statement, it cannot justify the absence of fundamental elements that are required for an adequate administrative record, or the failure to afford all parties fundamental fairness and a reasonable opportunity to respond to the Division's assertions.

In light of these and other points raised more specifically in this Rebuttal, the Well Operators respectfully request the Commission adopt their Alternate Proposal for system-wide tank controls, retain a Regulation No. 3 permit exemption for tanks less than 5 tpy, establish RACT for condensate tanks emitting 5 tpy or more and defer state-wide RICE control adoption for further study in 2009.

II. STATEMENT OF FACTUAL AND LEGAL ISSUES

A. Legal Issues

1. Commission Authority Relative to State Implementation Plan

In response to the Commission's expressed concerns about Commission authority to promulgate federally enforceable regulations to be included in the ozone SIP, the Division submitted an alternate proposal ("Alternative 2") that essentially removes all proposed SIP controls from the SIP document and places them into the "State-only" portion of the Ozone Action Plan. The Well Operators do not believe that the Colorado Air Pollution Prevention and Control Act ("Colorado Air Act") require such action by the Commission.

The provision giving rise to the Commission's concerns provides:

To the extent that any provision of this article or any standard or regulation promulgated pursuant thereto is not required by Part C (prevention of significant deterioration), Part D (non-attainment), or Title V (minimum elements of a permit program), of the federal act, or is not required by section 111 of the federal act, or is not required for sources to participate in the early reduction program of section 112 of the federal act, or is not required for sources to be excluded as a major source under this article, or is otherwise more stringent than other requirements of the federal act, such provision, standard, or regulation is hereby declared to be adopted under powers reserved to the State of Colorado pursuant to section 116 of the federal act. Any such provision, standard, or regulation

adopted exclusively under State authority shall not constitute part of the state implementation plan.

C.R.S. § 25-7-105.1(1) (emphasis added). In other words, although the Commission has authority to adopt State-only regulations that are more stringent than what is federally required, under the Colorado Air Act the only regulations the AQCC may adopt for inclusion in a SIP are those that are required by certain portions of the federal Clean Air Act (“CAA”). Part D of the CAA specifically provides that SIP “provisions shall include enforceable emission limitations, and such other control measures, means or techniques . . . as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date.”

42 U.S.C. § 172(c)(6) (emphasis added).

Including effective controls in the SIP is an “appropriate” way to “provide for attainment” of the federal ozone NAAQS, especially when one considers the limitations inherent in modeling and the significant role that future meteorology will play in whether the 8-hour ozone NAAQS will be violated. Moreover, the 2010 base case modeling only demonstrates attainment by a very slim margin at the problematic Rocky Flats North and Fort Collins West monitors. Because Part D of the CAA requires a non-attainment SIP to contain necessary or appropriate controls that will provide for attainment of the NAAQS, the Commission has the requisite authority under the Colorado Air Act and the CAA to include appropriate controls in the SIP that will help provide for attainment in 2010. A more detailed discussion of the extent of the Commission’s legal authority is attached to this statement as Rebuttal Exhibit, WO Exhibit 51 (Memorandum). For these reasons, the Well Operators do not support the Division’s proposed Alternative 2.

2. Scope of Rulemaking

The Commission should be mindful of the initial scope of this rulemaking as set forth in the Commission’s Notice of Proposed Rulemaking as it reviews a number of the parties’ requests for additional revisions and alternate proposals. That notice is restated in the Final Statement of the Well Operators at pp. 2-3.

When determining whether suggested revisions, if adopted, would fall within the scope of the rulemaking, the Commission should consider whether the suggested revisions would produce a final rule that is a logical outgrowth of the proposal or the notice and comments during the rulemaking process following the publication of the proposed rule. *See, e.g., Louisiana Federal Land Bank Ass’n, FLCA v. Farm Credit Admin*, 336 F.3d 1075 (D.C. Cir. 2003); *N.R.D.C. Inc. v. U.S. E.P.A.*, 824 F.2d 1258 (1st Cir. 1987); *N.R.D.C. Inc. v. U.S. E.P.A.*, 279 F.3d 1180 (9th Cir. 2002).

Even assuming the Commission determines some of the parties’ suggested revisions to be within the scope of this rulemaking, as a logical outgrowth of the proposal or the notice and comments during the rulemaking process following the publication of the proposed rule, some of those same parties failed to provide alternate proposal language for the Commission’s consideration and the consideration of the other parties. *See* 5 CCR 1001-1, § 1.5.5(5)(c)(vii) (2008).

To this end, certain parties have suggested revisions to the proposed draft regulation attached to the Commission’s Notice of Proposed Rulemaking that are clearly outside the scope of this rulemaking. Where appropriate, the Well Operators have called out these suggested revisions that exceed the scope of this rulemaking.

3. Procedural Issues

a. The Division’s Prehearing Statement Fails to Provide Support for its Assertions in the Form of Exhibits or Citations

As outlined in Section 1.5.5(5)(c)(iv) of the Air Quality Control Commission Procedural Rules, the prehearing statement *shall* contain “[c]opies of all exhibits to be introduced in the hearing.” 5 CCR 1001-1, § 1.5.5(5)(c)(iv) (2008). In this instance, the Division failed to identify any exhibits to support its conclusions—scientific or otherwise—identified in its original proposal or its alternative proposals. The Division limited its exhibits to three items: (1) Alternative 1 draft language; (2) Alternative 2 draft language; and (3) final economic impact analyses. This omission severely limits the parties’ ability to rebut the propositions outlined in the Division’s Prehearing Statement.

For example, at one point, the Division indicates that it estimates that “emission reductions associated with this [RICE state-wide] proposal would be 5,800 tons per year for NO_x, 1,280 tpy for VOCs and 6,960 tons per year for CO.” The Division makes this statement without providing a basis for its credibility and further fails to associate it with any type of exhibit for a party to review and offer any countering opinion. The parties are then left combing through the various documents made available by the Division throughout the informal stakeholder process that preceded this rulemaking to try to identify if—and where—statements exist to support the Division’s conclusions. This is but one of many examples in the Division’s Prehearing Statement that put such a burden on the parties to this rulemaking. Unfortunately, this approach effectively limits the Commission’s receipt of meaningful information from parties other than the Division for consideration in adopting the most appropriate rule revisions, and is therefore objectionable.

More specifically, reviewing courts have noted that when an agency such as the Division relies on modeling to draft its proposed regulatory language, it is required to explain its assumptions and methodologies used in preparing the model. *See, e.g., U.S. Air Tour Ass’n v. F.A.A.*, 298 F.3d 997 (D.C. Cir. 2002); *N.R.D.C., Inc. v. Herrington*, 768 F.2d 1355 (D.C. Cir. 1985). This would, therefore, support the position that the Division’s Prehearing Statement should have included at least a sampling of exhibits relative to the modeling upon which many of its proposed regulatory revisions are based. Furthermore, under the Colorado Administrative Procedure Act (“APA”), the Division has a duty to identify and make available for public inspection “*all* information, including, but not limited to, the conclusions and underlying research data from any studies, reports, published papers, and documents, used by the [Division] in the development of a proposed rule.” C.R.S. § 24-4-103(4)(a.5) (2008). A failure to reveal portions of the technical bases for the proposed rule in time to allow for meaningful commentary may result in procedural deficiencies. *See, e.g., Solite Corp. v. U.S. E.P.A.*, 952 F.2d 471 (D.C. Cir. 1991).

