BEFORE THE ADMINISTRATOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)	
EnCana Oil and Gas (USA) Inc.,)	
Pavillion Compressor Station)	
) PETITION T	TO OBJECT TO
) ISSUANCE	OF A STATE
Permit Number: 3-1-063) TITLE V OP	ERATING
) PERMIT	
)	
Issued by the Wyoming Department of)	
Environmental Quality, Air Quality)	
Division)	
) Petition Num	ber: VIII-2009-
)	
)	

Pursuant to Section 505(b)(2) of the Clean Air Act and 40 CFR § 70.8(d), WildEarth Guardians, Powder River Basin Resource Council, and Pavillion Area Concerned Citizens (hereafter "Petitioners") hereby petitions the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the issuance of the May 6, 2009 Title V operating permit (hereafter "Title V Permit") issued by the Wyoming Department of Environmental Quality, Air Quality Division (hereafter "DEQ") for EnCana Oil and Gas (USA) Inc. (hereafter "EnCana") to operate the Pavillion Compressor Station and Natural Gas Processing Facility (hereafter "Pavillion Compressor Station") located in Fremont County, Wyoming. *See* Exhibit 1, EnCana Oil and Gas (USA) Inc., Pavillion Compressor Station Title V Permit, Permit Number 3-1-063 (May 6, 2009) and Exhibit 2, EnCana Oil and Gas (USA) Inc., Pavillion Compressor Station Title V Permit, Statement of Basis (September 3, 2008).

Petitioners hereby petition the Administrator to object to the issuance of the Title V permit due to its failure to ensure compliance with New Source Review ("NSR") Prevention of Significant Deterioration ("PSD") requirements under the Clean Air Act and to require sufficient monitoring to ensure harmful levels of air pollution are not released. Above all, Petitioners request the Administrator object based on the failure of DEQ to ensure adequate protection of public health in the Pavillion, Wyoming area of Fremont County.

INTRODUCTION

The Pavillion Compressor Station is a major source of air pollution that compresses and processes natural gas produced from wells in the Pavillion, Wyoming area in Fremont County. The Pavillion area has recently undergone a resurgence in natural gas production, raising

concerns over the impacts of natural gas development to neighboring communities and local air quality.

The compressor station consists of a number of large, high-powered compressor engines, several glycol dehydration units to remove water from the natural gas, heaters, an emergency flare, a thermal oxidation unit, distillation towers, refrigeration for the recovery of natural gas liquids, and storage tanks. According to the Title V Permit for the Pavillion Compressor Station, the facility is estimated to emit:

- 281.8 tons of nitrogen oxides ("NO_x");
- 119.7 tons of carbon monoxide;
- 55.6 tons of volatile organic compounds ("VOCs"); and
- 21.3 tons of hazardous air pollutants ("HAPs"), including benzene, a known carcinogen, and formaldehyde, a probable carcinogen (*see* <u>http://www.epa.gov/ttn/atw/hlthef/benzene.html</u> and <u>http://www.epa.gov/ttn/atw/hlthef/formalde.html</u>.)

 NO_x and VOCs both react with sunlight to form ground-level ozone, a corrosive gas that is linked to a number of respiratory ailments. *See*

http://www.epa.gov/03healthtraining/population.html. Ground-level ozone is becoming a serious health problem in Wyoming, due in large part to oil and gas development. Current national ambient air quality standards ("NAAQS") established by the EPA limit ozone concentrations to no more than 0.075 parts per million over an eight hour period. *See* 40 CFR § 50.15. In neighboring Sublette County, Wyoming, natural gas development largely responsible for a violation of the ozone NAAQS due to the release of large amounts of NO_x and VOCs. *See* Exhibit 3, DEQ, "Wyoming Recommends Ozone Nonattainment Area to EPA" (March 12, 2009).

The Pavillion Compressor Station is a major source under the PSD program of the Clean Air Act due to the fact that the facility releases more than 250 tons/year of NO_x . Any modification of the facility that leads to a significant emissions increase will trigger PSD permitting requirements, including the requirement to utilize best available control technology ("BACT").

The DEQ submitted the proposed Title V Permit for the Pavillion Compressor Station for EPA review on March 20, 2009. The EPA's 45 day review period ended on May 4, 2009. Based on Petitioners' conversations with Region 8 EPA staff, the EPA did not object to the issuance of the Title V Permit. Since that time, the DEQ has issued a final Title V Permit dated May 6, 2009. This petition is thus timely filed within 60 days following the conclusion of EPA's review period and failure to raise objections.

This petition is based on objections to the permit raised with reasonable specificity during the public comment period. To the extent the EPA may somehow believe this petition is not based on comments raised with reasonable specificity during the public comment period, Petitioners request the Administrator also consider this a petition to reopen the Title V Permit for

the Pavillion Compressor Station in accordance with 40 CFR § 70.7(f).¹ A permit reopening and revision is mandated in this case because of one or both of the following reasons:

- 1. Material mistakes or inaccurate statements were made in establishing the terms and conditions in the permit. *See* 40 CFR § 70.7(f)(1)(iii). As will be discussed in more detail, the Title V Permit for the Pavillion Compressor Station suffers from material mistakes in violation of applicable requirements, etc.; and
- 2. The permit fails to assure compliance with the applicable requirements. *See*, 40 CFR § 70.7(f)(1)(iv). As will be discussed in more detail, the Title V Permit for the Pavillion Compressor Station fails to assure compliance with several applicable requirements.

PETITIONERS

WildEarth Guardians is a Santa Fe, New Mexico-based nonprofit membership group dedicating to protecting and restoring the wildlife, wild places, wild rivers of the American West. WildEarth Guardians works with local communities throughout the Rocky Mountain region to safeguard clean air and public health, and to work toward sensible and cost-effective solutions to air pollution problems. WildEarth Guardians has members throughout the Rocky Mountain region, including Wyoming, that are adversely affected by air pollution from oil and gas development.

Pavillion Area Concerned Citizens is a group of local residents in and around Pavillion, Wyoming that are concerned about the impact of oil and gas production activity to air quality and public health in the region. Members of the Pavillion Area Concerned Citizens have voiced a number of concerns over the impacts of the Pavillion Compressor Station, as well as associated natural gas development, to local air quality

Powder River Basin Resource Council is a Wyoming-based citizens group dedicated to the conservation of Wyoming's air and responsible use of resources to sustain the livelihood of present and future generations. Powder River Basin Resource Council has members throughout Wyoming, including the Pavillion area, that are adversely affected by air pollution from oil and gas development.

