



Ozone Pollution in the Baton Rouge Nonattainment Area

Frequently Asked Questions

What is Ozone?

Ozone is a colorless gas with a pungent, irritating odor. It is a natural part of the environment where it is found both in the upper atmosphere and at ground level. In addition, man's activities create emissions which contribute substantially to ozone formation at ground level.

Why Is Ozone an Environmental Problem?

In the upper atmosphere, the problem is *too little* ozone. Ozone protects us from overexposure to harmful ultraviolet rays from the sun, but chemicals called CFC's (chlorofluorocarbons) deplete this ozone layer. CFC's are used as the coolant in air conditioners and refrigerators and have also been used in hair and deodorant sprays. In the United States and many other countries, CFC's are being phased out.

At ground level, the problem is *too much* ozone. Man-made emissions from vehicles, industries, consumer products, and a wide range of human activities contribute to ozone formation. Excessive levels of ground-level ozone affect human and animal health, reduce crop yields, fade dyes, and cause adhesives and rubber to crack.

Is There a Clean Air Standard for Ground-Level Ozone?

Yes. The standard is set by the U.S. Environmental Protection Agency (EPA) following a lengthy scientific review process. Last year (July 18, 1997), EPA revised the standard for ground-level

ozone from a 1-hour standard of 120 ppb (parts per billion) to a more stringent 8-hour standard of 84 ppb. Although the 8-hour standard replaces the 1-hour standard, the 1-hour standard will continue to apply to those parishes already in non-attainment before the standard was revised.

EPA puts a city (or metropolitan area) on its "**non-attainment**" list when ozone exceeds, or violates, the standard more than once a year averaged over a 3-year period. The Baton Rouge metropolitan area, including the parishes of East Baton Rouge, West Baton Rouge, Ascension, Livingston, and Iberville, is on this list. (LaFourche Parish is also on the list but is considered marginal and is due to be reclassified to full attainment next year.) As per the new EPA requirements, the 1-hour ozone standard will continue to apply to the Baton Rouge non-attainment area for an interim period until EPA makes a determination that the area has air quality meeting the 1-hour standard. The State must continue to work toward complying with the 1-hour standard, while developing plans to achieve the new 8-hour standard.

How Serious is Baton Rouge's Ozone Problem?

Ozone pollutes Baton Rouge-area air on an average of 8-10 days each summer and fall. The BR metropolitan area ranks near the middle of the EPA "non-attainment" list of 82 cities, which are classified as extreme, severe, serious, moderate or marginal. The Baton Rouge area is classified as a serious non-attainment area. Los Angeles is ranked in the extreme classification, averaging 88 high-ozone days per year. It is followed by cities in the severe class, such as New York, Chicago, and Houston.

Does Louisiana Violate Any Other EPA Air Quality Standards?

No. Since 1980, the Baton Rouge area has met five of the six EPA air-quality standards that include carbon monoxide, nitrogen oxides, sulfur dioxide, lead, particulate matter, and ozone. Only ozone exceeds the EPA standards.

How Can Ozone Affect my Health?

Ozone is harmful to breathe when too much is in the air. Immediate symptoms are runny nose, sore throat and irritated eyes. Shortness of breath, coughing, and a burning sensation in your chest can occur.

Overexposure can lead to a persistent cough, mucous production and possible increased susceptibility to infection. It can harm healthy athletes and asthma sufferers by causing some loss of lung function.

People who exercise outdoors and people with respiratory problems are most affected by overexposure. Healthy older people and babies are at the same risk as healthy persons. There is no evidence at this time that ozone causes cancer.

Can I Protect Myself When Ozone Levels Are High?

Yes. Learn to recognize days when ozone pollution is likely. These are days of hot, stagnant weather, sunshine, and little or no wind. On such days, do not exercise outdoors. Minimize outdoor activity. Stay indoors if you have respiratory problems.

During the ozone season (May-October), call (225) 765-0219 after 9 a.m. to learn the probability of excessive ozone for the next two days. In addition to the ozone forecast, you can get the hourly Air Quality Index (AQI) by calling (225) 765-2592. In the summer, you may also check the daily ozone forecast and advisory on the following websites:

LDEQ

http://www.deq.state.la.us/evaluation/ozone/oz_today

(Click on *Ozone Advisories and Information.*)

EPA

<http://www.epa.gov/airnow>

(Click on *Air Quality Forecasts*)

What Causes Ozone Pollution?

Ozone is not released directly into the air. There is no smokestack or any other source that emits ozone. Ozone is not an emission.

Ozone pollution is caused by a series of chemical reactions that take place in the presence of sunlight on hot days when the air is stagnant and there is little or no wind. Nitrogen oxides (NO_x) and volatile organic compounds (VOCs) must be in the air in large enough amounts to react and form ozone.