The Division ultimately attempts to reserve its right to offer exhibits as necessary on rebuttal, but that may only be permitted within the proper scope of rebuttal. The Well Operators contend that the Division should have offered exhibits to support proposed regulatory revisions in its prehearing statement, not its rebuttal—as necessary. Such exhibits are now untimely. If the Commission is willing to allow the Division’s late introduction of such exhibits, the Well Operators respectfully request that the Commission allow the Well Operators an additional opportunity to respond, as needed, to avoid any prejudice.

b. Division Attorney Cannot Serve as Division Counsel and Division Witness

In this instance, Division Counsel Tom Roan is listed as a witness who “may testify regarding the Division’s proposed regulatory changes and any issues raised in connection with these proposed changes . . . [and] may [further] testify regarding the alternate proposals.” Division Prehearing Statement, p. 21.

It is a common principle in Colorado that counsel shall generally be prohibited from serving as both an advocate and a necessary witness at trial. *See* Colo. RPR 3.7(a) (2008); *Merrill Lynch Bus. Fin. Servs., Inc. v. Nudell*, 239 F. Supp. 2d 1170 (D. Colo. 2003). While Rule 3.7 applies to counsel “act[ing] as an advocate at trial,” many of the policies advanced in support of Rule 3.7 are equally applicable to administrative proceedings.

At this time, it is difficult to tell from the Division’s Prehearing Statement whether Division Counsel Tom Roan will be a “necessary witness.” Of the Division’s seventeen (17) listed potential witnesses, other witnesses are listed as potentially providing testimony on the same matters. For example, both Dena Wojtach and Roy Doyle are listed as witnesses who “may testify regarding the Division’s proposed regulatory changes and any issues raised in connection with these proposed changes . . . [and] may testify regarding any alternate proposals.”

If Division Counsel’s potential testimony is indeed cumulative in nature, his testimony will likely not qualify as “necessary” testimony. *See, e.g., Religious Tech. Ctr. v. F.A.C.T. Net, Inc.*, 945 F. Supp. 1470 (D. Colo. 1996). Yet, his testimony would then add nothing to the record and would be superfluous in nature. If, on the other hand, Division Counsel’s potential testimony is different than others’ potential testimony, it may indeed meet the “necessary” testimony test, which would require consideration of the three exceptions under Rule 3.7 to allow him to serve as both advocate and witness. *See, e.g., Fognani v. Young*, 115 P.3d 1268 (Colo. 2005).

In light of the uncertainty at this time regarding the necessity of Division Counsel’s potential testimony, the Well Operators reserve their rights to raise this issue during the hearing—assuming it has not been resolved prior to that date.

c. The Absence of Written Testimony for the Division’s 17 Listed Witnesses is Prejudicial to the Well Operators

While the Commission’s Procedural Rules do not specifically mandate the inclusion of written testimony as part of a prehearing statement, it is common

practice to include some form of written testimony, and the rules do note that in some instances written testimony may be required. 5 CCR 1001-1, § 1.5.5(5)(c)(vi) (2008).

The Division lists a total of seventeen (17) potential witnesses who may provide testimony during the rulemaking hearing. Of those seventeen, four (4) are specifically identified as witnesses who will—not may—provide testimony. The summaries of testimony to be elicited from the Division witnesses is rudimentary and broad at best. This provides little direction to the Well Operators and other parties as we prepare for the hearing. This lack of understanding of the type of testimony and actual testimony to be elicited, coupled with the Division’s failure to identify exhibits from which the witnesses will provide testimony, severely limits the Well Operators’ ability to be fully prepared in this Rebuttal Statement and at the rulemaking hearing. This prejudice will ultimately deprive the Commission of obtaining the parties’ full perspectives on the Division’s proposals for consideration prior to adopting revisions to the Commission’s Rules.

d. The Division’s Recent Development of Alternatives Failed to Provide Adequate Notice and Opportunity to Respond

The Division’s very recent decision to retain the current system-wide approach to tank controls under Regulation No. 7 is certainly welcome from the Well Operators’ perspective; however, the timing of that decision, announced to the parties informally at a stakeholder meeting unilaterally called by the Division and held on November 5, 2008, has put the parties and the Commission in a difficult position. Indeed, the Well Operators felt compelled to respond in their Preliminary and Final Statements, served on November 13 and 17, 2008, respectively, primarily to the Division’s original proposed revisions for which notice of this proceeding was approved by this Commission in September, reserving this Rebuttal for specific comment, counter-argument and objection to the Division’s Alternatives 1 and 2. This approach is consistent with that required for response to most any party’s alternate proposal(s), and so should also be followed with respect to the Division’s unexpected alternatives to its own proposed revisions, first formally described to the parties and the Commission in the Division’s Prehearing Statement served on November 13, 2008.

The Division’s change of heart has brought about very significant and numerous proposed changes to the text of affected AQCC regulations. The Well Operators have endeavored to carefully review all of those proposed revisions for purposes of this Rebuttal. However, given the limited time for review and numerous errors and conflicts in language identified by the Well Operators in the course of that review, *see* Section II.A.3.e, below, containing errata comments, they must object to the Division’s wholesale changes in their proposed revisions, in combination with the Commission’s tight scheduling for this major rulemaking, as rendering the time for review inadequate and prejudicial, and likely to result in errors and undiscovered conflicts in regulatory provisions that could otherwise have been avoided.

e. Errata

During the Well Operators’ review of the Division’s original and alternate proposals, a number of typographical and similar errors, among others, were noted.

