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# Upper Green River Basin (UGRB) Existing Source Regulations

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**May 19, 2015**

**Environmental Quality Council**

**Pinedale, WY**

# UGRB Existing Source Regulations

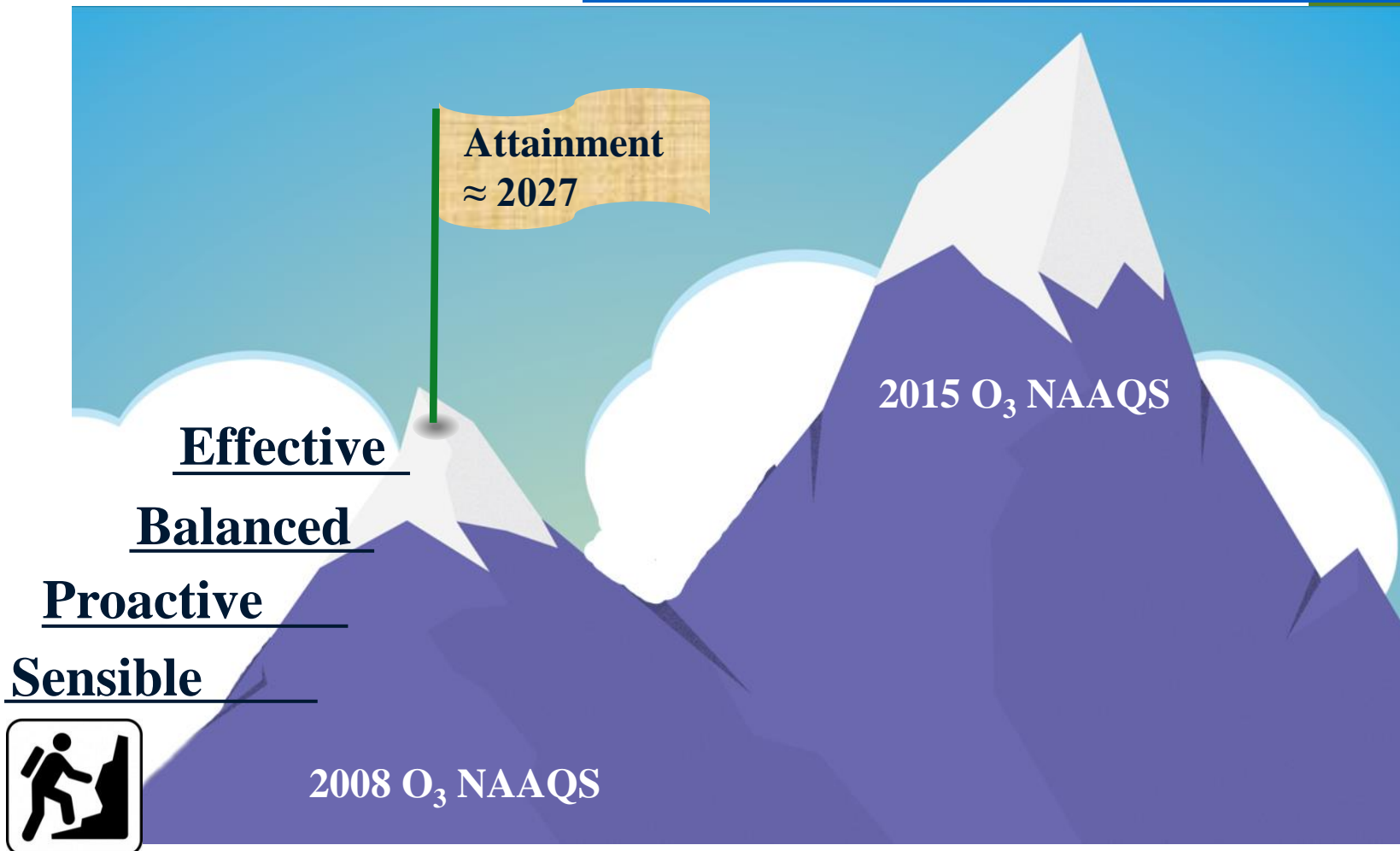
## ◆ Chapter 8, Section 1

- Introduction to nonattainment area regulations

## ◆ Chapter 8, Section 10

- Incorporation by Reference

# UGRB Existing Source Regulations



# UGRB Existing Source Regulations

## ◆ Sensible

- Built from existing processes
- Not more stringent than requirements for new and modified sources
- Achievable concepts



