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EPA Descriptions of 42 Final Sites Added to the National Priorities List in May 1994

Office of Emergency and Remedial Response
Hazardous Site Evaluation Division (5204G)

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This document consists of descriptions of the 42 final sites added to the National Priorities List (NPL) in May 1994. The size of the site is generally indicated, based on information available at the time the site was scored using the Hazard Ranking System or nominated by ATSDR Health Advisory Criteria. The size may change as additional information is gathered on the sources and extent of contamination. Sites are arranged alphabetically by site name.

CLEANING UP UNDER SUPERFUND

The Superfund program is managed by the U.S. Environmental Protection Agency (EPA). It is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), enacted on December 11, 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA), enacted on October 17, 1986. In October 1990, SARA was extended to September 30, 1994. The Hazardous Substance Response Trust Fund set up by CERCLA as amended pays the costs not assumed by responsible parties for cleaning up hazardous waste sites or emergencies that threaten public health, welfare, or the environment; Superfund also pays for overseeing responsible parties conducting cleanup.

Two types of responses may be taken when a hazardous substance is released (or threatens to be released) into the environment:

- **Removal actions** -- emergency-type responses to imminent threats. SARA limits these actions to 1 year and/or \$2 million, with a waiver possible if the actions are consistent with remedial

responses. Removal actions can be undertaken by the private parties responsible for the releases or by the Federal government using the Superfund.

- **Remedial responses** -- actions intended to provide permanent solutions at uncontrolled hazardous waste sites. Remedial responses are generally longer-term and more expensive than removals. A Superfund-financed remedial response can be taken only if a site is on the NPL. EPA published the first NPL in September 1983. The list must be updated at least annually.

EPA's goals for the Superfund program are to:

- Ensure that polluters pay to clean up the problems they created; and
- Work first on the worst problems at the worst sites, by making sites safe, making sites clean, and bringing new technology to bear on the problem.

REMEDIAL RESPONSES

The money for conducting a remedial response at a hazardous waste site (and a removal action, as well) can come from several sources:

- The individuals or companies responsible for the problems can clean up voluntarily with EPA or State supervision, or they can be forced to clean up by Federal or State legal action.
- A State or local government can choose to assume the responsibility to clean up without Federal dollars.
- Superfund can pay for the cleanup, then seek to recover the costs from the responsible party or parties.

A remedial response, as defined by the National Contingency Plan (the Federal regulation by which Superfund is implemented), is an orderly process that generally involves the following steps:

- Take any measures needed to stabilize conditions, which might involve, for example, fencing the site or removing above-ground drums or bulk tanks.
- Undertake initial planning activities to scope out a strategy for collecting information and analyzing alternative cleanup approaches.
- Conduct a remedial investigation to characterize the type and extent of contamination at the site and to assess the risks posed by that contamination.
- Conduct a feasibility study to analyze various cleanup alternatives. The feasibility study is often conducted concurrently with the remedial investigation as one project. Typically, the two together take from 18 to 24 months to complete and cost approximately \$1.3 million.
- Select the cleanup alternative that:
 - Protects human health and the environment;
 - Complies with Federal and State requirements that are applicable or relevant and appropriate;
 - Uses permanent solutions and alternative treatment technologies or resource recovery technology to the maximum extent practicable;
 - Considers views of the State and public; and
 - Is "cost effective" -- that is, affords results proportional to the costs of the remedy.

- Design the remedy. Typically, the design phase takes 6 to 12 months to complete and costs approximately \$1.5 million.

- Implement the remedy, which might involve, for example, constructing facilities to treat ground water or removing contaminants to a safe disposal area away from the site.

EPA expects the implementation (remedial action) phase to average out at about \$25 million (plus any costs to operate and maintain the action) per site, and some remedial actions may take several years to complete.

The State government can participate in a remedial response under Superfund in one of two ways:

- The State can take the lead role under a cooperative agreement, which is much like a grant in that Federal dollars are transferred to the State. The State then develops a workplan, schedule, and budget, contracts for any services it needs, and is responsible for making sure that all the conditions in the cooperative agreement are met. In contrast to a grant, EPA continues to be substantially involved and monitors the State's progress throughout the project.
- EPA can take the lead under a Superfund State Contract, with the State's role outlined. EPA, generally using contractor support, manages work early in the planning process. In the later design and implementation phases, contractors do the work under the supervision of the U.S. Army Corps of Engineers. Under both arrangements, the State must share in the cost of the implementation phase of cleanup.

CERCLA requires that EPA select the remedy.



ADAK NAVAL AIR STATION
Adak Island, Alaska

Conditions at Proposal (October 14, 1992): The Adak Naval Air Station (NAS) covers approximately 61,000 acres in Alaska on Adak Island, near the western end of the Aleutian Islands. Adak Island became a military base in 1942, and in 1950 the Navy took control of all defense facilities on the island. The island is characterized by high winds and frequent storms. The southern half of the island is a Federally designated wilderness area, and the entire island is part of the Alaska Maritime National Wildlife Refuge.

In 1986, the Navy completed an Initial Assessment Study (IAS) that identified 32 areas that potentially received hazardous substances -- including chlorinated solvents, batteries, and transformer oils containing PCBs -- over a 40-year period. These areas include landfills, storage areas, drum disposal areas, spill sites, and pits for waste oil and fire-fighting training. Although only 22 areas were recommended for further action or investigation, all 32 are considered part of the NPL site.

Further investigations at 19 areas in 1988 found PCBs, lead, and silver in sediments, surface water, and soil in several locations on Adak NAS. The Navy recommended seven areas for further study and three for immediate action. A number of buried storage tanks and abandoned drums were removed from the three areas.

The contamination poses a threat to the sensitive environments both on and off the island, including the Wildlife Refuge, migratory pathways, spawning areas and feeding areas for fish, State land designated for game management, and wetlands. In addition, a wide variety of marine mammals inhabit the near-shore areas of Adak Island. Surface waters are used for sport, subsistence, and commercial fishing. Parts of the site are easily accessible to fishermen and other members of the public. An estimated 2,000 people live within 1 mile of hazardous waste sources at Adak NAS.

Status (May 1994): The Navy, EPA, and the Alaska Department of Environmental Conservation signed a Federal Facilities Agreement under CERCLA Section 120 in November 1993 that will incorporate 32 IAS sites and include RCRA regulated units. Preliminary source evaluations (limited field investigations followed by screening-level risk assessments) have begun. Public comment on an interim remedial action to "close" two landfills will be solicited.

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



ALLEGANY BALLISTICS LABORATORY (USNAVY)
Mineral County, West Virginia

Conditions at Proposal (June 23, 1993): Allegany Ballistics Laboratory (ABL) is located in Mineral County, West Virginia, approximately 2 miles south of Cresaptown, Maryland. ABL occupies 1,628 acres and is situated on the flood plain of the North Branch of the Potomac River, along the West Virginia-Maryland state border. Surrounding land use is primarily agricultural with some forestry. The facility has been in operation since 1942, primarily for the research, development, and testing of solid propellants and motors for rockets, ammunition, and armaments for the Navy. ABL houses two operating plants. Plant 1 is owned by the Navy and occupies 1,572 acres of the ABL facility. The remaining 56 acres are owned and operated by Hercules, Inc. The area referred to as Plant 2, or the Hercopel Plant was not included by EPA under CERCLA because no releases of hazardous materials are known to be associated with this facility.

Operations at ABL have generated a variety of explosive and solvent wastes. Until 1978, the majority of these wastes were disposed of in onsite disposal areas. From 1970 to 1981, some of the waste was stored in a drum storage area. Waste disposal and handling practices at the facility have resulted in several source areas of concern. Seven of these areas were aggregated into one source known as the Northern Riverside Waste Disposal Area (NRWDA). Other contamination sources include two previous burning ground areas; an inert non-ordnance landfill; a spent photographic developing solutions disposal areas; a sensitivity test area/surface water impoundment; and a beryllium landfill. Other sources of potential contamination exist at the site including a waste burning operation for the disposal of contaminated material.

NRWDA is located at the northern boundary of the ABL property along the south bank of the North Branch of the Potomac River. The seven sites that make up NRWDA are an ordnance burning ground; an inert burning ground; a former solvent waste disposal pit; three acid disposal pits; a hazardous waste drum storage area; and an incinerator landfill. These sources were aggregated due to their proximity and the similarity of the hazardous substances deposited in the sites. In addition, the bedrock under the site is folded and fractured.

Contaminants associated with these sources and detected in ground water and soil samples include explosives, volatile organic compounds (VOCs), acids, bases, laboratory and industrial wastes, bottom sludge from solvent recovery, metal plating pretreatment sludge, paints, and thinners. Some contaminants have moved offsite and were detected in the North Branch of the Potomac River, adjacent to the site.

Two ABL water supply wells were temporarily taken out of service in 1981 because they were found to contain VOCs. The wells were then used only as backups during drought conditions. The wells are not currently hooked-up to the supply system. Several additional water supply wells in the developed area of Plant 1 have been taken out of service. Recent testing of these wells, as well as numerous monitoring wells in the developed area, shows consistent contamination of the ground water with VOCs.

Status (May 1994): The NRWDA will be investigated during 1994. Activities will also take place at the inert non-ordnance landfill.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



**BELTSVILLE AGRICULTURAL RESEARCH CENTER (USDA)
Beltsville, Maryland**

Conditions at Proposal (May 10, 1993): The Beltsville Agricultural Research Center (BARC) covers 7,000 acres in suburban Washington, D.C. Beltsville is located in the northern portion of Prince Georges County, Maryland. Owned and operated by the U.S. Department of Agriculture (USDA), the facility has conducted research on animal husbandry, dairying, and animal diseases since 1910. Large agricultural plots and 800 buildings, including research laboratories, administrative offices, shops, greenhouses, barns, and a few houses are located on the site.