The following bullets summarize items in the Division’s recent Alternatives that the Well Operators wish to bring to the attention of the Commission for correction prior to any adoption of revisions to the rules:

- Proposed Section XII.C.2.B. contains a number of errors that must be corrected. Sections XII.C.2.B.(I), XII.C.2.B.(II), XII.C.2.B.(III)(A), and XII.C.2.B.(IV) all refer to “Section XII.C.2.C.” However, “Section XII.C.2.C.” does not exist in either Alternatives 1 or No. 2. As a result, it is difficult for the Well Operators to fully analyze and provide rebuttal when an entire section appears to be missing from the Division’s alternate proposals.
- Proposed Section X11.D.2.A.(III) states: “For the period of May 1 through September 30 of each year from 2007 through 2011, such emissions shall be reduced by 75% from uncontrolled actual emissions on a weekly basis.” It should read: “For the period of May 1 through September 30 of each year from 2007 through 2008.”
- Proposed Section X11.D.2.A.(VII) states: “For the period May 1, 2009 through April 30, 2009, such emissions shall be reduced by 81%. . . .” It should read: “For the period May 1, 2009 through April 30, 2010, such emissions shall be reduced by 81%. . . .”
- Page 11 of the Division’s Prehearing Statement provides: “Finally, the APEN and permitting exemptions for fuel storage dispensing (Regulation 3, Part A, Section II.D.1.cccc. and Part C, Section II.E.3.cccc.) were revised to expand the applicability of the current exemption from specifically the 1-hour ozone attainment/maintenance area to any ozone NAA to ensure VOC controls are required in ozone NAAs.” This language should be clarified to say “expand the condition for obtaining the exemption . . . to any ozone NAA . . .”
 - This paragraph is also confusing in that it refers to the incorrect subparts, and should refer instead to Regulation 3, Part A, Section II.D.1.ccc. and Part C, Section II.E.3.ccc.
 - In addition, the proposed language in Regulation 3, Part A, Section II.D.1.ccc. and Part C, Section II.E.3.ccc. should refer to “attainment or attainment/maintenance areas” consistently throughout the provision, instead of switching between simply “attainment” and “attainment or attainment/maintenance.”
- The Proposed Regulation No. 7 Language in Alternative 1 goes from XII.F.4.P. to XII.F.6., and skips entirely over XII.F.5., while still referring to that section in XII.D.2.B.(V).

Additionally, during the Well Operators’ review of their own Final Statement, they noticed a few typographical errors, which require correction. The following

bullets are intended to resolve and clarify certain typographical errors in the Well Operators Final Joint Prehearing Statement:

- Page 3. ¶2 states: “. . . North Front Range 8-house ozone.” The sentence should read “North Front Range 8-hour ozone.”
- Page 9. ¶1 states: “*See* the Well Operators’ Exhibit Numbers ___ and ___ regarding. . .” The sentence should read, “*See* the Well Operators’ Exhibit Number 22 regarding . . .”
- Page 13. ¶1 states: “. . . regardless of whether and engine applicable emission standards with such controls.” The sentence should read, “. . . regardless of whether an engine meets applicable emission standards with such controls.”
- Page 19. No. 12 states: “WO Exhibit 38: W-mail . . .” The sentence should read, “WO Exhibit 38: E-mail . . .”

B. Factual Issues

1. Condensate Tanks in Non-Attainment Area

- a. System-Wide Controls at 95% is Virtually the Same as the Threshold Approach

As proposed in Division Alternatives 1 and No. 2, the Division seeks to maintain the system-wide approach currently employed in Regulation No. 7, but to increase the required emissions reduction during the ozone season to 81% in May 2009, 90% in May 2011 and 95% in May 2012 for all condensate tanks with greater than or equal to two tons per year (2 tpy) of uncontrolled actual VOC emissions. While the Well Operators appreciate and generally support the Division’s move from a threshold approach for controlling condensate tank flash emissions to a system-wide approach, they have serious concerns with the Division’s proposed increase to 95% required emissions reduction in 2012. Chief among these concerns is that at this level of control, the system-wide approach is virtually no different than the threshold approach that was supposedly abandoned by the Division in arriving at its alternatives.

The Division states in its prehearing statement that retaining the system-wide approach will “strike a reasonable balance between the need to assure attainment . . . and the need to assure that these new requirements are realistic.” *See* Division’s Prehearing Statement, p. 6. However, the system-wide approach at 95% is neither “reasonable” nor “realistic.” As established by Regulation No. 7, the control efficiency of flares used to eliminate VOC emissions from condensate tanks is set at 95%. *See* Division’s Alternative 1 language for Regulation No. 7, Section XII.C.1.C. Because of this mandated control efficiency, the Well Operators will have to install a flare on every single tank above 2 tons per year to achieve a 95% reduction in 2012. This is just simple math. A mandated 95% control efficiency x 100% installed controls = 95% emissions reduction (1.00 x 0.95 = 0.95). *See*

Rebuttal Exhibits, WO Exhibit 53 (Brian Lockard E-mail¹) and WO Exhibit 54 (Anadarko Graph and Table). This is no different from the threshold approach proposed by the Division in the Ozone Action Plan, which required emission control devices on all condensate tanks with 2 tpy or more VOC emissions.

To better illustrate this point, the chart below provides further details from Well Operators Noble and Anadarko on the emissions each would have to reduce in order to meet the 95% system-wide mandated reduction, which is the same amount under the “abandoned” threshold approach.

	TOTAL TANKS ≥ 2 TPY	UNCONTROLLED EMISSIONS TPY	TPY EMISSIONS REDUCED @ 95%	CONTROLLED EMISSIONS TPY
NOBLE	2,148	35,412	33,641	1,770
ANADARKO	1,506	28,405	26,984	1,420

Id.

As is set forth in their Final Statement, the Well Operators favor the system-wide approach over the threshold approach because it allows them the flexibility to install flares where they are most effective and gives them an incentive to “over control” so that they have a buffer should a flare malfunction. These system-wide features disappear as the control percentage is pushed up farther and farther while the costs per ton increase and the benefits decrease. *See* Rebuttal Testimony of Dr. Lisa McDonald. In fact, at 95%, the system-wide approach is actually worse than the threshold approach. That is because in order to get the buffer the Well Operators desire, they would have to install controls on condensate tanks emitting 1 tpy or even less, some of which have VOC emissions less than 100 lbs a month. *See* Written Testimony of Phillip S. Schlagel and Brian K. Lockard, submitted with the Well Operators’ Final Statement on November 17, 2008. Installing flares on smaller and smaller producing condensate tanks also increases the greenhouse gas (“GHG”) disbenefits from such controls, something the Division has failed to consider thus far. *See* Written Testimony of Curtis Rueter, submitted with the Well Operators’ Final Statement on November 17, 2008.

In their Alternative Proposal, the Well Operators propose that tanks emitting 1 tpy or more of VOCs be controlled at an 85% system-wide level in 2010, the all important attainment demonstration year. This approach does more than the Division’s proposed 81% control of tanks > 2 tpy in 2010, and still leaves open future consideration of higher tank control percentages after 2010, taking into account the diminishing returns and escalating costs and disbenefits of pursuing the control of ever smaller-emitting tanks. The Well Operators wish

¹ Noble hereby selectively and specifically waives any claim of privilege to which it is entitled for this particular e-mail, which is attached to this Rebuttal as WO Exhibit 53. Noble’s selective waiver for this particular e-mail is not intended and shall not be construed as a waiver of privilege for any other type of communication or subject of communication.

to also indicate to the Commission, the Division, and all other parties that they may be willing to agree to 90% control of tanks emitting 2 tpy in 2012, and an earlier reduction of 85% system-wide for tanks emitting 2 tpy or more in 2010 as a compromise between the Division's Alternatives and the Well Operator's Alternate Proposal.

