



## Your Health – Your Environment Blog

# A Little History Lesson about Toxic Releases and the Oak Ridge Reservation

Posted on May 30, 2012 by

To commemorate the publication of ATSDR's final report on the Oak Ridge Reservation in Tennessee, we are posting this story about the history of the site and about two decades of ATSDR community work.

## The Manhattan Project Comes to Tennessee

In August 1945, the United States dropped atomic bombs on Hiroshima and Nagasaki, Japan. The power of these new weapons led to the end of World War II. Most people were unaware that the bombs were the product of the highly classified Manhattan Project, the United States effort to build the first atomic bomb.

In the 1940s, the Manhattan Project built several nuclear sites around the country, including a main facility 25 miles east of Knoxville, Tennessee, in an isolated river valley with access to highway and rail, and an abundance of water and electricity. There, the Army Corps of Engineers constructed Oak Ridge, a new, secure city surrounded by a barbed-wire fence. Workers at Oak Ridge did not know the ultimate product of their work and could not discuss their jobs with anyone, including their families.

In all, the government built four major installations at Oak Ridge Reservation to create the materials needed for atomic weapons:

- X-10 served as a pilot plant for producing plutonium
- Y-12, K-25, and S-50 produced enriched uranium during World War II and immediately afterward

In the years following the end of the war, the government expanded Y-12, K-25, and X-10 and used the facilities for nuclear research and production projects vital to national security. Over the years, activities at the Oak Ridge Reservation generated and released radioactive and chemical waste that contained various toxic metals, chemicals, and radionuclides. Some wastes remained in disposal sites on the reservation, and some pollutants were released into the nearby environment. (View [map](#) of the Oak Ridge Reservation facilities and surrounding communities.)



Oak Ridgers responding to news that the war had ended.



Billboard posted in Oak Ridge, Tennessee in 1943.

## ATSDR Joins the Effort

In 1989, the U.S. Environmental Protection Agency (EPA) added the Oak Ridge Reservation to the National Priorities List (NPL) of sites and facilities that pose a sufficient threat to human health or the environment to warrant cleanup. The [U.S. Department of Energy](#) is cleaning up the Oak Ridge Reservation under a Federal Facility Agreement with the EPA and the Tennessee Department of Environment and Conservation. The Agency for Toxic Substances and Disease Registry (ATSDR) joined the public health work at the Oak Ridge Reservation in 1991.

In 1991, ATSDR began investigations to determine whether community members potentially could be at risk of harmful health effects from eating, drinking, breathing, or in any way contacting toxic releases away from the Oak Ridge Reservation. ATSDR advises community members, regulatory agencies, and other health agencies of actions needed to reduce or prevent harmful exposures.

## Two Decades of Work

For two decades, ATSDR worked closely with community members, physicians, civic organizations, and other government agencies in the Oak Ridge Reservation area. During 21 years of evaluating exposures to contaminants released from the Oak Ridge Reservation, ATSDR conducted a total of 4 health consultations, 9 public health assessments, 9 health education sessions for physicians and community members, 1 medical data review, and 1 exposure investigation. ATSDR convened a science panel, maintained a field office in the city of Oak Ridge, and sponsored 150 community meetings to address more than 500 community health concerns about environmental exposures. ATSDR team members also created 12 informational brochures and 4 videos on public health assessments, and the members of the science panel published 4 scientific journal articles based on their work.

For more information:

- Visit the [interactive timeline](#) of ATSDR's evaluation, assessment, education, and community involvement activities in the Oak Ridge Reservation from 1992 through 2012
- Locate details and conclusion of all public health activities by [facility](#) or by [community](#)
- View the ATSDR video stories
- Visit ATSDR's [Oak Ridge](#) Reservation website

## The Final Chapter

The final public health assessment on mercury released from the Y-12 facility was published in spring 2012. ATSDR found that current exposure to mercury from the facility was not harmful to health. The public health assessment also found that at different times in the past, children or pregnant women could have been exposed to amounts of mercury that are potentially harmful to health. Not enough information exist to determine health effects from breathing mercury, swallowing mercury in creek water, or eating fish contaminated by mercury during specific periods during the 1950s and 1960s.

ATSDR assessments and evaluations indicate that additional epidemiology studies or medical monitoring are neither warranted nor scientifically appropriate. Now residents of communities near the Oak Ridge Reservation can be confident that they are not exposed to levels of toxic substances that may cause harmful health effects. They can swim, boat, and fish in the Watts Bar Reservoir; and enjoy all the advantages of their community in the foothills of the Appalachian Mountains.

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