Both the Pavillion Area Concerned Citizens and the Powder River Basin Resource Council submitted comments on the draft Title V Permit for the Pavillion Compressor Station. *See* Exhibit 4, Pavillion Area Concerned Citizens and Powder River Basin Resource Council, "Comments on Draft Renewal of Operating Permit for the Pavillion Compressor Station and Natural Gas Processing Facility" (December 18, 2008). Pavillion Area Concerned Citizens and Powder River Basin Resource Council, as well as its members, also submitted comments at a public hearing held on the draft Title V Permit on December 18, 2008.

¹ To the extent the Administrator may not believe citizens can petition for reopening for cause under 40 CFR § 70.7(f), Petitioners also hereby petitions to reopen for cause in accordance with 40 CFR § 70.7(f) pursuant to 5 USC § 555(b).

Petitioners request the EPA object to the issuance of Permit Number 3-1-063 for the Pavillion Compressor Station and/or find reopening for cause for the reasons set forth below.

GROUNDS FOR OBJECTION

I. Emission Limits for Unit 170, the Ingersoll Rand Compressor Engine are Unsupported and Should be Strengthened

Condition (F2) of the Title V Permit sets NO_x and carbon monoxide emission limits for Unit 170, the 1000 horsepower Ingersoll Rand 12TVS natural gas-fired reciprocating internal combustion engine, that appear unsupported and arbitrary and capricious. *See* Exhibit 1, Title V Permit at 6, Condition (F2). This is problematic, particularly in the context of NO_x emissions. Indeed, the NO_x limits set forth by Condition (F2) are significantly higher than the limits imposed for other similar emissions sources at the Pavillion Compressor Station. For example, NO_x emissions from Unit 170, which is a 1,000 horsepower 4 stroke rich burn engine, are limited to 198 tons/year, whereas NO_x emissions from Unit 181, which is a 992 horsepower four stroke rich burn engine, are limited to only 19.3 tons/year from Unit 181. **Unit 170 is therefore allowed to emit 10 times as much as NO_x as Unit 181, even though the sources are nearly identical.**

The rationale for establishing the NO_x and carbon monoxide emission limits for Unit 170 is virtually unexplained. The Title V Permit Statement of Basis fails to provide any explanation whatsoever supporting the emission limits. In response to comments raised by Petitioners regarding this issue, the DEQ claimed, "The [Air Quality] Division's records indicate the Ingersoll Rand Engine predates the Division's permitting programs. Emission rates for NO_x and CO [carbon monoxide] were assigned based on manufacturer's information during the permitting of another engine, to assure compliance with ambient NOx standards." *See* Exhibit 5, DEQ, "Decision in the Matter of the Permit Application to Renew the Operating Permit for the EnCana Oil and Gas (USA) Inc. Pavillion Compressor Station and Natural Gas Processing Plant in Fremont County, Wyoming" (March 6, 2009) at 2. The DEQ's response, however, is arbitrary at best.

Indeed, there is no indication that an actual analysis of impacts to any ambient air quality standard, whether for NO_x or even ozone, was conducted to inform the DEQ when establishing the NO_x and carbon monoxide emission limits for Unit 170. Based on the DEQ's response, it appears that the agency relied on information gathered for a totally unrelated permitting process. Although it is questionable whether the DEQ could reasonably rely on information totally unrelated to Unit 170 when establishing NO_x and carbon monoxide limits for Unit 170, the fact that the agency has failed to demonstrate that the emission limits set at Condition (F2) will actually protect ambient air quality standards, whether for NO_x or other pollutants, exposes the arbitrary nature of the limits.

The failure of DEQ to provide a rational basis for the NO_x and carbon monoxide emission limits for Unit 170 further indicates that the Title V Permit fails to include emission limits that assure compliance with all applicable requirements, in accordance with Title V of the Clean Air Act. *See* 42 USC § 7661c(a) and 40 CFR § 70.6(a)(1). The Wyoming State Implementation Plan ("SIP") sets ambient air quality standards for NO_x, as well as ozone, which is formed when NO_x and VOCs react with sunlight. The Wyoming SIP limits ambient concentrations of NO_x, expressed as nitrogen dioxide, to no more than 100 micrograms/cubic meter, or 0.05 parts per million ("ppm") annually and currently limits daily maximum 8-hour ozone concentrations to no more than 0.08 ppm. *See*, Wyoming Air Quality Standards and Regulations ("WAQSR"), Chapter 2, Sections 3 and 6. Because they are incorporated into the Wyoming SIP, these ambient air quality standards are applicable requirements in accordance with 40 CFR § 70.2, which states that "Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the Act that implements the relevant requirements of the Act" constitutes an applicable requirement.² Consequently, the Title V Permit was required to establish emission limits for Unit 170 that ensure compliance with the NO_x and ozone ambient air quality standards set forth in the Wyoming SIP. The failure to do so violates Title V requirements under the Clean Air Act.

The NO_x and carbon monoxide emission limits set for Unit 170 are therefore unsupported and arbitrary and capricious, indicating that DEQ has failed to issue a Title V Permit that assures compliance with all applicable requirements. The Administrator must therefore object to the issuance of the Title V Permit for the Pavillion Compressor Station.

