

7.0 REGIONAL HAZE

The management of haze is intimately tied to control of fine particulates (PM_{2.5}). Small particles in the atmosphere are the principal contributors to visibility impairment due to light scattering and absorption. Both phenomena result in a net effect called light extinction.

The issue of regional haze and effects on scenic vistas is particularly important in parks and protected areas. In the United States, parks and wilderness areas that are to receive special protection from air pollution are called Class 1 areas.

In the most recent development toward the management of regional haze in the 156 Class 1 national parks and wilderness areas, the USEPA has developed a rule to further control visibility-reducing particles. This regional haze rule was announced by Vice President Al Gore during a visit to Shenandoah National Park, Virginia, on Earth Day, April 22, 1999.

The proposed rule requires all 50 states to develop plans to prevent visibility degradation in these Class 1 areas due to the transport of small particles (less than microns), such as sulfates, nitrates and organics.

EPA will call for rate-of-progress goals in the final rule to allow for improvement of visibility on the worst visibility days. These goals will be different in the western and eastern parts of the U.S. because of the variation in current conditions. The rule will call for the tracking of visibility changes by means of the deciview haze determination, and the reporting of appropriate pollutant emissions consistent with the commitment in State Implementation Plans (SIPs). The Deciview expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions from clean to extremely hazy. The deciview is linked to human perception, i.e. a one deciview change in haziness is a small but humanly perceptible change in the quality of the scenes or vistas.

As reviewed in preceding reports, the EPA has been preparing to address regional haze issues as they affect Class I areas for several years; the rule was first proposed in July 1997. There will now be a linkage between the new National Ambient Air Quality Standard for PM_{2.5} and the regional haze rule. Data for area designations should be submitted by mid-July 2004, with the EPA confirming designations as of mid-2005. The required timing for submission of State Implementation Plans in non-attainment areas for PM_{2.5} and regional haze will also be linked and will occur in approximately mid-year 2008.

In recognition of the regional nature of this air quality concern, the EPA will encourage a regional planning approach. States that commit to regional planning can postpone some of the requirements of the regulation while they develop a multi-state management response. One group that has already formed to address regional haze rule compliance is the Western Regional Air Partnership (WRAP), which includes the states of Colorado, Utah, Arizona, New Mexico, Idaho, Oregon, Washington, Wyoming, and Montana, along with western tribes and federal agencies.

To demonstrate the rate of progress goals, new visibility monitoring stations will be set up within the next year. The plan is to place 108 new IMPROVE (Interagency Monitoring of Protected Visual Environments) stations in parks and wilderness areas to augment the existing network. Some of the sites proposed for monitoring along the U.S./Canada border include: North Cascades and Olympic National Parks in Washington, Theodore Roosevelt National Park and Lostwood National Wildlife Refuge in North Dakota, Voyageurs National Park in Minnesota, Isle Royale National Park and Seney National Wildlife Refuge in Michigan, Lye Brook Wilderness Area in Vermont, Great Gulf Wilderness Area in New Hampshire, and Moosehorn National Wildlife Refuge in Maine.