Of the 16 sources of hazardous wastes BARC has identified to date, only the Biodegradable Materials Disposal Site was evaluated in detail initially. From at least 1946 to the mid-to-late 1970s, the 4-acre area was used for disposal of metal drums, plastic containers, casings for transformers, and laboratory wastes. USDA analyses in 1990 and 1992 of soil, ground water, surface water, and surface water sediments detected elevated levels of polyaromatic hydrocarbons; several pesticides; PCBs; 1,1,1-trichloroethane; trichloroethene; xylenes; arsenic; barium; beryllium; copper; lead; manganese; mercury; nickel; and zinc.

A trailer park, high school, several housing developments, and many other Federal installations are located within 4 miles of the site. Paint Branch, Little Paint Branch, Indian Creek, and Beaver Dam Creek collect drainage from BARC, which flows to the Anacostia River and eventually to the Potomac River. Hazardous substances threaten the wetlands adjacent to Beaver Dam Creek. Fisheries in the Northeast Branch and the Anacostia River provide a habitat for the Bald Eagle, a species designated as endangered by the U.S. Fish and Wildlife Service, and for the Swamp Pink, a flower designated as a threatened species.

Status (May 1994): Since the site was proposed, BARC has removed the landfilled material from the site and has backfilled the area with clean fill. The ground water and wetlands contamination, however, has not been addressed and will be evaluated under Phase II of the cleanup. In addition to the 16 sources previously identified, a review of historical site data and aerial photographs has revealed an additional 92 areas of concern that may need further investigation.

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BLACKBURN AND UNION PRIVILEGES Walpole, Massachusetts

Conditions at Proposal (February 7, 1992): Blackburn and Union Privileges (also referred to in historical documentation as the "South Street" site or "Shaffer Realty Trust" site) covers approximately 30 acres on South Street in Walpole, Norfolk County, Massachusetts. The area is primarily residential. Industrial and commercial facilities have been active on 6 of the estimated 24 lots since the 17th century, with the remainder being used as residential and non-commercial properties. Portions of the properties (principally the commercial properties) are currently owned by Shaffer Realty Nominee Trust and BIM Investment Trust.

Records identify the area occupied by these lots as "The Blackburn Privilege" and "The Union Factory Privilege" (later shortened to "Union Privilege"). These privileges were two of ten original, distinct water privileges established along the Neponset River during the 17th century. The mill/factory established on the Union Factory Privilege produced snuff, iron, nails, cotton, and wool, and also functioned as a tannery. A dam on Blackburn Privilege generated power for production of machinery, cotton, yarn, batting, and lamp wicking.

During the 17th and 18th centuries, these privileges were used for a variety of industrial and commercial uses. The industrial processes used hazardous substances, including chromium, arsenic, and mercury.

In 1915, Standard Woven Fabric Co. began manufacturing asbestos brake linings on the commercial lots. The process started with the crushing of the raw asbestos. A pile of asbestos waste materials remains on the site. In 1920, the company changed its name to Multibestos. Operations ceased in 1937, when the properties were sold to Kendall Co.

Kendall operations involved the washing, scouring, and bleaching of cotton, followed by fabric production involving carding, washing, rinsing, drying, and winding. Waste water from the cotton operations was brought within sewer permit requirements for pH, then discharged to two lagoons, where the cotton fibers settled out before the water was discharged to the sanitary sewer. Use of Lagoon No. 1 stopped in 1982. Lagoon No. 2 continued to receive non-contact cooling water until approximately 1985.

On December 15, 1988, under CERCLA Section 106(a), EPA issued an order requiring Shaffer Realty Nominee Trust and BIM Investment Trust to conduct a removal action at the site. During the response to the order, the companies' contractor detected elevated concentrations of asbestos, lead, arsenic, nickel, and other inorganic elements, as well as volatile and non-volatile organic compounds, in onsite soils, sediments, and ground water. Municipal wells drawing on the School Meadow Brook/Mine Brook aquifer within 4 miles of the site provide drinking water to 19,500 residents of Walpole. The nearest well is 0.7 mile from the site.

The site is within the boundaries of the Neponset River drainage basin. The river borders the commercial properties on the lots' southern sides.

Status (May 1994): A second Administrative Order was issued in January 1992, which required additional removal actions to eliminate the actual or threatened release of asbestos to air and water. As a result, an asbestos pile and asbestos-contaminated soils onsite have been encapsulated; a 30 inch soil cover has been installed onsite; and a 400 foot long aluminum plate arch culvert has been constructed to isolate a portion of the Neponset River running through the area of contamination.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



**CHEMET CO.
Moscow, Tennessee**

Conditions at Proposal (January 18, 1994): The Chemet Co. site is located on Highway 57 approximately 1.2 miles east of Moscow, Fayette County, Tennessee. The 5-acre site operated from 1978 until 1987 as an antimony oxide plant owned by Frank Caldon.

Major features of the facility include three onsite buildings and two small ponds. The Tennessee Department of Health and Environment (TDHE) visited the site in 1983 and 1989, and found drums containing antimony slag, two 15-gallon drums of sulfuric acid, and several bags of soda ash. TDHE also found no barriers to prevent entry on the site, making it easily accessible. A playground at the LaGrange-Moscow Elementary School bordering the eastern edge of the Chemet property posed an increased risk of unauthorized entry to the facility. Approximately 77 people reside within 1 mile of Chemet.

On March 19, 1990, the TDHE signed an order for cleanup at the site. The order also stated that TDHE must approve all removal and disposal of hazardous substances from the facility, and an 8-foot fence must be constructed to secure the facility.

In April 1990, a 5.5 feet high fence was constructed. Approximately 300 tons of contaminated soil were removed from an area north of Building No. 3 in July 1990, and was stored and locked in Building No. 2. A second removal of soil occurred in September 1991. The TDHE conducted oversight of all remedial activities at the Chemet facility.

In 1992, the Tennessee Department of Environment and Conservation (TDEC), previously TDHE, collected samples from the onsite areas of observed contamination, ponds, drainage pathways, and the ball field of the adjacent school. The samples contained metals associated with the antimony oxide process, such as arsenic, antimony, and lead. As a result, TDEC ordered Chemet to construct a fence around the area of contamination that extended offsite. In May 1992, Chemet constructed a fence around the area of offsite contamination, preventing the 600 students and 65 workers at the elementary school from further contact with the contaminated soil. Because the contaminated soil is still present on the school's property, the fence is a temporary measure.

Status (May 1994): The Agency is planning to conduct a non-time-critical removal of contaminated soils. No viable potentially responsible party has been identified. Field work is expected to begin by late summer 1994.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



CHEMICAL COMMODITIES INC.
Olathe, Kansas

Conditions at Proposal (January 18, 1994): The Chemical Commodities Inc. (CCI) site occupies approximately 1.5 acres in central Olathe, a suburban community of Kansas City with a population of approximately 60,000. The site is bounded to the east by the Burlington-Northern railroad right-of-way, to the south by a vacant lot, and to the west and north by single-family residences. Land use in the area is primarily commercial and residential.

CCI is an inactive chemical recycling facility that handled, stored, repackaged, and distributed a variety of chemicals, including surplus industrial and laboratory chemicals, hazardous substances, and hazardous wastes. CCI operated at the site from 1951 until 1989. Before 1951, the property was occupied by an ice manufacturer. Currently, the only structure remaining at CCI is the main warehouse; no improvements are present throughout the remainder of the grounds. A covered mound of excavated contaminated soil is also present at the site.

The CCI facility is associated with a long history of regulatory inspections, investigations, citations, non-qualifying removals, and emergency responses. Site assessment investigations conducted in the past documented poor housekeeping, inappropriate material handling and storage practices, and facility conditions which allowed materials to migrate offsite. Concerns for public health and safety were raised throughout the period of operation of the facility, especially those associated with emanating odors, precipitation runoff from the site, and fires.

In 1980, CCI acquired a Resource Conservation and Recovery Act permit as a generator and transporter of hazardous waste. EPA issued an Administrative Order on Consent regarding the site in 1985, and again in 1989.

Investigations conducted at the site by CCI, Kansas Department of Health and Environment, and the EPA have indicated that soil and ground water are contaminated, and that hazardous substances have migrated offsite via air and surface water runoff. A wide range of metals, volatile organic compounds, semi-volatile organic compounds, and pesticides have been detected in the soil and ground water. Ground water in the Olathe area is not utilized as a source for municipal drinking water. The nearest private ground water well listed in State records is approximately three miles southwest of the site.

Several other sources were present but not included in the evaluation due to lack of specific information regarding the structures.

An observed release to the air has been established at CCI due to the level of contamination detected during a series of air sampling events. High concentrations of two hazardous substances associated with the contaminated soil source were detected in an air sample collected downwind of the site.

Ground water was not included in the HRS evaluation because of its limited use, although ground water at and around the site is contaminated with high concentrations of halogenated organic compounds. Chemical analysis of ground water samples collected from onsite and offsite monitoring wells indicated that hazardous substances are present in the shallow ground water beneath the site.

Soil exposure was not included in the HRS evaluation due to the limited accessibility to the sources at the site, although contaminated soil has been documented and is considered a source at the site.

Status (May 1994): A time-critical removal was conducted by EPA from 1989 to the present. The removal consisted of characterizing and disposing of chemicals; excavating and disposing of soil; decontaminating buildings; and assessing and treating ground water contamination. EPA constructed an interceptor trench to capture free product contamination from the ground water table. The captured ground water is treated on site prior to discharge. Final cleanup actions will address subsurface soil and ground water contamination.

[The description of the site (release) is based on information available at the time the site was scored. 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.]

Superfund hazardous waste site listed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended





CHEVRON CHEMICAL CO. (ORTHO DIVISION)
Orlando, Florida

Conditions at Proposal (January 18, 1994): The Chevron Chemical Co. Inc. (Ortho Division) site is located in Orlando, Orange County, Florida. The site covers approximately 4.39 acres in an industrial area at 3100 Orange Blossom Trail. As a result of an EPA removal action, all concrete, buildings, and the water tower have been removed.