II. The Title V Permit Fails to Require Sufficient Monitoring

Permitting authorities must ensure that a Title V Permit contain monitoring that assures compliance with the terms and conditions of the permit. See 42 USC § 7661c(c) and 70.6(c)(1). Although as a basic matter, Title V Permits must require sufficient periodic monitoring when the underlying applicable requirements do not require monitoring (see 40 CFR § 70.6(a)(3)(i)(B)), the D.C. Circuit Court of Appeals has firmly held that even when the underlying applicable requirements require monitoring, permitting authorities must supplement this monitoring if it is inadequate to ensure compliance with the terms and conditions of the permit. As the D.C. Circuit recently explained:

[40 CFR § 70.6(c)(1)] serves as a gap-filler....In other words, § 70.6(c)(1) ensures that all Title V permits include monitoring requirements "sufficient to assure compliance with the terms and conditions of the permit," even when § 70.6(a)(3)(i)(A) and § 70.6(a)(3)(i)(B) are not applicable. This reading provides precisely what we have concluded the Act requires: a permitting authority may supplement an inadequate

² Although the DEQ claims in the Title V Permit that ambient air quality standards for NO_x and ozone set forth at WAQSR Chapter 2, Sections 3 and 6 are "State only requirements and are not federally enforceable" (*see* Exhibit 1, Title V Permit at 26, Condition (S1)), this claim does not appear to ring true. WAQSR Chapter 2, Sections 3 and 6 have been approved by the EPA for incorporation into the Wyoming SIP. *See* EPA, "Approval and Promulgation of Air Quality Implementation Plans; Wyoming; Restructuring and Renumbering of Wyoming Air Quality Standards and Regulations," 69 Fed. Reg. 44965 (July 28, 2004). This raises questions over whether DEQ has appropriately identified state-only requirements in the Title V Permit and may further a need for the Administrator to object to the issuance of the Title V Permit over its failure to ensure compliance with all applicable requirements in accordance with 42 USC § 7661c(a) and 40 CFR § 70.6(a)(1).

monitoring requirement so that the requirement will "assure compliance with the permit terms and conditions."

See Sierra Club v. EPA, 536 F.3d 673, 680 (D.C. Cir. 2008). In other words, "a monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a permit[.]" *Id.* at 677.

In this case, the Title V Permit fails to contain monitoring requirements that ensure compliance with underlying NO_x , VOC, and carbon monoxide emission limits for a number of pollutant emitting activities at the Pavillion Compressor Station that were established either by the Wyoming SIP or underlying construction permits. In some cases, the Title V Permit altogether lacks monitoring requirements and in other cases, fails to require monitoring that is sufficiently frequent and/or of sufficient quality necessary to ensure compliance with applicable emission limits. Petitioners raised with reasonable specificity concerns over the failure of the Title V Permit to require sufficient monitoring in their public comments. As will be explained in more detail below, the Administrator must therefore object to the issuance of the Title V Permit.

A. The Title V Permit Fails to Require Sufficient Monitoring of Emissions from the Compressor Engines

The Title V Permit fails to require monitoring sufficient to ensure compliance with applicable emission limits in accordance with 42 USC § 7661c(c) and 70.6(c)(1). For the reasons set forth below, the Administrator must therefore object to the issuance of the Title V Permit.

i. Unit 171

Unit 171 at the Pavillion Compressor Station consists of a 532 horsepower Ajax DPC-600 LE natural gas-fired reciprocating internal combustion engine. *See* Exhibit 1, Title V Permit at 4. The Title V Permit establishes NO_x and carbon monoxide emission limits for the engine. *Id.* at 6, Condition (F2). Unfortunately, the Title V Permit fails to require sufficient monitoring to assure compliance with the NO_x and carbon monoxide limits.

Most significantly, the Title V Permit only requires annual monitoring of NO_x and carbon monoxide emissions from Unit 171. *See* Exhibit 1, Title V Permit at 7, Condition (F9)(a)(ii) and Condition (F9)(b)(i). This is not frequent enough to assure compliance with the emission limits set forth at Condition (F)(2).

The Title V Permit limits NO_x and carbon monoxide on a g/hp-hr, lb/hr, and ton/year basis. *See* Exhibit 1, Title V Permit at 6, Condition (F2). Monitoring of NO_x and carbon monoxide emissions once per year cannot possibly yield reliable data from the relevant time period so as to ensure compliance with the short-term g/hp-hr and lb/hr emission limits, and it is questionable whether such monitoring can ensure compliance with the long-term ton/year emission rates, as well. Indeed, monitoring once annually does not provide hourly data from throughout the year to ensure consistent compliance with the hourly emission limits. This further calls into question the ability of the Title V Permit to ensure compliance with the annual NO_x and carbon monoxide emission limits. Put simply, if reliable data regarding short-term emissions cannot be obtained, it would be impossible to reliably demonstrate compliance with the annual limits.

Compounding this problem, the Statement of Basis does not explain the basis for concluding that one-time annual monitoring of NO_x and carbon monoxide emissions is sufficient to ensure compliance with the applicable emission limits. The Statement of Basis simply states that, "Periodic monitoring of NO_x and CO [carbon monoxide] emissions from the two Ajax DPC-600 LE compressor engines shall be done annually." Exhibit 2, Statement of Basis at 3. There is simply no rationale supporting the DEQ's assertion that annual monitoring is sufficient to ensure compliance with NO_x and carbon monoxide emission limits established for Unit 171.

Adding to this, it is unclear what monitoring methods the Title V Permit actually requires to assess compliance with the NO_x and carbon monoxide limits. Indeed, Condition (F9)(d) states that "[t]he permittee shall measure NO_x and [CO] carbon monoxide emissions from each engine as described above by using the Division's portable analyzer monitoring protocol, or the EPA reference methods described in condition F7." Exhibit 1, Title V Permit at 8, Condition (F9)(d). Yet Condition (F7)(a)(vi) allows that, "For alternative test methods, or methods used for other pollutants, the approval of the Administrator must be obtained prior to using the test method to measure emissions." This Condition not only implies that the permittee can use methods other than the portable analyzer monitoring protocol and EPA reference methods to determine compliance, but gives the DEQ Administrator unlimited discretion to allow alternative test methods. Because Condition (F9)(d) allows the permittee to utilize Condition (F7) to measure NO_x and carbon monoxide emissions, and because Condition (F7) allows yet-to-be explained or disclosed "alternative test methods" to be used to monitor emissions, the Title V Permit further fails to ensure sufficient monitoring to assure compliance with the NO_x and carbon monoxide emission limits established for Unit 171.

ii. Unit 173

Unit 173 at the Pavillion Compressor Station also consists of a 532 horsepower Ajax DPC-600 LE natural gas-fired reciprocating internal combustion engine. *See* Exhibit 1, Title V Permit at 4. The Title V Permit also establishes NO_x and carbon monoxide emission limits for the engine. *Id.* at 6, Condition (F2). For the aforementioned reasons that the Title V Permit fails to provide sufficient monitoring to ensure compliance with NO_x and carbon monoxide limits set for Unit 171, the Title V Permit also fails to require sufficient monitoring to assure compliance with the same limits for Unit 173.