Industry, utilities, certain businesses, cars, trucks, buses, ships and airplanes, even trees and shrubs, all release VOCs or NO_x or both. VOC emissions typically come from industrial processes, use of volatile solvents, spray painting, loading of volatile organic liquids or refueling of vehicles, and evaporative emissions from storage tanks. NO_x emissions typically come from combustion sources --- internal and external combustion engines, industrial boilers, heating equipment, and outdoor burning.

Is Anything Being Done About Ozone?

The Louisiana Department of Environmental Quality (LDEQ) has a long-term goal to achieve statewide compliance with EPA's National Ambient Air Quality Standards (NAAQS). LDEQ's ozone reduction strategy is detailed in its State Implementation Plan (SIP). The SIP reviews ambient air data, computer modeling results, emission inventories, growth factors, and other information; and determines ways to achieve further emission reductions of VOC and NO_x. Each SIP revision must be submitted to the U.S. EPA for approval.

As required by the Clean Air Act of 1990, multiple SIP revisions have been submitted for the Baton Rouge ozone nonattainment area. The Baton Rouge area was mandated to achieve a 15 percent reduction in ozone-forming emissions by November 1996 and an additional reduction of 9 percent in emissions by November 1999. In December 1995, the LDEQ submitted to EPA an attainment demonstration plan, accompanied by Urban Airshed computer Modeling (UAM) which demonstrates that the ozone standard will be attained in the Baton Rouge area.

Emission reductions incorporated within the SIP plan will result in a significant drop of volatile organic compounds. This includes total reductions of 81 tons per day in the Baton Rouge area by the year 1999. Industry reductions of 47 tons per day come primarily from more stringent controls on gasoline and chemical storage tanks, leaking equipment, barge/ship-loading of volatile liquids, and the venting of waste gas. (The plan does not include NOx emission controls: EPA granted the Baton Rouge area a waiver from NOx requirements, when UAM modeling results indicated that further NOx reductions would not reduce ozone in this area.)

Does LDEQ's Plan Address Sources Other Than Major Industries?

The SIP also affects smaller businesses, like gasoline stations, which are now required to install emission control equipment designed to capture fumes from vehicle refueling. Also included in the emission reduction plan are national rules which reduce emissions from small engines (lawn and garden equipment), architectural and industrial paints and coatings, automobile refinishing, and consumer products such as volatile solvents. Controls on these smaller sources should result in VOC emission reductions of 7 tons per day. An additional 27 tons per day of emissions will be reduced by 1999 as new, low-emission vehicles enter the fleet, and older vehicles are retired.

Are Baton Rouge Community Groups Involved in Reducing Ozone?

Community action groups such as the Baton Rouge Ozone Task Force and, more recently, the Clean Air Coalition (CAC) have played an important role in encouraging voluntary programs to improve air quality in the Baton Rouge area. The CAC is currently coordinating an Ozone Action program for the Baton Rouge area. This is a community-based public education and voluntary action program designed to reduce ozone-forming emissions caused by vehicles and other sources during ozone season (May through October). Key participants in the Clean Air Coalition and the Ozone Action Program are the Mayor-President's Office, the Capital Region Planning Commission, LDEQ's Office of Air Quality, the Greater Baton Rouge Chamber of Commerce, the Louisiana Chemical Association, print and broadcast media, the education community, and civic/environmental organizations.

What Progress Has Been Made to Reduce Ozone Pollution State-Wide?

Of the original 20 parishes which were designated ozone non-attainment areas in the 1970s, fourteen have been re-designated to full attainment with EPA's National Ambient Air Quality Standards. The remaining six ozone non-attainment parishes are East Baton Rouge, West Baton Rouge, Ascension, Livingston, Iberville, and LaFourche. (LaFourche is a marginal parish which

will be reclassified to full attainment next year.) LDEQ is continuing efforts, as outlined in its State Implementation Plan, to maintain air quality in attainment parishes, and to bring the remaining nonattainment parishes into full compliance.

Where Can I Get More Information about Air Quality in Louisiana?

For more information on ozone reduction initiatives in Louisiana, call the Louisiana DEQ Air Quality Division at (225) 765-0219 or the Air Quality Information Center (225) 765-2660 or address e-mail to: assist@deq.state.la.us.

For hourly ozone readings and forecasts for the Baton Rouge area, call the LDEQ Air Quality Index Line at (225) 765-2592. LDEQ and EPA also maintain a websites with many fact sheets, data reports, and current ozone forecasts and information. Visit their websites at: <http://www.deq.state.la.us/evaluation/ozone> and <http://www.epa.gov/airnow>.