The Chevron Chemical Co. operated a chemical blending facility for pesticides and other crop sprays between 1950 and 1976. The facility formulated a variety of liquid and powdered pesticides, citric sprays, and nutritional sprays. Chemicals used in pesticide formulation included xylene, kerosene, mineral oil, and aromatic naphtha. A few of the pesticides formulated in large volumes consisted of chlordane, lindane, dieldrin, and aldrin.

Prior to 1970, two unlined rinsate ponds onsite were used for the collection and disposal of pesticide formulating rinse water, barrel rinse water, and storm water. After 1970, the pesticide formulating rinsate was collected and disposed of offsite at an unknown location.

Chevron Chemical ceased operations in 1976. The remaining inventories were removed from the site and the rinsate ponds were backfilled with soil prior to the sale of the property in 1978 to Robert R. Uttal. Mr. Uttal removed the pesticide formulating equipment and remaining drums, and washed the building interior with rinse water. The rinse water was not collected.

Mr. Uttal owned and operated the Central Florida Mack Trucks Service Center at the site from 1978 to 1986. Operations consisted of overhauling truck engines, starters, generators and front/rear ends. In March 1984, a tanker truck filled with 3 percent hydrochloric acid and an unknown amount of nitric acid apparently leaked in the vicinity of the former western rinsate pond, resulting in an explosion. Facility management excavated the contaminated soil and disposed of it in a secured landfill. The excavation was backfilled with clean fill.

In May 1989, the EPA conducted a Screening Site Inspection at the site. Soil samples indicated the presence of pesticides, benzene, toluene, xylene, chlordane, naphthalene, and metals. Ground water samples contained metals, benzene, toluene, xylene, pesticides, trichlorethylene, and chlorobenzene.

In September 1990, Chevron Chemical conducted a Contamination Assessment. Soil samples contained chlordane, xylene, dieldrin, aldrin, endrin, heptachlor, ethion, and arsenic. Ground water samples indicated the presence of benzene, toluene, xylene, chlorobenzene, aldrin, dieldrin, and heptachlor.

On May 15, 1990, EPA, Chevron Chemical Co., and Mr. Uttal signed an Administrative Order on Consent for the performance of a removal action at the site. Chevron Chemical submitted a Removal Action Plan that incorporated soil removal, site dewatering, water treatment, and disposal of treated water to an infiltration gallery onsite. The plan was approved by EPA; Chevron Chemical has completed the removal action. The order did not address ground water contamination.

On January 25, 1993, EPA and Chevron entered into an Administrative Order on Consent for Chevron to conduct and implement a remedial investigation and feasibility study (RI/FS) at the site.

Status (May 1994): Preliminary results of the RI showed an elevated level of chlordane, which is believed to have migrated via drainage from the site to the neighboring trailer park. In March 1994, Chevron removed soils from the trailer park.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



FORT RICHARDSON (USARMY) Anchorage, Alaska

Conditions at Proposal (June 23, 1993): Fort Richardson occupies a 61,900 acre area located within the municipality of Anchorage in south-central Alaska. The installation is bounded by the city of Anchorage and Elmendorf Air Force Base to the west and by Eagle Bay and the Knik Arm of Cook Inlet to the north. Fort Richardson's southern and eastern boundaries consist of undeveloped lands and Chugach State Park.

Three sources of contamination were identified by the Army but do not represent all known or suspected sources of contamination at the Fort Richardson installation. These sources are the Eagle River Flats (ERF) ordnance impact area, the Poleline Road Disposal Area (PRDA), and the Roosevelt Road Transmitter Site (RRTS).

ERF is located in wetlands associated with the Eagle River delta in the northwestern corner of the installation. ERF has served as the primary ordnance impact area for Fort Richardson since World War II. The ordnance testing area encompasses 2,500 acres of wetlands, which serves as an important habitat for waterfowl such as ducks, geese, and swans during spring and fall migrations. Sediment and surface water samples collected from ERF in August and October 1989 and in 1991 revealed elevated levels of heavy metals, explosive compounds, and white phosphorous. Copper, cadmium, nickel, zinc, and mercury concentrations in surface water wetland samples exceeded the Ambient Water Quality Criteria.

PRDA is located approximately 1.1 miles southwest of the Eagle River. PRDA was identified by a former soldier who stated that hazardous substances were buried there in the 1950s; a 1954 Army Corps of Engineers map confirmed the existence of this disposal area. In 1990, an expanded site investigation conducted by the Army confirmed the presence of volatile organic compounds (VOCs) in soil and shallow ground water at PRDA.

RRTS consists of a bomb-proof underground bunker and the remnants of support facilities constructed in the 1940s. In May and June 1990, the Army conducted sampling operations as part of a site investigation follow-up. Analytical results from this investigation indicated contamination by PCBs, VOCs, semi-volatile organic compounds, dioxins, asbestos, and inorganic elements throughout RRTS.

The Eagle River is used for recreational fishing and supports a wide variety of game fish including king, silver, red, pink, and chum salmon; dolly varden; arctic char; rainbow trout; grayling; and whitefish. The river maintains spawning runs of chinook, coho, and pink salmon. Stickleback inhabit salt marshes along the Knik Arm and are common within the shallow ponds and some impact craters within ERF. The American peregrine falcon, a federally-designated endangered species, and the federally-designated threatened arctic peregrine falcon, migrate through the area.

Status (May 1994): EPA, the Army, and the Alaska Department of Conservation are completing a Federal Facility Agreement (FFA), which is expected to be signed by early summer. The FFA will address the cleanup of this site:

[The description of the site (release) is based on information available at the time the site was scored. 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.]





**FRONTIER FERTILIZER
Davis, California**

Conditions at Proposal (January 18, 1994): Frontier Fertilizer is a 13-acre site located near the eastern boundary of the City of Davis in Yolo County, California. The site is north of Interstate 80, on the corner of Road 32A and Mace Boulevard. Since World War II, the facility has been used for various agricultural activities. The Barber and Rowland Co. operated a pesticide and fertilizer distribution facility on the site from 1972 to 1982. The Frontier Fertilizer Co. used the site from 1982 to 1987. Operations consisted of delivering pesticides, herbicides, and non-bulk chemicals in cans, drums, and other containers. Currently, the site is used as a maintenance yard for agricultural equipment.

Both the Barber and Rowland and Frontier Fertilizer companies used a former disposal basin, approximately 4,000 cubic feet in volume, to dispose of unused pesticides and fertilizers. Returned tanks and containers were washed and the rinsate was dumped into the disposal basin or onto the ground. In 1985, approximately 1,100 cubic yards of contaminated soil were excavated by Frontier Fertilizer from the former disposal basin and land farmed on a field east of the site.

Surface and subsurface soils in the area of the former disposal basin are contaminated with 1,2-dibromoethane (EDB), 1,2-dichloropropane (1,2-DCP), 1,2-dibromo-3-chloropropane (DBCP), Disyston (disulfoton), ethyl parathion, Treflan, and Eptam. EDB, 1,2-DCP, and DBCP were also found in ground water samples collected from onsite and offsite monitoring wells.

Other contaminants that were detected in ground water samples but have not been attributed to the former disposal basin include benzene, carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,2-dichloroethane, 1,3-dichloropropene, p-isopropyltoluene, methylene chloride, naphthalene, toluene, 1,1,1-trichloroethane, trichloroethylene, 1,2,3-trichloropropane, and xylenes. These contaminants may be from other potential sources at the site such as underground storage tanks, waste oil storage tanks, northern fuel area, railroad hopper cars, washracks, grain storage building, east and west pole barns, central machine shop, eastern farm shop, western and central concrete slabs, and tomato grading station.

The Frontier Fertilizer site was never issued a Resource Conservation and Recovery Act (RCRA) permit to treat, store, or dispose of hazardous wastes. The California Department of Toxic Substances Control (DTSC) issued a remedial action order to Frontier Fertilizer in August 1987, and has regulated all site investigations since that time.

Site investigations have characterized the underlying interconnected aquifer as consisting of four water-bearing zones. Sampling of onsite monitoring wells has shown a release of contaminants from the site to the upper three water-bearing zones. The lowest water-bearing zone supplies water to the City of Davis (population 43,168) and the Barthel Mobile Home Park (population 540). Although actual contamination has not been documented in any of the drinking water wells, the potential for ground water contamination at the Frontier Fertilizer site remains.

In March and April 1993, EPA's Emergency Response Team collected and analyzed soil samples in areas of known or suspected contamination. The levels of contamination found did not trigger the need to perform a time-critical removal action.

Status (May 1994): The most recent round of quarterly ground water sampling was completed in March 1994. The remedial investigation/feasibility study for soil and ground water is being developed.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



GCL TIE AND TREATING INC.
Village of Sidney, New York

Conditions at Proposal (January 18, 1994): The GCL Tie and Treating Inc. (GCL) site is a 26-acre inactive mill and wood treating plant located on Delaware Avenue, in the Village of Sidney, Delaware County, New York. The site is bordered by Delaware Avenue to the south, property owned by Homer Howe to the west, Railcon Inc. to the north, and Unadilla Silo and VanCott Development Inc. to the east. An easement for the Delaware and Hudson Railroad traverses the northern most part of the property. Land use around the site is primarily industrial and commercial; residential areas are located within 1 mile. GCL is situated within 1 mile of the southern bank of the Susquehanna River. The site eventually drains by overland flow to the Susquehanna by way of an onsite wetland which discharges to an unnamed tributary of the river. The Susquehanna River is a documented fishery and is also used for recreational purposes. The river is not used for drinking water in the vicinity of the site.

The GCL property has been used as a railroad tie manufacturing and treating plant since the 1940s. Logs were brought to the site for cutting and pressure-treating with creosote. The property was purchased in 1979 by Railcon Materials Inc. and Railcon Wood Products Inc. In 1983, Railcon formed the corporation called GCL Tie and Treating Inc. GCL ran the facility until 1987, when they filed for bankruptcy and Railcon regained control of the operation. Railcon sold all the inventory and equipment and abandoned the site. The site has remained inactive and current ownership is being investigated. Both EPA and the New York State Department of Environmental Conservation initiated criminal investigations at the site for environmental violations under the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, and the Clean Water Act.

