



Steven A. Dietrich, Administrator  
Wyoming DEQ Air Quality Division  
Herschler Bldg. 2-E  
122 W. 25th St.  
Cheyenne, WY 82002

January 15, 2013

Dear Mr. Dietrich,

In preparation for the January 16 Wyoming Air Quality Advisory Board meeting to adopt by reference recent U.S. EPA New Source Performance Standards (NSPS) and National Emission Standard for Hazardous Air Pollutants (NESHAPs)<sup>1</sup>, the Wyoming Outdoor Council and Environmental Defense Fund submit the following comments.

Oil and natural gas operations emit a variety of air pollutants, including pollutants that contribute to ground-level ozone or "smog;" toxic air pollutants including known human carcinogens; and methane, a potent climate-disrupting pollutant. Ozone pollution is linked to serious health problems, including premature mortality, heart failure, increased hospital admissions and emergency room visits for respiratory causes among children and adults with

---

<sup>1</sup> Specifically, the Air Quality Division proposes to modify Chapter 5 of the Wyoming Air Quality Standards and Regulations to adopt by reference the following:

1. NSPS governing equipment leaks of VOC from onshore natural gas processing plants for which construction, reconstruction, or modification commenced after January 20, 1984 and on or before August 23, 2011 (40 C.F.R. part 60, subpart KKK) (77 Fed. Reg. 49,490, August 16, 2012).
2. NSPS governing SO<sub>2</sub> emissions from onshore natural gas processing for which construction, reconstruction, or modification commenced after January 20, 1984 and on or before August 23, 2011 (40 C.F.R. part 60, subpart LLL) (77 Fed. Reg. 49,490, August 16, 2012).
3. NSPS governing crude oil and natural gas production, transmission, and distribution (40 C.F.R. part 60, subpart OOOO) (77 Fed. Reg. 49,490, August 16, 2012).
4. NESHAPs governing emission standards for hazardous air pollutants from oil and natural gas production facilities (40 C.F.R. part 63, subpart HH) (77 Fed. Reg. 49,490, August 16, 2012).
5. NESHAPs governing emission standards for hazardous air pollutants from natural gas transmission and storage facilities. (40 C.F.R. part 63, subpart HHH) (77 Fed. Reg. 49,490, August 16, 2012).

pre-existing respiratory disease, and possible long-term damage to the lungs.<sup>2</sup> Children, the elderly, and people with existing respiratory conditions are the most at risk from ozone pollution.<sup>3</sup> Air toxics emitted from oil and gas activities include benzene and formaldehyde, both known human carcinogens.<sup>4</sup> Methane, the primary constituent of natural gas, is a potent greenhouse gas with a warming potential seventy-two times that of carbon dioxide over the short term (twenty years) and twenty-five times that of carbon dioxide over a longer time-frame (one-hundred years).<sup>5</sup> In addition to its climate impacts, methane contributes to higher global background concentrations of ozone pollution.<sup>6</sup>

The Department of Environmental Quality Air Quality Division (AQD) has occupied a leadership role in promulgating clean-air measures to protect human health and the environment from harmful oil and gas activities for over a decade. The AQD first introduced clean-air measures for minor source crude oil, gas, and condensate production sources in October 1995.<sup>7</sup> In 1999 Wyoming promulgated presumptive best available control technology (P-BACT) guidance requiring pressure vessels and storage tanks to reduce smog-forming volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) from new oil and gas production facilities.<sup>8</sup> Wyoming subsequently strengthened these P-BACT requirements multiple times in 2001, 2004, 2007 and most recently in 2010.<sup>9</sup> A number of Wyoming's P-BACT requirements

---

<sup>2</sup> EPA, AIR QUALITY CRITERIA FOR OZONE AND RELATED PHOTOCHEMICAL OXIDANTS (2006); Michelle L. Bell, Roger D. Peng & Francesca Dominici, The Exposure-Response Curve for Ozone and Risk of Mortality and the Adequacy of Current Ozone Regulations, 114 ENVTL. HEALTH PERSPS. 532 (2006); Jonathan I. Levy et al., Ozone Exposure and Mortality: An Empiric Bayes Metaregression Analysis, 16 EPIDEMIOLOGY 458 (2005).