The Well Operators propose adoption of the proposed condensate controls as SIP or State-only controls in Section II.B.3, below.

b. Regulations Should Focus on 2010, not 2011 and 2012

The Well Operators question the need for the Commission to specify control percentages beyond the 2010 demonstration year at this time, as the Division proposes in Alternatives 1 and 2. The Division has clearly stated that it intends to engage in additional modeling beginning early next year to continue to improve our understanding of the complex interactions that cause ozone formation, as well as regional haze, and that it will be imposing significant NO_x reductions throughout the State as a part of the regional haze/ reasonable progress rulemaking that is scheduled for next year. The Well Operators assert that it makes sense both to understand how the regional haze NO_x reductions will impact ozone concentrations and to take advantage of additional ozone modeling before requiring additional VOC controls on condensate tanks controlled to 85% or even 90% system-wide, the latter percentage being the same level of control proposed for retention by the Division with respect to natural gas dehydrators under Reg. 7, Section XII.C.

This is especially true in light of the modeling results conducted in support of the current ozone SIP. These modeling results suggested that NO_x emissions from certain sectors, as opposed to VOC emissions, are by far the most significant contributor to ozone formation in the NAA. *See* Final Statement, WO Exhibit 16 (Average NO_x to VOC Ratio Graph). Based on these results, the Well Operators question whether it makes sense to require 95% control of tanks in 2012 to achieve additional VOC reductions when future NO_x reductions are yet unknown. Although the Division will likely be requiring significant NO_x reductions in the regional haze rulemaking, the effect that these reductions will have on ozone is not yet understood, as many of the NO_x sources to be addressed will be outside the NAA. In the opinion of the Well Operators, it is logical to wait until next year, after additional modeling is conducted and after additional NO_x controls are implemented, before requiring additional VOC reductions for 2011 and 2012 from oil and gas condensate tank operations.

This approach seems more likely to result in more effective ozone reductions, since future modeling will better inform and equip the Division to develop effective strategies that are more likely to improve ozone in coming years. Implementing controls for 2011 and 2012 at this time is unnecessary and premature, and fails to take advantage of the best scientific tools that will be available to assist in selecting controls that are most likely to effectively reduce ozone and help the area work towards attainment of the new, lower ozone NAAQS.

2. Division Failed to Show Benefits/Burdens of State-Only Controls

The Division's proposed Alternatives 1 and 2 each require 90% and 95% system-wide control in 2011 and 2012, respectively. As is explained above, these control percentages result in controlling most, and then all, tank batteries with VOC emissions at or around the 2 tpy level, and may also require operators to install flares on many tanks at the 1 tpy level in order to ensure compliance, *i.e.*, to build a small buffer. By placing flares on such a large number of the smallest tanks, operators will be further exacerbating a significant GHG disbenefit, and will also be increasing NO_x emissions in the NAA, albeit to a much lesser extent. *See* Final Statement Exhibit, WO Exhibit 22 (GHG Graph). The very significant GHG disbenefits of additional tank controls estimated by the Well Operators are unaccounted for in the Division's Proposed Alternatives, thus far.

In evaluating the proposals and alternatives, the Commission must carefully evaluate and consider the benefits and unintended disbenefits of the proposals against the costs. Upon such review, the Well Operators believe that the asserted benefits of the 2012 tank controls, as proposed in the Division's Alternatives 1 and 2 do not compare favorably to the associated costs and disbenefits. In addition, if the Well Operators are required to put flares on a larger number of smaller producing tanks, as will be the case under a 95% "system-wide" control, it becomes increasingly expensive to attain ever smaller benefits. It is the law of diminishing returns, and the Well Operators suggest that the ozone benefits of controlling many of the smallest tanks under a 95% "system-wide" approach are so slight that the costs are not justified. Indeed, the rebuttal testimony of the Well Operators' economist, Dr. Lisa McDonald, underscores this point. Dr. Lisa McDonald analyzed the costs of controls associated with each additional increment of lower-emitting tanks, beginning at the current APEN exempt threshold of 5 tpy, and stepping down by 1 tpy to 4, then 3, then 2 tpy, and even down to tanks emitting 1 tpy (the only ones left for "over control" under the Division's Alternatives 1 and 2). *See* Rebuttal Testimony of Dr. Lisa McDonald. Dr. Lisa McDonald estimated costs ranging from over \$1,000.00 per ton to more than \$4,000.00 per ton, without accounting for auto-igniter costs, and without considering the cost of additional GHGs emitted in the process. *Id.* These steeply increasing costs of tank controls at lower emission thresholds weigh in favor of the Well Operators' Alternate Proposal, and against the Division's Alternatives 1 and 2.

3. Regulations Should be within the SIP

If adopted, the Division's proposed 81% system-wide condensate tank controls in 2009 should be retained in the ozone SIP as an appropriate way to provide for attainment with the ozone NAAQS by the 2010 demonstration year. As Section II.A and Rebuttal Exhibit, WO Exhibit 52 (Commission legal authority relative to SIP) explain, the Commission has authority under Colorado law to include in the SIP controls that are appropriate to provide for attainment of the NAAQS. Even though the 2010 base case shows modeled attainment in 2010 without the adoption of additional controls, the problematic Rocky Flats North and Fort Collins West monitors only did so by the slimmest of margins, with projected future year design values of 84.9 parts per billion ("ppb"). Rebuttal Exhibit, WO Exhibit 55 (ENVIRON Executive Summary). The condensate tank SIP controls in the Division's proposed Alternative 1 (81% system-wide control of condensate tanks with VOC emissions greater than 2 tpy in 2009) are an "appropriate" means of providing for attainment of the NAAQS under

Part D of the CAA, and are therefore not adopted “exclusively” pursuant to the Commission’s Colorado Air Act authority as defined at C.R.S. § 25-7-105.1(1). *See* Section II.A and Rebuttal Exhibit, WO Exhibit 55 (ENVIRON Executive Summary).

C. Pneumatic Controllers in the Non-Attainment Area

1. Pneumatic Controller Requirements as State-Only Controls

The Well Operators concur with the Division’s decision to remove the proposed pneumatic controls for the NAA from the SIP into the State-only portion of the proposed Ozone Action Plan because it is simply not feasible to impose the recordkeeping and monitoring requirements necessary to satisfy EPA regarding the benefits of those controls. Moreover, pneumatic device requirements are a form of process control and pollution prevention, and so need not be subject to the same sort of recordkeeping that EPA would require from a SIP control strategy. Finally, the economics of the required pneumatic device controls are such that operators will have additional incentives to comply, but burdensome recordkeeping would run counter to those incentives, and should therefore be avoided.

2. Public Notice Requirements for Pneumatic Controllers is Inappropriate

WildEarth Guardians (“WEG”) has advocated that any decision to allow a high-bleed pneumatic device to remain in service due to safety or technical process reasons must be subject to public notice and comment, but provides no real basis for this proposition other than a general citation to the CAA. Pneumatics device requirements are not “end of pipe” emission control measures, as noted above; rather, they are pollution prevention and natural gas conservation measures. As such, any decision to allow a high-bleed device to stay in operation for safety/technical reasons will be technical in nature. Such technical decisions are normally left to the discretion and expertise of the regulating agency—here, the Division—and are not subject to public notice and comment. Public notice and comment on process changes is typically reserved for major sources under Title V.