Several potential waste sources including areas of contaminated soil and tanks containing creosote are located on the site. A creosote spill occurred in November 1986 when a pressure tank malfunctioned, resulting in an approximate 1,500 gallon spill of creosote to the surrounding soil. This soil was excavated by GCL and placed in a soil mound near the main building where it is still located. Former GCL employees submitted affidavits stating that it was standard operating procedure to dispose of creosote-contaminated material in wetlands adjacent to the site. At various times, unspecified quantities of creosote-contaminated material previously added to the soil mound were removed and deposited in the wetland area.

In October 1990, the EPA collected samples from the various potential waste sources on the site including areas of contaminated soil, a debris pile, and aboveground storage tanks. A sample of creosote was also obtained from GCL's supplier of the material, which was used as a chemical fingerprint to match the creosote constituents used by GCL against those found in the various chemically analyzed samples. The proportionality of the constituents was very similar between the sample from the supplier, and the creosote constituents chemically identified to date in various environmental samples.

Status (May 1994): Several removal activities have been performed, including completing a preliminary removal assessment, delineating surface contamination, installing a chain link fence, stabilizing the site, and identifying and disposing of containerized and uncontainerized hazardous waste. In addition, a composting treatability study for soil was completed. A remedial investigation/feasibility study is underway, which will evaluate broader site related threats to human health and the environment, as well as propose long-term response alternatives to clean up the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



HANSCOM FIELD/HANSCOM AIR FORCE BASE Bedford, Massachusetts

Conditions at Proposal (May 10, 1993): Hanscom Air Force Base occupies approximately 1,120 acres in the towns of Bedford, Concord, Lexington, and Lincoln in Middlesex County, Massachusetts. The facility is located in a light industrial area of eastern Massachusetts. A public airfield was constructed at this location in 1941 and military operations began in 1942. In 1952, the Commonwealth ceded 396 acres of land and leased 641 acres to the Air Force; 83 acres were retained by the Commonwealth. After military flying activities ceased in 1973, the Commonwealth regained control of the leased portion of the base. The airfield and the surrounding land were given to the Massachusetts Port Authority (Massport), which operates a civilian airport as L.G. Hanscom Field. The Air Force still occupies the 396 acres ceded to it in 1952 and operates the Electronic Systems Division of the Air Force Systems Command as Hanscom Air Force Base. The entire original 1,120-acre area is considered a Federal facility.

During the 32 years that the Air Force occupied the airfield, numerous hazardous substances were used, generated, and disposed of on what is now Massport property and on the Airbase. These substances included chlorinated solvents, gasoline and jet fuel, aromatic solvents, tetraethyllead, and PCBs. A total of 14 possible source areas have been identified to date. Among them are: two former fire training areas, a paint waste disposal area, a jet fuel residue/tank sludge area, two landfills, a former industrial waste water treatment system, a former filter bed area, an elemental mercury spill, and a PCB transformer storage area.

Bedford draws its drinking water from ground water beneath the base. Three of the Town's wells were closed in 1984, when they were found to be contaminated with volatile organic compounds (VOCs). In addition, two wells for the Veterans Administration Hospital in Bedford were closed in 1980, when VOCs were detected in the well water. In 1991, the Town of Bedford conducted a remedial investigation at the base. Ground water and surface water samples contained VOCs and it was concluded that the base was a likely source of the contamination in the Town water supply.

Numerous remedial activities have taken place on both the Air Force and Massport properties to address areas of contamination. Drums have been removed at both the Paint Waste Disposal Area and the Jet Fuel Residue/Tank Sludge Area. Contaminated soils have been removed and placed in a secured landfill. A ground water remediation system has been constructed to remove VOC contamination from the ground water beneath the base.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



JACKSON PARK HOUSING COMPLEX (USNAVY) Kitsap County, Washington

Conditions at Proposal (June 23, 1993): The Jackson Park Housing Complex (JPHC) is located east of Highway 3, approximately 2 miles northwest of Bremerton, Washington. The area west of Highway 3 includes a golf course, an urban area, and an undeveloped wooded area. A wooded park and urban area are located south of Highway 3. JPHC occupies approximately 300 acres of land that includes housing for approximately 3,000 military personnel, recreational areas, undeveloped areas, a hospital, and community services buildings.

The facility was operated as a Naval ammunition depot from 1904 to 1959. From 1910 to 1959, unused ordnance was disposed of by open burning along the shoreline. From 1918 to 1959, during low tides, various marker dyes and smoke candles were placed on the beach and ignited, where they continued to burn until the tide rose and extinguished the fires. Residual ordnance powders from loading operations were disposed of by open burning along the waterfront or at a fill area at the south end of the site. During ordnance handling and loading operations, potentially hazardous dust and powder were deposited on the floor and washed into floor drains emptying into Ostrich Bay. Waste acid and caustics from case cleaning operations were also flushed down floor drains. Waste water that contained elevated levels of explosives from demilitarization operations went down the nearest drain. Since many types of casings and projectiles that were cleaned and repaired were made of brass and bronze alloys, heavy metals such as copper, zinc, tin, and other metals were dissolved into acid and base solutions and drained into the bay. In 1959, ordnance and industrial operations were relocated to SUBASE Bangor. Between 1973 and 1975, nearly all ammunition buildings were demolished and the current facility was constructed. Industrial activities at JPHC included ordnance storage, loading, testing, burning, and disposal; case and projectile cleaning; tank and powder can repair; bag dyeing; fuse operations; demilitarization; and pier operations. In addition, the site contained incinerators; paint, locomotive, battery, industrial, and machine shops; and a boiler plant.

According to several people, Ostrich Bay occasionally became a yellow color due to discharges emanating from the ordnance facility. The yellow color was a result of waste water containing ammonium picrate (an explosive) or dyes. During decontamination and demolition operations in 1974 and 1975, ammonium picrate was found in storm drains leaving abandoned buildings that had formerly housed ordnance operations.

From 1918 to 1959, untreated sewage and waste water from ordnance and other activities were discharged directly into Ostrich Bay outfalls located along the waterfront. The Navy sampled the outfalls in 1991 and confirmed the presence of arsenic; cadmium; chromium; copper; lead; nickel; zinc; 2,4,6-trinitrotoluene; 2,6-dinitrotoluene; 1,3,5-trinitrobenzene; and 1,3-dinitrobenzene.

In 1991 and 1992, soil, sediment, and fish samples were collected as part of two environmental investigations conducted by the Navy. Analytical results from these investigations show that there is extensive surface soil contamination at the site. Hazardous substances were also detected in sediment and fish samples collected from the bay and can be attributed to the waste water outfalls. The Navy has closed the beaches at the site to shell fishing.

Ostrich Bay has been identified by EPA as a special area requiring protection under the National Estuary Program. The bay is used for both recreational and commercial fishing, and extensive wetland habitats exist adjacent to the site. EPA, the Navy, and the Washington Department of Ecology are negotiating an interagency agreement to address the contamination at the site.

Status (May 1994): Two interim actions have been initiated at the site. The first took place at an area known as Site 101 (near Root Court). Fuel oil was stored in a 100,000 gallon tank near the beach area and a pipeline from the tank to the beach area was leaking onto the beach. The tank and pipeline were mostly removed, the contamination cleaned up, and the area restored. The second action consisted of other underground storage tanks that were removed and the area also being restored.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



**LABORATORY FOR ENERGY-RELATED HEALTH RESEARCH/
OLD CAMPUS LANDFILL (USDOE)
Davis, California**

Conditions at Proposal (January 18, 1994): The Old Campus Landfill site is a Federal Facility that was leased by the U.S. Department of Energy as the Laboratory for Energy-Related Health Research (LEHR). The site occupies approximately 15 acres on Old Davis Road, Davis, Solano County, California. The Old Campus Landfill is situated on the Putah Plain adjacent to Putah Creek. The site is surrounded by agricultural land to the south, east, and west. The University of California-Davis (UC-Davis) campus and the City of Davis are north of the site.

LEHR engaged in studies on the biological effects of bone seeking radionuclides (strontium-90 and radium-226) in lab animals (beagles) from 1960 to 1989. During the 29 years of operations, LEHR generated and disposed of radioactive, biologic, and chemical wastes, as well as municipal and lab wastes. Dogs were buried onsite in the early years. Later the dog carcasses were shipped to Hanford for disposal. Approximately 35,000 gallons of sludge, effluent (dog feces) contaminated with strontium-90 was disposed of in underground concrete banks. The site was also used by the university as a landfill area for residential and laboratory waste disposal from the late 1940s to 1967. The site contains radioactive waste disposal areas for waste generated from campus and LEHR activities. Records indicate that radioactive wastes with long half lives were buried onsite in trenches and holes. Two separate special liquid radioactive waste treatment and discharge systems were in operation at LEHR: the systems discharged radionuclides to leach fields onsite.

Quarterly sampling by DOE has revealed elevated concentrations of chloroform, carbon-14, and tritium in five of 23 monitoring wells. There are 19 municipal wells within 4 miles of the site serving approximately 47,500 people.

The nearest resident is approximately 0.5 miles from the site and the estimated population within 4 miles is 41,789.

The LEHR facility is listed in the Resource Conservation and Recovery Act (RCRA) database as a large quantity generator.

Status (May 1994): By summer 1994, plans will be in place to decommission two onsite animal labs, demolish two buildings, and excavate and remove a disposal tank. The remedial investigation/feasibility study is currently being developed.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



— **LANGLEY AIR FORCE BASE/NASA LANGLEY RESEARCH CENTER**
Hampton, Virginia

Conditions at Proposal (May 10, 1993): The Langley Air Force Base (LAFB)/NASA Langley Research Center (NASA Langley) site consists of two adjacent Federal facilities located in Hampton, Virginia, on a peninsula separating the Northwest and Southwest branches of the Back River. The Back River supports commercial and recreational crab, oyster, quahog, and fin fishing. The Back River's two branches form a tidal estuary that empties into the Chesapeake Bay.

