

PRELIMINARY  
**Health**  
**Assessment**  
**for**

NAVAL WEAPONS STATION-SITE A

COLTS NECK, NEW JERSEY

NOVEMBER 15, 1988

Agency for Toxic Substances and Disease Registry  
U.S. Public Health Service

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## THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT  
NAVAL WEAPONS STATION-SITE A  
COLTS NECK, NEW JERSEY  
November 15, 1988

Prepared by:  
Office of Health Assessment  
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Naval Weapons Station Site A (also known as NWS-Earle) is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List (NPL). The site is an active Naval facility which handles, stores, renovates and ships' munitions. There are eighteen separate areas which contain hazardous waste. At one site (#29) there was a polychlorinated biphenyl spill; contaminated soil was removed off-site for disposal.

Public access is restricted since the facility is an active site for munitions storage. No restrictions of base personnel or dependents on-site to hazardous waste areas were mentioned.

The following documents were provided to ATSDR for review: Initial Assessment Study, February 1983, and the Hazard Ranking System Package, June 28, 1984. These documents form the basis of this preliminary health assessment.

Environmental Contamination and Physical Hazards

The environmental contamination on-site consists of lead, zinc, and titanium. No data identifying levels of contamination passed quality assurance/quality control requirements. Hence, levels of contamination are not reported. Environmental contamination off-site has not been investigated.

No physical hazards in the hazardous waste areas were identified. However, ammonium pictrate and possibly unspent ammunition may represent an explosion hazard.

Potential Environmental and Exposure Pathways

The environmental pathways and human exposure pathways of concern cannot be identified at this time.

Demographics

There are approximately 1,944 people located within a three-mile radius of the base. In addition, there are 500 new residences on base. There are private and municipal wells within a two-mile radius.

## NAVAL WEAPONS STATION SITE A, COLTS NECK, NEW JERSEY

### Evaluation and Discussion

There are not enough data and information to evaluate this site for its public health implications. Environmental pathways and human exposure pathways have not been quantitatively evaluated. Incomplete on-site containment measures for hazardous waste (unlined pits and inadequate covers, absence of dikes or other diversion structures), the qualitative identification of hazardous materials on-site, and the proximity of human populations indicate that this site may be of public health concern. Data are needed concerning the hazardous materials present, the concentrations of hazardous substances in groundwater, surface water, soil, sediment, leachate, air, and water supplies at the tap, and the potential for human populations to come in contact with these hazardous substances.

ATSDR has prepared, or will prepare, Toxicological Profiles on the site contaminants (with the exception of titanium) noted above.

### Conclusions and Recommendations

Based on the available information, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances.

Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data become available, e.g., the completed RI/FS, such material will form the basis for further assessment by ATSDR at a later date.

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