Furthermore, neither the Ozone Action Plan nor any alternate proposal before the Commission proposes to require a decision to allow a high-bleed pneumatic device to remain in service to be subject to public notice and comment. As a result, that option is not properly before the Commission and outside the scope of the present rulemaking process.

D. Reasonably Available Control Technology in Non-Attainment Area

1. Inconsistent Application for New/Modified Designations via RACT and System-Wide Alternate Proposal

While the operators generally support the Division’s various proposed changes to Regulation No. 3 to revise APEN and permit exemptions, they oppose specific revisions that would undermine the benefits of a system-wide approach to tank controls under Regulation No. 7. In particular, the Well Operators oppose the imposition of RACT on new or “modified” sources irrespective of those sources’ abilities to qualify for a construction permit exemption under Section II.D of Part B of Regulation No. 3. On related grounds, they also oppose the Division’s proposed changes to the definition of “modification” as it relates to wells

that have been stimulated via “fracing,” as set forth in their Final Statement at p. 16. Importantly, the Well Operators do not oppose the removal of an APEN exemption for tanks emitting less than 5 tpy but greater than 1 tpy, so those tanks will be subject to registration, payment of fees and, if emitting 2 tpy or more of VOCs, system-wide tank controls under Regulation No. 7.

The Well Operators’ opposition to these changes is easily explained: they serve to constrain the flexibility of the system-wide approach to tank controls, and they result in no practical benefits to air quality, while driving administrative burdens associated with permit modifications. For example, if a refraced well is deemed “modified,” it will be required to have a flare installed as RACT, and that RACT requirement will prevent the removal of the control until emissions fall to below 2 tpy of VOCs. *See* Division Alternate Proposal 1, Regulation No. 7, Section II.C.1.A.(V). New tanks will be similarly constrained. *See* Division Alternate Proposal 1, Regulation No. 7, Section II.C.2. As proposed, “modified” sources, such as a refraced well, and new tanks will be required to utilize RACT even if otherwise exempt pursuant to Section II.D. of Regulation No. 3, Part B. *See* Regulation No. 3, Part B, Section III.D.2.

Under the Division’s proposed revisions to Regulation No. 7, only existing, unmodified tanks will retain the flexibility to move flares to most efficiently achieve the required system-wide control percentage. This RACT-driven constraint, coupled with the 95% control requirement (100% of tanks at greater than 2 tpy times 95% control efficiency) proposed by the Division for 2012 and beyond means very little flexibility, thus losing one of the primary benefits of a system-wide approach.

The Well Operators propose retaining the ability to qualify for a construction permit exemption for tanks less than 5 tpy so those tanks are available to be flexibly controlled, along with tanks above 1 tpy, at an 85% system-wide control percentage. Eliminating a rigid RACT control requirement for the lowest-emitting tanks currently exempt from APEN and permit requirements (above 2 tpy, less than 5 tpy) will allow more flexible and efficient control of the universe of tanks to be controlled, which number in the many thousands and are remotely located at unmanned facilities spread across a vast area.

Of course, specifying flare or equivalent controls for new tanks and truly “modified” tanks (*i.e.*, those emitting VOCs at a rate higher than when originally permitted or registered) in the first 30 or 90 days from first production, or after true modification, should not pose a problem, since new and genuinely modified tanks will almost always have a flare placed on them. In such circumstances, the Division’s concerns will be met by the operators’ desire to control the highest-emitting tanks, and the operators will retain the flexibility to remove a flare from a new or modified tank that emits less than 5 tpy, to meet the system-wide control requirement. A rigid RACT and permit requirement for currently exempt tanks emitting between 2 and 5 tpy does not allow this, and should therefore be rejected by the Commission.

The Well Operators propose for discussion and compromise the following revisions to Regulation No. 7, Section II.C:

II.C.1.A.(V) EXISTING SOURCES OTHER THAN
CONDENSATE TANKS EMITTING BETWEEN 2 AND 5

TONS PER YEAR THAT ARE MODIFIED – UNDERGO ANY PHYSICAL CHANGE, OR CHANGE IN THE METHOD OF OPERATION OF A STATIONARY SOURCES WHICH INCREASES VOC OR NOX EMISSIONS – ON OR AFTER MARCH 30, 2008, SHALL UTILIZE RACT CONTROL TECHNOLOGIES PURSUANT TO REGULATION 7 AND REGULATION 3, PART B, SECTION III.D.2. UPON RE-COMMENCING OPERATION.

II.C.2. New Sources

All new sources OTHER THAN CONDENSATE TANKS EMITTING BETWEEN 2 AND 5 TONS PER YEAR shall utilize controls representing Reasonably Available Control Technology (RACT) RACT, PURSUANT TO REGULATION 7 AND REGULATION 3, PART B, SECTION III.D.2., UPON COMMENCEMENT OF OPERATION.

E. Reciprocating Internal Combustion Engines State-Wide

1. The Division Has Over-Estimated the Control Efficiencies from the Installation and Operation of After-Treatment Controls and, therefore, the Emission Reduction Benefits of State-Wide RICE Controls

The Division proposes after-treatment controls on both lean and rich burn stationary spark ignited internal combustion engines (“ICE”) that have a nameplate rating of greater than 500 horsepower because they estimate that approximately 600 such engines exist throughout Colorado that are uncontrolled sources for VOC and NOx emissions.

With regard to lean burn ICE, the Division indicates in the Q&A portion of its prehearing statement that it accorded a 95% control efficiency to NOx and CO, and a 50% control efficiency of VOC for calculation of economic impacts and total emission reductions. The Well Operators believe this control efficiency is severely overstated and support and concur with the prehearing statement filed by El Paso Western Pipelines as it relates to the Division overstating reductions achievable through catalysts, particularly on lean burn ICE. Moreover, the Division’s Q&A response intrigues the Well Operators because the Division assumed 95% control of VOC, rather than the 50% in the economic impact analysis, for both lean burn and rich burn when they did the modeling. *See* Division Prehearing Statement, p. 18.

2. The Division’s Control Strategy 2 Modeling Results Over-Estimated the Emission Reduction Benefits to be Realized through its State-Wide RICE Proposal

After the Division responded to the Well Operators’ inquiries regarding the data included in Control Strategy 2, and after further confirming that Control Strategy 2 included not only emission reduction estimates from condensate tank controls to be realized in 2011 and 2012, but also estimated emission reduction benefits from the I/M Program for the NFR that is currently not in operation (but was assumed for 2008 to 2010 implementation), the

Well Operators contracted with ENVIRON International Corporation (“ENVIRON”) to commission a revised analysis of Control Strategy 2. The revised Control Strategy 2, named Control Strategy 2b, focused on removing from the data pool for purposes of modeling: (1) condensate tank emission benefits associated with 2011 and 2012 State-only controls; and (2) NFR I/M Program emission benefits. As a result, Control Strategy 2b effectively isolates the effect of adding state-wide RICE controls on Control Strategy 1.

