

WAQSR Chapter 8, Section 6 Regulation Explanation of Changes

1/26/15

This document provides information regarding revisions made to the Wyoming Air Quality Standards and Regulations (WAQSR), Chapter 8, Section 6, proposed regulations for existing oil and gas production facilities and compressor stations located in the Upper Green River Basin (UGRB) ozone nonattainment area. The 10/24/14 draft regulation was approved by the Air Quality Advisory Board (AQAB) as written on December 10, 2014. The 1/26/15 draft regulation submitted as an attachment with this Explanation of Changes (1/26/15), highlights in yellow and strikeout format, where the Division made revisions to the 10/24/14 proposal.

The Division reviewed the written and verbal comments received during the public process and identified for consideration those that were minor in nature and do not change the purpose or intent of the proposed regulation. In addition, the Division’s further consideration of the proposed regulation yielded additional minor revisions that do not change the purpose or intent of the proposed regulation as it was proposed and presented to the public and AQAB.

The remainder of the comments received in regard to the proposed regulation will be addressed in a formal response to comment document, currently under development by the Air Quality Division (AQD). The 2/2/15 draft regulation (to be submitted as part of the Governor’s Permission to Proceed package) will include these minor revisions as the final iteration of the existing source rule that will continue through the statutory rulemaking process for adoption by the State of Wyoming.

Revision Location	Revision	Reason for Revision
Table of Contents Section 6	Changed the title of the proposed regulation Section 6. Reserved Upper Green River Basin permit by rule for existing sources Upper Green River Basin existing source regulations	The Division changed the title to reflect that the proposed regulation is a permit by rule.
Pg. 8-85 Section 6	Section 6. Reserved. Upper Green River Basin permit by rule for existing sources Upper Green River Basin existing source regulations	The Division changed the title to reflect that the proposed regulation is a permit by rule.
Pg. 8-86 Subsection (a)(i)	(i) These regulations apply to all PAD and single-well oil and gas production facilities or sources, and all compressor stations, located in the Upper Green River Basin (UGRB) ozone nonattainment area that exist as of January 1, 2014. The UGRB ozone nonattainment area is that area which was adopted by reference from 40	The Department of Environmental Quality’s web address changed after the proposed regulation went out for public comment prior to the December 10, 2014 AQAB. To satisfy Wyoming Statue, 9-2-1035(a)(iii), the Division revised the web address.

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	<p>CFR part 81.351, revised and published as of July 1, 2013, not including any later amendments. Copies of the Code of Federal Regulations (CFR) are available for public inspection and can be purchased from the Department of Environmental Quality, Air Quality Division, Cheyenne Office. Contact information for the Cheyenne Office is available at: http://deq.wyoming.gov/http://deq.state.wy.us. Copies of the CFR can also be purchased from Government Institutes, 15200 NBN Way, Building B, Blue Ridge Summit, PA 17214, or online at: http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.</p>	
<p>Pg. 8-86 Subsection (a)(v)</p>	<p>A WAQSR Chapter 6, Section 2 permit will be required for the use of any Upon Division approval, an alternative emission control device and/or equipment may to be used in lieu of, or in combination with, a combustion device that will achieve the 98% manufacturer designed volatile organic compounds (VOC) control efficiency required by these regulations.</p>	<p>The Petroleum Association of Wyoming (PAW) made a request for clarity regarding the use of innovative approaches for controlling VOC emissions, and suggested that the use of alternative controls not have to meet the 98% control efficiency. The Division has taken this comment into consideration and has made the appropriate revisions to further clarify the intent and purpose of the proposed regulation. The Division has determined that industry would be required to go through the State permitting process to utilize an alternative emission control technology and/or equipment. Proponents would have to make a demonstration through the State permitting process to validate the use of a new technology or equipment.</p>
<p>Pg. 8-86</p>	<p><i>“Extended hydrocarbon analysis”</i> means a gas</p>	<p>AQAB member Diana Hulme requested the</p>

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Subsection (b)	chromatograph analysis performed on pressurized hydrocarbon liquid (oil/condensate) and gas samples, and shall include both speciated hydrocarbons from methane (C1) through decane (C10), and including the following Hazardous Air Pollutants (HAP): benzene, toluene, ethyl-benzene, xylenes (BTEX), n-hexane, and 2-2-4-trimethylpentane.	changes for clarity. The Division has made the appropriate revision to further clarify the intent and purpose of the proposed regulation.
Pg. 8-87 Subsection (b)	“Facility components” consist of flanges, connectors (other than flanges), open-ended lines, pumps, valves and “other” components listed in Table 2-4 from EPA-453/R-95-017 at the site grouped by stream (gas, light oil, heavy oil, water/oil). Table 2-4 from EPA-453/R-95-017 is available online at: http://deq.wyoming.gov/aqd/ http://deq.state.wy.us/aqd/ or http://www.epa.gov/ttnchie1/efdocs/equiplks.pdf .	The Department of Environmental Quality’s web address changed after the proposed regulation went out for public comment prior to the December 10, 2014 AQAB. To satisfy Wyoming Statue, 9-2-1035(a)(iii), the Division revised the web address.
Pg. 8-89 Subsection (d)(ii)(B)	(B) Use the model GRI-GLYCalc, Version 4.0 or higher, and the annualized average daily production rate to determine annualized uncontrolled VOC emissions from the dehydration unit process vents. Process vents include reboiler still vents, and glycol flash separators, and still vent condensers .	This language was revised to maintain consistency with changes that were made in Subsection (d)(ii)(C)(III)(1.) below.
Pg. 8-89 Subsection (d)(ii)(C)(I)	(I) A site-specific wet gas analysis or composite extended hydrocarbon analysis of wet gas taken upstream of the contact tower from the pressurized, upstream separation equipment under normal operating conditions;	The Division determined that revising the language still meets the intent and purpose of the proposed regulation while taking into consideration complex equipment ownership issues.
Pg. 8-89 Subsection (d)(ii)(C)(III)(1.)	(1.) The average, actual equipment operational parameters, including wet gas temperature and pressure, dry gas water content, glycol flash separator temperature and pressure, stripping gas source and rate; and average operating parameters of emission control	The Division appreciates PAW’s informational comment regarding the use of inconsistent language between Subsection (d)(ii)(B) and (d)(ii)(C)(III)(1.) within the proposed regulation. The Division determined that

