

**Four Corners Air Quality Task Force
Oil and Gas Work Group Conference Call**

August 2, 2006

2:00 p.m.

Participants

Cindy Allen, CDPHE-APCD; Andy Berger, NMED-AQB; Ethan Hinkley, Southern Ute Tribe; Brittany Benko, BP; Dave Brown, BP; Bill Hochheiser, US DOE; Mike Brand, Cummins; Catherine Flanders; Walt Brown, USFS/BLM Durango; Reed Smith, BP; Carl Daly, EPA Region 8; Mike Lazaro, Argonne National Labs; Dan Olsen, CSU.

Work Group Coordinator began the call by thanking members for their comments and encouraging everyone to use the correct format when commenting (i.e. insert expansion paragraphs or differing opinions directly into mitigation options).

Agenda Items/Issues

- 1. Discussion: comments on mitigation option papers.**
- 2. Review comments / questions.**
- 3. Answer clarifying questions regarding the draft papers.**

The three agenda items/issues above were addressed simultaneously by reviewing questions to the drafters that were compiled from comments on the draft mitigation option papers. Following is a summary of these comments/questions.

➤ **FYI**

As you may be aware, on June 12, 2006, EPA proposed NSPS requirements for stationary SI internal combustion engines. See 71 FR 33804. We want the workgroup to be cognizant of this NSPS proposal in order to avoid potential duplication of efforts or adopting requirements that may conflict with the Federal NSPS requirements. The NSPS for CI internal combustion engines was finalized on July 11, 2006.

➤ **Voluntary vs. Mandatory**

Mitigation Options: Use of Controls (SCR, NSCR, Oxidation Catalysts)

Q: What would be the structure of a voluntary program?

A: MOUs, Fold into VISTAS/Gas Star - like program. The group discussed forming a separate subgroup to develop a structure of a voluntary program. This will be discussed further at the Cortez meeting. Dave Brown volunteered to lead this effort. Question from Work Group: What would the states need to do for a mandatory program that is not currently in place?

Answer: Potentially pass new regulations or mandatory requirements could result from a Record of Decision from an EIS.

Mitigation Option: Economic-Incentives Based Emission Trading System (EBETS)

Q: Could you provide more details on the voluntary laboratory testing of engines?
(skipped)

Mitigation Option: Industry Collaboration

Q: How would the voluntary effort be implemented?
(skipped)

➤ **Clarify, More Details, References**

Stationary RICE Options

Mitigation Option: Adherence to Manufacturers' Operating and Maintenance Requirements

Q: Why would this be considered an option if it is already required by EPA? Please clarify the intent of this option.

A: This is part of EPA's NSPS *proposal*. The NSPS will *likely* be finalized including the requirement to adhere to manufacturers' operating and maintenance requirements. The 'option' is presented for the sake of awareness (let's not create a similar recommendation). It could also be expanded to cover existing engines instead of just new engines covered by the NSPS. Accelerated implementation of NSPS was also discussed as a potential option. Mike Brand will add to the existing draft to include this intent and the potential for applying these standards to existing engines.

Mitigation Option: Follow EPA NSPS

Q: Why would this be considered an option if it's required by EPA? Please clarify the intent of this option.

A: This 'option' is presented for the sake of awareness. The implied option is that the Task Force not recommend similar requirements that would provide no additional benefit, or significantly different requirements unless proven necessary, technologically feasible, and cost effective. Potential approaches that could make this an option would be to apply the NSPS to other engines, arrange faster implementation, and apply to existing engines. Mike Brand will add the intent to the existing draft and the potential for applying these standards to existing engines.

Q: Is accelerated implementation a consideration for making this an option?

A: EPA and industry carefully reviewed the state of technology and the issues associated with achieving various potential standards at future dates. The 2.0 g/bhp-hr NO_x requirement to be effective in July 2007 and January 2008 are consistent with the BLM's interim requirements while providing a more rigorous program – CO and NMHC standards, enforcement, etc. Engine manufacturers are already taking the planning and development steps necessary to achieve the 1.0 g/bhp-hr NO_x requirement that would follow three years later. A pull-ahead would be disruptive to this process and would result in unavailability of certain offerings. Any consideration of such a pull-ahead would need to include careful justification. With the EPA requirements applying to all new and 'reconstructed' engines of all sizes (as opposed to the limited scope of the BLM interim requirements), it is envisioned that justification for requirements beyond the NSPS would be difficult.

Mitigation Option: Use of SCR for NO_x control on Lean Burn Engines

Q: What levels of reduction of CO, VOCs and formaldehyde would be achieved using the oxidation catalyst in combination with SCR?

A: ~ 80% reduction of CO from an oxy cat. Typically an oxy cat applied downstream of SCR is used to control ammonia.

Question from Work Group: Does anybody know of the use of an oxy cat downstream of SCR on natural gas-fired engines?

Answer: Nobody had heard of this configuration on a natural gas-fired engine.