iii. Unit 170

Unit 170 at the Pavillion Compressor Station consists of a 1000 horsepower Ingersoll Rand 12TVS natural gas-fired reciprocating internal combustion engine. *See* Exhibit 1, Title V Permit at 4. The Title V Permit establishes NO_x and carbon monoxide emission limits for the engine. *Id.* at 6, Condition (F2). Unfortunately, the Title V Permit fails to require sufficient monitoring to assure compliance with the NO_x and carbon monoxide limits. As with Units 171 and 173, the Title V Permit fails to require sufficiently frequent monitoring. Indeed, the Title V Permit only requires quarterly monitoring of NO_x emissions and does not even require monitoring of carbon monoxide from Unit 170. *See* Exhibit 1, Title V Permit at 7, Condition (F9)(a)(i) and Condition (F9)(b)(ii). Not only is this is not frequent enough to assure compliance with the NO_x emission limits set forth at Condition (F)(2), but the failure of the Title V Permit to require any monitoring of carbon monoxide limits is clearly a violation of 40 CFR § 70.6.

As with Units 171 and 173, the Title V Permit limits NO_x on g/hp-hr, lb/hr, and ton/year basis. *See* Exhibit 1, Title V Permit at 6, Condition (F2). Monitoring of NO_x emissions on a quarterly basis—or once every three months—cannot possibly yield reliable data from the relevant time period so as to ensure compliance with the short-term g/hp-hr and lb/hr emission limits, and it is questionable whether such monitoring can ensure compliance with the long-term ton/year emission rates, as well. Indeed, monitoring once every three months does not provide hourly data from throughout the year to ensure consistent compliance with the hourly emission limits. This further calls into question the ability of the Title V Permit to ensure compliance with the annual NO_x and carbon monoxide emission limits. Put simply, if reliable data regarding short-term emissions cannot be obtained, it would be impossible to reliably demonstrate compliance with the annual limits.

Adding to our concerns is that the Statement of Basis does not explain the basis for concluding that quarterly monitoring of NO_x emissions is sufficient to ensure compliance with the applicable emission limits. The Statement of Basis simply states that, "The monitoring of NO_x emissions fro the Ingersoll Rand 12TVS engine shall consist of quarterly testing." Exhibit 2, Statement of Basis at 3. There is simply no rationale supporting the DEQ's assertion that quarterly monitoring is sufficient to ensure compliance with NO_x emission limits established for Unit 170.

Furthermore, as with Units 171 and 173, it is unclear what monitoring methods the Title V Permit actually requires to assess compliance with the NO_x limits. Condition (F9)(d) states that "[t]he permittee shall measure NO_x and [CO] carbon monoxide emissions from each engine as described above by using the Division's portable analyzer monitoring protocol, or the EPA reference methods described in condition F7." Exhibit 1, Title V Permit at 8, Condition (F9)(d). Yet Condition (F7)(a)(vi) allows that, "For alternative test methods, or methods used for other pollutants, the approval of the Administrator must be obtained prior to using the test method to measure emissions." This Condition not only implies that the permittee can use methods other than the portable analyzer monitoring protocol and EPA reference methods to determine compliance, but gives the DEQ Administrator unlimited discretion to allow alternative test methods. Because Condition (F7)(d) allows the permittee to utilize Condition (F7) to measure NO_x emissions, and because Condition (F7) allows yet-to-be explained or disclosed "alternative test methods" to be used to monitor emissions, the Title V Permit further fails to ensure sufficient monitoring to assure compliance with the NO_x emission limits established for Unit 170.

Finally, the Title V Permit is flawed because it simply fails to require any monitoring of carbon monoxide emissions from Unit 170. The Title V Permit states, "Based on the size of the

CO emissions from the...Ingersoll Rand 12TVS (unit 170)...and [the] potential impact on ambient standards, the Division is satisfied that no additional CO [carbon monoxide] monitoring is warranted for [this source]." Exhibit 1, Title V Permit at 8, Condition (F9)(b)(ii). Although the DEQ's rationale is firmly undermined by the fact that the Title V Permit requires carbon monoxide emissions monitoring from Units 171, 173, and 181, indicating that such emissions are of concern, this is nevertheless a clear violation of 42 USC § 7661c(c) and 70.6(c)(1). Indeed, the Title V Permit clearly limits carbon monoxide emissions from Unit 170 to no more than 1.5 g/hp-hr, 3.4 lb/hr, and 14.9 tons/year and states that "emissions shall not exceed the limits." Exhibit 1, Title V Permit at 6, Condition (F2). The Title V Permit cannot possibly assure compliance with these carbon monoxide emission limits without requiring carbon monoxide emissions monitoring from Unit 170. Thus, the failure to include any carbon monoxide emissions monitoring from Unit 170 violates 42 USC § 7661c(c) and 70.6(c)(1).

iv. Unit 169

Unit 169 at the Pavillion Compressor Station consists of a 196 horsepower Ajax DPC-230 natural gas-fired reciprocating internal combustion engine. *See* Exhibit 1, Title V Permit at 4. The Title V Permit establishes NO_x and carbon monoxide emission limits for the engine. *Id.* at 6, Condition (F2). Unfortunately, the Title V Permit fails to require sufficient monitoring to assure compliance with the NO_x and carbon monoxide limits.

First, the Title V Permit fails to require any actual monitoring of NO_x emissions. The Title V Permit simply states that, "Periodic monitoring of NO_x emissions from the Ajax DPC-230 engine...shall consist of operating and maintaining the unit in accordance with manufacturer's recommendations for minimizing NO_x emissions." Exhibit 1, Title V Permit at 7, Condition (F9)(a)(iv). This is not sufficient monitoring of NO_x emissions under Title V.

To begin with, the DEQ neither presents nor cites any analysis showing that Unit 169 is capable of continuously meeting the NO_x emission limits established at Condition (F2) simply by operating and maintaining the engine "in accordance with manufacturer's recommendations." There is simply no support for the DEQ's assertion that maintenance and operation in accordance with manufacturer's recommendations automatically and consistently assures compliance with the established NO_x emission limits.

