



## 8- HOUR OZONE NONATTAINMENT AREA CHANGES - FACT SHEET Effective November 20, 2007

Recent changes in the Denver-metropolitan and Northern Front Range areas' air pollution rules may affect your business. Air pollution standards for sources in these counties are now subject to more stringent reporting and permitting requirements. You should be aware of these changes and the associated impacts to your business' compliance status. You may now have to report emissions of, and obtain permits for, volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>) emissions even if you have never had to do so before. See Table 1 for a summary of the various reporting and permitting thresholds.

### BACKGROUND

On November 20, 2007, the Denver-metropolitan and Northern Front Range areas' were designated as "nonattainment" with the 8-hour federal ozone standard. The 8-hour ozone nonattainment area consists of a nine county area – including the counties of Adams, Arapahoe, Boulder (including most of Rocky Mountain National Park), Broomfield, Denver, Douglas, Jefferson, and a portion of Larimer and Weld. View a map at <http://www.cdphe.state.co.us/ap/images/ozoneareamap.gif>.

Ozone, unlike many other air pollutants, is not directly emitted from specific sources. Ground level ozone is formed when hydrocarbons (or VOCs) and NO<sub>x</sub> chemically react in the presence of sunlight and high temperatures. Thus, VOCs and NO<sub>x</sub> are considered precursors to ozone.

Common sources that may be affected by the change from attainment to nonattainment in the nine-county area may include, but are not limited to: oil and gas operations, refineries, gasoline stations, petroleum bulk plants, surface coating operations (i.e. paint booths), petroleum dry cleaners, printing and imaging operations, and other manufacturing operations (e.g. wood furniture, chemical, beverage, etc).

### DEFINITIONS

- ⤴ **Actual Uncontrolled Emissions** – Actual air pollutant emissions without the use of air pollutant control devices.
- ⤴ **Attainment areas** – Any area in Colorado in which the ambient air concentrations of any designated pollutants are in compliance with the National Ambient Air Quality Standards (NAAQS).
- ⤴ **Nonattainment Areas** – Any area in Colorado in which the ambient air concentrations of any designated pollutants are out of compliance with the NAAQS.
- ⤴ **National Ambient Air Quality Standards (NAAQS)** – Standards set by the federal EPA for the maximum levels of air pollutants (carbon monoxide, lead, nitrogen dioxide, ozone (with VOC and NO<sub>x</sub> as precursors), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and sulfur oxide) allowed in the ambient air. Primary standards are set to protect human life and health. Secondary standards are set to protect vegetation, animals, and property.
- ⤴ **Oxides of Nitrogen (NO<sub>x</sub>)** - Chemical compounds of nitrogen produced by combustion, which react with hydrocarbons to produce ozone.
- ⤴ **Volatile Organic Compounds (VOCs)** - Organic compounds (containing carbon) that react with nitrogen oxides to form ozone, a regulated air pollutant in Colorado.

- ▲ **Reasonably Available Control Technology (RACT)** - The lowest emission limitation that a particular source is capable of meeting by application of control technology that is reasonably available considering technological and economic feasibility. RACT is required on new and modified sources located in nonattainment areas.
- ▲ **Lowest Achievable Emission Rate (LAER)** – The lowest emission limitation that a particular source is capable of meeting by application of control technology. It is required on new or modified major stationary sources located in nonattainment areas.

### **What does this mean for your business?**

The following changes apply only to businesses located in the 8-hour ozone non-attainment area:

- Air Pollutant Emission Notice (APEN) reporting thresholds for VOC and NOx have changed to the nonattainment levels listed in Table 1. This means that your business will have to report to the APCD if actual uncontrolled emissions are equal to or greater than 1 ton per year for either VOCs or NOx. See the Air Quality Control Commission's (AQCC's) Regulation No. 3, Part A, Section II.B.3.
- Air permitting thresholds for VOC and NOx have changed to the nonattainment levels listed in Table 1. This means that your business will have to file an APEN and obtain an air permit if facility wide actual uncontrolled emissions will be 2 tons per year or more of VOCs or 5 tons per year or more of NOx. See the AQCC's Reg. 3, Part B, Section II.D.2.
- Reasonably Available Control Technology (RACT) requirements for minor sources of VOC and NOx emissions have changed. New and modified minor sources of VOC and NOx emissions are required to operate using RACT (as determined through permitting process and incorporated into the permit). See the AQCC's Reg. 3, Part A, Section III.D.2.a.
- The Public Comment threshold for VOCs or NOx has changed from 50 tons per year to 25 tons per year of projected controlled emissions. (Public notice is published in a local newspaper and written comments from the public are requested for your business). See the AQCC's Reg. 3, Part B, Section III.C.1.a.

The following changes apply only to **major stationary source** businesses located in the 8-hour ozone nonattainment area (i.e. not small businesses):

- Major stationary source applicability thresholds for VOCs or NOx have changed for nonattainment areas from 250 tons per year to 100 tons per year. This means that your business may be subject to major stationary source nonattainment new source review for VOC or NOx if your facility has the potential to emit greater than or equal to 100 tons per year of either pollutant. . See the AQCC's Reg. 3, Part A, Section I.B.23 and Part D, Section II.A.24.
- Should a modification to the source result in an increase of either VOC or NOx emissions of 40 tons per year or more, the permitted activity may be subject to nonattainment New Source Review, which includes meeting the Lowest Achievable Emission Rate (LAER) and obtaining reductions in VOC or NOx emissions to offset any increase in emissions associated with the modification. For more details, please contact APCD permitting at (303) 692-3100.

**Table 1**

APEN AND PERMIT REPORTING THRESHOLDS FOR ATTAINMENT AND NONATTAINMENT AREAS				
	APEN		Air Permit	
Pollutant Category	Attainment (tons per year)	Nonattainment (tons per year)	Attainment (tons per year)	Nonattainment (tons per year)
Volatile organic compounds	2	1	5	2
PM-10 and PM-2.5	2	1	5	1
Total suspended particulates	2	1	10	5
Carbon monoxide	2	1	10	5
Sulfur dioxide	2	1	10	5
Nitrogen oxides	2	1	10	5
Lead	100 pounds per year	100 pounds per year	200 pounds per year	200 pounds per year
Other criteria pollutants <sup>1</sup>	2	1	5	2

<sup>1</sup>Other criteria pollutants include: fluorides, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds, and municipal waste incinerator emissions.

**To read about further Ozone Reduction Plans, visit the Regional Air Quality Council website listed below.**

*Remember, pollution prevention is in all of our best interest. The APCD encourages business to evaluate their operations and the products used to determine if there are feasible alternative methods or products that exist that may be used to reduce or eliminate VOC, NOx and other pollutant emissions.*

**◆ RESOURCES**

- ❖ Air Pollution Control Division (APCD) at the Colorado Department of Public Health and Environment at (303) 692-3100.

Websites: Home page: [www.cdphe.state.co.us/ap/index.html](http://www.cdphe.state.co.us/ap/index.html)  
 Ozone information: [www.cdphe.state.co.us/ap/ozone.html](http://www.cdphe.state.co.us/ap/ozone.html)  
 Air quality regulations: [www.cdphe.state.co.us/ap/regoverview.html](http://www.cdphe.state.co.us/ap/regoverview.html)

- ❖ **Small Business Assistance Program (SBAP)** at the Colorado Department of Public Health and Environment. The SBAP offers free and confidential assistance to small businesses with environmental questions.

Small Business Assistance Program: (303) 692-3175 or (303) 692-3148  
 Small Business Ombudsman: (303) 692-2135  
 Website: [www.cdphe.state.co.us/ap/sbap/index.html](http://www.cdphe.state.co.us/ap/sbap/index.html)

- ❖ Regional Air Quality Council (RAQC) Website at [www.ozoneaware.org](http://www.ozoneaware.org)
- ❖ Environmental Protection Agency (EPA) NAAQS website at <http://epa.gov/air/criteria.html>