<sup>3</sup> See EPA, Ground-Level Ozone Health Effects, <http://www.epa.gov/glo/health.html>; EPA, Nitrogen Dioxide, Health, <http://www.epa.gov/air/nitrogenoxides/health.html>.

<sup>4</sup> See, e.g., NATIONAL TOXICOLOGY PROGRAM, REPORT ON CARCINOGENS, 12<sup>TH</sup>.

ED. 195 (2011), available at <http://ntp.niehs.nih.gov/ntp/roc/twelfth/profiles/Formaldehyde.pdf>.

<sup>5</sup> The values of 25 and 72 are methane's global warming potential (GWP); GWP is a commonly used concept to compare the radiative forcing of GHGs relative to that of CO<sub>2</sub>. The Intergovernmental Panel on Climate Change (IPCC) typically uses a 100-year time horizon for the calculation of GWP; but a 20-year horizon is sometimes used.

<sup>6</sup> J. Jason West et al., Global Health Benefits of Mitigating Ozone Pollution with Methane Emission Controls, 103 PROC. NAT'L ACAD. SCI. 3988, 3989 (2006).

<sup>7</sup> See Memorandum from Charles A. Collins, Administrator, Air Quality Division (Oct. 23, 1995) (discussing guidance for minor source oil and gas production units), available at <http://deq.state.wy.us/aqd/Oil%20and%20Gas/Oil%20and%20Gas%20Memo%2010-23-95.pdf>.

<sup>8</sup> See letter from Dan Olson, Administrator, Air Quality Division (January 6, 1999), available at <http://deq.state.wy.us/aqd/Oil%20and%20Gas/oglette.pdf>

<sup>9</sup> See generally Wyoming DEQ, Oil and Gas, <http://deq.state.wy.us/aqd/oilgas.asp> (listing oil and gas forms and guidance documents).

(as well as similar Colorado requirements) such as the green completion and pneumatic controller requirements formed the basis for EPA's recent NSPS. Last week the AQD announced additional steps to reduce smog-forming emissions from oil and gas facilities in the Pinedale area by committing to move forward with recommendations of the Upper Green River Basin Air Quality Citizens Advisory Task Force (UGRB Task Force). These recommendations, which include important measures to reduce fugitive emissions from leaky equipment and increased emissions monitoring, are important pieces of effective clean air policy.

Adoption of the NSPS and NESHAPs is consistent with Wyoming's history of protecting human health and the environment from deleterious air pollution associated with oil and gas operations. These federal requirements represent important steps to reduce air pollution from oil and gas activities, an issue of special poignancy given the ozone nonattainment status that now prevails in Sublette and portions of Sweetwater and Lincoln Counties. Nevertheless, additional opportunities to reduce pollution from oil and gas sources remain. Reducing emissions from existing sources is of particular import, especially since Wyoming's P-BACT requirements apply only to new and modified sources. Importantly, one of the final recommendations of the UGRB Task Force was to "develop and implement rules, regulations, and/or policy" to reduce existing source emissions.<sup>10</sup> We heartily support this recommendation and look forward to working with the AQD to implement it.

In addition, the NSPS fails to require controls on emissions from oil wells during completion and production activities. Wyoming residents are increasingly concerned about public health and environmental impacts stemming from flaring activities at oil wells, especially in eastern Wyoming where oil production is increasing.<sup>11</sup> It is important that the Wyoming AQD address these concerns by taking additional steps to reduce flaring emissions from oil wells.

Lastly, the NSPS does not reduce emissions associated with well maintenance activities, such as liquids unloading activities. EPA has found these activities to be a significant source of methane emissions<sup>12</sup>, and they are likely a significant source of HAPs and VOCs as well. Since March 2010 the AQD has required operators to use best management practices to reduce emissions

---

<sup>10</sup> Final recommendations of the Upper Green River Basin Air Quality Citizens Advisory Task Force, September 19, 2012 available at

<https://deq.state.wy.us/out/downloads/AMENDED%20UGRB%20Air%20Quality%20Citizens%20Advisory%20Task%20Force%20Recommendations%20FINAL%2009-21-2012.pdf>.

