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August 20, 2008

**Via E-mail and U.S. Mail**

Kenneth H. Lloyd  
Executive Director  
Regional Air Quality Council  
1445 Market Street, Suite 260  
Denver, Colorado 80202

Andrew Spielman, Esq.  
Hogan & Hartson LLP  
1200 17<sup>th</sup> Street, Suite 1500  
Denver, Colorado 80202

Re: Additional Comments of Anadarko Petroleum Corporation, Noble Energy, Inc.,  
Williams Production RMT Company, and Whiting Petroleum Corporation  
Regarding Ozone Source Apportionment and Draft Ozone Action Plan

Dear Messrs. Lloyd and Spielman:

I am writing on behalf of our clients, Anadarko Petroleum Corporation ("Anadarko"), Noble Energy, Inc. ("Noble"), Williams Production RMT Company ("Williams"), and Whiting Petroleum Corporation ("Whiting") (collectively "Commenting Parties") to further comment on the recently posted draft Ozone Action Plan and Ozone State Implementation Plan ("SIP"), as well as the presentation at last week's Regional Air Quality Council ("RAQC") meeting regarding ozone source apportionment performed by the RAQC's photochemical modeling contractors. As always, we appreciate the opportunity to comment upon these important draft documents and photochemical modeling results, but do feel compelled to note that the very short turn-around time for submission of these comments and tight spacing between successive RAQC meetings regarding the recommendation of an ozone SIP make it difficult to be more thorough in our provision of written comments. Accordingly, we reserve the right to submit additional written comments on these documents and the process that has produced them.

**Ozone Source Apportionment Results**

The Commenting Parties are pleased to be able to comment upon the ozone source apportionment results briefly presented to attendees of the RAQC meeting last Monday, August 11, 2008. As noted in our prior written comments and in our verbal comments made at the meeting last week, we believe that ozone source apportionment tool ("OSAT") results are an

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John R. Jacus . 303.892.7305 . john.jacus@dgsllaw.com

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important factor that should be carefully weighed in the evaluation and eventual recommendation of a draft ozone SIP, and this is consistent with the schedule and scope of work developed and approved by the RAQC for the photochemical modeling being performed by Environ International and Alpine Geophysics, its photochemical modeling contractors.

In particular, we note the following with respect to the preliminary review of ozone source apportionment results:

- Metro Denver ozone monitoring stations are primarily affected by metropolitan Denver motor vehicle and non-regulated sources;
- Fort Collins and Greeley ozone monitoring stations are primarily affected by Larimer and Weld County motor vehicles, non-regulated sources, and oil and gas sources;
- There is a very small contribution from area sources; and
- In the 2010 base case, most of the North Front Range ozone monitors are generally meeting or even showing values lower than the new 8-hour ozone NAAQS of 75 ppb. Considering these results along with the results indicating that oil and gas sources generally tend to have a limited “local influence,” the controls that are “on the books” or “on the way” are generally adequate control to meet the lowered ozone NAAQS.

Of course, we appreciate the caveats noted by Mr. McNally both verbally and in his presentation slides concerning the source apportionment results being constrained by the adequacy and fidelity of the base case model performance, the quality of future year baseline emissions inventories, and the meteorological regime simulated; however, we also note that the quality of future year baseline emissions inventories has been improved substantially from prior photochemical modeling efforts for the oil and gas sector, and will likely continue to improve in quality with annual updates to the VOC and NO<sub>x</sub> emission inventories for oil and gas sources via the WRAP Phase III inventory effort.

The Commenting Parties wish to reiterate their request for a stakeholder meeting focusing on the results of ozone source apportionment to be held in the near future. Given the relative importance of these results to the overall SIP development effort, as reflected in the modeling contractors’ scope of work and protocol (approved by the RAQC), we believe that such a detailed meeting is necessary to improve stakeholder understanding of photochemical modeling results and how they can aid in the selection of an optimal suite of ozone control strategies in the SIP to be adopted via rulemaking in December. As a part of such stakeholder meeting, the Commenting Parties suggest including an agenda item to discuss in greater detail

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the weight-of-evidence analysis that will be used as a part of the attainment demonstration, which is discussed in more detail below.

The Commenting Parties also request that the photochemical modeling contractors report the results of ozone source apportionment recently conducted in the same format and using the same graphical representations as were employed in 2004 by the Air Pollution Control Division ("APCD") for photochemical modeling performed in support of the ozone Early Action Compact ("EAC"). Reporting the results in that manner, however dated or limited that format might be, will make the results of each source apportionment exercise more comparable and better understood by the public and involved stakeholders, as well as RAQC council members and Air Quality Control Commission ("AQCC") members, in our view.

