

## Special Environmental Concerns

# Clean Air Act Criteria Pollutants

Clean Air Act  
Criteria Pollutants

Clean Air Act  
Regional Visibility  
Degradation

Clean Water Act

Coastal Zone  
Management  
Areas

Coral Reefs

Cultural Resources

Endangered  
and Threatened  
Species

Environmental  
Justice

Essential Fish  
Habitat

Floodplain  
Management

Invasive Species

Migratory Birds

Natural Areas

Prime and  
Unique  
Farmlands

Riparian Areas

Scenic Beauty

Wetlands

Wild and Scenic  
Rivers

### CLEAN AIR ACT - Criteria Pollutants

“Criteria pollutants” for agriculture are excessive concentrations of particulate matter and ozone in the atmosphere that may adversely impact human health.

#### What is it?

Criteria pollutants are those contaminants in the atmosphere for which U.S. EPA has used health-based criteria to establish National Ambient Air Quality Standards (NAAQS). The U.S. EPA has currently promulgated NAAQS for six criteria air pollutants, but the primary criteria pollutants of concern for agriculture are particulate matter and ozone.

#### Why is it important?

The NAAQS are intended to represent the maximum concentration of a particular pollutant in the ambient air that will not adversely impact public health or welfare, which includes aesthetic, economic, and other non-health effects. Areas that are designated as nonattainment, meaning that concentrations of a criteria pollutant are not in compliance with the NAAQS, are subject to greater regulatory scrutiny than areas that are in compliance with the NAAQS (i.e., attainment areas). Sources that are considered to contribute to an area’s nonattainment status will be subject to more stringent control and permitting requirements. Requirements for each nonattainment area vary and are tailored to the specific needs of the nonattainment area.

#### What can be done about it?

Ozone is not typically emitted directly from air pollutant emission sources. Rather, it is formed in the atmosphere by chemical reactions. As such, emissions of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOCs) are regulated as precursors to ozone formation instead. Particulate matter may be either emitted directly, such as dust or smoke, or formed in the atmosphere from other pollutants, such as ammonia, NO<sub>x</sub>, VOCs, and sulfur dioxide (SO<sub>2</sub>). Agriculture does not produce significant amounts of SO<sub>2</sub>, so reducing emissions of directly-emitted particulate matter, NO<sub>x</sub>, ammonia, and VOCs from agricultural sources will help to mitigate agriculture’s contribution to concentrations of particulate matter and ozone in the ambient air.

### Clean Air Act - Criteria Pollutants at a Glance

Problems / Indicators - Nonattainment area for ozone and/or particulate matter	
Causes	Solutions
<ul style="list-style-type: none"> <li>Dust emissions</li> <li>Poor smoke management</li> <li>Wind erosion</li> <li>Ammonia release</li> <li>VOC emissions</li> <li>NO<sub>x</sub> emissions</li> </ul>	<ul style="list-style-type: none"> <li>Dust control, windbreaks</li> <li>Proper smoke management</li> <li>Maintain surface residue/cover</li> <li>Proper manure management</li> <li>Proper nutrient management</li> <li>Follow state/local permitting guidance and procedures</li> </ul>