

Programmatic Mitigation: Air Quality

RECORD OF DECISION AND RESOURCE MANAGEMENT PLAN AMENDMENTS FOR THE POWDER RIVER BASIN OIL AND GAS PROJECT

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Appendix A.5.15. Air Quality

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A variety of potential emission reduction measures (BLM 1999d) are available to further limit NO_x and other air pollutant emissions. The evaluation was not intended to rank or identify a required emission reduction measure; the appropriate level of control will be determined and required by the applicable air quality regulatory agencies during the preconstruction permit process. BLM will also continue to cooperate with existing visibility and atmospheric deposition impact monitoring programs. The need for, and the design of, additional monitoring could include the involvement of the EPA Region 8 Federal Leadership Forum and applicable air quality regulatory agencies. Based upon future recommendations, operators could be required to cooperate in the implementation of a coordinated air quality monitoring program. Oil and gas lease terms (Section 6) require the lessee, within the lease rights granted, to take measures deemed necessary by the lessor for the conduct of operations in a manner that minimizes adverse impacts to air quality, as well as other resources.

Table A-3 Fugitive Dust Mitigation Measures (PM10), Effectiveness and Cost

	Dust Sources					
	Disturbed Areas		Unpaved Roads ¹			
Mitigation Options	Establish plant cover for all disturbed lands by certain time (re-vegetation)	Water roads to attain certain percent moisture ²	Apply soil stabilizer	Set and enforce speed limit	Gravel roads	Paved road
Effectiveness	Level proportional to percentage of land cover	0 – 50% reduction in uncontrolled dust emissions	33 to 100% control efficiency	80% for 15 mph 65% for 20 mph 25% for 30 mph ³	30% reduction	90% reduction
Estimated Cost	\$/acre	\$4000/mile	\$2,000 to \$4,000/mile per year	Unknown	\$9,000/mile	\$11,000 to \$60,000/mile

Note:

1. Improved and County roads
2. Wetting of construction roads during the construction period. Wetting of construction roads not required for once a month maintenance trips to well pads.
3. Reductions assume 40 mile per hour base speed.

Table A-4 Nitrogen Oxides (NO_x) Mitigation Measures Efficiency

	NO _x Emissions Sources			
	Field Compressors	Sales Compressors	Temporary Diesel Generators ¹	Heavy Equipment
Mitigation Options/	Implement Best Available Control Technology ²	Implement Best Available Control Technology ²	Register with State; will regulate as appropriate	Voluntary use of diesel engines
Efficiency	Typically results in a NO _x emission rate of about 1 g/bhp-hr	Typically results in a NO _x emission rate of about 1 g/bhp-hr		

Notes:

1. Wyoming is currently registering these generators to determine if NO_x emissions are significant.
2. BACT could include electric compression