# UGRB Existing Source Regulations

## ◆ Proactive

- Levels the playing field
- Takes steps towards reaching attainment status



# UGRB Existing Source Regulations

## ◆ **Balanced**



- Stakeholder input
- Outreach
- Increased support for the rule

# UGRB Existing Source Regulations



## ◆ Effective

- Protects air quality
- Enables economic growth and technology in a nonattainment area

# UGRB Existing Source Regulations

## ◆ Chapter 8, Section 6

- UGRB Permit by Rule for Existing Sources
- Requirements for existing oil and gas production facilities or sources, and compressor stations in the UGRB



# UGRB Existing Source Regulations – Subsection (a)

## ◆ **Applicability**

### ■ Applies to:

- All PAD and single wells
- Compressor stations
- Existing as of January 1, 2014
- Located within the Ozone Non-Attainment Area



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# Existing Source Rulemaking

- ◆ Flashing Emissions
- ◆ Dehydration Units
- ◆ Pneumatic Pumps
- ◆ Pneumatic Controllers
- ◆ Fugitive Emissions

# UGRB Existing Source Regulations - Subsection (c)

## ◆ Flashing Emissions

- Applies to storage tanks and separation vessels
- Total uncontrolled  $\geq 4$  tpy of VOC
  - Produced oil, condensate, and water
  - Controlled to 98% by January 1, 2017



# UGRB Existing Source Regulations - Subsection (c)

- Emergency, open-top, and blowdown tanks
  - 98% control does not apply to emergency tanks
  - Shall not be used for active storage
  - Must be emptied within 7 days



# UGRB Existing Source Regulations - Subsection (c)

- Control Removal
  - Allowed if uncontrolled VOCs are less than 4 tpy
  - After one year from date of installation



# UGRB Existing Source Regulations - Subsection (c)



- ◆ Example: Tanks permitted under the 2010 Oil & Gas Guidance
  - Controls Installed
    - If emissions  $\geq 8$  tpy
  - Control Removal
    - 1 year later
    - If emissions  $< 8$  tpy without control device on

# UGRB Existing Source Regulations - Subsection (c)

- ◆ Proposed permit by rule
  - Control Removal
    - 1 year later
    - If emissions are  $< 4$  tpy without control device on
- ◆ More stringent requirement applies
- ◆ Keeps air pollution controls on longer

# UGRB Existing Source Regulations - Subsection (d)



## ◆ Dehydration Units

- Total uncontrolled  $\geq 4$  tpy of VOC
  - Controlled to 98% by January 1, 2017
- Control Removal
  - Allowed if uncontrolled VOCs are less than 4 tpy
  - After one year from date of installation



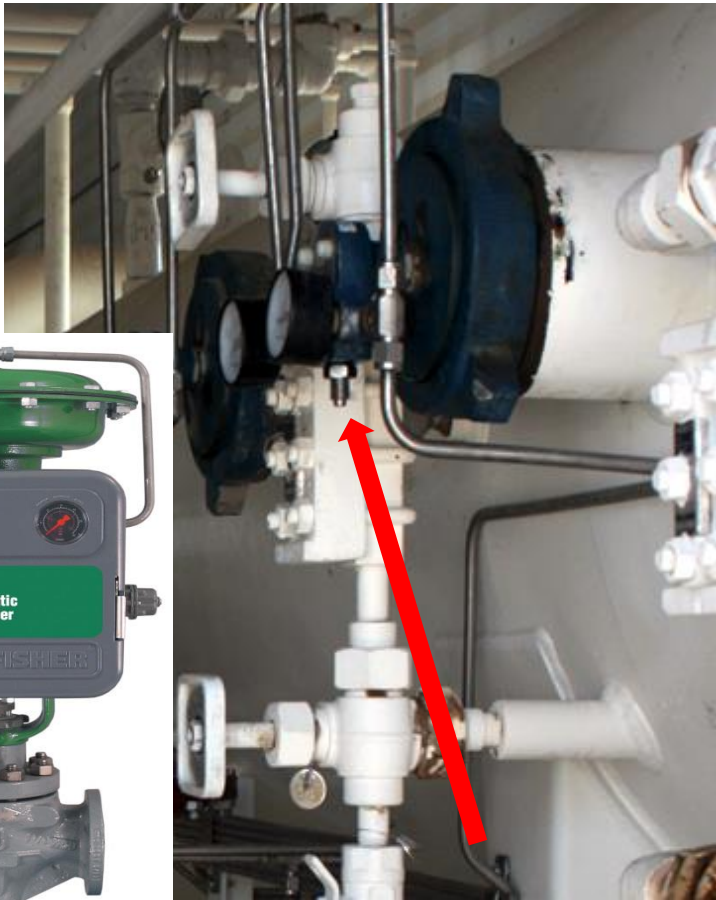
# UGRB Existing Source Regulations - Subsection (e)

