



**POLLUTANT:**

## Lead (Pb)

**Alias:** *Lead-foot Louie*

**DESCRIPTION:** (Element) Lead is a soft, bluish-gray heavy metal that is highly poisonous and may be present in air, water and soil.

**CRIME:** Children are most at risk from eating lead-contaminated paint chips, dust or soil. Lead poisoning in children can result in learning disabilities and behavioral problems. Pb can also affect blood, bones, and organs.

**CAUSE:** Pb has been phased out of many consumer products such as household paint, batteries, and gasoline. Some imported toys and jewelry contain dangerous levels of Pb. Airborne Pb comes from lead smelting and from burning coal, oil, and waste.

NYS Department of Environmental Conservation

**POLLUTANT:**

## Carbon Monoxide (CO)

**Alias:** *Dunky Carbone*

**DESCRIPTION:** (Chemical Compound) Carbon monoxide is a colorless, odorless gas.

**CRIME:** Breathing CO can cause serious health effects, or even death, because it replaces oxygen in the bloodstream.

**CAUSE:** CO is produced from the incomplete burning of fuel. Although emission controls are required, the large number of vehicles on the road make this the largest source of CO pollution. Indoors, CO may be produced at dangerous levels by unvented gas and kerosene heaters, wood stoves, and cigarette smoke.

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**POLLUTANT:**

## PM 10

**Alias:** *Black Lung Benny*

**DESCRIPTION:** PM 10 is a generic name for particulate matter between 2.5 and 10 microns in diameter.

**CRIME:** PM 10 can cause breathing difficulties and lung damage. It has been linked to cancer and heart attacks.

**CAUSE:** PM 10 enters the air from the burning of fossil fuels in powerplants, factory operations, and motor vehicles; wood-burning stoves; and blowing dust from roadways, agricultural fields and construction sites.

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**POLLUTANT:**

## Nitrogen Oxides (NO<sub>x</sub>)

**Alias:** *Red Haze Harry*

**DESCRIPTION:** (Chemical Compound) NO<sub>x</sub> is the generic term for a group of highly reactive gases containing nitrogen and oxygen. Many NO<sub>x</sub> are colorless and odorless, but nitrogen dioxide (NO<sub>2</sub>) can combine with particles in the air to form a reddish-brown haze over urban areas.

**CRIME:** NO<sub>x</sub> can cause respiratory problems.

**CAUSE:** NO<sub>x</sub> comes from the reaction of nitrogen and oxygen during the burning of coal, oil and gas. Motor vehicles and power plants are large sources of NO<sub>x</sub>. NO<sub>x</sub> are important ingredients in ground-level ozone or smog, particulate matter and precursors to the formation of acid rain.

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## Sulphur Dioxide (SO<sub>2</sub>)

**Alias:** *Brimstone Bertha*

**DESCRIPTION:** (Chemical Compound) Sulfur dioxide is a colorless gas with a pungent odor and taste.

**CRIME:** SO<sub>2</sub> causes irritation and permanent damage to the lungs. SO<sub>2</sub> can be transported over long distances. It contributes to the formation of acid rain, which damages plant and animal life, buildings and electrical equipment. Inhalable sulfate particulate matter formed from SO<sub>2</sub> can impair visibility. Further reductions of SO<sub>2</sub> emissions are necessary.

**CAUSE:** SO<sub>2</sub> emissions result from oil refineries, the burning of fossil fuels at power plants and in boilers.

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**POLLUTANT:**

## Ozone (O<sub>3</sub>)

**Alias:** *Granny Olga Ozone*

**DESCRIPTION:** Ozone is a colorless gas with an acrid odor.

**CRIME:** O<sub>3</sub> can cause respiratory symptoms ranging from irritation and coughing to asthma and severe breathing problems in sensitive people, especially the elderly and small children. It is dangerous to be active outside when the ozone level is high, especially for children.

**CAUSE:** Ground-level ozone is the main ingredient in smog. It is formed by a chemical reaction between volatile organic compounds and nitrogen oxides in the presence of sunlight. Ozone concentrations can reach unhealthy levels on hot, sunny, calm days.

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