

Public Health Assessment Summary

Evaluation of Exposure to Contaminants at the Halaco Engineering Company

Background

The California Department of Public Health and the federal Agency for Toxic Substances and Disease Registry prepared a Public Health Assessment for the Halaco Engineering Company, located at 6200 Perkins Road in the City of Oxnard, Ventura County, California. The Halaco site is located in a wetland area next to Ormond Beach and the Pacific Ocean.

The California Department of Public Health staff visited the neighborhoods and workplaces around the Halaco site and gathered the health concerns of the community members and workers who believe the contamination from Halaco caused their health problems.

What is a Public Health Assessment?

A public health assessment is a report that gives information on hazardous waste sites and their effect on the health of surrounding communities. In the process of writing the report, we look at environmental information and at how people may be exposed to chemicals coming from a waste site or an industrial facility. We analyze the information to see if those chemicals could cause health problems in people living near the facility. Another important part of the public health assessment is responding to community health concerns. If exposure has occurred, we may include relevant and available health information, like cancer registry or hospitalization information.

Site History

From August 1965 to August 2004, Halaco operated the smelter, which recycled metal, mostly aluminum and magnesium. Prior to 1970, Halaco released wastewater into the Oxnard Industrial Drain and into a small lagoon on the smelter property. In 1971, an unlined pond was built on the Waste Management Unit to hold the wastewater. The wastewater was contaminated with heavy metals, ammonia, and for a time in the 1970s, radioactive isotopes.

In the past, Halaco has been cited by authorities for abusing some of its permits to operate. The abuse included surface water discharge, air releases, and other contamination practices. Halaco was also sued by two environmental groups. In April 2003, the Ventura County District Attorney filed criminal charges against Halaco's owners. These actions eventually caused the facility to stop operating in September 2004.

Starting in mid-2006, the U.S. Environmental Protection Agency started a number of actions, including 1) removing hazardous materials in containers, 2) securing the perimeter of the smelter, the Waste Management Unit, and the Waste Disposal Area, and 3) controlling sediment runoff and soil from becoming windblown. The U.S. Environmental Protection Agency also completed a large sampling effort in June 2006. The Halaco site was named to the federal list of Superfund sites on September 2007.

After visiting the site and nearby area, meeting with the community, and reviewing environmental and health information, the California Department of Public Health looked at ten different ways people could have come into contact with Halaco contaminants. These ways are called exposure pathways and are summarized below.



Recommendations

To fully identify the contamination, and to ensure that further exposure does not occur from the smelter and the Waste Management Unit/Waste Disposal Area, the California Department of Public Health recommends the following actions:

- Analyzing for a wider range of contaminants on the smelter.
- Taking additional surface soil samples in the neighborhood, to confirm earlier testing that did not show a long-lasting impact from the Halaco emissions.
- Additional securing of the fencing around the smelter.
- Posting a warning around the Nature Conservancy Land advising of contamination present on the property.
- Ensuring the durability of the netting on the Waste Management Unit.

Activities That Are Not a Concern

The U.S Environmental Protection Agency took samples of areas on and around the site, and found Halaco contaminants in the soil and water. The California Department of Public Health reviewed the impact of this contamination and found that the following activities cause no public health concern:

- No noncancer (other than cancer) public health concern to trespassers on the Halaco site, from the time the facility closed until now.
- No apparent cancer risk and no noncancer public health concern for adults and children who visit the Nature Conservancy Land, Ormond Beach, or the wetlands, and who may have swum in the Oxnard Industrial Drain.

Past Air Emissions Are a Concern

While Halaco was operating, nearby workers and residents, and visitors to the area had many concerns about the emissions coming from Halaco. According to a Ventura County Air Pollution Control District (Air District) report on air emissions written in the mid-1990s, the routine, permitted, and controlled emissions did not pose a cancer or noncancer public health concern.

However, since the 1980s, the Air District has received many nuisance calls. The Air District has a log of nuisance calls for the years 1992-2008; a total of 257 nuisance calls are listed in the log. In response to the nuisance calls and as part of its inspections of the facility, the Air District issued at least 21 violations to Halaco.

The California Department of Public Health found that Halaco released contaminants into the air by operating carelessly or by intentionally avoiding the procedures that would have controlled the emissions. There were uncontrolled emissions of ammonia, particulate matter, sulfur dioxide, and many other contaminants.