#### Weight-of-Evidence

The role of weight-of-evidence was crucial in the EAC demonstration, and it appears that the same evaluations will be critical for this demonstration. The Commenting Parties note that there is a substantial amount of technical work in supplemental analyses yet to be scoped and reviewed in the weight-of-evidence section of the Ozone Action Plan. The Commenting Parties have several questions regarding these supplemental analyses, including, but not limited to:

- Whether there will be a back-trajectory analysis for each day (12 days, for example) for each monitor that is within the design value range.
- Whether the trend for oil and gas emissions for 2006, 2007 and 2008 be used as weight-of-evidence for impact at Fort Collins West.
- Rocky Flats North, NREL, and South Boulder Creek have trended upward, while actual oil and gas emissions have gone down. Can 2008 data be used prior to November to highlight this trend?
- In several ozone meetings, the APCD has referenced a statistically based ozone trend analysis that eliminates the effects of meteorology (sunshine, temperature, cloud cover, wind patterns, inversions). However, because meteorology plays such a significant role in ozone formation, the Commenting Parties ask that this issue be further discussed and clarified in greater detail. In addition, the statistical significance of the trends referenced should be clearly established.

The Commenting Parties request that the APCD and the RAQC present a clear strategy for evaluating the impacts for the supplemental analyses that are listed as weight-of-evidence in the Ozone Action Plan and how the results of those supplemental analyses would be used to address whether the effect of a specific control strategy is supported by the weight-of-evidence from

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these analyses. As noted above, the Commenting Parties ask that the RAQC and the APCD hold a stakeholder meeting discussing the issues surrounding the weight-of-evidence analysis that will play an important role in the ozone attainment demonstration.

#### Statewide Ozone Control Measures

The Commenting Parties would like to reiterate their prior written and oral comments concerning proposed statewide oil and gas control measures. Together the sensitivity results and the OSAT results show that oil and gas sources outside the ozone non-attainment area (“NAA”) do not significantly contribute to ozone in the NAA. The Commenting Parties are concerned that the APCD has not justified the need for such controls as a part of an ozone control strategy for the NAA. Nor has the APCD demonstrated that the substantial costs of the proposed statewide ozone control measures are justified in relation to the minimal benefits the statewide strategies may achieve.

#### Draft Ozone Action Plan Comments

The Commenting Parties generally support many aspects of the proposed draft Ozone Action Plan made available to stakeholders and the public on Monday, August 18, 2008. Once again, we continue to review that draft action plan and the revised draft SIP associated therewith for purposes of future verbal and written comment.

#### General Comments

With respect to the background portion of the draft action plan, we have several comments. First, we believe a couple of additional references to historical steps taken to address ozone in prior years are appropriate. Concerning the approval of an Ozone Action Plan in December of 2006, we wish to note that was done without benefit of photochemical modeling performed by AQCC or RAQC. Additionally, we think it is significant and important to note that also in December 2006, the Colorado Air Quality Control Commission (“CAQCC”) eliminated the vehicle inspection and maintenance program in the basic program area of the North Front Range as “no longer necessary” to achieve the ozone NAAQS.

Concerning the description of air quality agencies in Colorado, we think it important to note in the first paragraph describing the Regional Air Quality Council that the “RAQC’s primary task is to prepare State Implementation Plans (“SIPs”) for compliance with federal air quality standards *in the Denver Metropolitan Area.*” This is consistent with RAQC’s charter and authority under Colorado statute and prior executive order of the Governor.

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We note that the North Front Range Metropolitan Planning Organization (“NFRMPO”) is described as the North Front Range Transportation and Air Quality Planning Council, and wonder if this is a recent change from historical references to this planning entity.

Concerning the section at page iv regarding the Denver Metropolitan Area/North Front Range NAA we believe it important to also note that the State of Colorado previously commented to EPA on a larger proposed NAA, and stated important factors why the NAA should not be made any larger than it currently is defined. That state comment is cited in some of the Commenting Parties’ prior comment memorandum dated May 20, 2008.

