Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

Todd Parfitt, Director

May 14, 2015

COMMENT RESPONSE CONCERNING THE PROPOSED WYOMING AIR QUALITY STANDARDS AND REGULATIONS, CHAPTER 8, SECTION 6, NONATTAINMENT AREA REGULATIONS

A public notice for the proposed rule was released on February 27, 2015. The Air Quality Division (AQD or Division) is taking this opportunity to respond to all comments received by 5:00 p.m. on April 13, 2015 (the close of the public comment period).

INTRODUCTION

The Division has embarked upon this rulemaking to reduce ozone precursor emissions in the Upper Green River Basin (UGRB) using strategies well known for resulting in the reduction of pollutants for improved air quality. Holding operators of existing facilities in the UGRB ozone nonattainment area to the same standards as operators of new and modified facilities (permitted under the State's Chapter 6, Section 2 Oil and Gas Permitting Guidance – September 2013) not only levels the playing field among companies, but also helps Wyoming stay at the forefront of sensible oil and gas air regulations.

OVERVIEW OF COMMENTS RECEIVED

During the public comment period (February 27, 2015 – April 13, 2015) the Division received twenty-one (21) individual comment letters. Comments were received from the general public, environmental advocacy groups, industrial proponents, and non-governmental organizations.

PROCESS FOR TRACKING PUBLIC COMMENTS

Comments received on the UGRB permit by rule for existing sources were divided into groups by commenter type; the general public, environmental advocacy groups, industrial proponents, and non-governmental organizations. After identifying all comments concerning the proposed regulation, the Division crafted responses to those comments. To address individual stakeholder comments that were

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more general in nature, the Division grouped its responses to those comments together for organizational purposes. Responses to those comments may be found in the section entitled "General Comments," which begins on page 4 of this document.

The Division also received comments from stakeholders that were more specialized in nature and covered specific technical concerns pertaining to the proposed rule. To better address the intricacies of these types of comments, the Division has organized the responses by individual stakeholder submission. Responses to the more specialized comments may be found in the section entitled "Extended Comments," which begins on page 6 of this document.

All comment letters received by the Division and cited in this document can be accessed from the Environmental Quality Council (EQC) electronic docket, which is accessible at https://eqc.wyo.gov/Public/Dockets.aspx.

COMMENT LOG

Date Received	Organization or Individual
General Public	
3/20/15	Written Comment – Jennifer Wilson
3/20/15	Written Comment – John Carney, Jr.
3/23/15	Written Comment – Meredith Taylor
3/23/15	Written Comment – Kathleen Yapuncich
4/6/15	Written Comment – Andrew Salter
4/7/15	Written Comment – Rod Newcomb
4/7/15	Written Comment – Eric Wedell
4/10/15	Written Comment – Richard Ridgway
4/10/15	Written Comment – Andrew and Nancy Carson
4/10/15	Written Comment – Rebellion Photonics
4/10/15	Written Comment – Flogistix, L.P.
4/13/15	Written Comment – Andy Blair
4/13/15	Written Comment – FLIR
4/13/15	Written Comment – Apogee Scientific, Inc.
Environmental Advocacy Groups	
4/13/15	Written Comment – The Nature Conservancy

4/13/15	Written Comment – SDSBT
4/13/15	Written Comment – EDF/WOC/CURED
Industrial Proponents	
4/13/15	Written Comment – UQ
4/13/15	Written Comment – PAW
4/13/15	Written Comment – Jonah Energy
Non-Governmental Organizations	
4/13/15	Written Comment – American Lung Association in Wyoming

COMMENTS AND RESPONSE

GENERAL COMMENTS:

Comment: Expressing support for the adoption of the proposed regulation by the EQC.

From: Jennifer Wilson, John Carney, Jr., Meredith Taylor, Kathleen Yapuncich, Andrew Salter, Rod Newcomb, Eric Wedell, Richard Ridgway, Andrew and Nancy Carson, Andy Blair, Rebellion Photonics, Flogistix, L.P., FLIR, Apogee Scientific, Inc. (General Public); PAW, Jonah Energy (Industrial Proponents); The Nature Conservancy, SDSBT, EDF/WOC/CURED (Environmental Advocacy Groups); American Lung Association in Wyoming (Non-Governmental Organization)

Response:

The Division has worked diligently in collaboration with all interested parties to develop a proposed regulation that will protect air quality and foster economic development.

The Division is appreciative of the support that the proposed regulation has received from commenters representing a wide spectrum of stakeholder perspectives during all of the public comment periods within the rulemaking process. For example, at the December 10, 2014 Air Quality Advisory Board (AQAB) meeting, 14 out of 18 distinct commenters provided comment in support of the regulation moving forward in the regulatory process. Even those commenters who were previously in strong opposition to the proposed regulation (at the July 14, 2014 AQAB) provided supportive comments and spoke appreciatively of the additional stakeholder meetings that were held prior to the December AQAB meeting.

