SMALLEY-PIPER
Collierville, Tennessee
Shelby County
9th Congressional District

Site Location/Size:

Smalley-Piper is an active facility located in Collierville, Tennessee, in Shelby County.

Site History:

The Smalley-Piper facility began operations in the 1960s as a manufacturer of farm tools. In the early 1970s, the facility had a Federal Government contract with the military to manufacture and chemically treat magnesium battery casings with chromic acid. Liquid wastes from the process were sent via an underground pipe to an open retention pond, treated, and then allowed to flow into surface water drainage ditches. Surface water was then directed to Nonconnah Creek via overland flow. The retention pond is no longer used and has been backfilled. Currently, facility operations consist of "hard facing" used farm tools. Hard facing involves the application of an iron slurry to used tools and applying heat at various temperatures to harden the new surface. According to the owner, no hazardous materials are used in the current processes; however, the Material Safety Data Sheet (MSDS) for the iron slurry indicates that metals, including chromium, cobalt, copper, manganese, and nickel are components of the slurry.

Site Contamination/Contaminants:

Facility activities have resulted in metals contamination of soils (chromium, copper, and lead), ground water (total chromium and hexavalent chromium), and surface water runoff (total chromium and hexavalent chromium). Ground water contamination from facility operations has affected the Memphis aquifer, the sole source of drinking water in the area, and poses a potential human health risk. The contamination underlies sources at the facility and extends downgradient at least 1,000 feet to the City of Collierville's Water Plant #2. Two of the city's municipal wells have been affected, one of which was temporarily closed in March 2003 due to chromium contamination. Currently, the wells are closely monitored and are equipped with automated emergency shut down devices as a temporary measure, pending a permanent site remedy. A production well located on the Smalley-Piper property was previously used to obtain water; however, the well was shut down by order of the Tennessee Department of Environmental Conservation (TDEC) in 2002 due to the presence of hexavalent chromium.

Potential Impacts on Surrounding Community/Environment:

Smalley-Piper is located in an area of recharge for the Memphis aquifer; therefore, no upper confining layer is present in the vicinity of the facility. The City of Collierville maintains 11 wells, nine of which are located within 4 miles of the facility. The city serves 12,000 connections, and also sells water to the Town of Piperton, which serves 335 connections. The average number of persons served per well is 2,836 in Collierville and 182 persons served per well in Piperton. Several private wells are located within four miles of the facility and are in the Memphis aquifer. There are 83 private wells within one mile of the facility, serving 206 persons. Also, contaminated surface runoff from Smalley-Piper poses a threat to the

Nonconnah Creek, which is used for recreational fishing. Approximately nine miles of wetlands border surface water within 15 miles downstream of the Smalley-Piper facility.

Response Activities (to date):

To date, there have been no response activities conducted at this site. A remedial investigation is planned to determine the extent of the contamination.

[The description of the site (release) is based on information available at the time the site was evaluated with the HRS. The description may change as additional information is gathered on the sources and extent of contamination. See 56 FR 5600, February 11, 1991, or subsequent FR notices.]

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at ATSDR - ToxFAQs (http://www.atsdr.cdc.gov/toxfaqs/index.asp) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.