LAFB is a 3,152-acre site with more than 10,000 employees. NASA Langley covers 787 acres and employs an additional 5,000 government and contract workers. Residential, rural, and intertidal wetlands surround the facilities. Wetlands in the Plum Tree Island National Wildlife Refuge are located northeast of the site.

LAFB has been an airfield and aeronautical research center since 1917 and is the home base for the First Tactical Fighter Wing. NASA Langley is a research facility that conducts 270 operations in 191 buildings and operates 40 wind tunnels. Wastes generated at LAFB and NASA Langley include waste oils, solvents, paint wastes, pesticide containers and rinse waters, photographic wastes, scrap materials, used batteries, and printed circuit board plating wastes. PCBs and polychlorinated terphenyls (PCTs) were used in hydraulic systems, electrical equipment, compressors, and casting operations.

Previous studies conducted at the two facilities identified over 30 possible sources of contamination. Initially, four sources were evaluated in detail.

Landfills 10, 11, and 12, located in the northern part of the site were used from approximately 1950 until 1980. Wastes known or suspected to have been disposed of at this source included waste solvents and paints, used batteries, scrap metal, pesticides, municipal wastes, general chemicals, sanitary refuse, photofinishing wastes, and hospital and lab wastes. Analytical data revealed lead, cadmium, silver, and phenols in ground water. Available information indicates that this area had been predominantly wetlands.

Sediment and biota in the Back River and Tabbs Creek (a tributary of the northwest branch of the Back River) are contaminated extensively with PCBs and PCTs. Tabbs Creek, in which highest levels of contamination were found, is inaccessible to the public for security reasons and has been posted as a "no fishing" area because of coliform contamination.

Storm sewers, sumps, and three drainage systems also are being evaluated (Sources Nos. 11, 12, and 30). Releases have been observed below the storm sewer outfalls. The storm sewers are subject to storm and tidal influences. Electrical equipment containing PCBs and lubricating oils, hydraulic fluids, mercury, and pesticides have been released on the site.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



LOWER ECORSE CREEK DUMP Wyandotte, Michigan

Conditions at Proposal (January 18, 1994): The Lower Ecorse Creek Dump site is located in Wyandotte, Wayne County, Michigan. The site consists of the residence at 470 North Drive and three neighboring parcels of land. The site occupies a level area with the back of the lots abutting the Ecorse River. During the period between 1945 and 1955, and prior to the house at 470 North Drive being built, the low lying swampy area of the creek was filled with material from local industries. Some of the fill material contained what has been confirmed as ferric ferrocyanide, commonly referred to as "Prussian Blue". The blue soil was also found across the street at 471 North Drive, approximately two feet below the surface and the owner of the residence at 469 North Drive also reported that he found the blue soil in his yard. In addition, there are two vacant lots east of 470 North Drive where Prussian Blue is exposed. Neighborhood children have used portions of these lots as a go-cart track and wearing of the topsoil by the go-carts has exposed the Prussian Blue.

The EPA was contacted by the Wayne County Health Department on October 25, 1989. EPA tasked its Technical Assistance Team (TAT) on October 27, 1989, to conduct a site investigation and sampling. Sampling results were provided to ATSDR for review and assessment. ATSDR's review on November 22, 1989, concluded that "The levels of cyanide found in the soil do present an urgent public health threat. Steps to eliminate any direct contact with the contaminated soil need to be taken immediately."

Following ATSDR's determination that the presence of cyanide-contaminated wastes in an unrestricted residential area presented an immediate and significant public health threat, EPA's Emergency Response Branch initiated removal activities. On December 4, 1989, work commenced to cover the contaminated areas with six inches of clean topsoil and fill in areas of the driveway and sidewalk which had been previously excavated by the property owner. This action eliminated physical contact with Prussian Blue and related cyanide compounds which had spread throughout the area. The initial action was completed in the summer of 1990 with the establishment of a vegetative cover.

The Final ATSDR Health Advisory which was released on August 13, 1993, recommended the following actions: 1) immediately dissociate the affected residents from cyanide contamination, which is at levels of health concern in residential subsurface soils; 2) implement permanent measures to remediate the contamination as appropriate; and 3) consider including the Lower Ecorse Creek Dump site on the EPA National Priorities List or, using other statutory or regulatory authorities as appropriate, take other steps to characterize the site and take necessary action. Such activities are better addressed under remedial authorities than removal considering the costs and time involved in an extensive groundwater study and potential groundwater remediation.

Additional recommendations by ATSDR include conducting a door-to-door well survey and well sampling to determine the extent and level of any groundwater contamination. ATSDR also suggests restricting digging into contaminated subsurface soil to prevent human contact with contaminated soils and released cyanide gas.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the ATSDR Health Advisory was issued. 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.]



MARINE CORPS COMBAT DEVELOPMENT COMMAND Quantico, Virginia

Conditions at Proposal (May 10, 1993): The Marine Corps Combat Development Command (MCCDC) is located in Quantico, Virginia, 35 miles south of Washington, D.C., along the Potomac River. The MCCDC covers approximately 56,000 acres in southern Prince William County, northern Stafford County, and eastern Fauquier County. MCCDC is bordered by Prince William Forest Park to the north and the Potomac River to the east. Residential areas are located on the western and southern portions of the base.

Operations at MCCDC began in 1917 when 5,300 acres of land adjacent to the Potomac River near Quantico were leased by the Department of Defense in order to establish a new marine training camp. In April 1943, 50,985 acres of land west of Route 1 was obtained to accommodate increased training activities. Currently the emphasis at the Command is to prepare Marine Corps officers for general combat by providing varied background in tactical operations and performing research and development of Marine Corps equipment.

Studies conducted by the Navy in 1988 identified five areas of potential contamination. The three described below were initially evaluated in detail.

The Old Landfill was the primary base landfill from the 1920s to 1971. It covers 8 acres along the west bank of the Potomac River. The northern portion of the landfill, known as the Defense Reutilization Marketing Office storage yard, was used for the draining and storage of electrical transformers. Extensive PCB contamination has been identified in soils, ground water, and Potomac River sediments.

The Recently Closed Landfill is a 28-acre landfill that operated from 1971 to 1983. Wastes disposed of from base activities included waste paints and solvents. Landfill leachate was observed leaking from the southern portion of the landfill. Shallow ground water and leachate samples were found to contain various organic compounds.

The Old Batch Plant is an area 30 feet by 50 feet that was used for the storage of electrical transformers in the 1970s. The majority of the area is paved, but covered with varying amounts of soil. Soils are contaminated with PCBs. Surface water runoff drains into the Potomac River.

Another source that has been identified is the Pesticide Burial Area, where pesticides were dumped into a pit 16 feet in diameter by 8 feet deep. Pesticide contamination was detected, but not quantified, and arsenic contamination was detected in one soil boring. In addition, the Arsenic Burial Area was used for a one-time disposal of 27 drums containing the product "arsenic of lead", apparently used for weed control.

Status (May 1994): Nine areas were identified by the Navy Installation Restoration Program as requiring additional investigation, including: Aero Club, Arsenic Burial Area, Brown Field, Former Rifle Range, Fire Training Area, Old Batch Plant, Old Landfill, Pesticide Burial Area, and Recently Closed Landfill. Brown Field, however, will be remediated under the Virginia Underground Storage Tank Program because the contamination in this area consists entirely of petroleum related products. Because no contamination was found at the Arsenic Burial Area, the installation has recommended no further investigation, but ground water monitoring will continue for five years. The Virginia Department of Environmental Quality will be reviewing the Closure Plans and Site Monitoring Plan for the Recently Closed Landfill.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



MATERIALS TECHNOLOGY LABORATORY (USARMY) Watertown, Massachusetts

Conditions at Proposal (June 23, 1993): The U.S. Army Materials Technology Laboratory (MTL), commonly known as the Watertown Arsenal, occupies 47.5 acres on Arsenal Street in Watertown, Massachusetts. MTL is located on the north bank of the Charles River and encompasses 36.5 acres approximately 5 miles west of Boston. Eleven acres of inactive MTL land situated between North Beacon Street and the Charles River was leased to the Commonwealth of Massachusetts in 1920 and currently contains the North Beacon Street Park and the Watertown Yacht Club.

The facility was originally established as the Watertown Arsenal in 1816. The facility continued to expand and occupied 131 acres and employed 10,000 people at the end of World War II. The site was used for small arms maintenance and ordnance supplies; ammunition and pyrotechnics production; paint, lubricant, and cartridge testing and experimentation; manufacture of guns and cartridges; and development of advanced metallurgical processes used in the casting, welding, and machining of artillery pieces. A research nuclear reactor was used for molecular and atomic structure research activities from 1960 to 1970. Although the reactor was deactivated in 1970, it is currently being decommissioned under the jurisdiction of the Nuclear Regulatory Commission. In 1968, approximately 55 acres were sold to the Town of Watertown. Of the 47.5 acres retained by the Army, 36.5 acres became the Army Materials and Mechanical Research Center (AMMRC). In 1985, AMMRC became MTL. The current mission of MTL includes testing material; developing weapons, ammunition, and lightweight armor; and manufacturing testing technology.

In October 1988, Congress recommended the closure of the facility. The U.S. Army Toxic and Hazardous Materials Agency (THAMA) had already initiated the first stage of the closure plan, the preliminary assessment/site inspection, which was conducted in 1987. The Army also conducted a soil, sediment, and ground water sampling program in 1988, from which a remedial investigation (RI) report was produced. The data obtained from this sampling could not be verified or validated by the Army. Subsequently, the Army completed a Draft Phase 1 Remedial Investigation Report in April 1991 and a Phase 2 report in October 1992.

