

Appendix E

Control Option 8

Control Option: Pollution Prevention (P2) and Voluntary Reductions

Description:

Pollution prevention, referred to as P2, is largely a type of voluntary emission reduction program that has potential for positively affecting air quality. P2 is a national policy for implementation at regional, state, and local levels that reduces or eliminates waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them in the waste stream. There are local and regional contacts for P2 assistance programs and resources, including from the U.S. Environmental Protection Agency (EPA) for partnership programs with industry, grants and funding to support state and tribal P2 programs, and technical assistance services offered through EPA and various state offices and partners.

There are numerous opportunities and measures available for industry, small businesses, government, and individuals to take part in P2; everything from agriculture to waste management to manufacturing, service industries and transportation can utilize P2 methods to lessen emissions and conserve energy. The specific P2 strategy related to renewable energy and energy efficiency is a separate topic discussed in this report.

Benefits of P2 and Voluntary Reductions:

Voluntary measures to reduce NO_x and NH₃ emissions from large and small sources would assist in reducing tropospheric ozone formation, fine PM and nitrogen deposition, as well as improving visibility. Voluntary measures are generally viewed by industry as a positive means for achieving environmental benefits while retaining the flexibility of a non-regulatory program. Many organizations, including environmental agencies, non-profits, and universities, offer P2 information and assistance to businesses at no charge and can assist them in finding ways to lessen their environmental impact through reducing waste while saving costs.

Costs/Tradeoffs Associated with P2 and Voluntary Reductions:

Many assistance programs exist from EPA and Departments of Defense and Energy offices to state and other levels of government that offer several easy and free options for businesses, government, and individuals wanting to benefit the environment and save costs by implementing P2. P2 alternatives are often no more costly (and sometimes even less costly) than traditional process add-on control solutions to air emissions-caused environmental problems.

Description of How to Implement:

Voluntary reduction measures would be useful elements of a comprehensive control strategy to benefit air quality, but it is impossible to quantify this strategy's ability to improve nitrogen deposition in RMNP because implementation details of State voluntary programs are not well defined. Enhanced policy direction for Colorado's existing P2 program could potentially be more effective by encouraging voluntary NO_x and NH₃ reduction measures through incentives, assistance programs, and reduction targets. This additional emphasis could contribute to air quality improvements generally and provide assurance that a directed program would yield more benefits. Outside of a voluntary P2 program, the State could provide disincentives to pollute

within its existing regulatory programs by charging new or increasing current emissions fees on processes or activities that result in emissions that could be avoided or reduced by employing P2 alternatives.

Feasibility of P2 and Voluntary Reductions:

A P2 and voluntary reduction strategies at the State level are entirely feasible and only needs a focused commitment to boost its effectiveness from current levels of implementation. Many P2 efforts are already underway, largely driven by the open market and assistance being provided at regional and national levels of government. Additional emphasis by the State specific to achieving NOx and NH3 emission reductions could assure more successful implementation of these types of measures. A feasibility study could be conducted to assess potential for NOx and NH3 reductions through a directed program.

The Federal Pollution Prevention Act of 1990 established pollution prevention as a public policy of the United States. The Federal Act declares that pollution should be prevented or reduced at the source wherever feasible, while pollution that cannot be prevented should be recycled in an environmentally safe manner. In the absence of feasible prevention or recycling opportunities, pollution by-products should be treated. Disposal or other releases into the environment should be used only as a last resort and should be conducted in an environmentally safe manner.

P2 has been established as a public policy of the State of Colorado through the Pollution Prevention Act of 1992, which declares, “the state policy of Colorado shall be that P2 is the environmental tool of first choice.” The Colorado Pollution Prevention Act of 1992 created the following:

- A governor appointed Pollution Prevention Advisory Board (PPAB) to coordinate pollution prevention activities in Colorado.
- A pollution prevention Activities Program to collect and evaluate information on toxics use reduction and waste reduction through EPCRA or SARA Title III reporting, perform outreach, and provide technical and informational assistance to internal and external customers.
- A Pollution Prevention Grants Program designed to fund pollution prevention activities and provide technical assistance to small and medium sized businesses in the state. The pollution prevention Grant Program is funded by fees collected from facilities required to report under EPCRA or SARA Title III.

The Colorado Department of Public Health and Environment (CDPHE) attempts to integrate and incorporate pollution prevention and environmental leadership program strategies into the agency’s permitting, inspections, enforcement, rules development, remediation, assistance, and other functions. The CDPHE pollution prevention/environmental leadership program includes: policies, strategies, and projects designed to use flexibility and other incentives to encourage organizations to achieve results through pollution prevention, the Environmental Leadership Program and other innovations, for enhanced environmental outcomes.

Background Data and Assumptions Used:

EPA’s Office of Pollution Prevention and Toxics

EPA’s Environmental Technology Verification

EPA Region 8’s P2 Peaks to Prairies Information Center

Uncertainty Associated with P2 and Voluntary Reductions:

The benefits and costs of voluntary reductions cannot be quantified due to the uncertain penetration of P2 measures into the emissions-producing community through volunteerism. Qualitatively, there are both environmental and economic benefits to more utilization of P2. These benefits are more certain to occur through directed State efforts that promote education and public outreach on P2, place a high priority on P2 through use of incentives and disincentives, and encourage energy conservation, clean fuels, and development of renewable energy sources.