Second, "manufacturer's recommendations" are neither explained nor incorporated into the Title V Permit. It is impossible to know what these recommendations are and consequently impossible to assure compliance with such recommendations.

Finally, the reliance upon manufacturer's recommendations as sufficient periodic monitoring is simply undercut by the fact that the Title V Permit requires actual monitoring of NO_x emissions, whether by portable analyzer method or other methods, for other compressor engines at the Pavillion Compressor Station. *See e.g.* Exhibit 1, Title V Permit at 7-8, Conditions (F9)(d) and (F7). It is unclear why, in the case of Unit 169, the DEQ feels that such methods are not appropriate, particularly given that, at 26.6 tons/year, Unit 169 is the second largest unit emitter of NO_x at the Pavillion Compressor Station.

Finally, the Title V Permit is flawed because it simply fails to require any monitoring of carbon monoxide emissions from Unit 169. The Title V Permit states, "Based on the size of the CO emissions from the...Ajax DPC-230 (unit 169)...and [the] potential impact on ambient standards, the Division is satisfied that no additional CO [carbon monoxide] monitoring is warranted for [this source]." Exhibit 1, Title V Permit at 8, Condition (F9)(b)(ii). Although the DEQ's rationale is firmly undermined by the fact that the Title V Permit requires carbon monoxide emissions monitoring from Units 171, 173, and 181, indicating that such emissions are of concern, this is nevertheless a clear violation of 42 USC § 7661c(c) and 70.6(c)(1). Indeed, the Title V Permit clearly limits carbon monoxide emissions shall not exceed the limits." Exhibit 1, Title V Permit at 6, Condition (F2). The Title V Permit cannot possibly assure compliance with these carbon monoxide emission limits without requiring carbon monoxide emissions monitoring from Unit 169. Thus, the failure to include any carbon monoxide emissions monitoring from Unit 169 violates 42 USC § 7661c(c) and 70.6(c)(1).

v. Unit 180

Unit 180 at the Pavillion Compressor Station consists of a 638 horsepower Ajax DPC-720 LE natural gas-fired reciprocating internal combustion engine. *See* Exhibit 1, Title V Permit at 4. The Title V Permit also establishes NO_x and carbon monoxide emission limits for the engine. *Id.* at 6, Condition (F2). For the aforementioned reasons that the Title V Permit fails to provide sufficient monitoring to ensure compliance with NO_x and carbon monoxide limits set for Unit 169, the Title V Permit also fails to require sufficient monitoring to assure compliance with the same limits for Unit 180.

vi. Unit 181

Unit 181 at the Pavillion Compressor Station consists of a 992 horsepower Waukesha 7042GSIU natural gas-fired reciprocating internal combustion engine. *See* Exhibit 1, Title V Permit at 4. The Title V Permit establishes NO_x and carbon monoxide emission limits for the engine. *Id.* at 6, Condition (F2). Unfortunately, the Title V Permit fails to require sufficient monitoring to assure compliance with the NO_x and carbon monoxide limits.

Most significantly, the Title V Permit only requires semiannual monitoring of NO_x emissions and annual monitoring of carbon monoxide emissions from Unit 181. *See* Exhibit 1, Title V Permit at 7, Condition (F9)(a)(iii) and Condition (F9)(b)(i). This is not frequent enough to assure compliance with the emission limits set forth at Condition (F)(2).

The Title V Permit limits NO_x and carbon monoxide on a g/hp-hr, lb/hr, and ton/year basis. *See* Exhibit 1, Title V Permit at 6, Condition (F2). Monitoring of NO_x emissions semiannually and carbon monoxide emissions annually cannot possibly yield reliable data from the relevant time period so as to ensure compliance with the short-term g/hp-hr and lb/hr emission limits, and it is questionable whether such monitoring can ensure compliance with the long-term ton/year emission rates, as well. Indeed, monitoring semiannually for NO_x and once annually for carbon monoxide does not provide hourly data from throughout the year to ensure consistent compliance with the hourly emission limits. This further calls into question the ability of the Title V Permit to ensure compliance with the annual NO_x and carbon monoxide emission limits. Put simply, if reliable data regarding short-term emissions cannot be obtained, it would be impossible to reliably demonstrate compliance with the annual limits.

Compounding this problem, the Statement of Basis does not explain the basis for concluding that semiannual monitoring of NO_x and one-time annual monitoring for carbon monoxide emissions is sufficient to ensure compliance with the applicable emission limits. The Statement of Basis simply states that, "The Waukesha 7042 GSIU compressor engine shall comply with the compliance assurance monitoring (CAM) plan for NO_x emissions in addition to semiannual NO_x testing to confirm emission compliance and the CAM indicator ranges." Exhibit 2, Statement of Basis at 3. There is simply no rationale supporting the DEQ's assertion that semiannual monitoring of NO_x and annual monitoring of carbon monoxide is sufficient to ensure compliance with NO_x and carbon monoxide emission limits established for Unit 181.

Although we understand the Title V Permit requires the operator to comply with the compliance assurance monitoring ("CAM") plan attached as Appendix B to the Title V Permit in regards to NO_x emissions, it does not appear that the CAM plan provides for sufficient monitoring necessary to assure compliance with the NO_x emission limits for Unit 181. Of particular concern is that the CAM plan in Appendix B of the Title V Permit is inconsistent with conditions set forth within the Title V Permit. For instance, while the Title V Permit states that, "Operation outside of the ranges established in the approved CAM plan shall trigger immediate corrective action," *see* Exhibit 1, Title V Permit at 8, Condition (F10), the CAM plan states that an excursions will only trigger an "inspection" within 48 hours and "repairs as soon as practicable. *Id.* at Appendix B, CAM plan for Unit 181, Section III.A. While Condition (F10) requires "immediate corrective action," the CAM plan only requires "repairs as soon as practicable," making it unclear exactly when excursions will be corrected and/or repaired to ensure compliance with NO_x limits.