Mitigation Option: Optimization/Centralization

Q: Please explain the high uncertainty noted for this option?

A: Optimization – sizing of engines is based on maximum flow from a well. As wells decline through time, the initial horsepower needs are no longer appropriate. Centralization - Uncertainty for centralization because collection systems are already in place.

In NM, wellsites and gathering systems have different owners. Competitors would need to collaborate to centralize systems (not likely).

Mitigation Option: Optimization/Centralization

Q: Is their documentation to show that individual sites are not using the appropriate size engines?

A: Overall fleets of engines in basin are loaded at ~ 50% available horsepower. This is determined by looking at installed horsepower, volume of gas being moved, and pressure differential.

Mobile and Non-Road Options

Mitigation Option: Reduce Truck Traffic by Efficiently Routing Produced Water Disposal Trucks

Q: Please note what is meant by the “Corporation Commission entity” as noted in Section II.

A: State Oil and gas commission. (NMOCD, COGCC)

Mitigation Option: Use Produced Water for Dust Reduction

Q: Would this be limited to CBM water only?

A: Need low TDS and low sodium levels in the produced water. Conventionally produced water in NM probably won't meet BLM and/or county standards. NM conventionally produced water can have high TDS. Some CBM water meets the standards but not all of it.

Mitigation Option: Reduce Truck Traffic by Centralizing Produced Water Storage Facilities

Q: What are the water quality characteristics that would require heat tracing of pipes, i.e. at what salt content does that tracing become unnecessary?

A: Water in San Juan Basin is not saline enough not to freeze. Older collection systems don't have pipe infrastructure. Pursuit of option would create land use and safety issues.

Mitigation Option: Reduce Vehicular Dust Production by Enforcing Speed Limits

Q: Please clarify the economics noted in section 1. Please include any policies that are in place for dealing with private roads?

A: Author not present, Cindy will directly contact author.

Mitigation Option: Use Alternative Fuels and Maximize Fuel Efficiency to Control Combustion Engine Emissions

Q: Would an accelerated implementation of the Ultra-low sulfur diesel be utilized?

Does the author mean to write Ultra-low sulfur (15 ppm)?

Q: Please provide more details on different fuel types. More documentation would be helpful to clarify this option.

A: Author not present, Cindy will directly contact author.

Question from Work Group: Is Ultra-low sulfur diesel currently available?

Answer: 15ppm will be available for on-road by 10/15/06.

Mitigation Option: Utilize Exhaust Emission Control Devices for Combustion Engine Emission Controls

Q: This option would be stronger with more information and documentation.

A: Author not present, Cindy will directly contact author.

Mitigation Option: Exhaust Engine Testing for Combustion Engine Emission Controls

Q: This option would be stronger with more information and documentation.

A: Author not present, Cindy will directly contact author.

Mitigation Option: Pave Roads to Mitigate Dust

Q: References on the correlation between traffic accidents and paved roads. References or more details on the pilot project referenced in Section IV.

A: Author not present, Cindy will directly contact author.

Mitigation Option: Automation of Wells to Reduce Truck Traffic

Q: The paper notes that leaks are expected to occur, is this known from field experience or are there references that can be cited?

A: One company representative disagrees with the statement that leaks are expected to occur. Automated alarms can alert control rooms to leaks. Wells would not get visited as often, so that might be a disadvantage.

Overarching Options

Mitigation Option: Mitigation Option: Tax or Economic Development Incentives for Environmental Mitigation

Q: Please explain how lobbying legislative proposals comes into the picture? Is this a necessary part of this option?

Q: What legislative processes would be required to get these incentives in place? Would incentives have to go through vote approval? Would it be an issue/problem if the incentives were implemented differently in different states?

A: If this is pursued as an option, the lobbying to pass tax incentive would be necessary at state legislative level. State tax incentives are generally have to go legislature. Different states have different tax structures so different states may be a problem, but it's not a problem that can be avoided.

Mitigation Option: Lease and Permit Incentives of Improving Air Quality on Public Lands

Q: Please clarify if the monitoring of impacts includes the efforts of only this mitigation measure across a wide area or if it includes several mitigation options that would be occurring simultaneously.

A: Incentives would need to be part of a larger package for environmental mitigation that is agreed upon by producers and land managers. All facets would need monitoring. This clarification will be added to the existing draft by the drafter.

Mitigation Option: Economic-Incentives Based Emission Trading System (EBETS)

Q: References on the time it took to develop the other programs mentioned?

A: The paper referenced four other programs: Illinois, Indiana, Chicago Climate Exchange, EPA Acid Rain Program. The author didn't know how the time it took to develop the state programs, but the EPA Acid Rain program took about 3 years to develop. The lessons learned through developing the existing programs may help expedite the implementation of such a program in the four corners region.

4. Briefly discuss plans for Cortez meeting August 9, 2006.

- Two hours for breakout session
- Break into teams and discuss further development of options
- Establish deadlines and timelines for calls

Adjourn

Call adjourned at 3:25 p.m.