

**U**nder the Clean Air Act, any activities and equipment that may contribute to air pollution are strictly regulated by the South Coast Air Quality Management District (SCAQMD or AQMD) and the Federal Environmental Protection Agency (EPA).

## **What are the six common Air Pollutants (also known as "Criteria Pollutants") under the Clean Air Act?**

The six Air Pollutants are: Particulate Matter (PM); Carbon Monoxide (CO); Nitrogen Oxides (NO<sub>x</sub>); Sulfur Dioxide (SO<sub>2</sub>); Ozone (O<sub>3</sub>); and Lead (Pb). There are also Hazardous Air Pollutants (HAPs) that cause or may cause cancer, other serious health effects, or adverse environmental and ecological effects. EPA has identified 188 HAPs which include volatile organic compounds (VOCs; e.g., benzene, methanol), chlorine, and asbestos.

## **What are the main types of air pollutant emissions resulting from USC activities?**

Emissions of PM; CO; NO<sub>x</sub>; SO<sub>2</sub>; and VOCs typically result from the combustion of fuel from the operation of equipment such as boilers, furnaces, space heaters, hot water heaters, and emergency generators. Additionally, HAP emissions result from the use of VOCs and radionuclides in chemical fume hoods and VOCs in facility maintenance operations.

## **What is Title V and is USC subject to its provisions?**

Title V is a federal program designed to standardize air quality permits and the permitting process for major



### What I can do...

- Ensure that all chemical containers are kept closed when not in use. Open bottles with volatile compounds (e.g., solvents / waste solvents) in chemical fume hoods is a source of air pollution according to the EPA and is prohibited.
- Replace highly volatile materials (i.e., solvents, paints, and inks) with effective non-toxic or low-VOC substitutes.
- Convert combustion equipment into less-polluting natural gas instead of oil fuel.
- Use carpools/vans, shuttle services, and public transportation.

sources of air pollution across the country. USC produces NO<sub>x</sub> emissions above threshold limits and, therefore, is subject to Title V provisions; USC is below threshold amounts on the other pollutants.

## **Are AQMD permits required for USC equipment? Chemical fume hoods?**

Yes. Typical USC equipment that is subject to AQMD permits are: external, combustion-driven boilers and water heaters; internal combustion engine-driven emergency electricity generators and emergency fire pumps; air scrubbers; activated carbon absorbers; ethylene oxide sterilizers; and charbroilers for campus restaurants.

An AQMD permit is **NOT** required for the operation of USC chemical fume hoods since VOCs and other pollutant levels are very low.

## **References**

### **Clean Air Act summary**

<http://www2.epa.gov/laws-regulations/summary-clean-air-act>

### **California Air Resources Board - What is Title V?**

<http://www.arb.ca.gov/fcaa/tv/tvinfo/overview.htm>