#### Specific Comments

The draft action plan consists of federally-enforceable SIP elements, items to be included as state-only enforceable measures under state regulations, and elements that need further evaluation for possible SIP amendment in the near future. Draft Ozone Action Plan at p. v. The current draft action plan does not explain or otherwise justify the adoption of state-only enforceable measures outside the SIP and how the proposed measures for such adoption can or should contribute to attainment of the former or current (lowered) 8-hour ozone NAAQS. Indeed, just above the draft action plan’s description of these three sets of elements contained within it is a description of the new 8-hour standard in which the authoring agencies state that “states in non-attainment areas should continue their plans for implementing the 1997 standards.” This statement would seem to be at odds with the adoption of state-only requirements unless those requirements were necessary to attain the 1997 8-hour ozone NAAQS, something which has not been demonstrated to the knowledge of the Commenting Parties. If there are additional reasons supported by empirical data for adopting state-only requirements and keeping those out of the federally-enforceable SIP, those reasons should be set forth in the final Ozone Action Plan.

As noted above, the Commenting Parties are generally supportive of many, though certainly not all, of the measures proposed for adoption as part of the ozone SIP for the Denver Metropolitan Area/North Front Range NAA. These include formal placement of recent regulatory changes within the ozone SIP itself. Such existing regulatory requirements that are proposed for specific inclusion in the SIP include Items 1 and 2 on p. vi of the draft Ozone Action Plan (regarding cutpoints for vehicle inspection and maintenance and 7.8 psi Reid Vapor Pressure (“RVP”) gasoline for the entire NAA). With respect to Item 2 specifically, the Commenting Parties support the uniform adoption of gasoline fuel volatility requirements for the entire NAA as equitable, uniform and consistent in its application to consumers of motor fuels that contribute to ozone formation. The Commenting Parties also generally support the proposed

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inclusion of this previously adopted/mandated fuel volatility requirement in the 8-hour ozone SIP for the entire NAA.

Items 4, 5, and 6 at pp. vi and vii of the draft Ozone Action Plan are also generally supported by the Commenting Parties. Item 4 concerns the requirement to use low-bleed pneumatic devices on new and existing equipment by 2009, which industry has supported so long as there is a technical impracticability or feasibility exception provided, consistent with EPA natural gas STAR program guidelines regarding such devices. Item 5 concerns expanding the current requirements under Regulation No. 7 for VOCs to the entire NAA, a concept with which the Commenting Parties agree on grounds of equity, consistency and uniformity in approach. Item 6 concerns removing certain current exemptions contained in Regulation No. 3 for small sources that have not had to file an air pollutant emission notice or obtain a construction permit heretofore. While the Commenting Parties generally support this proposed control strategy in concept, they reserve the right to further comment on the specific exemptions to be eliminated, and also wish to note that there is some uncertainty with respect to the authority to require existing sources not previously required to obtain construction permits to apply for a construction permit after lowering the applicability threshold through rulemaking, even as a result of non-attainment designation, unless and until such sources have been modified so as to trigger the filing of a construction permit application for the first time. Absent such a modification or new construction, existing sources should be considered grandfathered under Regulation No. 3.

The Commenting Parties also support the inclusion in the SIP of changes to Regulation No. 3 adopted by the AQCC in February of 2008 concerning general application of permit requirements and reasonably available control technology ("RACT") for all VOC stationary sources and NO<sub>x</sub> stationary sources, but take issue with the proposed applicability thresholds of two tons per year for VOCs and five tons per year for NO<sub>x</sub> within the NAA.

#### Measures Proposed as State-Only Measures in State Regulations

As noted above, there is no specific rationale provided in the draft ozone action plan for the inclusion of state-only measures and why such measures should be adopted independent of the federally-enforceable SIP-included measures proposed to the RAQC by its staff and APCD staff. Absent such a stated rationale, it is difficult for the Commenting Parties to support any such proposed requirements.

More specifically, the Commenting Parties support the implementation of a motor vehicle inspection/maintenance program in the North Front Range, but question why such a program should be treated very differently than the existing program in the Denver Metropolitan Area

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("DMA). Both programs, however comprised, should be part of the federally-enforceable ozone SIP, and stand on an equal footing under the law, thereby treating motorists on either side of political boundaries the same within the NAA, since their motor vehicles contribute just the same to ozone formation.

