

**UGRB Air Quality Citizens Advisory Task Force
Recommendations to the Wyoming Department of Environmental
Quality
FINAL DRAFT
September 19, 2012**

Existing Stationary Sources (1, 3, 5, 6, 7, 16, 21, 24, 46, 54)

1. Develop and implement rules, regulations, and/or policy to reduce emissions from existing oil and gas stationary sources throughout the nonattainment area prior to custody transfer.¹
 - a. Adopt emission control requirements for existing sources through a RACT-like process which considers the current emission control requirements and best management practices in the JPAD Presumptive BACT.
 - b. Use a phased-in approach occurring over several years. In this strategy, focus first on the largest VOC emission source categories and work in descending order. Reductions from this longer-term initiative should focus on achieving 100% implementation of all applicable sources within 10 years.
 - c. Use incentives to accelerate emissions reduction.

2. Develop and implement rules, regulations, and/or policy to reduce emissions from existing oil and gas stationary sources where Presumptive BACT is not applicable and use a RACT-like process.²
 - a. Develop a RACT-like process.
 - b. Use a phased-in approach occurring over several years. In this strategy, focus first on the largest VOC and NOx emission source categories and work in descending order. Reductions from this longer-term initiative would focus on achieving 100% implementation of all applicable sources within 10 years.
 - c. Use incentives to accelerate emissions reduction.

Ozone Action Days (11)

3. Require contingency plan development and implementation for all oil and gas operators throughout the non-attainment area. Promote expanding contingency plans to other commercial and government entities as practicable.

¹ Sources in this recommendation include but are not limited to: Storage tanks, dehydration units, pressurized process vessels, natural gas fired equipment, fugitives, pneumatic pumps and controllers, truck loading, venting and blow down.

² Sources include, but are not limited to: Compressor and generator engines, turbines, heaters, dehydrators, storage tanks, venting and blow down.

Non-Road Mobile Exploration and Production Sources (13, 26, 27)

4. Develop and implement a rule, regulation, or strategy for achieving NOx reductions from drill rigs. Apply the JPAD drill rig permitting strategy to the entire nonattainment area.
 - a. Use a phased-in approach.
 - b. Use incentives to accelerate emissions reduction.

5. Evaluate control strategies to minimize NOx emissions from completions/hydraulic fracturing engines. Complete the evaluation by the end of 2013. Based on evaluation, develop and implement a rule, regulation, or strategy for achieving NOx reductions from completions/hydraulic fracturing engines.
 - a. Use a phased-in approach.
 - b. Use incentives to accelerate emissions reduction.

Leak Detection and Repair (29, 30)

6. Develop and implement a BACT standard to conduct fugitive VOC emission monitoring using a Leak Detection and Repair (LDAR) program for new and modified sources. Develop a leak detection standard for existing sources through a RACT-like process. Use a fit-for-purpose program, which may include Method 21, audio-visual-olfactory (AVO), or FLIR Camera.
 - a. Use a phased-in approach concurrent with the implementation of recommendations #1 and #2.
 - b. Use a phased-in approach on existing sources that do not warrant additional controls under recommendations #1 and #2.
 - c. Use incentives to accelerate emissions reduction.

Produced Water and Storage (35)

7. Evaluate and quantify emissions from open evaporation and produced water ponds (and various commercial and non-commercial pits) and if justified by the evaluation, develop strategies and controls to minimize emission from those sources.
 - a. Use a phased-in approach.
 - b. Use incentives to accelerate emissions reduction.

Monitoring & Reporting (48, 50, 62)

9. DEQ, working with other entities as appropriate, should improve current monitoring, inventory, and ozone modeling systems and processes, and provide increased public access to these data and information.
 - a. Use increased remote ambient air source monitoring to collect data that guides agency decisions to reduce NOx and VOC emissions.
 - b. Develop and implement a sampling and analysis methodology to measure source emissions through source testing. These data can be used to validate the accuracy of the Emissions Inventory and improve modeling inputs.

Other (59, 60)

10. Use incentives to accelerate emissions reduction. To expedite emissions reductions, announce preferably by fall of 2012 or as soon as practicable, the intent for rulemakings that mandate emission reductions for existing sources. Voluntary emission reductions will allow operators to capture offset credit for which the opportunity is lost once the rule is in effect. In addition to offset credit, all other creative ideas that support proactive efforts on the part of the operators should be encouraged.
11. Assess needs and dedicate DEQ personnel to manage the UGRB non-attainment air quality issues.

**UGRB Air Quality Citizens Advisory Task Force
Consensus Options
July 18, 2012**

Grandfathered and Permit-Exempt Sources

1. Require grandfathered or unpermitted sources to meet current best available control technologies (BACT) as required for new sources in the Jonah and Anticline fields. Four categories of types of sources make up the bulk of these emissions – pneumatic pumps, dehydration units, fugitives and tanks
3. Control currently uncontrolled grandfathered sources through additional regulation and/or economic incentives
5. Develop and implement a rule for reducing VOC emissions from grandfathered minor source categories that establishes RACT for selected sources (RACT – Reasonably Available Control Technologies required on existing sources in non-attainment areas)
6. Require no-bleed pneumatics for grandfathered equipment
7. Reduce emissions from old equipment/facilities/locations in LaBarge and other older project areas (retrofit)

Development

11. During well completion/workover, observe ozone action days
13. Develop and implement a rule for NO_x reduction from non-mobile sources specifying the use of most current technology - Specify tier 2 with SCR or better for drill rigs - Establish baseline for completions/frac equipment - Controls under this rule would be in place by the end of 2013 or 2014

Production Operations

16. Minimize venting
21. Reduce NO_x from compressor facilities – engines
24. Address emissions resulting from the handling of condensate

Mobile Sources

26. Control permit-exempt non-road mobile emission sources through additional regulation and/or economic incentives
27. Consider ways to control mobile sources including generator motors

Leak Detection and Repair

- 29. Monitor liquids gathering system for leaks. Provide for a way to back track to find leaks (multiple meters)
- 30. Leak detection and repair (LDAR) to verify emission levels in all areas

Produced Water and Storage

- 35. DEQ should develop and enforce minimum emission and operation standards for exposed produced and drilling water ponds

Future Sources

(none)

Non-Oil & Gas Emissions

(none)

Offsets & Credits

(none)

Permitting Strategies

- 46. Upgrade Presumptive-BACT to eliminate routine venting and other upgrades. Then apply as RACT rule to grandfathered facilities

Monitoring & Reporting

- 48. DEQ and other agencies should improve current monitoring, inventory, and modeling systems and processes, including providing for public reporting of these data. Ensure source monitoring is done in the areas most likely to be contributing to the problems. Use these data to promote emissions reductions
- 50. Use increased source monitoring to target and inform actions designed to reduce NOx and VOC emissions

Phasing & Staging

- 54. Use a phased-in approach for reducing VOC emissions from grandfathered minor source categories with retrofits occurring over several years. In this strategy focus first on the largest source categories and work in descending order. Additional reductions from this longer term initiative would focus on achieving 100% conversion on 100% of the top emission sources within 10 years

Other

- 59. DEQ should announce rulemakings by fall 2012 to create incentives for voluntary reductions, such as pneumatics.
- 60. Hire another DEQ personnel solely to manage the UGRB air quality issues, perhaps for five years.

62. That for the Non-Attainment Area, the AQD design a rigorous emissions sampling methodology and, under existing authorities [i.e., W.S. 35-11-110 (a)(vii (C) & (D); Ch.6, Sec. 2(c) (vi)], gather measured minor source emissions data in order to test the accuracy of the Emissions Inventory.