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	equipment; and	including the parameters of the emission control equipment as an input for the modeling done to determine emissions from dehydration units was inappropriate. The Division’s intent is to calculate uncontrolled VOC emissions from dehydration units, and therefore the Division determined that the removal of the language better satisfies the intent and purpose of the proposed regulation.
Pg. 8-90 Subsection (g)(i)(C)	(C) Each quarterly inspection shall consist of some combination shall consist of 40 CFR part 60, Appendix A, Method 21, an optical gas imaging instrument, other instrument-based technologies, or audio-visual-olfactory (AVO) inspections, or some combination thereof.	AQAB member Diana Hulme requested language clarifying the requirements for the LDAR quarterly inspections. The Division has determined that the clarifying language meets the intent and purpose of the proposed regulation.
Pg. 8-90 Subsection (g)(ii)(A)(I)	(I) PAD and single-well facility or source component counts shall be determined by actual field count, or a representative component count from the same geographical area, taken from no less than one hundred (100) wells located at a PAD or single well facility similar facilities.	Ultra Petroleum and QEP Resources provided comment in opposition to a component count being taken from no less than 100 “similar facilities,” and provided resource and cost basis for their opinion. The Division has taken this comment into consideration and has made the appropriate revisions to further clarify the intent and purpose of the proposed regulation by changing the representative component count from 100 “similar facilities” to 100 “wells” taken from the same geographical area. The Division has determined that a representative component count from 100 wells is a justifiable statistically significant sample size for the Upper Green River Basin.
Pg. 8-91	(i) Monitoring. The owner(s) or operator(s) of each	The Division corrected a regulatory format

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Subsection (h)(i)	PAD and single-well facility or source, or compressor station, shall comply with all applicable monitoring requirements as specified by this Paragraph Subsection.	typographical error.
Pg. 8-91 Subsection (h)(i)(C)	(C) Owner(s) or operator(s) shall conduct a quarterly site evaluation of control equipment, systems, and devices that include, but are not limited to, combustion units, reboiler overheads condensers, storage tanks, drip tanks, vent lines, connectors, fittings, valves, relief valves, hatches, and any other appurtenance employed to, or involved with, eliminating, reducing, containing or collecting vapors and routing them to an emission control system or device.	The word “control” was added for clarity by the Division.
Pg. 8-91 Subsection (h)(i)(C)(II)	(II) Owner(s) or operator(s) required to implement an LDAR Protocol have satisfied the requirements of Subparagraph (C) above.	The Division corrected a regulatory format typographical error.
Pg. 8-92 Subsection (h)(ii)(C)	(C) Owner(s) or operator(s) shall record and maintain records for fugitive emissions pursuant to Subsection (g) of these regulations. These records shall include the dates and results of all LDAR inspections performed pursuant to the LDAR protocol for a PAD and single-well facility or source, or compressor station to a PAD and single well facility or source, or compressor station’s LDAR protocol, including the date(s) and type of corrective action taken as a result of the required inspections.	The Division revised the language within Subsection (h)(ii)(C) to clarify that the provision applies to PAD and single-well facilities as well as compressor stations.
Pg. 8-93 Subsection (h)(iii)(C)(I)	(I) The number and type bleed rate of pneumatic controllers installed and date of installation; and	The Division appreciates PAW’s comment regarding the installation report for the bleed rate of pneumatic controller(s) as being inappropriate. The comment brought to light a typographical error that has been corrected by

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		the Division. The Division’s intent is to request the “type” of pneumatic controller(s) installed.
Pg. 8-94 Subsection (h)(iii)(H)	(H) The owner(s) or operator(s) shall submit notifications or reports as required in this Subsection to the Division electronically through https://airimpact.wyo.gov or by hard copy to the Cheyenne Office and Lander Field Office. Contact information for the Cheyenne and Lander offices is located at: http://deq.wyoming.gov/ http://deq.state.wy.us/ .	The Department of Environmental Quality’s web address changed after the proposed regulation went out for public comment prior to the December 10, 2014 AQAB. To satisfy Wyoming Statue, 9-2-1035(a)(iii), the Division revised the web address.
Pg. 8-94 Section 10, Subsection (a)	(a) Code of Federal Regulations (CFR). All Code of Federal Regulations (CFRs) cited in this chapter, including their Appendices, revised and published as of July 1, 2012 2013, not including any later amendments, are incorporated by reference. Copies of the Code of Federal Regulations are available for public inspection and copies can be obtained at cost from the Department of Environmental Quality, Division of Air Quality, 122 W. 25 th Street, Cheyenne, Wyoming 82002 Cheyenne Office. Contact information for the Cheyenne Office can be obtained at: http://deq.wyoming.gov/ http://deq.state.wy.us . Copies of the CFRs can also be obtained at cost from Government Institutes, 15200 NBN Way, Building B, Blue Ridge Summit, PA 17214, or online at: http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR .	The Department of Environmental Quality’s web address changed after the proposed regulation went out for public comment prior to the December 10, 2014 AQAB. To satisfy Wyoming Statue, 9-2-1035(a)(iii), the Division revised the web address.