Sampling during these investigations indicated contamination of ground water, soil, surface water, and sediments at MTL. Contaminants detected above background concentrations at the site include volatile and semi-volatile organic compounds, PCBs, pesticides, inorganic elements, and radioactive substances. PCBs were detected on the property on the surface of electrical transformers and in the surrounding soil. Samples collected from onsite storm drains indicate the presence of several organic compounds and inorganic contaminants related to site activities. However, there are other potential sources of contamination from nearby industrial activity.

The only known drinking water well within 4 miles of the site not separated by the Northern Boundary Fault, is a private well 2.5 miles northwest of the property. Municipal drinking water within 4 miles of the site is supplied by surface water sources located to the west of MTL, and are unaffected by the site. The Charles River is used for recreational boating, swimming, and fishing.

The active portion of MTL is completely fenced and public access is restricted 24-hours by a guarded gate. Eight people occupy housing located on the property. Approximately 600 people are currently employed at MTL.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



MCCORMICK & BAXTER CREOSOTING CO. (PORTLAND)
Portland, Oregon

Conditions at Proposal (June 23, 1993): The McCormick & Baxter Creosoting Company site covers approximately 58 acres and is located at 6900 Edgewater Street, approximately 4 miles south of the city of Portland, Oregon. McCormick & Baxter is situated on the east bank of the Willamette River in an area zoned for heavy industrial use. The site is bordered by railroad tracks on the northeast and northwest, a barge maintenance and dredging facility on the southeast, and an empty lot where a shipyard and cooperage was once located on the northwest. A residential area is located on the northeast side of the site on top of a bluff approximately 120 feet high.

McCormick & Baxter was founded in 1944 to produce treated wood products during World War II. Wood treating products used at the site include creosote/diesel oil mixtures, pentachlorophenol/diesel oil mixtures, and a variety of water- and ammonia-based solutions containing arsenic, chromium, copper, and zinc. Between 1945 and 1969, waste water and non-contact cooling water were discharged directly into the Willamette River via storm water outfalls. Prior to 1971, boiler water, storm water, and oily wastes were disposed of in the former waste disposal area located in the western portion of the site. McCormick & Baxter operated an aboveground tank farm at the facility consisting of six tanks ranging in size from 70,000 gallons to 173,000 gallons. These tanks held mixtures consisting of creosote, pentachlorophenol, oil, and oily-waste water. In addition to the tank farm, McCormick & Baxter used a 750,000-gallon creosote tank. McCormick & Baxter filed for Chapter 11 bankruptcy in 1988. In 1989, with certain remedial measures only partially completed, responsibility for the site investigation and cleanup was transferred to the Oregon Department of Environmental Quality (ORDEQ). McCormick & Baxter's lending institution took control of their accounts in 1991 and the facility ceased operations.

During an investigation conducted by ORDEQ in 1990, heavy metals, polycyclic aromatic hydrocarbons, and pentachlorophenol were detected at elevated levels in soils, sediments, and water at the facility. Soils beneath the site are contaminated from the ground surface to as deep as 80 feet in some areas. The soil contamination has migrated to sediments in the Willamette River. Sediments near the site are contaminated to depths of up to 35 feet below the sediment surface.

The Willamette River is used for recreational activities downstream of the McCormick & Baxter site. ORDEQ and the Oregon Department of Fish and Wildlife have posted warning signs to alert people of the potential long-term hazards associated with the site. The site is also fenced to restrict public access. EPA and ORDEQ are also investigating various cleanup alternatives appropriate for the site.

Status (May 1994): ORDEQ is currently performing interim cleanup measures at the site, including pumping creosote from 20 extraction wells; removing sludges from storage tanks; demolishing storage tanks, retorts, and process equipment; removing chemical sludges from surface soils; managing storm water runoff; and installing interceptor trenches near the Willamette River.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



— NATICK LABORATORY ARMY RESEARCH, DEVELOPMENT, AND
ENGINEERING CENTER
Natick, Massachusetts

Conditions at Proposal (May 10, 1993): The U.S. Army Research, Development and Engineering Center, commonly known as the Natick Laboratory, is located on Kansas Street in Natick, Middlesex County, Massachusetts. The Natick Laboratory occupies a peninsula on the eastern shore of Lake Cochituate and is bordered to the north by a residential zone. The Natick Laboratory facility is located on 74 acres that was purchased by the Army in 1949 from the Metropolitan District Commission. The property was primarily used as a forested recreational area but also included a gravel pit in the section known as the Building T-25 Area. The Army completed the construction of the Natick Laboratory in 1954; since then, several industrial, laboratory, and storage activities have taken place on the grounds for research and development in food science, aero-mechanical, clothing, material, and equipment engineering.

In its operations, the Army used various substances including tetrachloroethene, trichloroethene, carbon disulfide, benzene, chloroform, tetraethyllead, acetone and other volatile organic compounds (VOCs), "standard laboratory chemicals," mineral spirits/turpentine, paints, inks, lubricants, gasoline, several pesticides, and metal dusts.

Two sources of hazardous substances have been identified onsite. The Building T-25 Area was identified as potentially contaminated around 1989, when personnel at the facility noticed a sheen on the runoff water generated during rain storms. In 1989, construction work was halted in the Gymnasium Area when construction workers noticed a benzene-like odor in soil from a boring that was drilled.

In 1989, the Army conducted soil gas surveys in the Building T-25 and Gymnasium Areas and detected several VOCs. Soil, ground water, and surface water samples contained elevated concentrations of 1,2-dichloroethene, benzene, carbon disulfide, bis (2-ethylhexyl) phthalate, chlorobenzene, ethylbenzene, xylenes, Freon 113, naphthalene and 1,2,4-trichlorobenzene.

Other potential sources of chlorinated organic compounds have been identified near Natick Laboratory. Petroleum, organic compounds, and chlorinated solvents have been released into soil and ground water at a property previously occupied by a laundromat, approximately 3,600 feet southeast of the laboratory well field across Lake Cochituate. An "old laundromat" is also reported to exist approximately 2,670 feet east-southeast of the Springvale well field. Certain establishments located on Routes 9, 27, and 30, and some automotive garages in the area may also be sources of VOC contamination in the ground water near the Evergreen and Springvale municipal well fields.

Approximately 37,000 people obtain drinking water from wells within 4 miles of the facility.

Status (May 1994): EPA is considering various alternatives for the site.

(The description of the site (release) is based on information available at the time the site was scored. 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.)



NATIONAL SOUTHWIRE ALUMINUM CO.
Hawesville, Kentucky

Conditions at Proposal (July 29, 1991): National Southwire Aluminum (NSA) Co., a division of Southwire of Carrollton, Georgia, began aluminum reduction operations in 1969 on a 1,100-acre site at the intersection of Kentucky Highways 271 and 334 in a rural section of Hancock County near Hawesville, Kentucky. Two clay-lined ponds, each covering 5 to 7 acres, were constructed for disposal of spent pot linings from the aluminum reduction process (North Pond) and calcium fluoride slurry from the air quality control system (North and South Ponds). NSA closed the North Pond and covered it with a synthetic cap and a layer of soil after the Kentucky Division of Waste Management conducted a preliminary assessment in 1986. Currently, the pond is densely vegetated. The South Pond has been filled to capacity, and its use ceased in 1989. A third, synthetically-lined pond, designated as the New Pond, is now used for disposal of the calcium fluoride slurry.

In 1979, NSA determined that leaching was occurring beneath the North Pond. Cyanide, which is produced in the aluminum reduction process and which is present in the potliners, and fluoride were found in ground water in the area of the disposal ponds. In 1985, NSA found cyanide in one of its three production wells. At that time, the wells were providing drinking water to more than 1,000 employees; the wells were subsequently taken out of service. Other wells that draw from the Ohio River alluvial aquifer within 4 miles of NSA currently serve approximately 16,000 people.

In November 1989, EPA detected significant concentrations of cyanide in on-site ground water and sediments in the plant's effluent ditch, which flows along the west border of the plant, alongside the disposal ponds, and into the Ohio River.

NSA currently operates under a permit under the National Pollutant Discharge Elimination System. Since 1987, EPA has cited NSA twice for exceeding permit limits: in August 1987 for exceeding total residual chlorine and in November 1990 for exceeding total recoverable zinc in storm water.

Status (May 1994): Prior to beginning the remedial investigation/feasibility study (RI/FS), NSA and EPA installed numerous wells at the site and generated sufficient data to evaluate the need for an onsite ground water pump and treat system. A review of this data indicated that the system was warranted and would assist EPA in selection of the final site remedy. NSA signed two agreements with EPA to perform the RI/FS and to implement the pump and treat system. The Record of Decision for this system was signed on February 19, 1993 and the system is expected to be in operation at the end of 1994.

Before starting the RI/FS, which is currently underway, NSA identified additional areas of contamination while constructing a cooling tower foundation. PCBs were identified in the excavation and at numerous adjacent locations up to levels of approximately 10,000 parts per million. These areas of contamination along with areas of previously known contamination are being further investigated as part of the RI/FS, which is expected to be completed in early 1995.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



**NAVAL COMPUTER AND TELECOMMUNICATIONS AREA
MASTER STATION EASTERN PACIFIC
Oahu, Hawaii**

Conditions at Proposal (January 18, 1994): The Naval Computer and Telecommunications Area Master Station Eastern Pacific (NCTAMS EASTPAC) site is used for operating and maintaining facilities and equipment for the Navy's Defense Communications System. The NCTAMS EASTPAC site consists of facilities located throughout the Island of Oahu. These include facilities at Wahiawa, Lualualei, Opana, Kokekole Pass, Pearl Harbor, and various satellite telecommunication locations. The Navy's Initial Assessment Study (IAS) identified 14 potential hazardous waste sources at NCTAMS EASTPAC, all located at either Lualualei or Wahiawa. The Lualualei and Wahiawa facilities are approximately 10 miles apart.