## ◆ Pneumatic Pumps

- Controlled to 98%, or
- routed to a closed loop system, or
- replaced with solar, electric or air driven pumps
- by January 1, 2017



# UGRB Existing Source Regulations - Subsection (f)

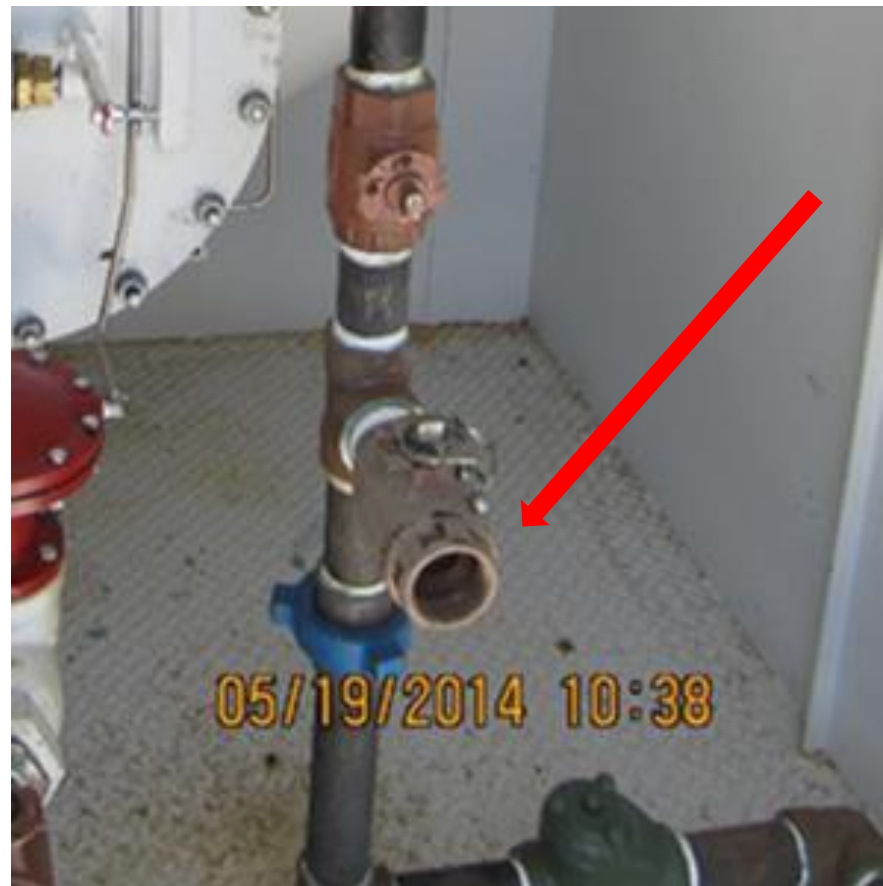


- ◆ **Pneumatic Controllers**
  - Replaced with low-bleed or zero bleed controllers or routed into a closed loop system by January 1, 2017