This supportive response from stakeholders has continued as the proposed regulation has moved onward through the regulatory process. Prior to the May 19, 2015 EQC hearing, the Division received 21 total comments, 20 of which expressed support for the EQC's adoption of the proposed rule. Ultimately, the engagement with, and feedback from, all stakeholders has benefitted the Division immensely in developing a proposed regulation that creates an equitable and effective regulatory framework for the UGRB nonattainment area.

Comment: The proposed regulation should apply to more sources and/or apply on a statewide level.

From: Kathleen Yapuncich, John Carney, Jr., Eric Wedell, Flogistix, L.P., Apogee Scientific, Inc. (General Public); The Nature Conservancy (Environmental Advocacy Group); American Lung Association in Wyoming (Non-Governmental Organization)

Response:

The Division recognizes concerns about extending the requirements to include as many emission sources as possible, and has kept the scope of this proposed regulation predominantly focused on the same emission sources as those in the State's Chapter 6, Section 2 Oil and Gas Permitting Guidance (September 2013). The proposed regulation will be implemented as a "Permit by Rule," and has been developed to work in conjunction with oil and gas production facility requirements for new and modified

sources located in the same nonattainment area. A Permit by Rule is a cost-effective regulatory mechanism that allows states to regulate and enforce requirements on non-complex sources of emissions.

The intent and purpose of this proposed Permit by Rule is to control emissions from existing oil and gas sources, and compressor stations, in the UGRB ozone nonattainment area. The regulation was developed as part of the Division's UGRB Ozone Strategy, which incorporates specific recommendations from the Citizens' Ozone Task Force focused on UGRB ozone issues. The focus has been on addressing those specific recommendations.

Comment: This regulation is important to protecting public health in a timely manner.

From: Eric Wedell, Meredith Taylor, Kathleen Yapuncich, Andrew Salter (General Public); EDF/WOC/CURED (Environmental Advocacy Group); American Lung Association in Wyoming (Non-Governmental Organization)

Response:

Stakeholders have commented that protecting the air that Wyoming residents breathe – by reducing ozone precursors and other pollutants from oil and gas operations – is an important public health issue. The stakeholders have further requested that the proposed rule be "implemented without further delay." It is the Division's intent to implement the proposed regulation in a timely manner.

Comment: There are concerns regarding the financial impacts of nonattainment status upon the local economy.

From: John Carney, Jr., Meredith Taylor (General Public); The Nature Conservancy (Environmental Group)

Response:

The Division agrees that nonattainment status has impacts upon the local economy. The purpose of this proposed regulation is to position the UGRB to achieve federally designated attainment status for the 2008 Ozone National Ambient Air Quality Standard (NAAQS).

Comment: The Environmental Protection Agency's (EPA) new ozone standard could be lower than 0.075 parts per million, increasing the urgency for Wyoming to act on air pollution.

From: John Carney, Jr., Kathleen Yapuncich (General Public)

Response:

The Division is aware of potential impacts a lower ozone standard may have on Wyoming and has submitted comment on the EPA's proposed regulation. However, the proposed 2015 Ozone NAAQS falls outside the scope of this particular rulemaking.

EXTENDED COMMENTS:

The Division received comments from several stakeholders that were more specialized in nature and covered a wider range of technical concerns pertaining to the proposed rule. Consequently, the Division determined that the most effective means to provide the necessary comprehensive responses to each of these comments was to group the comments by individual stakeholders. The Division's response to individual stakeholder comments on the proposed regulation appears in the following sections:

- Ultra Petroleum/QEP Energy (pages 6-11)
- Petroleum Association of Wyoming (pages 11-16)
- Jonah Energy (pages 16-17)
- Environmental Defense Fund/Wyoming Outdoor Council/Citizens United for Responsible Energy Development (pages 17-18)

Specific comments are denoted by the bolded **Comment**, followed by a number and a brief summary of the comment; certain comments that are more complex in nature are further designated by a bolded alphabetic letter (such **A.**), followed by another summary of the sub-comment.

Given the specific nuances within comments provided by each stakeholder that were otherwise overlapping in subject matter, the Division has provided comprehensive responses to each commenter. In the interest of fully addressing each comment, the Division's responses may appear to be similar, but have been specifically tailored to directly address the stakeholder's concern.

COMMENTS ON THE PROPOSED REGULATION RECEIVED FROM ULTRA PETROLEUM/QEP ENERGY:

Ultra Petroleum/QEP Energy's (UQ) comments on the proposed regulation are the following:

Comment #1: Emptying tanks every seven days is an unreasonable burden for industrial proponents because:

A.) Flashing has already occurred, and therefore emptying the liquids in the tanks does not provide an environmental benefit because the emissions (after the liquids have entered the tanks) have already flashed; the standing emissions are insignificant.

