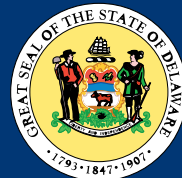




Activities in Delaware



ATSDR in Partnership With Delaware

The Agency for Toxic Substances and Disease Registry (ATSDR) is the lead public health agency responsible for implementing the health-related provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). ATSDR is an Atlanta-based federal agency with more than 400 employees and a budget for 2004 of approximately \$73 million. ATSDR assesses the presence and nature of health hazards at specific Superfund sites, helps to prevent or reduce further exposure and illnesses resulting from those hazards, and expands the knowledge base about the health effects of exposure to hazardous substances.

ATSDR works closely with state agencies to carry out its mission to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances. ATSDR provides funding and technical assistance to states and other partners through cooperative agreements and grants to identify and evaluate environmental health threats to communities. These resources enable state and local health departments and other grantees to further investigate environmental health concerns and to educate communities. In addition to direct funds and services, ATSDR provides technical and administrative guidance for state-conducted site activities.

ATSDR Site-Specific Activities Public Health Assessment-Related Activities

One of ATSDR's important mandates is to conduct **public health assessments** of all National Priorities List (NPL) sites and of other sites where a significant threat to public health might exist. A public health assessment is a written, comprehensive evaluation of available data and information about the release of hazardous substances into the environment in a specific geographic area. Such releases are assessed

for past, current, or future impact on public health. ATSDR, in collaboration with public health and environmental officials from **Delaware**, has conducted **25** public health assessments in the state, including the following recent examples.

ATSDR has conducted 25 public health assessments and 11 health consultations in Delaware.

- **Dover Air Force Base**—Dover Air Force Base (DAFB) is an active U.S. Air Force (USAF) base near **Dover**. In addition to the main base, DAFB includes two annexes: the Eagle Meadows Housing Annex 1 mile southeast of the base in Lebanon and the Port Mahon Petroleum, Oil, and Lubricant Annex near Little Creek. ATSDR prepared a public health assessment to evaluate potential health hazards from past, current, and future exposures to contaminants originating from the base.

Over the years, materials used in industrial or general base support operations spilled or were released to the soil or the underlying groundwater during accidents and from waste management practices. These materials came primarily from aircraft and vehicle maintenance and repair activities; they included waste fuel, oils, solvents, pesticides, plating wastes, and paint. The primary contaminants of concern are volatile organic compounds (VOCs) and fuel-related compounds in groundwater. The **Delaware Department of Natural Resources and Environmental Control (DNREC)**, the U.S. Environmental Protection Agency (EPA), and the USAF have been investigating and remediating known sources of environmental contamination on the base.

ATSDR identified five exposure situations for evaluation. Three of these (contaminants in off-base drinking supply wells, possible vapors in DAFB homes above an on-base VOC plume, and current use of a former landfill) are associated

with industrial releases from the base, and two potential environmental exposure situations (lead in housing and arsenic in the drinking water) are not. ATSDR evaluated possible hazards associated with these five exposure situations and concluded that they are not of health concern.

In a final public health assessment released in December 2003, ATSDR recommended that children be kept away from chipped paint surfaces in base housing to prevent exposure to lead-based paint and that residents contact the Family Maintenance Office with concerns about severely chipped surfaces. ATSDR concurred with DAFB's and Delaware's lead exposure assessment and screening programs. Parents who are concerned about their children's exposure to lead should discuss this with their children's health care providers.

Although VOC-contaminated groundwater is under one housing area on-base, concentrations are expected to decrease as a result of DAFB's ongoing remedial efforts. If monitoring indicates that VOCs in groundwater are not decreasing, ATSDR recommends that DAFB consider indoor air sampling in buildings above the plume.

- **Standard Chlorine/Metachem Products**— ATSDR conducted a public health assessment of the Metachem Products site in **New Castle** in response to public health concerns expressed by a representative of a citizens' group in the area. A spokesperson for the group, "Stop Metachem Products LLC," expressed concerns about whether people in the area were being exposed to chemicals from the Metachem Products plant. A previous public health assessment of the site, when the plant and property were owned by Standard Chlorine of Delaware, was issued in March 1989. Metachem purchased the facility from Standard Chlorine in 1998.