# UGRB Existing Source Regulations - Subsection (g)

## ◆ Fugitive Emissions

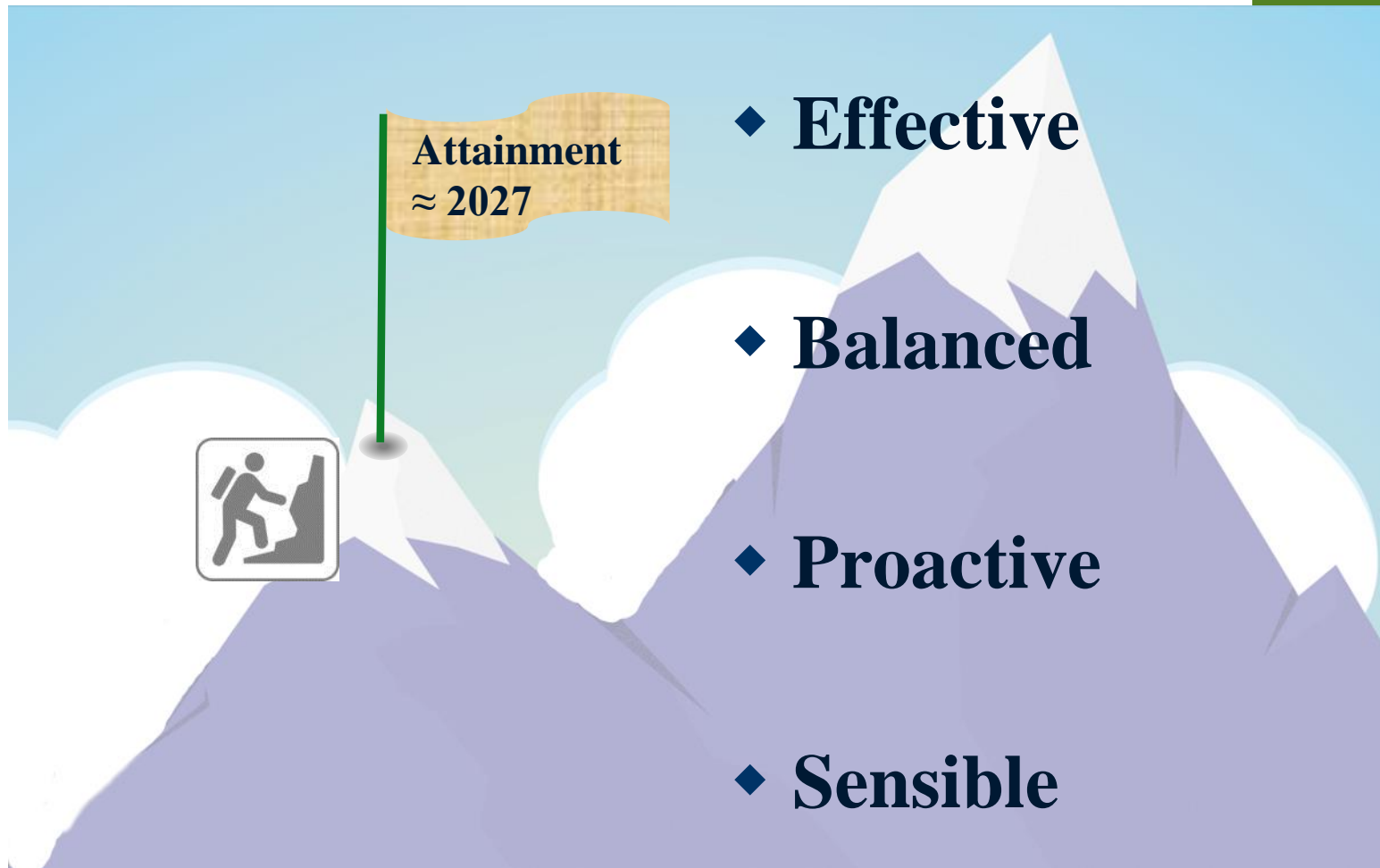
- PAD and single wells
- Compressor stations
- Facility wide VOCs  $\geq$  4 tpy
- Implement a Leak Detection and Repair Program
  - January 1, 2017



# UGRB Existing Source Regulations - Subsection (h)

- ◆ **Monitoring, Recordkeeping, Reporting**
  - Requirements are no more stringent than what new and modified facilities are already doing.
- ◆ **Importance**
  - Compliance
  - Shows progress
  - Informs the Division

# UGRB Existing Source Regulations



# UGRB Existing Source Regulations

## ◆ **Summary of Comments Received**

- Comment period: February 27 – April 13, 2015
- 21 comments received, 20 of which were supportive of the proposed regulation
- Comments demonstrated that the proposed regulation is a step in the right direction
- Numerous stakeholders placed importance upon *timely implementation*

# UGRB Existing Source Regulations

## ◆ Supportive Comments Received

- “The rules represent commonsense, cost effective, and technologically practicable measures necessary to restore healthy air to the Upper Green River Basin and its citizens.” – **EDF/WOC/CURED**
- “We are supportive of a timely implementation of the proposed rule to further aid in continued emission reductions in the Upper Green River Basin.”  
– **Jonah Energy**

# UGRB Existing Source Regulations

## ◆ Supportive Comments Received (Continued)

- “Protecting the air that Wyoming residents breathe by reducing ozone and other pollutants from oil and gas operations is an important public health issue and we are glad to see the Wyoming DEQ attempt to better protect local citizens in its proposed rules.” – **The American Lung Association in Wyoming**
- “I urge the Environmental Quality Council to make the health of Wyoming children a top priority and adopt the proposed Upper Green River Basin existing source regulation in Section 6 of the Wyoming Air Quality Standards and Regulations, Chapter 8, Nonattainment Area Regulations.” – **Kathleen Yapuncich, MD**



# UGRB Existing Source Regulations

## ◆ **Non-Technical Comments**

- The proposed regulation should apply to more sources and/or on a statewide level.
- The proposed regulation should be implemented in a timely manner because this is an important public health issue.