The Division appreciates UQ's clarifying language regarding the functionality of emergency, open-top, and/or blowdown tanks (and the immediacy of flashing upon liquids reaching the tanks). However, the Division has not changed its position on the importance of emptying these tanks within the proposed timeframe for the following reasons:

a.) The Division's intent for these provisions was not specifically to address the standing emissions emanating from liquid already in the tank, but rather to discourage the flashing emissions that are inherently released upon each usage of the tank (and therefore are *unaccounted for* in the tank emission calculation). As noted on page 3 of UQ's comment, "*Emptying the tanks every seven days will not prevent these emissions*" – an acknowledgment that said emissions will nevertheless occur upon

each initial usage of the tanks. However, discouraging the tanks from being used for a purpose other than the one specified in their permit conditions will limit the regularity that these flashing emissions occur, thus providing an environmental benefit and maintaining the intent of the proposed regulation. The proposed regulation *does not* prohibit the use of these tanks for temporary storage (it explicitly allows this in (c)(i)(C)), but rather, it discourages these tanks from being used regularly for this purpose.

- On page 3 of UQ's comment, the proponent makes reference to the variety of sources ("Given the number of sources which discharge to these tanks…") that may contribute *unrecorded* flashing emissions each time they are routed to an emergency or blowdown tank.

- UQ notes on page 4 of its comment that "blowdowns and emergency events are isolated events that can be recorded and addressed within a specific time frame" – thus illustrating the intended functional purpose of these tanks, and the Division's intent for this proposed rule. Therefore, if the emergency, open-top, and/or blowdown tanks are used for their intended purpose – to contain liquids emanating from these "isolated events" – the requirements of the proposed rule should not be overly burdensome because the tanks would only be emptied in isolated instances.

- However, UQ suggests within its proposed language revisions that records should not have to be maintained for "minor, low-emission streams from blow case pots which are regularly routed to the tanks." This regularity of tank usage suggests the potential for frequent flashing emissions each time the tanks are, in fact, utilized – and while UQ has proclaimed that these emission streams are "minor," its data is sampled from a singular study at one test tank under one set of conditions, which does not provide a statistically significant sample size to conclude that all emission streams routed to these tanks will always be "minor."

b.) The Division would like to clarify that the presence of a liquids gathering system (LGS) should inherently reduce the active utilization of emergency, open-top, and/or blowdown tanks for the purpose of temporary storage.

- On page 4 of UQ's comment, the proponent acknowledges this, stating: "As you know, operations in the non-attainment area are connected to a liquids gathering system, specifically to prevent these tanks from being used as storage tanks, but overall to reduce the amount of truck trips needed to empty tanks on a frequent basis." Given that the operation of an LGS should prevent these tanks from being used for storage, the Division considers that the proposed rule's conditions for emptying the tanks (conditions specifying that tanks are utilized for temporary storage) are not overly burdensome if the tanks are, in fact, used for those intended purposes.

- The following represents emergency/blowdown tank conditions from a draft permit for a UGRB industrial proponent that is currently on public notice:

  • Produced water, condensate, scrubber pot and blow case pot liquids from the (…) PAD shall be routed *via pipeline to a liquids gathering system.*

  • The emergency tanks shall be *utilized for malfunctions only* as described in Chapter 1, Section 5 of the WAQSR.

  • If the emergency tanks are utilized, they must be emptied within seven (7) calendar days. Records of tank usage shall be maintained for a period of five (5) years and made available to the Division upon request.

  Comparatively, the following conditions for emergency/blowdown tanks are from a permit for an industrial proponent in the UGRB that was issued on July 1, 2009 – illustrating that the requirements of the proposed regulation not only are consistent with requirements that apply to permits for new and modified sources in the UGRB, but also requirements that were being required nearly six years ago.

  • Produced water and condensate from this facility *shall be shipped via pipeline to a liquids gathering system* on or prior to December 31, 2009.

  • (…) shall provide notification within 15 days of pipeline connection to the liquids gathering system.

  • The 300-bbl emergency condensate tank and 300-bbl emergency produced water tank shall be *utilized for malfunctions only* as described in Chapter 1, Section 5 of the WAQSR.

  • If the 300-bbl emergency condensate tank and/or 300-bbl emergency produced water tank are utilized, they must be emptied within seven (7) calendar days. Records of tank usage shall be maintained for a period of five (5) years and made available to Division upon request.

  • Tank controls are not required after this facility has been connected to the liquids gathering system.

  The Division notes that the emergency tank malfunction language cited in both permit conditions – and taken from Chapter 1, Section 5 – has not changed in the timeframe between July 1, 2009 and present day.