See comment above about the VOC control assumed for modeling due to state-wide RICE versus what is in the Division’s final economic impact analysis.

When ENVIRON provided the results from Control Strategy 2b, the results clearly indicated that there is no improvement in the design values at monitors that show high ozone levels, specifically Fort Collins West and Rocky Flats North, as well as many of the other monitors that have reported high ozone when compared to Control Strategy 1. *See* rebuttal Testimony of Dr. Bruce Macdonald. For example, Control Strategy 2 shows an improvement of 0.2 ppb at Fort Collins West. *See* Rebuttal Exhibit, WO Exhibit 49 (PowerPoint, slide 9). Yet, when the condensate tank and NFR I/M Program emission benefits are removed, Fort Collins West experiences absolutely no improvement, as documented in the Control Strategy 2b results. *Id.*

When looking at all eighteen sites, Control Strategy 2b shows only a 0.1 ppb improvement in ozone design values for only four of the eighteen sites included in the Control Strategy: (1) Carriage; (2) Fort Collins (Downtown); (3) Greeley Weld Tower; and (4) South Boulder Creek—a loss of emission reduction benefits from six sites identified to provide benefits under Control Strategy 2. *See* Rebuttal Exhibit, WO Exhibit 51 (chart comparison of estimated benefits from Control Strategy 2 versus Control Strategy 2b).

ID	Site	County	DVC	Base	Cntl1	Cntl2b	Cntl2
80013001	Welby	Adams	70.0	70.2	70.2	70.2	70.2
80050002	Highland	Arapahoe	78.0	77.3	77.2	77.2	77.1
80130011	S. Boulder Creek	Boulder	81.0	80.8	80.7	80.6	80.6
80310002	Denver – CAMP	Denver	56.0	56.0	56.0	56.0	55.9
80310014	Carriage	Denver	74.0	74.1	74.1	74.0	74.0
80350004	Chatfield State Park	Douglas	84.0	83.4	83.3	83.3	83.3
80410013	USAF Academy	El Paso	73.0	72.0	71.9	71.9	71.9
80410016	Manitou Springs	El Paso	74.0	73.7	73.7	73.7	73.7
80590002	Arvada	Jefferson	79.0	79.2	79.1	79.1	79.1
80590005	Welch	Jefferson	75.0	75.0	75.0	75.0	74.9
80590006	Rocky Flats North	Jefferson	85.0	84.9	84.8	84.8	84.7
80590011	NREL	Jefferson	82.0	82.3	82.2	82.2	82.1
80690011	Fort Collins – West	Larimer	86.0	84.9	84.7	84.7	84.5
80691004	Fort Collins	Larimer	74.0	73.0	72.9	72.8	72.7
81230009	Greeley – WeldTow	Weld	78.0	77.7	77.4	77.3	77.0
GTH161	Gunnison	Gunnison	68.0	67.8	67.8	67.9	67.9
ROM206	Larimer	Larimer	76.0	75.2	75.1	75.1	75.1
ROM406	Larimer	Larimer	76.0	75.2	75.1	75.1	75.1

See Rebuttal Exhibit, WO Exhibit 50 (ENVIRON Table documenting Control Strategy 2b Results); Testimony of Dr. Bruce Macdonald. And, even though Greeley Weld Tower exhibits a 0.1 ppb improvement under Control Strategy 2b, it is 0.3 ppb less than modeled under Control Strategy 2. *Id.*

The collective results of Control Strategy 2b seriously undermine the Division's assertion that state-wide RICE Controls are an effective method to reduce "transported ozone and precursors into the NAA." See Division Statement at 10. Contrary to the Division's contention, the proposed state-wide RICE controls are not "a proactive approach to address potential ozone standard exceedances across the State as well as ozone transport to the Front Range." *Id.* This is even memorialized through the Division's own contractor for purposes of the Control Strategy modeling, that notes in its PowerPoint presentation how the potential emission reduction associated with the proposed state-wide RICE controls are "unknown at this time." See Rebuttal Exhibit, WO Exhibit 49 (PowerPoint, slide 4); Testimony of Dr. Bruce Macdonald.

For these reasons and the reasons articulated in the Well Operators' Final Statement, the Well Operators respectfully request and submit that the proposed state-wide RICE controls not be adopted, and instead be deferred for future evaluation.

F. State-Only Mobile Source Inspection and Maintenance for the North Front Range

The Well Operators agree with the RAQC's recommendation in its Prehearing Statement that the implementation of the NFR I/M Program should occur sooner rather than later, especially in light of the fact that ESP maintains in its rebuttal statement that the program can be up and running by January 1, 2010. The Well Operators agree with the ESP and the Division that a commencement date of July 1, 2010, will provide sufficient time for all interested parties to prepare for implementation of the I/M Program in the NFR. While the Well Operators continue to believe that commencing the program in January 1, 2010 is achievable, they can support the Division's apparent willingness to revise its Alternatives 1 and 2 to include a July 1, 2010 start date, instead of a January 1, 2012 start date. With that understanding, the Well Operators agree to withdraw their Alternate Proposal concerning the I/M Program in the NFR, in favor of consensus support for the Division's revised July 1, 2010 commencement date.

The Well Operators believe commencing the program by July 1, 2010 will begin to reduce significant ozone precursor emissions from mobile sources in the NAA by the end of 2010, and is vitally a important control strategy for demonstrating attainment with the new, lower ozone standard in future years.

G. Adoption of More Stringent Cut-Points for Inspection/Maintenance Program in 7-County Denver Metro Area

1. Cut-Points Should be Incorporated into the SIP

The Well Operators disagree with the Division's proposal in Alternative 2 to include the lower I/M Program cut-points for the 7-county Denver Metro Area ("DMA") in the State-only portion of the Ozone Action Plan instead of including it in the SIP. The lower I/M

Program cut-points logically belong in the federally enforceable SIP with the rest of the I/M Program for the DMA, which was implemented pursuant to federal authority.

The Division's rationale for moving this control out of the SIP is to address Commission concerns about the extent of its authority under C.R.S. § 24-7-101.5. This control strategy is an appropriate means of providing for attainment of the ozone NAAQS. *See* Section II.A and Rebuttal Exhibit, WO Exhibit 55 (ENVIRON Executive Summary). Moreover, the lower cut-points are not being adopted "exclusively" under State authority, but are actually revisions to the current I/M Program cut-points, which were adopted pursuant to federal authority. The Colorado Air Act does not preclude the Commission from including in the SIP additional controls, such as the lower I/M Program cut-points, that are not adopted exclusively under State authority.

