
ENVIRONMENTAL Fact Sheet



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New Hampshire's Air Toxics Control Program

What are toxic air pollutants?

Toxic air pollutants – also known as hazardous air pollutants – are pollutants that have the potential to cause severe human health effects or ecosystem damage. Examples of toxic air pollutants include dioxins, benzene, arsenic, beryllium, mercury, vinyl chloride, asbestos, and polychlorinated biphenyls (PCBs). These substances can impact public health through direct inhalation (breathing), dermal exposure (through the skin), and ingestion of food contaminated from toxins deposited on soil or into waterways.

Toxic air pollutants are emitted from many types of sources. Although business and industrial sources are significant contributors, other sources include gasoline stations, dry cleaners, research laboratories, cars, trucks and buses, and natural sources such as radon gas and forest fires. Many consumer products, such as household cleaners, pesticides, and paints, also release toxic pollutants into the air when they are used.

Emissions from industrial sources are the result of the production or use of various chemicals in manufacturing processes, including industrial venting of process emissions, combustion by-products, and waste disposal. Some toxic air pollutants remain in the environment only for short periods of time. These pollutants, such as formaldehyde, toluene, and benzene, generally impact human health and the environment near emissions sources. Other toxic air pollutants, such as lead, mercury, and dioxin, break down slowly, if at all, in the environment and can be redeposited many times. Many of these “persistent” pollutants, emitted from various sources including motor vehicles and industrial facilities, are appearing in unexpected locations far away from obvious sources.

What are the health and environmental effects of toxic air pollutants?

The human health effects of toxic air pollutants are as varied as the pollutants that cause them. At sufficient exposures (concentrations and durations), chronic health effects, such as lung disease and damage to the central nervous system, can result. Observed cancers have been linked to many toxic air pollutants, resulting in their classification as known carcinogens. Over short exposure durations, some as short as a few minutes, effects such as eye and skin irritation, coughing, vomiting, and dizziness can occur. Toxics can also impact the nervous system, the immune system, the respiratory system, and have developmental effects. Toxic air pollutants can also be deposited onto soil or into lakes and streams where they affect ecological systems by moving up the food chain and eventually impact human health through the consumption of contaminated food, particularly fish. For example, people who regularly consume fish from the Great Lakes have been found to have higher concentrations in their bodies of certain toxic chemicals, such as PCBs, than people who do not. Fish-eating birds, mammals, and reptiles have experienced a variety of adverse effects associated with toxic

pollution. In addition, many air toxics are emitted in the form of particles or as organic vapors, contributing to the harmful health and environmental impacts of particulate matter and ground-level ozone (smog).

How are toxic air pollutants regulated?

Toxic air pollutants are a significant concern at both the federal and state level. The U.S. Environmental Protection Agency (EPA) regulates “hazardous air pollutants” under the Clean Air Act Amendments of 1990. EPA limits their emissions through rigorous performance standards for companies emitting any hazardous air pollutant in significant quantities.

At the state level, New Hampshire began regulating toxic air pollutants even before the 1990 Amendments. The New Hampshire Air Toxics Control Program, enacted in 1987 and revised in 1996, protects public health by reducing human exposure to toxic air pollutants. The program is codified in NH RSA Chapter 125-I, Air Toxics Control Act, and in NH Code of Administrative Rules Chapter Env-A 1400, Regulated Toxic Air Pollutants. According to data from EPA, toxic air emissions from manufacturers in New Hampshire have decreased by over 95 percent since enactment of New Hampshire's Air Toxics Control Program in 1987.

How do businesses comply with the toxic air pollutant regulations?

A list of regulated toxic air pollutants (RTAPs) is updated yearly by DES. Any business or industry in New Hampshire that emits an RTAP into the air is subject to the requirements of Env-A 1400. Sources are regulated through a statewide air permitting system and include any new, modified, or existing stationary source, area source, or device. All New Hampshire sources are required to be in compliance with Env-A 1400 and should confirm compliance annually by reviewing their RTAP emissions.

Env-A 1400 allows sources several methods for demonstrating compliance, including air dispersion modeling analysis, a de minimis (minimal) emission level method, an in-stack concentration method, or a DES-approved alternative method. Sources should evaluate these options to determine which is most appropriate for their application. Records should be maintained on-site to confirm that a compliance demonstration has been completed for any RTAPs emitted. When a source cannot demonstrate compliance with the requirements of Env-A 1400 using one of the methods above, it should contact DES regarding applicable permitting obligations.

For Information and Assistance

The New Hampshire Small Business Technical Assistance Program (SBTAP) is available to assist small businesses in determining which regulations apply to them. Small businesses can contact Sara Johnson, Small Business Ombudsman, at (603) 271-1379 or sara.johnson@des.nh.gov.

Information on the air toxics control program, including the rule (Env-A 1400) and the list of regulated toxic air pollutants, is available at www.des.nh.gov on the “A to Z LIST.” Click on T and go to “Toxic Air Pollutants,” or call the Air Resources Division at (603) 271-1370.