

NPL Site Narrative for Norfolk Naval Shipyard

NORFOLK NAVAL SHIPYARD Portsmouth, Virginia

Conditions at Proposal (March 6, 1998): The Norfolk Naval Shipyard (NNSY) is the oldest continuously operated shipyard in the United States, with operations dating to 1767. Lying along the Southern Branch of the Elizabeth River, near the mouth of Chesapeake Bay, the shipyard is centrally located in the tidewater region of southeastern Virginia. Fisheries, wetlands, and other sensitive environments are located downstream from the site.

Activities conducted at the shipyard include metal forming, repair and installation of mechanical and electrical equipment, metal fabrication, metal plating, and painting operations. Industrial shops at NNSY generate a wide variety of industrial wastes, often in large quantities. Wastes generated include scrap metal; waste oils such as hydraulic oils, cutting oils, and oils contaminated with polychlorinated biphenyls (PCBs); spent cleaners and solvents; paint and paint sludges; thinners; residues from sandblasting; asbestos; battery electrolytes; plating wastes; and solutions from cleaning boilers.

In the past, wastes generated at NNSY by waterfront maintenance of naval vessels frequently were either dumped overboard or onto the ground. In addition, before the shipyard began using the industrial waste treatment plant (IWTP) in 1979, numerous industrial wastes from shops at NNSY were routed to storm drains and discharged without treatment to the Southern Branch of the Elizabeth River. The storm sewer system, which drains all areas of the shipyard, is independent of the sanitary sewer system and discharges to the Southern Branch of the Elizabeth River at more than 75 locations.

Other industrial wastes generated at NNSY that were not suitable for reuse or reclamation were disposed on site. Historically, waste disposal areas at NNSY were located in the southern portion of the shipyard. As the shipyard grew, land disposal areas gradually were located farther to the south, until such areas became concentrated in their current locations. Space limitations have prevented large-scale waste disposal in other areas of the facility. Wastes that have been landfilled at NNSY include spent blasting grit, sludge from the IWTP, and fly and bottom ash. The following six sources are evaluated in the Hazard Ranking System documentation record, primarily for documented releases of highly persistent hazardous substances to surface water: Scott Center Landfill, Sanitary Landfill, Chemical Waste Pits, Hydraulic Fill Area, Bermed Chemical Disposal Area, and Acetylene Waste Lagoon.

Five of the six sources evaluated are located along or near Paradise Creek. Analysis of samples of sediments in Paradise Creek collected in 1986 and 1992 detected the presence of semivolatile organic compounds (SVOCs), pesticides, PCBs, and metals in reaches of the creek adjacent to the sources evaluated. The sixth source evaluated is located approximately 100 feet from the Southern Branch of the Elizabeth River.

The following areas are currently of concern to EPA: the Main Shipyard area, Paradise Creek Disposal Area, Southgate Annex, Scott Center, and New Gosport housing area. Two areas identified in the proposed NPL listing of the Norfolk Naval Shipyard are not part of this NPL listing: St. Julien's Creek Annex

and St. Helena Annex. St. Julien's Creek Annex is being evaluated as a separate NPL site. The Navy has recently completed extensive assessment and cleanup at 16 acres of the St. Helena Annex that indicates that most of the St. Helena Annex is not contaminated at levels of concern to EPA. One small area of groundwater contamination was identified at St. Helena Annex. The Navy has agreed to work closely with EPA to address this and any other contamination found at the St. Helena Annex. Although this property is not considered part of the Norfolk Naval Shipyard NPL site, all future assessment and cleanup of St. Helena Annex will be addressed in the enforceable Norfolk Naval Shipyard Federal Facilities Agreement.

A recent Navy investigation uncovered erosion at the New Gosport Landfill, 1/2 mile west of the Scott Center Landfill, which may impact Paradise Creek, and, therefore, is of concern to EPA.

With respect to the Stanley Court Housing Annex, located approximately one mile southwest of NNSY, there are no known possible sources at this location.

Status (July 1999): EPA is considering various alternatives for this site.

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) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.