# UGRB Existing Source Regulations

- ◆ **Non-Technical Comments (Continued)**
  - There are concerns about the financial impacts upon the local economy stemming from nonattainment status.
  - The EPA's new ozone standard could be even lower than the current standard, which increases the urgency to act now.

# UGRB Existing Source Regulations

## ◆ Technical Comments

- This section of the presentation pertains specifically to comments received by the Division from stakeholders that were:
  - More specialized in nature
  - Covered a range of technical concerns pertaining to the proposed regulation

# UGRB Existing Source Regulations

- ◆ **Storage Tanks (Overview)**
  - Under the proposed regulation, emergency, open-top, and/or blowdown tanks should be:
    - Used for *temporary* storage
    - Used for isolated events
    - Not used regularly (this would imply *active* storage)

# UGRB Existing Source Regulations

## ◆ Storage Tanks (Continued)

- If emergency, open-top, and/or blowdown tanks are used for their intended purpose as permitted, the requirements should not be overly burdensome because tanks would only need to be emptied in *isolated instances*:
  - Only need to be emptied within seven days of *being utilized*
  - Helps limit regularity of flashing emissions

# UGRB Existing Source Regulations

## ◆ Storage Tanks (Continued)

- A liquids gathering system should reduce the need to utilize these tanks for temporary storage:
  - **“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.”**
    - Pinedale Anticline Project Area Operators website (<http://www.papaoperators.com/Liquids-Gathering-Systems.php>)

# UGRB Existing Source Regulations

## ◆ Storage Tanks (Continued)

- A liquids gathering system should reduce the need to utilize these tanks for temporary storage:
  - A UGRB operator's liquids gathering system is cited on the Intermountain Oil and Gas BMP Project website as having eliminated over 35,600 truck trips and *having eliminated all storage tanks*.  
-(<http://www.oilandgasbmps.org/resources/casestudies/questar-lgs.php>)

# UGRB Existing Source Regulations

- ◆ **Storage Tanks** (Permit Conditions – May 2015)
  - ◆ 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.



# UGRB Existing Source Regulations

- ◆ **Storage Tanks (Permit Conditions – July 2009)**
- ◆ Produced water and condensate from this facility *shall be shipped via pipeline to a liquids gathering system* on or prior to December 31, 2009.
- ◆ 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.

# UGRB Existing Source Regulations

- ◆ **Pneumatic Controllers**
- ◆ The term “Zero bleed” encompasses the following:
  - Electric
  - Air-Driven
  - Solar Power
- ◆ “Zero bleed” is not synonymous with “intermittent vent”
- ◆ Intermittent vent or continuous bleed controllers may be used *so long as they are below the 6 scf/hr threshold.*

# UGRB Existing Source Regulations

- ◆ **Fugitive Component Count**
- ◆ Charting the history of reducing the required component count:
  - Field-wide component count (June 4, 2014)
  - 100 similar facilities (October 24, 2014)
  - 100 wells (February 2, 2015)

# UGRB Existing Source Regulations

- ◆ **Compliance Date of January 1, 2017**
  - One-year compliance extension
  - There are UGRB operators that are already in compliance with the proposed regulation
  - Address unforeseen hardships with the Division

# UGRB Existing Source Regulations

- ◆ **Monitoring, Recordkeeping, and Reporting**
- ◆ The following is a permit condition for a UGRB permit applicant as of **May 2015**:
  - 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.*

# UGRB Existing Source Regulations

- ◆ **Monitoring, Recordkeeping, and Reporting**
- ◆ The following is a permit condition for a UGRB permit applicant as of **May 2001**:
  - (...) 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.

# UGRB Existing Source Regulations

- ◆ **Monitoring, Recordkeeping, and Reporting**
- ◆ The following is a permit condition for a UGRB permit applicant as of **December 2010**:
  - 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.*

# UGRB Existing Source Regulations

- ◆ **Future Commitments**
- ◆ Stakeholders requested the Division embark upon the following:
  - Update 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.
  - Begin a rulemaking that extends the current UGRB proposed rulemaking to existing sources located across Wyoming.
  - Implement the Phase II emissions budget approach for existing sources.



# UGRB Existing Source Regulations

- ◆ **Future Commitments**
- ◆ The Division is cognizant of these concerns, but:
  - They remain outside the scope of this rulemaking
  - The proposed regulation is deliberately designed for existing sources in the UGRB



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# UGRB Existing Source Regulations



# THANK YOU!



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# Questions