Adding to this, it is unclear what monitoring methods the Title V Permit actually requires to assess compliance with the NO_x and carbon monoxide limits. Indeed, Condition (F9)(d) states that "[t]he permittee shall measure NO_x and [CO] carbon monoxide emissions from each engine as described above by using the Division's portable analyzer monitoring protocol, or the EPA reference methods described in condition F7." Exhibit 1, Title V Permit at 8, Condition (F9)(d). Yet Condition (F7)(a)(vi) allows that, "For alternative test methods, or methods used for other pollutants, the approval of the Administrator must be obtained prior to using the test method to measure emissions." This Condition not only implies that the permittee can use methods other than the portable analyzer monitoring protocol and EPA reference methods to determine compliance, but gives the DEQ Administrator unlimited discretion to allow alternative test methods. Because Condition (F9)(d) allows the permittee to utilize Condition (F7) to measure NO_x and carbon monoxide emissions, and because Condition (F7) allows yet-to-be explained or disclosed "alternative test methods" to be used to monitor emissions, the Title V Permit further fails to ensure sufficient monitoring to assure compliance with the NO_x and carbon monoxide emission limits established for Unit 181.

B. The Title V Permit Fails to Require Sufficient Monitoring of Emissions from the Heaters

The Title V Permit fails to require any monitoring of NO_x emissions from Units H1-H6, which include the #1 and #2 BS&B Dehy Heaters, the Flameco Heater, the Sivalls Heater, the Burham Heater, and the Glycol Reboiler. Exhibit 1, Title V Permit at 4. This, despite the fact that the Title V Permit explicitly limits NO_x emissions to no more than 0.20 lb/MMBtu heat input from Units H3-H6 and no more than 0.23 lb/MMBtu heat input from Units H1 and H2. The failure to include any monitoring of NO_x emissions whatsoever again violates Title V requirements that Title V Permits include monitoring sufficient to assure compliance with applicable requirements.

In both the Title V Permit and the response to comments, the DEQ asserts that, "Based on the size of the NO_x emissions from heaters (units H1 through H6) and their potential impact on ambient standards, the [Air Quality] Division is satisfied that no additional NO_x monitoring is warranted for these sources." Exhibit 1, Title V Permit at 7, Condition (F9)(a)(v). The DEQ further asserts that, "All six of the heaters account for less than 0.8 lb/hr of NO_x and approximately one percent of the NO_x emissions coming from this facility." Exhibit 5, DEQ Permit Decision at 3. The DEQ's rationale for failing to require any monitoring of NO_x emissions is simply not allowed. Although NO_x emissions from Unit H1-H6 may not be as large as other units at the Pavillion Compressor Station, the Title V Permit must still ensure that the established emission limits for the heaters, which were established in accordance with the Wyoming SIP at WAQSR, Chapter 3, Section 3, are not exceeded, potentially leading to violations of ambient air quality standards set forth in the Wyoming SIP or other applicable requirements under the Clean Air Act.

Once again, the failure of the Title V Permit to require any monitoring of NO_x emissions from Units H1-H6 violates 42 USC § 7661c(c) and 70.6(c)(1), and further indicates the Title V Permit fails to ensure compliance with all applicable requirements a required by 42 USC § 7661c(a) and 40 CFR § 70.6(a)(1). The Administrator must therefore object to the issuance of the Title V Permit.

III. The Title V Permit Fails to Ensure Compliance with Prevention of Significant Deterioration Requirements

A Title V Permit is required to include emission limitations and standards that assure compliance with all applicable requirements at the time of permit issuance. *See* 42 USC § 7661c(a) and 40 CFR § 70.6(a)(1). Applicable requirements include, among other things, NSR requirements, particularly PSD requirements set forth under Title I of the Clean Air Act, regulations at 40 CFR § 51.166, and the Wyoming SIP. *See* 40 CFR § 70.2. The Clean Air Act's PSD requirements protect human health and welfare, and air quality in class I areas, which include many of the American West's wilderness areas and National Parks and Monuments. *See* 42 USC § 7470. Prevention of significant deterioration requirements apply to the construction of major sources and/or major modifications of major sources of air pollution in areas designated as attainment. *See* 42 USC § 7475 and 40 CFR § 51.166(a)(7).

In the case of the Pavillion Compressor Station, the Title V Permit fails to assure compliance with PSD requirements under the Clean Air Act. As will be explained in more detail below, the Administrator must therefore object to the issuance of the Title V Permit.

A. DEQ Failed to Consider and Address Emissions from Adjacent and Interrelated Pollutant Emitting Activities: EnCana's Natural Gas Wells

The Pavillion Compressor Station is currently a major source of air pollution due the fact that the facility has the potential to emit 250 tons/year or more of NO_x . While the Division claims that PSD review requirements have not yet been triggered for the Pavillion Compressor Station, this claim is baseless as the **DEQ failed to consider and address emissions from all adjacent and interrelated pollutant emitting activities, namely the natural gas wells and associated equipment operated by EnCana that supply natural gas to EnCana's Pavillion Compressor Station.**

Prevention of Significant Deterioration regulations at 40 CFR § 51.166(b)(5) define a stationary source as, "any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant." Regulations at 40 CFR § 51.166(b)(6) further define "building, structure, facility, or installation" as "all of the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control)[.]" The regulations further state, "Pollutant emitting activities are considered part of the same industrial grouping if they belong to the same 'Major Group' (i.e., which have the same first two digit code) as described in the Standard Industrial Classification Manual[.]"

In this case, before issuing the Title V Permit for the Pavillion Compressor Station, the DEQ failed to appropriately consider and address pollutant emitting activities from the natural gas wells and associated equipment currently owned and operated by EnCana that supply the Pavillion Compressor Station with natural gas. Furthermore, the DEQ failed to aggregate emissions from EnCana's natural gas wells and associated equipment together with emissions from the Pavillion Compressor Station as a single source under PSD.

The issue of aggregation was raised with reasonable specificity by the Petitioners during the public comment period for the draft Pavillion Compressor Station Title V Permit. In response, the DEQ did not deny that EnCana's natural gas wells constitute pollutant emitting activities, did not deny that EnCana's natural gas wells are adjacent to the Pavillion Compressor Station, did not deny that EnCana's natural gas wells are not part of the same industrial grouping as the Pavillion Compressor Station, and did not deny that EnCana's natural gas wells are under control by EnCana. Instead, DEQ asserted four arguments for rejecting aggregation emissions from natural gas well and associated equipment with the Pavillion Compressor Station. As explained further, these four arguments are not only flawed, but fail to support a finding that EnCana's natural gas wells and associated equipment should not be aggregated with the Pavillion Compressor Station.

