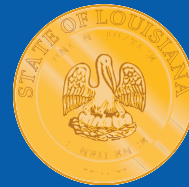




# Activities in Louisiana



## ATSDR in Partnership With Louisiana

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. Through cooperative agreements and grants, ATSDR provides funding and technical assistance to states and other partners 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 **fiscal years 1988–2004**, ATSDR awarded more than **\$10.9 million**—more than **\$1.2 million** in the last 2 years—in direct funds and services to **Louisiana** for comprehensive support of its environmental health unit. 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 **Louisiana**, has conducted **33** public health assessments in the state, including the following recent example.

*ATSDR awarded more than \$1.2 million in the last 2 years in direct funds and services to Louisiana.*

- **Louisiana Army Ammunition Plant**—In June 2003, ATSDR released a public health assessment that evaluated the potential for contamination from the Louisiana Army Ammunition Plant site to cause harm to people working at or living near the facility. The plant in **Doyline** is a government-owned, contractor-operated facility activated in the early 1940s for loading, assembling, and packing military munitions for the U.S. Army in support of national wartime efforts. All production and loading of ammunition operations ended in October 1994. Valentec Systems, Inc., oversees and operates the facility under modified caretaker/partial standby status, and several tenants occupy portions of the site.

Principal site contaminants are volatile organic compounds (VOCs) and explosive compounds associated with munition production. The U.S. Environmental Protection Agency (EPA) added the site to the NPL in March 1989, primarily because of concerns about groundwater contamination from water lagoons.

After evaluating environmental monitoring data and key potential exposure situations, ATSDR determined that potential exposures associated with groundwater, surface soil, surface water/sediment, and biota at the site do not pose past, current, or future public health hazards.

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. In **Louisiana**, 125 health consultations have been conducted at 63 sites, including the following recent example.

- **Pennzoil-Quaker State Refinery**—In October 2000, a community member petitioned ATSDR to evaluate the potential public health impacts of the Pennzoil-Quaker State Refinery in **Shreveport**. The petitioner requested ATSDR involvement at the site because of an explosion at the refinery in January 2000. However, verbal communication with the petitioner and other community members clarified that ongoing air releases are also a concern. ATSDR accepted the petition; a final version of the public health consultation was released in June 2004.

ATSDR's evaluation concluded that an indeterminate public health hazard exists for exposure to VOCs because available VOC data did not sufficiently represent the community's exposure. Levels of hydrogen sulfide and sulfur dioxide detected in the air during routine or permitted releases do not pose a public health hazard. Modeling was performed because no data from unintentional or nonroutine releases were available for review. Modeling showed some exceedances of health-based screening values. Insufficient information was available to determine whether the community's exposure to soil and surface water is of health concern.

Because little data exist to fully evaluate exposure, ATSDR made several recommendations to conduct further sampling and continue monitoring. Also, because of community interest, the **Louisiana Department of Health and Hospitals (LDHH) Office of Public Health (OPH)** is planning a community health fair in conjunction with the community. Local and state agencies will participate.

- **New Orleans Asbestos Exposure Review Site**—The Zonolite site in **New Orleans** is among 28 Phase 1 sites in ATSDR's National Asbestos Exposure Review (NAER) being conducted with other federal, state, and local environmental and public health agencies. NAER examines more than 200 U.S. sites that received asbestos-contaminated vermiculite ore mined in Libby, Montana, from

the 1920s until 1990. The 28 Phase 1 sites, which received 80% of the vermiculite mined in Libby in 1964–1980, may have received vermiculite from Libby at any time during the years the mine operated. All Phase 1 sites ceased processing the vermiculite by the early 1990s. This site ceased operations in 1990.

ATSDR is working closely with EPA and state health partners to determine whether a hazard to public health exists at any of the NAER sites.

An **exposure investigation** collects information about specific human exposures through biologic sampling, personal monitoring, related environmental assessment, and exposure-dose reconstruction. Following is an example of an exposure investigation conducted in **Louisiana**.

- **Mossville (Calcasieu)**—**Calcasieu Parish** is the site of a large number of companies that produce petroleum-based chemicals, chlorinated hydrocarbon solvents, and other organic chemicals. In 1998, EPA asked ATSDR to review the results of blood tests for several residents of the parish. Test results indicated elevated levels of dioxin-like substances in several of the samples. As a follow-up action in support of the exposure investigation results, ATSDR and the Association of Occupational and Environmental Clinics (AOEC) conducted individualized education sessions with each community member who participated in the exposure investigation to address the resulting data and community-based environmental issues.

In response to the test results and community concerns, ATSDR conducted an exposure investigation in 1998. Blood samples were collected from 28 residents of **Mossville**, a small community in Calcasieu Parish. Samples were analyzed for chlorinated dibenzodioxins, chlorinated dibenzofurans, and co-planar polychlorinated biphenyls. Test results indicated unusual levels of dioxin compounds in some of the samples.

As a result of these findings, ATSDR implemented several follow-up activities: (1) ATSDR is conducting an expanded exposure investigation in the parish to determine whether residents have been exposed to unusual levels of dioxin or VOCs. This follow-up study began in January 2002. Results of the dioxin investigation will be released

in 2004. The VOC investigation is ongoing and will continue through 2005. (2) ATSDR is conducting a follow-up exposure investigation to address questions on current versus past exposures to dioxins. The environmental sampling conducted during this exposure investigation will provide results to address the concerns of current exposure to environmental dioxins in participants' homes. (3) ATSDR has several ongoing projects to evaluate environmental data as they become available to address possible pathways and routes of exposure for the community. (4) ATSDR worked with EPA, LDHH, and the community to present a symposium on environmental health for Calcasieu Parish physicians and nurses. (5) ATSDR is working with the **Mossville Environmental Health Services Workgroup** and EPA to address other environmental health and environmental justice issues. ATSDR and EPA have had continuing dialogues and meetings with community representatives and groups and our community partners to plan and coordinate further public health actions.

