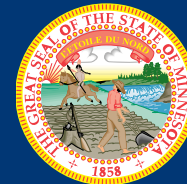




# Activities in Minnesota



## ATSDR in Partnership With Minnesota

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. From **fiscal years 1987 through 2003**, ATSDR awarded more than **\$9.2 million**—more than **\$1.8 million** in the last 2 years—in direct funds and services to **Minnesota** for comprehensive support of its environmental health unit. In addition to direct funds and services, ATSDR staff 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 sub-

stances into the environment in a specific geographic area. Such releases are assessed for current or future impact on public health. ATSDR, in collaboration with public health and environmental officials from **Minnesota**, has conducted **66** public health assessments in the state, including the following recent examples.

*ATSDR awarded more than \$1.8 million in the last 2 years in direct funds and services to Minnesota.*

- **Gopher State Ethanol/Minnesota Brewing Company**—The **Minnesota Department of Health (MDH)**, under a cooperative agreement with ATSDR, evaluated the public health significance of air emissions from a plant that manufactures ethanol from corn in a densely populated area near downtown St. Paul. In response to residents' complaints about odorous and irritating emissions, MDH requested stack testing for numerous chemicals. Results showed that the plant was emitting many irritating aldehydes, acids, alcohols, and other chemicals. A thermal oxidizer and scrubbers have been installed, but complaints continue. In a public health assessment released in September 2003, MDH recommended that efforts to characterize and control emissions continue. MDH is advising the **Minnesota Pollution Control Agency (MPCA)** on needed emissions testing and ambient air monitoring.
- **ValAdCo Confined Livestock Operations**—**MDH**, under a cooperative agreement with ATSDR and in response to a citizen's petition to ATSDR, evaluated the public health significance of releases to air, groundwater, and surface water from seven ValAdCo hog feeding facilities near Olivia. Air emissions of hydrogen sulfide from one of the facilities exceeded state air quality and health standards and pose a public health

risk. Health risks from air emissions from the other facilities were indeterminate because air monitoring was insufficient. All of these facilities have undergone or are undergoing modifications that may correct air quality problems.

In a public health assessment released in January 2004, additional monitoring was recommended to verify compliance with standards. No evidence was found for exposures to contaminated groundwater. Limited investigation suggests significant bacterial contamination of surface water near one facility. More monitoring of groundwater and surface water is recommended. MDH also noted that many of the problems investigated at this facility appear to apply to other facilities as well.

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. To date, **142** documented health consultations have been conducted at **97** sites in Minnesota, including the following recent examples.

- **Western Mineral Products**—The Western Mineral Products site in **Minneapolis** was used for insulation products manufacturing from 1936 to 1989. The plant received vermiculite ore from Libby, Montana, and processed the ore into insulation, fireproofing material, and other vermiculite products. The vermiculite ore from the mine in Libby contained large amounts of naturally occurring asbestos. Under a cooperative agreement with ATSDR, **MDH** conducted a health consultation identifying health concerns related to asbestos exposure from the site. Workers at the plant were exposed to levels of asbestos in excess of current occupational standards for much of the time the plant was in operation, and cases of asbestos-related disease have been reported in former workers.

Approximately 260 properties around the former plant have been identified as contaminated with asbestos-containing wastes from the site. EPA has removed asbestos-contaminated soil from these properties and adjoining alleys. Low levels of asbestos have been detected in some air samples collected around the site. The health consultation released in October 2003, concluded that past exposure to asbestos by workers in the plant,

children who played on the piles of waste materials or vermiculite, and residents who lived near the site is a public health hazard. Current exposure to residual waste materials by residents in the area of the site has been addressed by the U.S. Environmental Protection Agency (EPA) removal. MDH is continuing to investigate people exposed to asbestos from this site.

- **Crenlo Inc. Plant #2**—In October 2001, **MDH** was contacted by **MPCA** about community concerns that a truck-painting facility in **Rochester** was emitting large quantities of chemicals near a day-care facility. Because MDH was concerned that acute health criteria were being exceeded, MPCA installed an ambient air monitor. Results did not indicate that volatile organic compounds were present at levels of immediate concern, but certain chemicals (benzene, formaldehyde, carbon tetrachloride), probably not emissions from Crenlo, were detected at levels above long-term health criteria. In response to MDH recommendations in a March 2003 health consultation, MPCA revised the Crenlo air permit to further limit emissions. MDH also concluded that caution should be exercised when siting day-care facilities in an industrial park.
- **Weston Woods Development Site**—Weston Woods is a residential development near the former Highway 96 Dump near **St. Paul**. When the development was proposed, **MPCA** asked **MDH** to review potential public health impacts connected with soil vapor migration from the dump. In an April 2003 health consultation, MDH concluded that a gas interceptor trench was not fully preventing methane gas migration. MDH recommended that frequent methane monitoring needed to be implemented, and that the trench should be modified to improve its performance. MDH also recommended methane monitoring for townhomes nearest the trench, and postponement of development in certain areas near the trench until the gas migration problems are solved. A plan for long-term maintenance of control systems in homes also was recommended. These recommendations have been implemented.
- **St. Regis Paper Company**—A draft health consultation for the St. Regis Paper Company site in **Cass Lake** was prepared by **MDH**, ATSDR, and the **Leech Lake Band of Ojibwe**. The health consultation, released for public comment in

August 2003, focused on health concerns that could arise from exposure to soils at the St. Regis NPL site. The health consultation is based largely on EPA's October 2001 soil samples.