The 1989 public health assessment concluded that the site was a potential public health hazard to on-site employees and remedial workers through direct contact with the soil. The public health assessment also concluded that area residents who use nearby surface waters for fishing may be at increased risk for possible adverse health effects through direct contact with the water and through ingestion of fish that bioaccumulate site-related contaminants.

In September 2003, ATSDR released an updated public health assessment because people in the community raised new concerns and additional data are now available. This updated public health assessment examines data about fish contamination, two major spills at the site during the 1980s, and potential public health issues associated with the manufacturing of chlorobenzene products.

Contaminants have bioaccumulated in edible marine life in Red Lion Creek. In 2000–2001, an ecologic risk assessment was conducted for the Metachem site. The assessment included analyzing samples of four types of fish collected from the creek. ATSDR classified the ingestion pathway as no apparent health hazard because a fish advisory issued by **DNREC** and the **Delaware Division of Public Health** has been in effect for fish caught in the Red Lion Creek since 1986. In addition, surface drinking-water intakes on the creek and shallow wells near Metachem have been closed; all drinking water wells within 1.5 miles of the site were recently sampled, and no contamination was found; and fields near the site and crops grown in the fields are unlikely to have been contaminated with chemicals from the site.

With regard to community concern about exposure from spills, ATSDR classified current exposure to the site as no apparent public health hazard for local residents because they are not exposed to the chemicals on the site.

ATSDR does not know whether the site was a health hazard during the two large spills in the 1980s and during the containment and removal activities after the spills. Monitoring data do not exist to determine any possible exposures.

From the limited data ATSDR reviewed, the nearby privately owned ball field area does not appear to be contaminated with chemicals from the site; therefore, use of the ball field should not be a public health hazard.

ATSDR agrees with EPA that restrictions should be placed on the property deed to prevent future activities at the site that would disturb any capped contaminated areas. ATSDR also agrees with EPA that measures are needed to prevent the use of the Columbia aquifer near the site for drinking water. If these measures are put in place and the site

remediation is completed, the Metachem site will not be a future public health hazard.

ATSDR recommended continued monitoring of air on the site and at its perimeter until the chemical products and other wastes are removed from the site and contaminated soil and sediment are excavated and treated. If air monitoring at the fence lines indicates chemicals at levels of health concern, on-site employees should be notified, and anyone using the nearby ball field should be warned to evacuate the area.

During future off-site soil sampling, ATSDR recommends that samples be taken in the ball field area to confirm that area is not contaminated with site-related chemicals.

ATSDR should continue to work with EPA and DNREC to consult on and assist with public health issues, as needed, during removal of the chemicals and wastes, closure and decontamination of the facility, and remediation of the site.

Since the public health assessment was published, contamination has been found in the Potomac aquifer, which is accessed for drinking water. However, this contamination was not detected in drinking water sources in the recent sampling of private wells near the site. Therefore, the conclusions and recommendations in the 2003 public health assessment remain the same, and ATSDR is not planning to reassess the site at this time.

A **health consultation** is a written or oral response from ATSDR to a specific request for information about health risks related to a specific site, chemical release, or hazardous material. A health consultation is a more limited response than a public health assessment is. **Eleven** health consultations have been conducted at seven sites in Delaware.

Resource Materials

ATSDR develops materials for public health professionals and medical care providers to use to assess the public health impacts of chemical exposures. These resources are available in print, on the ATSDR Web site, and on CD-ROM. For example, medical management guidelines are available for acute chemical exposures to more than 50 chemicals. These guidelines were designed to aid emergency department physicians and other emergency health care

professionals, such as first responders, who manage acute exposures resulting from chemical incidents. ATSDR's toxicological profiles comprehensively describe health effects; pathways of human exposure; and the behavior of more than 250 hazardous substances in air, soil, and water at hazardous waste sites. The toxicological profiles primarily are used as a comprehensive resource by health professionals at all levels. These profiles have been sent to requesters, including representatives of federal, state, and local health and environmental departments; academic institutions; private industries; and nonprofit organizations in **Delaware**. ATSDR also has developed extensive resources for community members.

For more information, contact ATSDR toll-free at 1-888-42ATSDR (1-888-422-8737) or visit the ATSDR Web site at www.atsdr.cdc.gov.



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