The California Department of Public Health concludes that the uncontrolled emissions posed a health concern. However, there is no information to help us identify all of those other contaminants and the amounts that were released.

Dirt Bike Riding Is a Concern

Is the Halaco Contamination a Concern?

The California Department of Public Health concludes that uncontrolled emissions from Halaco likely posed a health concern in the past. However, because of missing environmental data, it is not possible to measure the impact of those emissions.

After reviewing existing information, we found there is no current risk of exposure for nearby residents, for workers in the agricultural fields, for people walking on the beach, the wetlands, or the Nature Conservancy Land, or for people who consume the products grown in those fields. There are concerns for people that might dirt bike ride or engage in other dusty activities on the Nature Conservancy Land or the Waste Disposal Area.

The California Department of Public Health found that the activities posing a public health concern are the ones that create a lot of dust, such as dirt bike riding on the Waste Disposal Area when it used to be uncovered and on the Nature Conservancy Land.

The main concern for the dirt bike rider on the Waste Disposal Area when it was uncovered was from breathing soil contaminated with manganese and beryllium, once that soil becomes airborne. The main concern for the dirt bike rider on the Nature Conservancy Land is breathing soil contaminated with manganese, once that soil becomes airborne.

Breathing beryllium in dusty conditions can be linked with sensitivity to beryllium and possibly granulomatous disease of the lung. In some studies, breathing manganese has been linked to neurological changes in workers. However, the estimated levels of manganese that the dirt bike riders breathed on the Waste Disposal Area or on the National Conservancy Land are much lower than the levels that the workers breathed. Therefore it is possible, but not probable, that the dirt bike riders could have health effects from breathing manganese in the soil.

The Waste Disposal Area was fenced in April 2007 and covered with a net that reduces the dust created by the soil.

Health Information for the Community Around the Halaco Site

CDPH looked at health information to see if the chemicals from Halaco caused any health problems. We looked at information about the health of people who lived in areas closest to Halaco, in Port Hueneme and Oxnard. These communities were the most likely to have been exposed to the chemicals. CDPH reviewed information about health problems that are related to the chemicals from Halaco. These health problems include asthma, cancer, birth defects, low birth weight, and preterm births (babies born early).

Asthma

CDPH looked at the rate of asthma, and the rate of people who were in the hospital because of their asthma (“asthma hospitalization”), during the years that the company was in operation. In areas closer to Halaco, we did not find higher rates of asthma, or higher rates asthma hospitalization, compared to people in areas farther from Halaco.

Birth Defects

Information about birth defects in the area was only available for 1989. For this year, we looked at the number of birth defects in babies whose mothers lived in the areas closer to Halaco when their babies were born. The number of children born with birth defects in general in the areas closer to Halaco was not higher than the number seen in areas farther from Halaco. The number of Hispanic babies born with one kind of birth defect (a “neural tube defect”) was higher than the numbers seen in areas farther from Halaco. We did not see a higher number of neural tube defects in White babies. If the neural tube defects were caused by exposure to the chemicals from Halaco, we would have expected to see the higher numbers in both groups.

Cancer

In areas closer to Halaco, we did not find higher rates of cancer in general, compared to cancer rates in areas further from Halaco. Of the cancers that are related to the chemicals from Halaco, we did find a higher rate of lung cancer in Whites than the rate found in the areas farther from Halaco. We did not see a higher rate of lung cancer in Hispanics who lived closer to Halaco. If the lung cancer was caused by exposure to the chemicals from Halaco, we would have expected to see a higher rate in all groups.

Low Birth Weight

CDPH looked at low birth weight in babies born during the years that the company was in operation. The rate of babies born with low birth weight in areas closer to Halaco was not higher than the rates found in areas farther from Halaco.

Preterm Births

We looked at the rate of preterm births in areas closer to Halaco, during the years that the company was in operation. We compared them to rates in areas farther from Halaco during these same years. We also looked at the rate of preterm births during the years that the company was in operation and compared them to rates in later years, after Halaco closed. The rate of preterm births was higher during the years that Halaco was in operation than the numbers in later years. It is possible that the chemicals from Halaco caused the preterm births, but because there is not much information about the exposures to the chemicals, we cannot be certain.