The purpose of the health consultation was to assess any current or future impact on the public's health, develop appropriate health-based recommendations, and identify further study or action needed to evaluate or prevent human health effects from soil exposures. Additional health consultations on other environmental media, including water, sediment, and fish, are being planned. These additional health consultations will be released for public comment as they become available.



***Bare soil with toys and cup, St. Regis site in Cass Lake.***

protective public health recommendations. A series of smaller meetings to assess and document health concerns have been held. MDH also met with the local

Indian Health Service clinic staff and with staff at a private clinic to discuss site history, dioxin toxicity and exposures, and patient concerns. MDH is collaborating with the **University of Minnesota** and the Leech Lake Band of Ojibwe to build capacity in the community to address problems posed by the presence of the Superfund site.

### **Health Studies**

Health studies are investigations to determine the relations between exposures to hazardous

substances and adverse health effects. Health studies also define health problems that require further investigation through, for example, health surveillance or an epidemiologic study. Following are examples of health studies or investigations that ATSDR conducted or supported in **Minnesota**.

- **Exposure to Tremolite Asbestos in Vermiculite Ore: Site-Specific Health Activities**—In 2001, MDH, with funding from ATSDR, initiated a population survey to identify and characterize asbestos exposure in the area of the Western Mineral Products site in **Minneapolis**. The study involves a door-to-door interview and visual inspection of properties followed by a telephone interview of former residents and others who may have been exposed to vermiculite ore from Libby, Montana. The project may involve as many as 6,000 current residents; former residents, workers, and family members; and self-referred participants. MDH is writing a report on interview results to prepare for a follow-up health study of the cohort.
- **Hazardous Substances Emergency Events Surveillance System (HSEES)**—ATSDR established HSEES in 1990 to collect and analyze information about releases of hazardous substances that need to be cleaned up or neutralized according to federal, state, or local law and about threatened releases that result in a public health action, such as evacuation. The goal of HSEES is to reduce the morbidity and mortality of first responders, employees, and the general public from hazardous

### **Health Education and Community Activities**

**Minnesota** has participated in ATSDR's cooperative agreement program since 1987. Under this program, MDH has received funding and technical assistance for the development of community education and activities associated with human exposure to hazardous substances in the environment.

Many health education activities for community members and health care professionals were conducted in relation to asbestos exposures from activities at the Western Minerals site in northeast **Minneapolis**. On a community level, MDH hosted an educational public meeting featuring information about exposure pathways and health promotion for exposed people. Health care professional education was provided through a continuing medical education program and clinic presentations in the Northeast Minneapolis Community Vermiculite Investigation health study area.

Residents living near the St. Regis site in **Cass Lake** received joint letters from MDH, ATSDR, and the **Leech Lake Band of Ojibwe** interpreting soil sample results, a map identifying hazard areas, and advice for reducing contact with contaminated soil. In conjunction with the August 2003 release of the public comment draft health consultation for this site, MDH hosted a public meeting to present findings and

substances emergencies. Fifteen state health departments, including **Minnesota**, participate in HSEES. HSEES captures data on more than 8,000 events annually. Of these, 80% occur at fixed facilities, and 20% are transportation-related events. Most events occur from 8:00 AM to 5:00 PM Monday through Friday. Persons most often injured are employees.

HSEES generates information for use by states to conduct presentations on planning prevention strategies for industries that account for a substantial number of spills; conduct hazardous materials (HazMat) training courses, including information about the risk for injury from methamphetamine labs; establish and maintain protection areas for municipal water systems; assist with the proper placement of HazMat teams; develop fact sheets on frequently spilled chemicals or chemicals that cause a disproportionate number of injuries (e.g., chlorine and ammonia); develop newsletters for industry, responders, and environmental groups; and conduct presentations for state and local emergency planners. A public-use dataset will be available on the ATSDR HSEES Web site in the future.

## Association of Occupational and Environmental Clinics

Through a national cooperative agreement with the Association of Occupational and Environmental Clinics (AOEC), ATSDR supports an occupational and environmental health program in Minnesota. This support is provided to improve education and communication related to surveillance, diagnosis, treatment, and prevention of illness or injury related to exposure to hazardous substances. The member institution in Minnesota is Occupational and Environmental Medicine, HealthPartners-Regions Hospital in St. Paul and in Minneapolis.

## 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 are primarily used as a comprehensive resource by health professionals at all levels. In the last 5 years, more than 3,300 of 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 Minnesota. ATSDR has also 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](http://www.atsdr.cdc.gov).***