<sup>11</sup> See e.g. Dustin Bleizeffer, *Gas Flaring Riles Homeowners in Converse County*, WyoFile, Dec. 11, 2012, available at <http://wyofile.com/2012/12/gas-flaring-riles-homeowners-in-converse-county/>.

<sup>12</sup> See EPA (2011), *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2009*, tables A-120 (pp. A-149 – A-153). While the 2012 inventory adjusts downward the amount of methane emissions attributed to liquids unloading and other well cleanup activities, this data is still being reviewed by outside experts for accuracy.

from blow down/venting activities associated with liquids unloading activities.<sup>13</sup> It is unclear to what extent this requirement has reduced emissions, however. We encourage the AQD to examine the records submitted by operators subject to the requirement to use best management practices to reduce blow down/venting emissions in order to ascertain the efficacy of the current P-BACT requirement and whether additional opportunities for emission reductions remain.

We understand that the DEQ intends to retain existing state standards that are more protective than EPA's as it incorporates federal standards. As noted above, Wyoming has a number of P-BACT requirements that are more stringent than federal standards<sup>14</sup> and also requires emission controls on sources that are not covered by EPA regulations.<sup>15</sup> Retention of these more protective state standards is necessary for Wyoming to restore healthy, pristine air to the Pinedale nonattainment area and to protect clean air in other parts of the state home to oil and gas development. There is no question that Wyoming has authority to enforce state standards that are more rigorous and protective than federal standards<sup>16</sup> and we encourage the AQD to ensure that such state standards remain in place. If anything, as the AQD acknowledged last week in Pinedale during its announcement of additional steps to reduce ozone precursors in the Pinedale nonattainment area, additional state measures are necessary.

We support the DEQ's adoption of EPA's new and revised NSPS and NESHAPs for oil and gas facilities and urge incorporation by reference of these Federal regulations into the Wyoming Air Quality Standards and Regulations by the Air Quality Advisory Board, and subsequently by the Wyoming Environmental Quality Council. We also look forward to working with the AQD, the Air Quality Advisory Board and the Environmental Quality Council to further improve Wyoming's requirements in order to assure that the state continues to be a leader in promulgating benchmark clean-air measures and to assure the restoration of healthy, clean air in the Pinedale nonattainment area expeditiously.

Thank you for considering these brief comments.

---

<sup>13</sup> Wyoming DEQ, Oil and Gas Production Facilities, Ch. 6, Section 2 Permitting Guidance (March 2010), available at <http://deq.state.wy.us/aqd/Oil%20and%20Gas/March%202010%20FINAL%20O&G%20GUIDANCE.pdf>.

<sup>14</sup> For example Wyoming requires 98% control of flash emissions from storage vessels and glycol dehydrators whereas EPA requires 95% control. In the Jonah & Pinedale Anticline Development Area Wyoming also requires operators control all flash emissions by 98% upon the first date of production whereas EPA's rules apply only to facilities that emit above a specified threshold (e.g. storage vessels that emit at least 6 tons per year of VOCs). See Wyoming DEQ, Oil and Gas Production Facilities, Ch. 6, Section 2 Permitting Guidance (March 2010), available at <http://deq.state.wy.us/aqd/Oil%20and%20Gas/March%202010%20FINAL%20O&G%20GUIDANCE.pdf>.

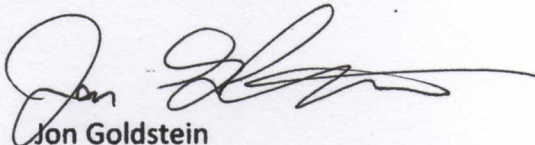
<sup>15</sup> See *Id.* (containing P-BACT requirements for pneumatic pumps, blowdown activities, and completion activities at oil wells). EPA does not regulate pneumatic pumps, blowdown activities or well completions at oil wells.

<sup>16</sup> See *e.g.* The Wyoming Environmental Quality Act, WY. STAT. § 35-11-201 et seq. (containing no provisions that limit the state from adopting standards that are more restrictive than federal standards).

Sincerely,



Bruce Pendery  
Staff Attorney and Program Director, WOC



Jon Goldstein  
Senior Energy Policy Manager, EDF

122 West 25<sup>th</sup> St.  
Herschler Bldg. Rm. 1714  
Cheyenne, WY 82002