



POLLUTANT:

Dioxin

Alias: *Otto "The Oxman"*

DESCRIPTION: Dioxin is a name for a group of compounds called chlorinated dibenzo-p-dioxins. The most toxic dioxin is 2,3,7,8-TCDD.

CRIME: 2,3,7,8-TCDD can cause cancer, liver damage, metabolic and hormonal changes and severe skin disease. Dioxins break down slowly and accumulate in the food chain. Eating less animal fat reduces exposure to dioxins.

CAUSE: Dioxins are released during chlorine bleaching of paper or when plastics and other material containing chlorines are burned. Industrial emissions have decreased 90% since 1987. Burning of household waste, such as in a burn barrel, is one of the country's largest sources of dioxin.

NYS Department of Environmental Conservation

**POLLUTANT:**

Benzene (C₆H₆)

Alias: *Drusilla de Spilla*

DESCRIPTION: (Chemical Compound) Benzene is a colorless liquid with a sweet odor. It evaporates into the air very quickly and is highly flammable.

CRIME: C₆H₆ is a human carcinogen. Long-term exposure can cause harmful effects on the blood and bone marrow, including anemia and leukemia.

CAUSE: Major sources of C₆H₆ in the air include gasoline, motor vehicle exhaust, cigarette smoke and wood smoke.

NYS Department of Environmental Conservation

**POLLUTANT:**

Mercury (Hg)

Alias: *H.G. "Stick" Gray*

DESCRIPTION: (Element) Mercury is a toxic metal that breaks down slowly and takes several forms: a silver liquid; a white powder or crystal; and methylmercury, an organic form that accumulates in the food chain.

CRIME: Hg may cause neurological, digestive and kidney problems. Unborn and very young children are especially sensitive.

CAUSE: Exposure to Hg is through contaminated air, food (especially certain fish), water and skin contact. Hg occurs naturally, but also comes from burning fossil fuels, mining, smelting, and solid waste incineration.

NYS Department of Environmental Conservation

**POLLUTANT:**

Freon™ (CFHs)

Alias: *"Cold Air" Flo*

DESCRIPTION: (Chemical Compound) Freon™ is a trademark for a series of fluorocarbon and chlorofluorocarbon products.

CRIME: When it is released into the atmosphere, Freon™ damages and depletes the atmospheric ozone layer. Since ozone absorbs harmful ultraviolet (UV) radiation, the earth loses its natural protection from too much UV radiation when this layer thins, resulting in crop damage and more cases of skin cancer and cataracts.

CAUSE: Freon™ was used for refrigeration and air conditioning equipment, aerosol propellants, fire extinguishers, cleaning fluids, and solvents, but its use is being eliminated worldwide.

NYS Department of Environmental Conservation

**POLLUTANT:**

Asbestos

Alias: *Cliff "Rocky" Stoneman*

DESCRIPTION: Asbestos is a group of 6 fibrous minerals that occur naturally in soil and rocks: amosite, chrysotile, crocidolite, tremolite, actinolite, and anthophyllite. It is fireproof, chemically resistant, and doesn't conduct electricity.

CRIME: Inhaling asbestos can cause lung cancer and asbestosis, (a disease causing breathing problems) and heart disease.

CAUSE: New uses for asbestos are banned, but due to its heat and chemical resistance, old uses like roofing shingles, ceiling and floor tiles, car brake pads, transmission parts and cement are allowed. Asbestos fibers can enter the environment when natural deposits or asbestos products are disturbed, weathered or worn.

NYS Department of Environmental Conservation

**POLLUTANT:**

Hydrogen Chloride (HCl)

Alias: *Electra Sparks*

DESCRIPTION: (Chemical Compound) Hydrogen chloride is a light yellow gas that has a strong, irritating odor. It easily dissolves in water to form hydrochloric acid.

CRIME: HCl gas can cause irritation of the eyes, skin, and respiratory system.

CAUSE: The majority of HCl released into the air comes from the burning of coal and oil in electric utility plants.

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