## Health Education and Community Activities

**Louisiana** has participated in ATSDR's cooperative agreement program since 1988. Under this program, LDHH has received funding and technical assistance to develop more than 20 educational tools that relate to human health issues associated with toxic substances in the environment. In addition, more than 2,200 Louisiana residents have attended 41 environmental health education seminars, workshops, or town meetings. Following are examples of health education and community activities in Louisiana.

- **Calcasieu Parish**—ATSDR hosted the **Calcasieu Parish** Environmental Health Symposium to respond to the Mossville community's concerns about health care provider training: the community thought its local health care providers needed training on diagnosing, treating, and preventing environmentally related illnesses. More than 360 health care professionals attended the February 2002 symposium at **McNeese State University**. Attendees included representatives of five federal agencies and numerous regional universities; attendance exceeded anticipated participation and the physical capacity of the facilities. Sets of six Case Studies in Environmental Medicine and sets of the complete toxicological profiles series were

left at the university and at local hospitals and major clinics in the area for future reference.

- Building on the need for provider and community education, ATSDR conducted an introductory community stress management program in April 2002 for residents of the **Myrtle Grove** Trailer Park site affected by vinyl chloride in their drinking water. Follow-up included a needs assessment of the capacity of the local mental health system's ability to respond to community needs. In September 2002, a "train the responder" workshop was conducted to provide tools for service delivery and methods to identify future needs.
- Through a national cooperative agreement with the Migrant Clinicians Network, ATSDR provides assistance to health care providers working with migrant and seasonal farm workers. The Migrant Clinicians Network, the second-largest clinical network in the nation, brings together clinicians from various professions to meet the needs of migrant and seasonal farm workers. The **Louisiana Primary Care Association** and the **Southwest Primary Care Association** are members of the Migrant Clinicians Network.

## Health Studies

Health studies are investigations to determine the relations between exposures to hazardous substances and adverse health effects. They also define health problems that require further investigation through, for example, health surveillance or an epidemiologic study. Following are examples of health studies that ATSDR conducted or supported in **Louisiana**.

- **American Creosote, Winn Parish**—A health statistics review was conducted at this site to evaluate the relationship between cancer occurrence and site proximity. The review also included an assessment of selected birth outcomes. Site contaminants included polycyclic aromatic hydrocarbons (PAHs), benzene, pentachlorophenol, and dioxin. This review included many types of cancers; therefore, in addition to all cancers combined, specific types were also assessed. Because of the low geocoding rate, the cancer review could not be completed. In addition, the study found that any calculations performed on the subset with latitude and longitude coordinates would be unreliable and would likely

be an underestimate of actual cancer incidence in the 1-mile site proximity zone.

- **Bayou Bonfouca, St. Tammany Parish**—A health statistics review was conducted at this site to evaluate the relationship between cancer occurrence and site proximity. The review also included an assessment of selected birth outcomes. The site contaminants included PAHs in creosote. This review included many types of cancers; therefore, in addition to all cancers combined, specific types were also assessed. Results of this review have been peer reviewed and are being finalized by ATSDR.
- **Combustion Inc., Livingston Parish**—A health statistics review was conducted on this site to evaluate the relationship between cancer occurrence and site proximity. The review also included an assessment of selected birth outcomes. The site contaminants included arsenic, lead, vanadium, and polychlorinated biphenyls (PCBs). This review included many types of cancers; therefore, in addition to all cancers combined, specific types were also assessed. Results of this review have been peer reviewed and are being finalized by ATSDR.
- **Louisiana Database Project State-Based Surveillance**—This project uses geographic information system (GIS) technology to create a surveillance system by joining state health outcome databases in **Louisiana** with appropriate environmental databases. The resulting surveillance system will allow identification of specific areas of exposure and increased disease prevalence throughout the state and, subsequently, appropriate analytic epidemiologic investigations. Tumor registry and birth and death data for the Mississippi River parishes are being added to the system. A pilot project demonstrating the use of GIS as a tool for managing and analyzing existing demographic, environmental, and health outcome databases in **Ascension Parish** has been completed. A demonstration project evaluating blood-lead data and environmental factors in **Orleans Parish** and **Lafourche Parish** has been completed.
- **Hazardous Substances Emergency Events Surveillance System (HSEES)**—Fifteen state health departments, including **Louisiana**, participate in ATSDR's HSEES. Overall, HSEES

captures data on over 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.

- **Exposure to Tremolite Asbestos in Vermiculite Ore**—In fiscal year 2001, ATSDR entered into a cooperative agreement with **OPH** to conduct health statistics reviews related to human exposure to contaminated vermiculite ore at sites in **Louisiana** that received or processed ore from the W.R. Grace mine in Libby, Montana.

## Minority Health Professions Foundation (MHPF) Research Program

The MHPF program supplements the substance-specific information needs of the public and the scientific community and supplies necessary information for conducting comprehensive public health assessments of hazardous waste sites. The program addresses ATSDR's goals to ascertain the relation between exposure to toxic substances and disease and to build and enhance effective partnerships. The purpose of the MHPF program is to initiate research to fill ATSDR-identified data needs for priority hazardous substances, and to enhance existing disciplinary capacities to conduct research in environmental health at MHPF member institutions, one of which is **Xavier University of Louisiana**, which has been funded since fiscal year 1992. The university is conducting an environmental assessment study to determine the concentrations and distribution of arsenic, selenium, mercury, and molybdenum in urban and rural environments of **New Orleans**.

*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).*