- Additionally, the notion of an LGS being utilized in order to reduce the necessity of truck loading at these tanks is not a new concept for industry proponents. As AQD Administrator Dave Finley noted at an October 26, 2009 Air Quality Advisory Board meeting, "The other thing that is happening in Jonah and Pinedale, in Pinedale in particular, liquids gathering systems are being installed. So truck loading is ceasing. In the Jonah field, EnCana is evaluating other means of controlling handling liquids. So in the Jonah and Pinedale area, I think that truck loading emissions are going to be a diminishing source as we go forward" (See Oct. 26, 2009 AQAB Transcript, Page 50).

- As noted on the Pinedale Anticline Project Area (PAPA) Operators website, "Once completed, the field-wide LGS will *eliminate almost all storage tanks* and volatile organic compound (VOC) combustors currently on well locations as well as on future well pads" (See http://www.papaoperators.com/Liquids-Gathering-Systems.php). QEP's LGS is cited as being operational since 2005 (having won an award from the U.S. Department of the Interior, Bureau of Land Management, in 2008), and Ultra's LGS is also cited as being installed.
    - On a separate website (Intermountain Oil and Gas BMP Project), it is noted that "Between November 2005 and May 2008, Questar's LGS eliminated over 35,600 truck trips, minimized surface disturbance, *eliminated all liquid storage tanks*, significantly lowered NOx emissions due to *reduction in truck trips*, captured condensate vapor that would have previously been released into the atmosphere, and consolidated production facilities to require less surface disturbance (See http://www.oilandgasbmps.org/resources/casestudies/questar-lgs.php).
        - It is established on each of these websites pertaining to LGS in the Pinedale Anticline that, from a practicable standpoint, an LGS significantly reduces truck traffic and also diminishes both the number of temporary storage tanks on site and the comprehensive usage of these tanks.
- The Division therefore considers UQ's request on page 3 that "the Division exempt sites which drain to a liquid gathering system from this requirement" to be unnecessary. The presence of an LGS should inherently reduce the usage of these tanks for temporary storage and, therefore, also reduce the necessity to empty these tanks via trucks.

B.) The requirement to empty the tanks every seven days increases truck traffic and places an environmental burden on the area.

The Division is appreciative of UQ's repeated commitment to reducing truck traffic emissions on production sites. However, regarding the proposed regulation, the Division would like to clarify that the 7-day requirement applies *only* when emergency, open-top, and/or blowdown tanks are *actually utilized*. If these tanks are utilized for their intended purpose – as temporary storage – then the requirement for trucks to empty the tanks should be enacted only for these "isolated events," as described on page 4 of UQ's comment. If the tanks are not regularly used for storage – and, as UQ notes on page 4, "operations in the non-attainment area are connected to a liquids gathering system, specifically to prevent these tanks from being used as storage tank" – then it will not be necessary for trucks to operate on site every seven days, as UQ has proclaimed. Trucks will only need to be present within seven days of the tanks being utilized.

a.) UQ notes on page 3, "*As the proposed rule is currently worded, all open top tanks at all well sites would need to be emptied every 7 days.*" The Division considers this statement to be an inaccurate interpretation of the proposed rule as applied to all existing sources in the UGRB; these tanks would only need to be emptied within seven days of being utilized. If the tanks are not utilized regularly, they consequently will not have to be emptied regularly.

b.) As noted by UQ, the proponent's liquid gathering system "is expected to eliminate approximately 165,000 truck trips annually during peak production." As noted in its response in Comment #1, section (A.)(b.), the Division considers the operations of an LGS to inherently reduce the necessity to utilize tanks for temporary storage, therefore also reducing the strain from truck traffic.

C.) These emissions have proven to be insignificant in a previous test (the emergency, open-top, and/or blowdown tanks aren't sources of harmful emissions).

The Division recognizes the data provided by UQ regarding the January 2011 QEP test tank measurements at the Stewart Point 5-20 Pad, and the Division appreciates its inclusion within UQ's comment. However, the Division disagrees that this singular study provides conclusive evidence that *all emissions from all emergency, open-top, and/or blowdown tanks from all industrial proponents in the UGRB are insignificant*. A single tank study does not capture a statistically significant sample size to indicate that all emissions are insignificant, especially considering – as UQ notes in its comment – the varying volumes and types of sources that are routed to these tanks.

a.) UQ notes on page 4 of its comment that "the amount of fluid in the tanks is variable and unpredictable." The Division considers that it is possible that higher volumetric flow, varying liquid composition, and other factors could influence emissions measurements.

b.) The Division is aware of other operators in the UGRB who have connected these tanks to control systems or have modified their operations so that liquids are not directed to these tanks. For example, blowcase pot liquids are condensed liquids captured from a dehydration unit that contain highly reactive ozone precursors. UQ cites at the bottom of page 4 that blowcase pot liquids are an emission stream that is directed to open-top tanks. Meanwhile, other operators have modified their operations to refrain from using these tanks, instead directing these liquids to the LGS.

c.) Based on the inconsistences outlined in paragraphs a.) and b.) above, the Division stands by the proposed language within the regulation that addresses emergency, open-top, and/or blowdown tanks.