• DEQ Argument #1: "Lack of Interdependency"

The DEQ first claims that:

The [Air Quality] Division has historically permitted compressor stations and liquids handling facilities as stand-alone facilities in the New Source Review (NSR) construction and modification permitting program (Chapter 6, Section 2 of Wyoming Air Quality Standards and Regulations). Although there are production wells in the vicinity of most of these types of sources, compressor stations and liquids handling facilities are not dependent on the operation of a specific well or wells. Pipeline gas and liquids can travel significant distances from well sites before they reach a compressor station or liquids plant.

Exhibit 5, DEQ Permit Decision at 2. On its face, this first argument is flawed because it fails to actually assess whether the Pavillion Compressor Station is dependent upon the operation of EnCana's natural gas wells in the vicinity of the Compressor Station. Instead, the DEQ asserts a extremely broad general claim that "compressor stations…are not dependent on the operations of a specific well or wells." There is no indication that any specific assessment of the Pavillion Compressor Station or EnCana's interrelated and adjacent natural gas wells and associated equipment was conducted for purposes of supporting a finding of a lack of interdependency.

Further, the DEQ's argument is contradicted by data on file the Wyoming Oil and Gas Conservation Commission ("WOGCC"). For instance, data from the WOGCC shows that the Pavillion Compressor Station processes gas only from natural gas wells operated by EnCana in the Pavillion Field of Wyoming. *See* Exhibit 6, List of wells supplying natural gas to Pavillion Compressor Station, downloaded from WOGCC website,

http://wogcc.state.wy.us/GasPlantWells.cfm?nCODE=2831 (last accessed July 1, 2009). Indeed, the WOGCC reports that over 200 natural gas wells operated by EnCana provide natural gas to the Pavillion Compressor Station. *Id.* According to the WOGCC, it appears that all of these natural gas wells are located in the Pavillion Field of Wyoming, which is also the location of the Pavillion Compressor Station. The Pavillion Field is generally located within Townships 3 and 4 North and Ranges 2 and 3 East in Fremont County, Wyoming. *See* Figure below, Pavillion Field, downloaded from http://wugiwus.state.wy.us/whatupfieldmaps.cfm?nautonum=330 (last accessed July 1, 2009).



Pavillion Oil and Gas Field Map from Wyoming Oil and Gas Conservation Commission.

This information is corroborated by EnCana's own Form 9 for the Pavillion Compressor Station submitted to the WOGCC, which lists the specific wells providing natural gas to the Pavillion Compressor Station. *See* Exhibit 7, EnCana Oil and Gas (USA) Inc., Form 9 for Pavillion Compressor Station (April 2009), downloaded from WOGCC website, <u>http://wogcc.state.wy.us/plantcode.cfm?gp_code=2831</u> (last accessed July 1, 2009). The list of wells provided in the company's April 2009 Form 9 for the Pavillion Compressor Station matches the wells listed by the WOGCC, indicating that indeed the WOGCC information is correct and that EnCana's Pavillion Compressor Station is supplied by EnCana's own natural gas wells in the area. This information strongly indicates that operation of the Pavillion Compressor Station is indeed dependent upon operation of EnCana's natural gas wells in the vicinity.

If anything, it would appear that EnCana's natural gas wells serve as support facilities to the Pavillion Compressor Station, further underscoring the interdependency between the Compressor Station and the natural gas wells. At the least, the DEQ's assertion that the Pavillion Compressor Station is not dependent upon the operation of specific natural gas wells appears wholly unsupported.

DEQ seems to assert that because natural gas and liquids "can travel significant distances from well sites before they reach a compressor station," that EnCana's natural gas wells should not be aggregated together with the Pavillion Compressor Station. This is simply unsupported. The EPA itself has stated that, "Distance between the operations is not nearly as important in determining if the operations are part of the same source as the possible support that one operation provides for another." Exhibit 8, Letter from Richard R. Long, Region VIII Director, Air Program, to Lynn R. Menlove, Manager, New Source Review Section, Division of Air Quality, Utah Department of Environmental Quality (August 8, 1997). As the EPA has stated,

[A]ny evaluation of what is "adjacent" must relate to the guiding principle of a common sense notion of "source." (The phrase "common sense notion" appears on page 52695 of the August 7, 1980 PSD preamble, with regard to how to define "source.") Hence, a determination of "adjacent" should include an evaluation of whether the distance between two facilities is sufficiently small that it enables them to operate as a single "source."

Exhibit 9, Memo from Richard R. Long, Region VIII Dir., Air and Radiation Program to Lynn Menlove, Manager, New Source Review Section, Utah Division of Air Quality (May 21, 1998) at 2. The EPA has further noted that:

[E]ach compressor station with its associated emitting units (e.g. compressor engines, wells, pumps, dehydrators, storage and transmission tanks, etc...) comprises a 'group of stationary sources' and would be considered a single source for purposes of determining Title V applicability.

Exhibit 10, Letter from Richard R. Long, Region VIII Director, Air and Radiation Program, to Jack Vaughn, EnerVest San Juan Operating Co. (July 8, 1999).

Finally, the fact that DEQ has "historically" permitted compressor stations, such as the Pavillion Compressor Station, as "stand-alone" facilities is irrelevant. Simply because DEQ has failed to appropriately permit facilities in the past does not mean that the agency should be allowed to continue to do so in the present and future.

• Argument #2: "Emissions are Already Accounted for"

The DEQ further asserts that Wyoming's best available control ("BACT") requirements ensure "prompt and appropriate use of BACT as new wells are drilled and put into production." Exhibit 5, DEQ Permit Decision at 2. Such an argument has no bearing as to whether or not it is appropriate to aggregate emissions from EnCana's natural gas wells with the Pavillion Compressor Station together as a single stationary source. Although DEQ may require BACT for sources such as natural gas wells, this does not absolve the agency of its duty to ensure compliance with PSD, particularly through the Title V permitting process.