2. NOx Reductions from these Cut-Points Are Already Achieved, but not Included in the 2010 Base Case

The Well Operators also note that it is misleading to claim additional NOx reductions from the lower I/M Program cut-points as a result of adopting the Ozone Action Plan, since these reductions are already "on the books and on the way." As such, the benefits of the lower NOx cut-points should have been included in the 2010 base case, but were not. A fair estimation of the benefits of controls yet to be adopted would exclude these NOx benefits as already achieved.

H. Electronic Surveillance Systems

The Well Operators appreciate the Division's proposal (in both Alternatives 1 and 2) to reduce the burdens of electronic surveillance ("ESS") by proposing to require ESS on tank batteries with uncontrolled VOC emissions greater than 100 tpy, as opposed to requiring it on all batteries with VOC emissions greater than 2 tpy. Although the Well Operators acknowledge that the 100 tpy threshold is a reasonable level for making the determination about which tanks may need greater surveillance, the Well Operators remain convinced that requiring ESS will not deliver any air quality benefit above and beyond the use of auto-igniters, which the Well Operators support. ESS merely delivers a temperature reading on a pilot light every fifteen minutes, which provides no additional air quality benefit on top of what the auto-igniters already deliver.

The Well Operators also suggest allowing a more general term of "increased surveillance" that would provide for operator flexibility concerning the manner of daily surveillance at tank batteries with uncontrolled VOC greater than 100 tpy. Under this approach, an operator would be free to implement either daily human surveillance or could utilize ESS at the identified tank batteries. An approach to allow flexibility in daily surveillance techniques would allow an operator to determine whether daily human surveillance practice may be more practicable and/or could provide a more effective method of determining if the emission control devices are properly functioning at their affected sites.

Because ESS is a relatively new technology that has not yet been fully tested and evaluated in the DJ Basin, the Well Operators would prefer that any ESS requirements not be

included in the SIP, but that they be included in the State-only portion of the Ozone Action Plan. Doing so would allow the Well Operators and the State to resolve any unforeseen problems with this relatively new and untested technology.

I. Drill Rigs

1. Outside the Scope of Rulemaking

Other parties have suggested that to attain and maintain the 8-hour ozone NAAQS, the Ozone Action Plan must remove the exemptions for ICE that power portable drilling rigs from the reporting and permitting requirements of Regulation No. 3. These parties allege that the increase in the number of drill rigs operating in Colorado pose a significant source of NOx emissions that must be addressed in the Ozone Action Plan because otherwise they will cause or contribute to violations of the 8-hour ozone NAAQS. However, the aforementioned issues raised by these parties are not within the proper scope of the rulemaking now before the Commission. *See* Section II A.2.

Removing the Reg. 3 exemptions for portable drilling rigs could come before the Commission through a party's alternate proposal. However, the parties that are advocating the removal of Reg. 3 portable drilling rigs have not presented any alternate proposals. Accordingly, this issue is beyond the scope of this rulemaking and not properly before the Commission. *Id.* Furthermore, the RAQC has stated that controls for portable drill rigs will be considered in 2009 during the broader regional haze stakeholder process, along with other NOx sources. As such, any consideration of the same issues during the current rulemaking is simply premature.

2. Due to Market Conditions, Impacts Are Much Less Acute than Projected

The data relied upon by these parties alleging an increase in drill rigs pose a significant source of NOx emissions does not reflect the current state and number of portable drill rigs in Colorado. A recent article in the Denver Business Journal detailed the downturn in the oil and gas industry in Colorado due to the current financial and economic crisis. *See* Rebuttal Exhibit, WO Exhibit 56. Since late October 2008, a number of companies have announced they will cut spending by decreasing the number of drill rigs in Colorado by seventeen (17) between now and the end of 2008. That represents an approximately 13% drop from the 132 portable drill rigs operating in the State as of November 12, 2008. If the current economic and financial crisis continues, the decline in operating portable drill rigs in Colorado will continue, as will a decline in drilling emissions. This provides further support for delaying any consideration of portable drill rig controls until 2009, so that the Commission has a more complete picture of these sources' NOx emission impacts relative to other NOx sources.

J. Emission Factors

1. Outside the Scope of Rulemaking

The Well Operators appreciate and support the Division's recent decision to not remove the 13.7 lbs of VOCs per barrel of condensate default emission for the NAA. The Division had previously discussed removing that emission factor at the November 5, 2008

informal stakeholder meeting. However, the Well Operators take issue with including Section XII.C.2.B. in Alternatives 1 and No. 2, because this section is not within the proper scope of current rulemaking, and is inconsistent with the Division's past method for developing basin-wide default emission factors.

The proper scope, as discussed more fully in Section II.A.2. above, is "to adopt an ozone action plan for the Denver Metropolitan and NFR 8-hour ozone non-attainment area." See Commission's Notice of Rulemaking. The proposed Section XII.C.2.B. would adopt methods for determining site-specific and basin-wide emission factors for ozone non-attainment areas other than for the Denver Metropolitan and NFR. Since there are currently no other ozone non-attainment areas in Colorado, proposed Section XII.C.2.B. is simply not in the purview of the Ozone Action Plan, and the Commission should defer such action to another rulemaking properly noticed.

2. A Separate Rulemaking is Appropriate for Basin-Wide Emission Factors

Proposed Section XII.C.2.B. would adopt a method for developing basin-wide default emission factors that is inconsistent with the Division's past practice. When the Division developed a basin-wide default emission factor for the NAA in 2007, it was the subject of formal rulemaking that provided for public participation. However, the Division's proposed Section XII.C.2.B. in Alternatives 1 and No. 2 does not provide for this, and the Division gives no explanation for making such a change. If the Commission decides to adopt proposed Section XII.C.2.B., it should be revised to require formal rulemaking for developing any basin-wide emission factor. Given the significant impact emission factors can have on oil and gas operations, as well as other industries, it is imperative that the Well Operators and other affected stakeholders are involved to develop the most accurate basin-wide emission factor possible. Doing so through rulemaking is the best approach for doing that, in the Well Operators' view.

III. REBUTTAL EXHIBITS THAT MAY BE INTRODUCED AT THE HEARING

A. Supplemental Modeling Shows that the Division's Proposed State-Wide RICE Controls Provide Little to No Benefit in the NAA

1. WO Exhibit 49: PowerPoint Presentation from ENVIRON and Alpine Geophysics, LLC ("Alpine") regarding revised effects of alternative controls on O&G condensate tanks on Denver 2010 8-hour ozone design value projections.
2. WO Exhibit 50: Results of Control Strategy 2b modeling analyses from ENVIRON that isolates state-wide RICE control emission reduction benefits from: (1) condensate tank emission reduction benefits from 2011 and 2012; and (2) NFR I/M Program emission reduction benefits, which cannot be realized since the program is currently not in service.
3. WO Exhibit 51: Chart showing respective estimated emission reduction benefits to be realized through Control Strategy 2 and Control Strategy 2b.