D.) The additional recordkeeping is burdensome and does not have an environmental benefit.

Based on the inconsistencies established in section C.) above, the Division considers that these recordkeeping provisions are necessary and uphold the intent of the proposed regulation.

Furthermore, these requirements are no more stringent than recordkeeping requirements for new and modified sources permitted under the Chapter 6, Section 2 Oil and Gas Guidance (September 2013).

a.) As demonstrated in the previously cited permit conditions, these recordkeeping requirements apply in permits for new and modified sources in the UGRB – such as this one, which is taken from a draft permit on public notice (May 2015):

• If the emergency tanks are utilized, they must be emptied within seven (7) calendar days. Records of tank usage shall be maintained for a period of five (5) years and made available to the Division upon request.

b.) Furthermore, the same recordkeeping requirements are once again found in a permit issued to an industrial proponent in the UGRB in July 2009, illustrating that these requirements are by no means newly introduced through the proposed regulation.

• If the 300-bbl emergency condensate tank and/or 300-bbl emergency produced water tank are utilized, they must be emptied within seven (7) calendar days. Records of tank usage shall be maintained for a period of five (5) years and made available to Division upon request.

Comment #2: The language within the proposed rule is not consistent with existing permit language related to open-top tank emptying requirements.

The Division considers that the two permits with different conditions within UQ's comment do not represent permitting inconsistencies. Each permitting action is considered on its own specific merits. In the instance of the 7-day, 200-barrel volume limit for emptying tanks cited by UQ on page 3 of its comment, the Division would like to clarify a point that was omitted in UQ's comment: that this volume limit applied specifically for *controlled* emergency, open-top, and/or blowdown tanks. The presence of controls was an inherent reason for allowing this specific volume limit in the permit. Meanwhile, the second permit condition cited by UQ on page 3 of its comment mimics the language currently utilized in the permitting process for *uncontrolled* emergency, open-top, and/or blowdown tanks in the UGRB – and is consistent with the language in the proposed regulation.

COMMENTS ON THE PROPOSED REGULATION RECEIVED FROM THE PETROLEUM ASSOCIATION OF WYOMING:

The Petroleum Association of Wyoming's (PAW) comments on the proposed regulation are the following:

Comment #1: The compliance date of the proposed rule should be set at two years after the promulgation date of this rule to give industrial proponents sufficient time for the planning and implementation process.

The Division considers the proposed January 1, 2017 compliance date as a reasonable timeframe for industry to satisfying the compliance requirements of the rule. The Division has already extended the compliance date by one year in order to account for the phase-in period needed by industrial proponents to implement the proposed rule. Additionally, the Division considers that industrial proponents have had extensive time predating this extended compliance date for the preliminary planning of budgetary and infrastructural needs.

In the event that an industrial proponent had taken the necessary measures to meet the compliance timeframe requirements, and an unforeseen hardship arose regarding the delivery or installation of equipment required by the proposed regulation, the industrial proponent could meet with the Division to resolve the specific compliance issue.

Comment #2: The term "zero bleed" should be replaced with "intermittent vent" within the proposed regulation.

The Division considers "zero bleed" to encompass electric, air-driven, or solar power, and therefore is not synonymous with the term "intermittent vent." As stated in previous response to comments, the proposed regulation does not limit operators from using intermittent or continuous bleed controllers as long as the emission rate is below the 6 scf/hr threshold.

The Division considers controllers that are operated in accordance with manufacturer design specifications, and have a manufacturer-designed emission rate that satisfies the 6 scf/hr threshold, to meet the requirements of the proposed regulation. The Division currently relies on this approach in permitting and compliance – and has done so since the 2010 Chapter 6, Section 2 Oil and Gas Guidance – meaning that this is not a new provision introduced through the proposed regulation.

Comment #3: The proposed regulation's requirement of a fugitive component count from 100 wells to be representative of site applicability for LDAR is unnecessary and requires excessive costs in time and effort from industry – and should be reduced to five representative wells.

The Division appreciates PAW's inclusion of fugitive counts at five gas well sites within its comment. However, the Division has not changed its position regarding the necessity for a statistically significant component count of 100 wells in the same geographic area. The Division still considers that a representative component count of five well sites does not account for the inherent structural and operational variability that may occur at these facilities throughout the UGRB.