The Lualualei facility occupies 1,700 acres in a large coastal valley on the southeastern shore of Oahu. The facility is surrounded by agricultural, urban, and conservation land areas. Eight potential hazardous waste sources were identified at the Lualualei facility during the IAS. The sources include the Old Coral Pit, Antenna 403 Disposal Area, Antenna 441 Disposal Area, Building 65 Disposal Area, Antenna 354 Disposal Area, Two Wells near Building 1, Old NRTF Landfill, and Transformer Locations. All subsequent investigations evaluated the Antenna 354 Disposal Area and Transformer Locations only. Ground water in the area is brackish, and there are no drinking water wells downgradient of the facility. Surface water downstream of the site is not used for drinking water.

The Wahiawa facility occupies 700 acres on the central plateau of Oahu. The northern and eastern borders of the facility lie adjacent to the Ewa Forest Reserve and other conservation land. Adjacent to the southern border of the facility are pineapple fields and conservation land. The town of Whitmore Village borders the facility to the west and the City of Wahiawa lies approximately 1 mile to the southwest.

Polychlorinated biphenyls (PCBs) have been detected in soil surrounding electrical transformers within 200 feet of onbase residences at the Wahiawa facility. Approximately 248 people live in these residences. From 1942 until 1977, a 6-ounce sample of fluid from each transformer was tested quarterly to evaluate insulating properties and was then disposed of on the ground. In June 1988 and March and December 1990, soil sampling conducted around the transformers indicated the presence of PCBs. In July 1990, the Navy set a cleanup goal of 10 ppm in excavating PCB-contaminated soil. Soil removal activities began in November 1990 and were completed in February 1991.

In addition, an inactive landfill (Old Wahiawa Landfill) was used for general disposal of all wastes generated at the site from the 1940s until 1973. Although the majority of the wastes were municipal solid wastes, other materials were disposed of, including waste lube oils, chlorinated and nonchlorinated solvents, transformer oil, hydraulic fluid, paint thinners, trichloroethane, creosote, and mercury.

The southern edge of the Wahiawa facility drains into the North Fork Kaukonahua Stream, which flows into the Wahiawa Reservoir. This joins the Kaukonahua Stream which flows westward, converging with the Poamoho Stream. Most of the facility, however, drains north into the Poamoho Stream which converges with the Kaukonahua Stream approximately 7 miles west of the site, at the Kiikii Stream. The Kiikii Stream flows for approximately 1 mile before emptying into Kaiaka Bay and the Pacific Ocean. Surface water within 15 miles downstream of the Wahiawa facility is not used as a source of drinking water. The Wahiawa Public Fishing Area is located approximately 0.5 southwest of the facility on the North Fork Kaukonahua Stream. Additional fisheries located within 15 miles downstream of the facility include Kaiaka Bay, the Pacific Ocean, and the area at the confluence of Poamoho and Kaukonahua Streams. There are six Federally-designated endangered/threatened species of birds and five Federally-designated/threatened species of turtles associated with surface water within 15 miles of the Wahiawa facility.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. The description may change as additional information is gathered on the sources and extent of contamination. See 56



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NPL

May 1994

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT Bedford, Massachusetts

Conditions at Proposal (June 23, 1993): The Naval Weapons Industrial Reserve Plant (NWIRP) is located on Hartwell Road in Bedford, Middlesex County, Massachusetts. The 46-acre facility is part of a larger industrial complex located immediately north of Hanscom Air Force Base. NWIRP and Raytheon Missile Systems Division (RMSD), which is also located within the industrial complex, are operated by Raytheon Co.

NWIRP was created in 1952 and operations continue at the facility today. NWIRP is used for advanced technology research in weapons systems development; primarily, the design, fabrication, and testing of prototype equipment such as missile guidance and control systems. The Components Laboratory, located on Hartwell's Hill on the north side of Hartwell Road, and the Flight Test Facility, on the lower, south side of Hartwell Road, are the primary operating areas at NWIRP. Approximately 21 other buildings house various support activities related to the work at these two centers.

The Navy has conducted several investigations of the NWIRP facility. An Initial Assessment Study (IAS) was completed by the Department of Defense in April 1986. The IAS identified potential sources and areas of concern at the NWIRP facility. In 1990, the Navy completed the first phase of a remedial investigation (RI) that further evaluated the potential sources of contamination at NWIRP.

NWIRP has generated or stored wastes at numerous locations throughout its operational history. Hazardous waste disposal was accomplished either through direct discharge to the septic system or through barrel storage and offsite disposal. The septic system consisted of onsite leaching fields until 1980, when municipal sewer lines were constructed. Wastes generated at the NWIRP include trichlorethylene, 1,1,1-trichloroethane, methyl ethyl ketone, acetone, toluene, xylene, photographic fixer, waste oil and coolants, lacquer thinner, unspecified solvents and thinners, Stoddard solvent, waste paint, and chromic, sulfuric, nitric, hydrochloric and phosphoric acids.

The Hartwell Road Well Field, part of the municipal water supply for the Town of Bedford, is located less than 0.5 miles northwest of NWIRP. The three wells in this field were closed in 1984 after volatile organic compound contamination was traced to two of the wells. A 1991 RI report prepared by the Town of Bedford concluded that NWIRP was a likely source of the well field contamination. Hanscom AFB is also a potential contributor to the ground water contamination in this area.

Approximately 11,000 people rely on drinking water wells within 4 miles of NWIRP. In addition, approximately 12,800 people receive water from an intake on the Shawsheen River, 7 miles downstream of NWIRP. There are extensive wetlands and several species of rare plants and wildlife along Elm Brook and the Shawsheen River downstream of the NWIRP.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



NAVY SHIPS PARTS CONTROL CENTER Mechanicsburg, Pennsylvania

Conditions at Proposal (January 18, 1994): The Navy Ships Parts Control Center (NSPCC) occupies 824 acres in Mechanicsburg, Cumberland County, Pennsylvania, approximately 7 miles west of Harrisburg. In operation since the 1940s, NSPCC initially provided global management of Navy ship repair parts. Subsequently, NSPCC has undertaken additional inventory management responsibilities, which have included managing conventional ammunition, providing services, and providing maintenance and engineering for the installation. In the early 1950s, NSPCC also became a repository for a variety of imported metal ores. Environmental investigations conducted by the Navy initially identified several potential areas of contamination at NSPCC. In 1989, the Navy performed additional investigations, which included an evaluation of the following five areas of contamination.

Carter Road Landfill was operated from 1950-1962. The 4.5-acre area was used for disposal of construction rubble, medical supplies, and gas mask canisters.

The 1-acre *Building 904 Landfill* was used during the 1950s to dispose construction debris and medical supplies.

Ball Road Landfill and Burn Pits is a 7.5-acre area operated from the mid-1940s until 1977. Originally, it was a quarry in which two large pits were excavated. Wastes, including paints, varnishes, gasoline, oils, medical supplies, paint and solvent containers, asbestos ash, and Stoddard solvent contaminated with PCB, were doused with gasoline and burned on a weekly basis.

Golf Course Landfill was a 4-acre area used during 1945-46. Wastes deposited include medical supplies, gas mask canisters, and all shop wastes--potable alcohol and waste oil, antifreeze, paints, varnishes, and transmission fluids. Occasionally, wastes were burned in the excavated areas. The area is now used as a golf course.

During the 1950s, hazardous wastes were poured directly onto railroad tracks between Buildings 403/404. Among the materials found in the *Buildings 403/404 Solvent Disposal Area* were PCB-contaminated oils, Stoddard solvent, and trichloroethene used to degrease machinery. From 7,000 to 13,000 gallons of contaminants may have been deposited annually.

Navy studies identified numerous hazardous substances in soil at two of the five areas and in ground water at all five areas. Among the substances were arsenic, heavy metals (including mercury, manganese, lead, and cadmium), pesticides (including DDT, DDE, DDD, and chlordane), and polyaromatic hydrocarbons (including benzo (a) pyrene, anthracene, chrysene, and pyrene). An estimated 9,000 people obtain drinking water from public and private wells within 4 miles of the five sources of hazardous substances at NSPCC; the nearest well is at 0.17 mile.

Status (May 1994): Based on data from the site inspection (SI), which was included in the SI report dated October 1990, the Navy recommended that no further action be taken at the Building 904 Landfill. In late 1991, the Navy performed an extended SI (ESI) at the Golf Course Landfill and a phase I remedial investigation (RI) at the Carter Road Landfill, Ball Road Landfill and Burn Pits, and Buildings 403/404 Solvent Disposal Area. Based on the findings of these studies, the Navy recommended that no further action be taken at the Building 403/404 Solvent Disposal Area and the Golf Course Landfill.

The Navy is performing a phase II RI at Carter Road Landfill (baseline risk assessment) and the Ball Road Landfill and Burn Pits (geophysical investigations). Results from these investigations are expected in the summer of 1994. An interim remedial action will also be performed later in 1994 to address volatile organic compounds present in soils at the Burn Pits, which represent a continuing source of contamination to ground water. The Navy is also performing environmental investigations at other sites of potential concern identified within NSPCC. The Navy and EPA have begun discussions for negotiation of a Federal Facility Agreement.

[The description of the site (release) is based on information available at the time the site was scored. 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.]

Superfund hazardous waste site listed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended



Revised



NORTH SANITARY LANDFILL Dayton, Ohio

Conditions at Proposal (June 23, 1993): The North Sanitary Landfill, Inc. (NSL) site is located at 200 Valleycrest Drive in Dayton, Montgomery County, Ohio. The site occupies 101.9 acres, approximately 45.7 of which were used as a landfill. Several industrial facilities, including bulk oil storage terminals, an industrial laundry facility, car crushing facility, a former industrial plating facility, and a demolition debris landfill are located adjacent to the NSL property.

The NSL site, also known as the Valleycrest Landfill, was owned by the Keystone Company, Inc., which operated a sand and gravel mining operation from the 1940s until the 1970s. Between 1966 and 1975, landfill operations at the site were conducted by B.G. Davis Co., Inc., under the name of NSL, Inc. Waste Management, Inc. of North America purchased the B.G. Davis Co. in 1983.