• Argument #3: "Section 112 Prohibits Aggregation for Hazardous Air Pollutants"

The DEQ further asserts that "Under the regulations for hazardous air pollutants in Section 112 of the Clean Air Act, specifically 112(n)(4), the EPA Administrator is directed not to aggregate oil and gas wells and pipeline facilities for the purpose of determining major source applicability." Exhibit 5, DEQ Permit Decision at 3. The DEQ relies "heavily" on this argument, yet this reliance is wholly inappropriate for purposes of assuring compliance with PSD. For one thing, the DEQ's argument inappropriately conflates Section 112 of the Clean Air Act, which addresses the regulation of hazardous air pollutants, with the NSR and PSD permitting programs, which are set forth under sections 160, et seq., and 501, et seq., of the Clean Air Act, respectively. Section 112(n)(4)(A) contains a specific provision that prohibits aggregating interrelated oil and gas facilities when assessing whether a stationary source is a major source of hazardous air pollutants, not when a stationary source is major for PSD purposes. It is simply inappropriate to assume that since Congress clearly specified exemptions under section 112 that Congress intended similar exemptions to apply under other programs of the Clean Air Act. Furthermore, it is inappropriate to assume that since Congress recognized the oil and gas industry was unique in the context of section 112 hazardous air pollutant regulation requirements, Congress similarly recognized the oil and gas industry was unique in the context of NSR and PSD regulatory requirements. In sum, the DEQ's "heavy" reliance on section 112 to reject aggregating EnCana's natural gas wells with the Pavillion Compressor Station together as a single stationary source under PSD is baseless.

• Argument #4: "Wyoming Already Regulates Production Wells by Other Means"

Although DEQ recognizes that some states "have adopted a minimum distance threshold" that allows states to impose emission requirements on production wells, the DEQ further asserts that, "Wyoming...already regulates production wells as stationary sources and imposes BACT requirements on them pursuant to Chapter 6, Section 2 of the WAQSR." Exhibit 5, DEQ Permit Decision at 3. As already explained above, the fact that DEQ may regulate natural gas wells does not alleviate the agency of its duty to comply with PSD requirements through the Title V permitting process.

B. EnCana's Natural Gas Wells Must be Aggregated with the Pavillion Compressor Station

Not only did the DEQ fail to appropriately assess whether or not to aggregate EnCana's natural gas wells with the Pavillion Compressor Station as a single source under PSD, but all indications are that such aggregation was required.

Indeed, EnCana's natural gas wells constitute pollutant emitting activities, a fact that the DEQ alludes to when stating that, "Wyoming...already regulates production wells as stationary sources[.]" Exhibit 5, DEQ Permit Decision at 3. This indicates that EnCana's natural gas wells constitute pollutant emitting activities.

Furthermore, EnCana's natural gas wells are part of the same major industrial grouping as the Pavillion Compressor Station. According to the Standard Industrial Classification Manual, producing natural gas wells fall under Major Group 13, or "Oil and Gas Extraction." *See* <u>http://www.osha.gov/oshstats/sicser.html</u>. The Title V Permit notes that the Pavillion Compressor Station as falling under Standard Industrial Classification Code "1311." Exhibit 1, Title V Permit at 3.

EnCana's natural gas wells are also interdependent with Pavillion Compressor Station, a fact underscored by data from the WOGCC and EnCana's latest Form 9 report for the Pavillion Compressor Station, which both reveal that the Pavillion Compressor Station is supplied almost entirely by EnCana's natural gas wells in the vicinity of the Compressor Station. And as explained, these natural gas wells are located in close proximity to the Pavillion Compressor Station appear to all be located in the Pavillion Field of Wyoming. Finally, these natural gas wells are under the control of EnCana.

The Administrator must not only object to the failure of the DEQ to appropriately consider and address whether EnCana's natural gas wells should be aggregated together with the Pavillion Compressor Station in accordance with PSD provisions under the Clean Air Act, but must object due to the fact that all indications are that the DEQ was indeed required to aggregate emissions pursuant to the Clean Air Act before issuing the Title V Permit.

CONCLUSION

For the reasons stated above, Petitioners requests the Administrator object to the Title V Permit issued by the DEQ for the Pavillion Compressor Station. The Title V Permit fails to establish emissions limits to assure compliance with applicable requirements, fails to provide monitoring necessary to assure compliance with Title V monitoring requirements under the Clean Air Act, and fails to comply with PSD requirements under the Clean Air Act. The Administrator thus has a nondiscretionary duty to issue an objection to the Title V Permit within 60 days in accordance with Section 505(b)(2) of the Clean Air Act. Respectfully submitted this 2nd day of July 2009

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TABLE OF EXHIBITS

- 1. Title V Permit, EnCana Oil and Gas (USA) Inc., Pavillion Compressor Station, Permit Number 3-1-063 (May 6, 2009).
- 2. Statement of Basis for Title V Permit, EnCana Oil and Gas (USA) Inc., Pavillion Compressor Station (September 3, 2008).
- 3. DEQ, "Wyoming Recommends Ozone Nonattainment Area to EPA" (March 12, 2009).
- 4. Pavillion Area Concerned Citizens and Powder River Basin Resource Council, "Comments on Draft Renewal of Operating Permit for the Pavillion Compressor Station and Natural Gas Processing Facility" (December 18, 2008).
- 5. DEQ, "Decision in the Matter of the Permit Application to Renew the Operating Permit for the EnCana Oil and Gas (USA) Inc. Pavillion Compressor Station and Natural Gas Processing Plant in Fremont County, Wyoming" (March 6, 2009).
- list of wells supplying natural gas to Pavillion Compressor Station, downloaded from WOGCC website, <u>http://wogcc.state.wy.us/GasPlantWells.cfm?nCODE=2831</u> (last accessed July 1, 2009).
- EnCana Oil and Gas (USA) Inc., Form 9 for Pavillion Compressor Station (April 2009), downloaded from WOGCC website, <u>http://wogcc.state.wy.us/plantcode.cfm?gp_code=2831</u> (last accessed July 1, 2009).
- 8. Letter from Richard R. Long, Region VIII Director, Air Program, to Lynn R. Menlove, Manager, New Source Review Section, Division of Air Quality, Utah Department of Environmental Quality (August 8, 1997).
- 9. Memo from Richard R. Long, Region VIII Dir., Air and Radiation Program to Lynn Menlove, Manager, New Source Review Section, Utah Division of Air Quality (May 21, 1998).
- 10. Letter from Richard R. Long, Region VIII Director, Air and Radiation Program, to Jack Vaughn, EnerVest San Juan Operating Co. (July 8, 1999).