Health Consultation — Peach County

Pyrotechnic Specialties
September 29, 2003

Introduction
The Georgia Division of Public Health (GDPH) was asked by the Agency for Toxic Substances and Disease Registry (ATSDR) to conduct a public health consultation of Pyrotechnic Specialties, Inc. (PSI) in Byron, Peach County, Georgia. The purpose of this health consultation is to determine the potential for adverse health effects from exposure to on-site and off-site environmental contamination generated by PSI and to consider the need for additional public health actions.

Site Description and History
Pyrotechnic Specialties, Inc. (PSI) is located on Juniper Creek Road, in Byron, Peach County, Georgia. The facility is located approximately 2 miles north of downtown Byron. PSI also owns a closed solid waste landfill located across the street from the facility. The closed landfill is situated on approximately 28 acres of land. South of PSI is a wooded area which drains into a tributary of Juniper Creek. A wooded area and a small residential community are west of PSI. Scattered trailer homes are located northwest/northeast of the facility and extend approximately 1 mile from PSI along Juniper Creek Road. Approximately 630 people live within 1 mile of the site. The Peach Metals facility is located 1 mile east of PSI. Property boundaries of the two facilities are adjacent to each other.

PSI manufactures pyrotechnic products and compositions, pelletizes these compositions, and assembles explosives for the U.S. Department of Defense (DOD), aerospace industries, and automotive companies. The production line includes fuses, safety devices, tracers, demolition devices, ignition elements, and igniters. PSI is located on approximately 244 acres of land that was once used as a Nike Missile Battery that was owned and operated by the DOD. Operations are conducted on approximately 50 acres of the site, consisting of 118 buildings that include several storage sheds (located near production areas), used for storing hazardous waste, and bunkers used to store pyrotechnic devices and explosives. The property is surrounded by 6-foot-high chain link fence and a security guard is on duty 12 hours per day, 5 days a week. All entry gates are locked when personnel are not at the facility.

Environmental Sampling/Results
GDPH has reviewed citizens' concerns and environmental sampling data provided by the Georgia Environmental Protection Division (GEPD) to evaluate potential pathways of exposure to contaminated on and off-site groundwater, surface water, and soil. In 1991, Westinghouse conducted a groundwater characterization study. The objective of the study was to evaluate the environmental impact of manufacturing activities at the facility to determine the impact, if any; manufacturing activities had on groundwater in the surrounding area. The groundwater samples were analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), dissolved metals, cyanide, and nitrate. Analytical results indicated that trichloroethylene (TCE) was the only contaminant detected in two wells above the MCL (maximum contaminant level). The concentrations of TCE found in these wells were 5 micrograms per liter (µg/L) 14 µg/L TCE. Given that available data on groundwater analysis is over a decade old, and that manufacturing activities have taken place at the facility since then, further characterization is needed. If groundwater contamination exists, delineation of the vertical and horizontal extent of contamination would be required to makes sound public health conclusions.

Soil sampling and surface water sampling data pertaining to PSI has not been obtained. However, according to the GEPD Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) completed in December 2001, several areas of concern require further investigation. Evidence of dilapidated and leaking hazardous waste storage drums, discolored soil, and drainage pathways next to production areas and hazardous waste storage sites were noted by GEPD. Furthermore, past open burning activities were likely to have left residuals of lead and other heavy metals in the soil surrounding the open burn area.

Conclusions
GDPH considers this site to be an ***indeterminate public health hazard***.

Recommendations
These recommendations identify actions that GDPH has determined necessary to reduce and to further characterize potential public health hazards associated with the PSI site.

- Develop sampling plans for potable drinking water at PSI to analyze for hazardous constituents using methodologies having detection limits that are protective of public health.
- Restrict the use of groundwater for drinking on the site until the extent and characterization of groundwater contamination is completed.
- Verify the presence of any wells located adjacent to or downgradient of PSI. If any presently used wells are found adjacent to or downgradient of PSI, determine if these wells have been affected by site-related contaminants at levels that represent a public health concern.
- Delineate the vertical and horizontal extent of groundwater contamination at PSI so that sound public health conclusions can be made on the basis of scientific evidence.