B. Commission Authority Relative to the State Implementation Plan

1. WO Exhibit 52: A memorandum providing a more detailed discussion of the extent of the Commission's legal authority relative to the SIP.

C. Condensate Tanks in NAA

1. WO Exhibit 53: E-mail from Brian Lockard of Noble regarding 95% system-wide tank controls.
2. WO Exhibit 54: Graphics and table from Anadarko regarding 95% system-wide tank controls.

D. Regulations Should Focus on 2010, not 2011 and 2012

1. WO Exhibit 16: Graphic showing average contribution of O3N and O3V to ozone formation in the NAA.

E. Division Failed to Show Benefits/Burdens of State-Only Controls

1. WO Exhibit 22: Graphic showing the GHG disbenefits from flaring, as opposed to venting.

F. Regulations Should be in SIP

1. WO Exhibit 55: ENVIRON International Corporation Executive Summary from the Draft Final Report to 2010 OZONE PROJECTIONS FOR THE 2010 BASE CASE AND 2010 SENSITIVITY TESTS AND 2010 OZONE SOURCE APPORTIONMENT MODELING FOR THE DENVER 8-HOUR OZONE STATE IMPLEMENTATION PLAN

G. Regulation of Drill Rigs is Outside this Rulemaking

1. WO Exhibit 56: A recent article in the Denver Business Journal detailed the downturn in the oil and gas industry in Colorado due to the current financial and economic crisis.

IV. REBUTTAL WITNESSES THAT MAY BE CALLED AT THE HEARING

While the Well Operators are not identifying any witnesses in addition to those previously identified in their Final Statement, the Well Operators are expanding the potential scope of testimony to cover issues to be addressed in Rebuttal to the assertions of the Division and other parties. To this end, the Well Operators anticipate that the following witnesses may provide rebuttal testimony:

- A. Brian Lockard, Air Quality Manager, Noble Energy, Inc.—Testimony on compliance with Regulation No. 7; on the estimated costs of condensate tank controls, ESS auto-igniters required by the Ozone Action Plan; amount of data

generated by ESS under the Ozone Action Plan; problems with compliance under the Ozone Action Plan; NO_x and GHG disbenefits of the threshold approach; benefits of the Well Operators' Alternate Proposal; on the flexibility and incentives to over comply afforded by the Well Operators' Alternate Proposal and its system-wide control approach; and reasons to refrac a well and any increase of emissions therefrom.

- B.** Phil Schlagel, Environmental and Regulatory Supervisor, Anadarko Petroleum Corporation—Testimony on compliance with Regulation No. 7; on the estimated costs of condensate tank controls, ESS auto-igniters required by the Ozone Action Plan; amount of data generated by ESS under the Ozone Action Plan; problems with compliance under the Ozone Action Plan; benefits of the Well Operators' Alternate Proposal; on the flexibility and incentives to “over comply” afforded by the Well Operators' Alternate Proposal and its “system-wide control approach”; and reasons to refrac a well and any associated increase of emissions.
- C.** Curtis O. Rueter, P.E., Air Quality Manager for North America, Noble Energy, Inc.—Testimony on NO_x and GHG disbenefits of the Division's threshold approach to control of condensate tanks in the NAA, in contravention of the Colorado Climate Action Plan.
- D.** Dr. Bruce C. Macdonald, Regional Vice President for the Air Quality Practice Area, AECOM Environment (a subsidiary of AECOM, Inc., formerly ENSR Inc.)—In addition to the testimony identified in the Well Operators' Final Prehearing Statement, Rebuttal testimony may summarize the ozone modeling results for the proposed Control Strategy 2b in comparison to the original characterization of Control Strategy 2 performed by ENVIRON and Alpine.
- E.** Martha Hyder, Wind River Environmental Group LLC—In addition to the testimony identified in the Well Operators' Final Prehearing Statement, Rebuttal testimony may summarize the ozone modeling results for the proposed Control Strategy 2b in comparison to the original characterization of Control Strategy 2 performed by ENVIRON and Alpine.
- F.** Dr. Daniel P. Olsen, P.E.— In addition to the testimony identified in the Well Operators' Final Prehearing Statement, Rebuttal testimony may summarize the ozone modeling results for the proposed Control Strategy 2b in comparison to the original characterization of Control Strategy 2 performed by ENVIRON and Alpine.
- G.** Dr. Lisa A. McDonald, Senior Economist, Louis Berger Group, Inc.—In addition to the testimony identified in the Well Operators' Final Prehearing Statement, Rebuttal testimony may address the Division's Alternatives 1 and 2 proposals for 95% “system-wide” tank controls in 2012.

V. WRITTEN TESTIMONY

The written testimony/expert reports of the Well Operators' witnesses listed in the Final Statement and herein are submitted with the Well Operators' Rebuttal.

VI. RESERVATIONS

The Well Operators reserve the right to present additional testimony, witnesses and exhibits for purposes of rebuttal to the Division's Regulatory Impact Analysis, which is not required to be provided until five (5) days prior to the hearing, and such other rebuttal testimony as may be permitted at the hearing in this matter.

VII. CONCLUSION

The Well Operators appreciate the Commission's thoughtful attention to their concerns raised in this Rebuttal. They believe adoption of their Alternate Proposal for tank controls in the NAA will outperform the Division's Alternatives and original proposal in 2010 and 2011, and will not preclude reexamination of additional tank controls for 2012 with the benefit of future modeling and additional ambient monitoring data. They also believe deferral of state-wide RICE controls is reasonable in light of the meager demonstrated benefits of such controls and their substantial overlap and conflict with new federal engine standards. Finally, the Well Operators support the inclusion of certain tank controls and I/M cutpoint benefits in the SIP as not exclusively adopted under State authority, and required by Clean Air Act Part D as necessary and appropriate to provide for attainment of the 8-hour NAAQS in 2010.

Lest there be doubt as to the Well Operators' position in this proceeding, it should be clear from their Final Statement and this Rebuttal that they have done more to improve ozone in the last 5 years than anyone, having spent \$30 million thus far in their compliance with Regulation No. 7. Their support for ozone attainment continues in this proceeding with their agreement on many of the Division's proposed revisions, and their alternate proposal to significantly increase condensate tank controls in the NAA at an estimated cost to them of another \$20 million in additional controls and associated expenses. Their differences with the Division, though firmly held, are few in number, and are founded upon the Division's almost exclusive focus on oil and gas VOCs as an ozone attainment strategy, which fails to adequately reflect its own modeling results and required impact analyses.

Dated this 25th day of November, 2008.

Respectfully submitted,

s/ John R. Jacus

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ATTORNEYS FOR ANADARKO PETROLEUM
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WILLIAMS PRODUCTION RMT COMPANY

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the attached **JOINT REBUTTAL STATEMENT OF ANADARKO PETROLEUM CORPORATION, NOBLE ENERGY, INC., and WILLIAMS PRODUCTION RMT COMPANY** was filed and served by electronic mail on the 25th day of November, 2008, upon the following:

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s/ Christine M. Thompson