Furthermore, the Division has already reduced the proposed component count from an actual field-wide component count (June 4, 2014 draft of the proposed rule), to 100 similar facilities (October 24, 2014 draft of the proposed rule), to 100 wells (February 2, 2015 draft of the proposed rule) in response to repeated concerns from industrial proponents that such a count would result in high costs in time and effort. The Division considers that a further reduction to a count that is 20 times smaller than what is considered a "statistically significant sample size" is inappropriate.

Comment #4: The monitoring, recordkeeping, and reporting requirements within Subsection (h) place an excessive burden on industrial proponents and do not provide additional environmental benefit, specifically:

A.) Pilot flames and reporting cause of downtime.

As previously noted in the December 10, 2014 AQAB Response to Comments document, the Division would like to clarify that the proposed regulation language *does not require* that operators record a reason for the absence of a "pilot flame," specifically. The Division notes that

the recordkeeping requirements in Subsection (h)(ii)(B)(II) regarding control device parameter monitoring operations are in WAQSR, Chapter 6, Section 2 permits.

Furthermore, these requirements are no more stringent than recordkeeping requirements for new and modified sources permitted under the Chapter 6, Section 2, Oil and Gas Guidance (September 2013). This is evidenced in the permit conditions for the following new and modified sources that are located in the UGRB (the usage of the term "pilot flame" occurs in this context because a pilot flame(s) is present at this specific facility):

> • The presence of the combustion device pilot flame shall be monitored using a thermocouple and continuous recording device or any other equivalent device to detect and record the presence of the flame. Records shall be maintained noting periods during active well site operation when the pilot flame is not present. The records shall contain a description of the reason(s) for absence of the pilot flame and steps taken to return the pilot flame to proper operation. (*Note: This condition comes from a permit for a combustion device in the UGRB that came off public notice on April 28, 2015*)
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> • All combustion devices shall be designed, constructed, operated and maintained to be smokeless, per Chapter 3, Section 6(b)(i) of the WAQSR, with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours as determined by 40 CFR part 60, appendix A, Method 22. (*Note: This condition comes from a permit for a combustion device in the UGRB that came off public notice on April 28, 2015*)

Comparable conditions are found in the following permit, which was issued for a combustion device on May 1, 2001 – nearly 14 years prior to the requirements found within the proposed rule.

> • (…) shall maintain and operate the smokeless flare during all periods of active well site operation such that it remains effective as a viable emissions control device. Records shall be maintained noting periods during active well site operation when the combustion device is not operational. Records shall be kept for a period of at least 5 years and shall be made available to the Division upon request.
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> • The smokeless flare shall be designed, constructed, operated and maintained to be smokeless, per Chapter 3, Section 6(b)(i) of the WAQSR, with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours as determined by 40 CFR, Part 60, Appendix A, Method 22.

Furthermore, comparable conditions that specifically pertain to the use of a "pilot flame" are found in the following permit, which was issued for a combustion device in December 2010 – over four years prior to the requirements found within the proposed rule.

> • The presence of the 60-MSCFD enclosed combustor pilot flame shall be monitored using a thermocouple and continuous recording device or any other equivalent device to detect and record the presence of the flame. Records shall be maintained noting periods during active well site operation when the pilot flame is not present. The records shall contain a description of the reason(s) for absence of the pilot flame and steps taken to return the pilot flame to proper operation.

Maintaining records of parameter downtime, alone, does not provide Division staff with sufficient information to determine compliance with the regulation. The Division concludes that there is an environmental benefit to understanding why a control device monitoring parameter may be absent, and therefore will not revise the language as suggested.

B.) Recording emergency and/or blowdown tank usage.

Based on the inconsistencies regarding the various manners in which industrial proponents utilize emergency, open-top, and/or blowdown tanks (see Comment #5 for a specific response enumerating these concerns), the Division considers that these recordkeeping provisions are necessary and uphold the intent of the proposed regulation. Furthermore, these requirements are no more stringent than recordkeeping requirements for new and modified sources in the UGRB that were permitted under the Chapter 6, Section 2 Oil and Gas Guidance (September 2013). This is evidenced by the following permit conditions:

> • If the emergency tanks are utilized, they must be emptied within seven (7) calendar days. Records of tank usage shall be maintained for a period of five (5) years and made available to the Division upon. (*Note: This permit condition is representative of conditions that currently apply to new and modified sources in the UGRB – it is taken from the permit of an industrial proponent that is currently under public notice as of May 2015*)
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> • If the 300-bbl emergency condensate tank and/or 300-bbl emergency produced water tank are utilized, they must be emptied within seven (7) calendar days. Records of tank usage shall be maintained for a period of five (5) years and made available to Division upon request. (*Note: This permit, containing the same recordkeeping requirements, comes from a permit issued to an industrial proponent in the UGRB in July 2009, illustrating that these requirements are by no means newly introduced through the proposed regulation*)

Comment #5: Emptying emergency, open-top and/or blowdown tanks every seven days is an unreasonable burden for industrial proponents because:

A.) Flashing has already occurred, and therefore emptying the liquids in the tanks does not provide an environmental benefit because the emissions (after the liquids have entered the tanks) have already flashed; the standing emissions are insignificant.

