NPL Site Narrative for Shuron Inc.

SHURON INC.
Barnwell, South Carolina

Conditions at Proposal (June 1996): Shuron Inc. is located at 100 Clinton Street outside the city limits of Barnwell, Barnwell County, South Carolina. The site is located in an area that is both residential and industrial. The company began operations in 1958 and closed in early 1992 after filing for bankruptcy. Shuron was originally a division of Textron, Inc. and was named Shuron Continental Optical Company. The company was purchased by private investors in 1985 and became Shuron Inc. Shuron was a manufacturer of single-vision and multi-vision ophthalmic lenses during its entire operational history. Waste by-products of plant operations include grinding compounds, glass, polishing compounds, asbestos, hydraulic oils, motor oils, and perchloroethylene sludge.

A series of lagoons and solids pits were used to dispose of wastewater from plant operations. When sludge built up in the lagoons, the material was dredged and placed into the solids pits to dry. The grinding and polishing compounds were disposed in several areas on and off site, but most noticeably on the south side of the plant into wetlands.

Samples were collected from on-site monitoring wells, soil, and source areas by the South Carolina Department of Health and Environmental Control (SCDHEC) in July and August 1991. Samples collected from the various environmental media were found to contain elevated concentrations of organic compounds. Contaminants found in ground water include 1,2-dichloroethane, 1,1-dichloroethene, trans-1,2-dichloroethene, 2,4-dimethylphenol, ethyl benzene, naphthalene, tetrachloroethene, trichloroethene, toluene, and vinyl chloride. Elevated levels of various metals were also detected.

Approximately 5,600 people within 4 miles of the site use ground water as a drinking water source. Approximately 1,120 people were served by a public well located approximately 500 feet from the site. This well was sampled in April 1987 by SCDHEC and in July 1987 by a contractor working for Shuron. Sample analyses detected low concentrations of tetrachloroethene and trans-1,2-dichloroethene.

The lagoons discharge into a ditch that discharges into Turkey Creek. In April 1987, samples were collected from the Shuron effluent by SCDHEC. Analysis revealed that volatile organic compounds (1,1,1-trichloroethane, trans-1,2-dichloroethene, trichloroethene, and tetrachloroethene) were present in the discharge at the outfall into the ditch.

Grinding material is present in many locations along the south side of the site. During the site investigation, a sample was collected from an area of drums. Analysis of the sample found several elevated metals including antimony, arsenic, barium, copper, lead, manganese, nickel, tin, and zinc. Bis-(2-ethylhexyl)-phthalate was also elevated in this sample. Grinding compound was dumped on the property and into bordering wetlands. A sediment sample collected from the wetlands detected elevated concentrations of arsenic, barium, copper, nickel, lead, antimony, and zinc.

All surface water runoff from the site drains into the wetlands that border the site to the south and east. The wetlands drain into Turkey Creek, which flows south and discharges into the Salkahatchie River. Wetlands

are contiguous for 15 miles downstream of the site. Both Turkey Creek and the Salkahatchie River are used for fishing.

Status (December 1996): Additional surface and subsurface soil samples, ground water, surface water, and sediment samples were collected from the site by Textron. Elevated concentrations of metals and organic chemicals were detected.

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.