With respect to Item 2 in the proposed state-only measures of the Ozone Action Plan, Commenting Parties continue to support the implementation of a high-emitter program not only in the DMA, but also in the NFRMPO planning area within the NAA. The Commenting Parties further underscore their desire to see the high-emitter program expedited and expanded beyond the pilot program that currently exists to a full-scale high-emitter identification and enforcement program across the entire vehicle inspection and maintenance program areas within the NAA. While they can appreciate the need to develop good data concerning this program, these Commenting Parties remain frustrated over the slow pace of implementation of House Bill 1302 on which the high-emitter program is founded, especially given the staff's recognition that it is well-established that "high emitting vehicles contribute disproportionate amounts of pollution to our air." Draft Ozone Action Plan at p. viii.

The Commenting Parties also support staff's recommendation to close collector car license plate loopholes under state law, but again question whether the intertwined relationship of this issue to the effectiveness of vehicle inspection and maintenance programs dictates its inclusion in the federally-enforceable ozone SIP along with the DMA's enhanced vehicle I/M program. The Commenting Parties also question whether the estimated VOC and CO reduction benefits of this control measure might be underestimated given the mounting data indicating underreporting of on-road mobile source VOC emissions in current air quality planning inventories.

With respect to Items 4 and 5 of the proposed state-only measures, the Commenting Parties remain potentially opposed to the inclusion of these measures as a part of the Ozone Action Plan because the inclusion of these measures is not justified in light of the empirical data and photochemical modeling performed in furtherance of ozone SIP development. More specifically, Item 4's proposed increase in control requirements for oil and gas condensate tanks up to 95% control, and for all existing tanks greater than two tons per year of VOC emissions, would appear to be more burdensome and costly than necessary to achieve the 1997 8-hour ozone NAAQS. In the opinion of the Commenting Parties, these controls are even beyond that necessary to make reasonable progress on attainment of the lowered NAAQS for ozone. The Commenting Parties propose that the RAQC consider and that APCD analyze and perform photochemical modeling runs for an alternative 90% system-wide control strategy for condensate tank controls in the NAA as a potentially more cost effective strategy, especially in light of

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photochemical modeling sensitivity analyses and ozone source apportionment results recently reported.

With respect to state-only, statewide RICE controls for reducing NO<sub>x</sub> emissions, we reiterate our prior verbal comment that adoption of such a strategy at this time is out of step with the 2009 planned consideration of controls for major sources of NO<sub>x</sub>, and that strategies for controlling minor and area sources of NO<sub>x</sub> in a single source category should not be expedited, especially in light of the questionable ozone benefits demonstrated through sensitivity analyses performed by RAQC's photochemical modeling contractors. Those sensitivity analyses indicated that statewide RICE controls in this particular strategy number 5 would reduce emissions of NO<sub>x</sub> by approximately 50-60 tons per day, but would only have a 0.1 ppb improvement on ozone in the nonattainment area, a modeled result that certainly falls well below the confidence intervals and margins of error inherent in such modeling. Accordingly, we believe it premature to consider statewide RICE controls for purposes of ozone control at this time, and also believe that there is no demonstrated benefit to be gained from the imposition of such controls selectively on one source category, to the exclusion of all other significant nonroad and on-road source categories. On this latter point, we suggest that it makes more sense to consider NO<sub>x</sub> controls on sources in the nonattainment area, prior to considering for adoption statewide controls on sources of NO<sub>x</sub>, especially minor and area sources of NO<sub>x</sub> that are geographically far removed from the nonattainment area, in light of the ozone source apportionment results recently reported.

#### Potential Strategies Requiring Additional Evaluation

The Commenting Parties question the inclusion of Item 3 in this section of the draft ozone action plan, concerning the evaluation of statewide control requirements for new oil and gas condensate tanks and pneumatic valves. This section of the draft ozone action plan indicates that it covers "several measures that hold considerable promise for further reducing ozone levels in the future." While we agree that a number of the strategies in this section of the plan meet that criterion, we question whether Item 3 does inasmuch as most of the benefit of oil and gas condensate tank controls has already been realized over the past four years under Regulation No. 7 and the early action compact for ozone, and even for statewide controls involving condensate tanks with emissions equal to or greater than 20 tons per year, which went into effect May 1, 2008. Additionally, we are mindful that pneumatic device controls requiring the use of low-bleed devices are likely to be adopted in the next month or two by the Colorado Oil and Gas Conservation Commission, with general support of the industry parties to that rulemaking proceeding. Accordingly, we do not believe that incremental additional controls on top of these existing and likely to be adopted controls "hold considerable promise for further reducing ozone levels" in light of source apportionment results recently reported, and to the extent they will