The Division appreciates PAW's clarifying language regarding the functionality of emergency, open-top, and/or blowdown tanks (and the immediacy of flashing upon liquids reaching the tanks). However, the Division has not changed its position on the importance of emptying these tanks within the proposed timeframe for the following reasons:

a.) The Division's intent for these provisions was not specifically to address the standing emissions emanating from liquid already in the tank, but rather to discourage the flashing emissions that are inherently released upon each usage of the tank. As noted on page 8 of PAW's comment, "*Flashing emissions occur instantly when the liquids enter the tank. Emptying the tanks every seven days will not prevent these emissions.*" This is an acknowledgment that said emissions will nevertheless occur upon each initial usage of the tanks. However, discouraging the tanks from being used for a purpose other than the one specified in their permit conditions will limit the regularity that these flashing emissions occur, thus providing an environmental benefit and maintaining the intent of the proposed regulation. The proposed regulation *does not* prohibit the use of these tanks for temporary storage (it explicitly allows this in (c)(i)(C)), but rather, it discourages these tanks from being used *regularly* for this purpose.

B.) The requirement to empty the tanks every seven days increases truck traffic and places an environmental burden on the area.

The Division is appreciative of PAW's members' commitment to reducing truck traffic emissions on production sites. However, regarding the proposed regulation, the Division would like to clarify that the 7-day requirement applies *only* when emergency, open-top, and/or blowdown tanks are *actually utilized*. If these tanks are utilized for their intended purpose – as temporary storage – then the requirement for trucks to empty the tanks should be enacted only for these isolated events. If the tanks are not regularly used for storage, then it will not be necessary for trucks to operate on site every seven days, as PAW has proclaimed. Trucks will only need to be present within seven days of the tanks being utilized.

PAW provides additional comment on page 9 regarding truck traffic:

> *The reduction in truck traffic specified in the Bureau of Land Management (BLM) 2008 Record of Decision for the Pinedale protection area was included based on evaluations in the Environmental Impact Statement. This reduction in truck traffic was not only to lower emissions, but also to reduce fugitive dust, noise and wildlife concerns. This rule runs contrary to the findings of this EIS.*

This comment does not account for a requirement set forth in the 2008 Pinedale Anticline Record of Decision (ROD) mandating that sources operating on the Anticline (a small, specific section of the UGRB) would connect all producing wells to a liquids gathering system (LGS) by 2012 (2008 Pinedale Anticline ROD, pg. 28). The significant reduction in truck traffic cited by PAW, therefore, is inherently premised upon the presence of an LGS.

The Division would like to clarify that the presence of an LGS should inherently reduce the active utilization of emergency, open-top, and/or blowdown tanks for the purpose of temporary storage. The mandated installation of an LGS results in a significant reduction in the usage of tanks, which in turn results in minimized truck traffic. As stated on page 4 of UQ's comment, "As you know, operations in the non-attainment area are connected to a liquids gathering system, specifically to prevent these tanks from being used as storage tanks, but overall to reduce the amount of truck trips needed to empty tanks on a frequent basis" (please see Comment #1, section b, of UQ's comment response in this document for further response from the Division). The LGS' capacity to reduce truck traffic is further cited on page 22 of the 2008 Pinedale Anticline ROD: "This ROD requires the use of liquids gathering systems to reduce the amount of truck traffic associated with production, which is expected to eliminate approximately 165,000 truck trips annually during peak production." Given that the operation of an LGS should prevent these tanks from being used for storage, as well as reduce truck traffic, the Division considers that the proposed rule's conditions for emptying the tanks (conditions specifying that tanks are utilized for temporary storage) are not contrary to the findings of the Environmental Impact Statement (EIS), but instead are a logical outgrowth based off of requirements set forth in the 2008 Pinedale Anticline ROD.

C.) Industrial proponents may not be able to unload low-volume discharges to tanks if the fluid level in the tank is below the capability of the vacuum truck to draw out of the tank.

As previously noted in the February 27, 2015 AQAB Response to Comment document, the Division recognizes the practical limitations of emptying a tank based on its design (i.e. drain on

the side of the tank). The Division would like to point out that, for many years prior to this proposed regulation, permits have been issued referring to the practice of "emptying" tanks, which have not been contested by industrial proponents. The Division would like to state that the interpretation of "empty" will remain consistent with permit conditions set forth under the Chapter 6, Section 2 Oil and Gas Guidance (September 2013).

COMMENTS ON THE PROPOSED REGULATION RECEIVED FROM JONAH ENERGY:

Jonah Energy's comments on the proposed regulation are the following:

Comment #1: Flashing has already occurred, and therefore, emptying the liquids in the tanks within seven days of their utilization does not provide an environmental benefit because the emissions (after the liquids have entered the tanks) have already flashed.

The Division is appreciative of Jonah Energy's acknowledgement that emergency, open-top, and/or blowdown tanks are to be utilized only for temporary storage to minimize the flashing emissions related to their use. Furthermore, the Division is especially appreciative of the numerous alternative requirements (for example, "Establishing a volume threshold, a time limit within which to pump down that designated volume, and routine record keeping" on page 3) proposed by Jonah Energy throughout its comment. These proposed alternatives are indicative of Jonah Energy's commitment to developing solutions that take the intent of the proposed regulation into consideration.

However, the Division has not changed its position regarding the requirement to empty emergency, open-top, and/or blowdown tanks within seven days of usage. Jonah Energy notes that "emptying tanks every seven days will not prevent these flash emissions as they occur almost immediately upon emptying liquids into the tank" (page 2). This is an indication that flashing emissions will nevertheless occur each time the tanks are utilized. Discouraging the tanks from being used for a purpose other than the one specified in their permit conditions will limit the regularity that these flashing emissions occur, thus providing an environmental benefit and maintaining the intent of the proposed regulation. The proposed regulation does not prohibit the use of these tanks for temporary storage (it explicitly allows this in (c)(i)(C)), but rather, it discourages these tanks from being used regularly for this purpose.

Comment #2: The increased emissions from truck traffic may not justify the environmental benefit from emptying these tanks as frequently as within seven days.

The Division is appreciative of Jonah's repeated commitment to reducing truck traffic emissions on production sites. The Division would like to clarify that the 7-day requirement applies *only* when emergency, open-top, and/or blowdown tanks are *actually utilized*. If these tanks are utilized for their intended purpose – as "temporary storage," as Jonah Energy notes on page 2 of its comment – then the requirement for trucks to empty the tanks should be applied infrequently. If the tanks are not regularly used for storage, then it will not be necessary for trucks to operate on site every seven days. Trucks will only need to be present within seven days of the tanks being utilized.

COMMENTS ON THE PROPOSED REGULATION RECEIVED FROM ENVIRONMENTAL DEFENSE FUND/WYOMING OUTDOOR COUNCIL/CITIZENS UNITED FOR RESPONSIBLE ENERGY DEVELOPMENT:

Environmental Defense Fund (EDF)/Wyoming Outdoor Council (WOC)/Citizens United for Responsible Energy Development (CURED)'s comments on the proposed regulation are the following:

Comment #1: The EPA's proposed revisions to the NAAQS for ozone may impact other areas of Wyoming, and therefore the EQC should recommend that the AQD initiates several follow-up regulatory steps that expand upon the proposed rulemaking.

The Division thanks EDF/WOC/CURED for its extensive support of the proposed regulation in its comments. The supplementary information provided by EDF/WOC/CURED is indicative of the organizations' continued investment in protecting public health and environmental welfare, and the Division is appreciative of EDF/WOC/CURED's statements that the proposed rule "represents a reasonable set of requirements" and "these rules should be adopted as proposed."

The Division is furthermore appreciative of EDF/WOC/CURED's foresight and proactive comments regarding the impending new ozone standard. Advanced planning and diligence are crucial to developing effective regulations, and the Division is aware of EDF/WOC/CURED's following concerns:

1.) Updating the current permit guidance for new and modified sources located across Wyoming to align them with the standards that AQD has developed for the UGRB.

2.) Beginning a rulemaking that extends the current UGRB proposed rulemaking to existing sources located across Wyoming.

3.) Implementing the Phase II emissions budget approach for existing sources.

The Division is cognizant of these future issues. However, all of these concerns remain outside the scope of this proposed rulemaking, which has been deliberately designed for existing sources within the UGRB.

Comment #2: The proposed regulation should include equipment at compressor stations.

Equipment at a compressor station, including pneumatic controllers, pneumatic pumps, dehydration units and tanks, is already required to go through the State permitting process prior to construction of the facility. The implementation of control equipment, and control technology, at compressor stations is specified by the Chapter 6, Section 2 permit requirements; these compressor station controls are not allowed to be removed.

Comment #3: The EQC should amend the Statement of Principal Reasons for Adoption (SOPR) of the rules to recommend that the Wyoming Department of Environmental Quality initiate an update to its permit guidance for new and modified sources, a rulemaking for existing oil and gas sources located statewide, and implement the Phase II Emissions Budget approach for existing sources in the UGRB by May 19, 2016.

The Division cannot answer on behalf of the EQC, to whom this comment is addressed. However, the Division's understanding of the SOPR is that it outlines the principal reasons for the proposed rulemaking, rather than to addresses future commitments, as requested in EDF/WOC/CURED's comment.