Industrial and municipal wastes from the Dayton area were used at NSL to fill unlined gravel pits that were created by former mining operations. These pits contained water that may have entered the sand and gravel aquifer that the pits intersect. The following wastes were deposited at the NSL site: electrical transformers, burned foundry sand, demolition debris, slag, baghouse dusts, plaster, rubber tires, lampblack, grindings from brake shoes (possibly containing asbestos), waste from a local sewer cleaning company, and drums of chemicals. Lead, mercury, cyanide, and PCBs were detected in wastes disposed of at the site. While operating the landfill, NSL was cited for repeated violations such as inadequately covering wastes, accepting hazardous wastes for which it was not permitted, and accepting burnable wastes (numerous onsite fires have occurred). These citations were issued by State and local health departments.

According to the Miami Conservancy Regional Planning Commission District and the Ohio Environmental Protection Agency, thousands of drums were buried onsite. Drums filled with used oil and liquid chemicals were emptied directly onto the ground or into the unlined gravel pits. Many of the drums contained waste paint or other volatile organic wastes. In March 1985, leachate was observed flowing down hillsides and forming ponds in low areas onsite.

A series of EPA inspections began at the NSL site in February 1986. These inspections included a geophysical survey of the eastern portion of the site and the installation of 21 monitoring wells in the sand and gravel aquifer beneath the landfill. This aquifer provides drinking water to 487,000 people. Chemical analysis of ground water samples and subsurface soil samples collected by EPA in June 1991, revealed elevated levels of volatile organic compounds, heavy metals, and PCBs. Several residential drinking water wells in the area are contaminated with various organic compounds. Affected residents have been connected to the Dayton municipal water supply.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



OLD NAVY DUMP/MANCHESTER LABORATORY (USEPA/NOAA)
Kitsap County, WA

Conditions at Proposal (January 18, 1994): Manchester Laboratory is located along the western shore of Clam Bay, which is an embayment off the west side of Rich Passage in Puget Sound. The site is approximately 1 1/4 miles north of Manchester, Washington. Federal ownership of this site started with the U.S. Army in 1898. In 1924, the entire area was transferred to the U.S. Navy. Between 1941 and 1944, a submarine net depot and an open storage area were established on what is now EPA's property. In the early 1970s, EPA and NOAA acquired a portion of the former Navy property.

Available records are somewhat unclear, but it appears that the Navy started disposing of scrap metal from onsite submarine net construction in the dump site in the 1950s. By 1957, a dike was constructed across a shoreline area on the west side of Clam Bay. Scrap metal from nearby submarine net construction and the Navy's Bremerton Shipyard were reportedly placed in the dump site. The entire contents of the dump site, however, are undocumented. A burn pit was also constructed in the 1950s on the east side of the dump site and appears to have been used into the early 1960s. Materials allegedly burned in the pit include wastes from an onsite dispensary and waste paper products. PCB contaminated oil in underground storage tanks may have been dumped and subsequently burned in fire fighting activities.

As the current owner of part of the former Navy property, EPA has conducted the Preliminary Assessment and Site Inspections required under section 120 of CERCLA, as amended, which established the Federal Facility Hazardous Waste Compliance Docket. The most recent inspection, conducted by EPA in May, 1992, documented heavy metals, mercury, asbestos, and PCBs in the old navy dump. Runoff water from the dump contains copper and zinc in excess of Ambient Water Quality Criteria established under the Clean Water Act. Offshore sediments contain elevated levels of metals, mercury, and PCBs. NOAA has also completed a Preliminary Assessment for their portion of the former Navy property.

Clam Bay is used primarily for recreational shellfishing and is also known to be used by the bald eagle, a Federally threatened species designated under the Endangered Species Act.

Status (May 1994): EPA and the State will negotiate with the U.S. Army Corps of Engineers to perform any cleanup necessary at the site under the Formerly Used Defense Sites (FUDS) program, which was established to cleanup sites previously owned by the Department of Defense. Current information indicates that former Naval activities are solely responsible for the contamination at the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



PACIFIC SOUND RESOURCES Seattle, Washington

Conditions at Proposal (May 10, 1993): The West Seattle wood treating plant of Pacific Sound Resources (PSR) is located at 2801 Southwest Florida Street in Seattle, King County, Washington. The 20-acre property is in an industrial area on the shore of Elliott Bay and Puget Sound, near the Duwamish River. Wood treating operations at the plant date to 1906. PSR has owned and operated the facility since 1964. Another turn-of-the-century wood treating facility owned and operated by PSR (formerly the Wyckoff Co.) since 1964 was placed on the NPL in 1987 as part of the Wyckoff Co.-Eagle Harbor site.

Operations at the two facilities have been similar. The primary wood preservatives used at both sites were creosote, which consists primarily of polyaromatic hydrocarbons (PAHs) and pentachlorophenol (PCP). Each was mixed with fuel oil. In addition, at the West Seattle site, substantial quantities of chemonite, which contains copper, arsenic, and zinc, were also used.

Wood treatment operations at the West Seattle plant have contaminated soil, ground water, and Puget Sound sediments with creosote, PCP, fuel oil, and chemonite metals. A significant source of contamination was a "transfer table," where retorts were loaded and unloaded. The transfer table was located in a shallow unlined earthen pit known as the "transfer table pit." Numerous investigations of the pit, including one by EPA in 1989, have documented contamination with arsenic, chromium, copper, zinc, and PAHs. In August/September 1990, PSR excavated approximately 450 cubic yards of soils and sludge from the pit, placed them in a containment box on the northeast end of the site, and covered the pit with a 3-inch layer of concrete over wire mesh.

Another source of hazardous substances at the site is an area adjacent to Elliott Bay where three aboveground tanks were formerly used to store creosote. A major leak occurred at one of the tanks in 1970. In addition, numerous spills occurred over the years from pipelines leading to the tanks.

Heavy metals and PAHs were found in Elliott Bay by the Washington Department of Ecology and EPA in 1988. Hazardous substances from the site can flow overland from the site to Elliott Bay through storm drains, direct surface runoff, flooding, and accidental spills or drips. The bay is a fishery, a critical migratory corridor for anadromous fish, and a subarea identified in the Comprehensive Conservation and Management Plan for the Puget Sound National Estuary.

In July/August 1991, EPA found heavy metals and PAHs in onsite soil and air downwind of the site. An estimated 150 people live within 0.25 mile of the site, and 175,000 within 4 miles.

Since 1984, EPA has issued several administrative orders against Wyckoff under CERCLA, the Resource Conservation and Recovery Act (RCRA), and the Clean Water Act (CWA) requiring investigation and cleanup at the site.

In 1985, Wyckoff and officials no longer associated with PSR, pleaded guilty to violations of RCRA for storing hazardous waste at the West Seattle plant without a RCRA permit and violations of CWA for discharging wood preserving residues into the West Waterway of the Duwamish River.

Status (May 1994): The plant is currently operational. The Port of Seattle has expressed an interest in redevelopment/cleanup of the property as part of the larger South West Harbor project, which would expand container terminals.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



PADUCAH GASEOUS DIFFUSION PLANT (USDOE) Paducah, Kentucky

Conditions at Proposal (May 10, 1993): The Paducah Gaseous Diffusion Plant (PGDP) is a uranium enrichment facility covering approximately 1,350 acres in western McCracken County, approximately 10 miles west of Paducah, Kentucky, and about 3 miles south of the Ohio River. PGDP began operating in 1952 and is owned and operated by the U.S. Department of Energy (USDOE). The facility is currently managed by Martin Marietta Energy Systems, Inc.

Approximately 740 acres of the plant are located within a fenced security area. An uninhabited buffer zone surrounds the fenced area. Beyond the USDOE-owned buffer zone is an extensive wildlife management area of 2,100 acres deeded or leased to the Commonwealth of Kentucky.

PGDP performs the first step in the uranium enrichment process, enriching uranium-235 (U-235) in a physical separation process. The separation process is based on the faster rate at which U-235 diffuses through a barrier, in comparison with the heavier uranium-238 (U-238). Subsequent to processing at PGDP, the uranium is further enriched at another USDOE gaseous diffusion plant. Extensive support facilities are required to maintain the diffusion process, including a steam plant, four major electrical switchyards, four sets of cooling towers, a building for chemical cleaning and decontamination, a water treatment plant, maintenance facilities, and laboratory facilities.

Plant operations have generated hazardous, nonhazardous, and radioactive wastes, including PCBs, trichloroethene (TCE), uranium (multiple isotopes), and technetium-99 (Tc-99). In August 1988, USDOE found Tc-99 in an offsite drinking water well north of PGDP. TCE has also been detected in nearby private wells and onsite monitoring wells. Approximately 1,400 people obtain drinking water from public and private wells within 4 miles of PGDP.

USDOE has detected PCBs in onsite surface water and downstream of the plant in Big Bayou Creek and in Little Bayou Creek. These creeks are part of the West Kentucky Wildlife Management Area located adjacent to the facility. Big Bayou Creek is currently used for fishing. In 1989, the State of Kentucky's Division of Water warned against consumption of fish caught from Little Bayou Creek.

Status (May 1994): Two Records of Decision (ROD) have been signed for remedial activities under CERCLA. On July 22, 1993, EPA signed a ROD for an interim remedial action of the most contaminated portion of the northwest plume. The northwest plume is mainly composed of dissolved TCE and Tc-99. On March 25, 1994, remedial action was initiated in accordance with the ROD. The actions included delineating sites for construction activities, awarding a purchase order for seven water treatment skids, and issuing a Notice of Award for construction of ground water extraction wells.

On March 28, 1994, EPA signed a ROD for an interim action source control at the North-South Diversion Ditch (NSDD). The primary objective of this action is to initiate control (treatment) of the source of continued radionuclide releases into the NSDD. It will also mitigate the spread of contamination from sediment in the NSDD.

Negotiations continue between EPA, DOE, and the Kentucky Department of Environmental Protection for completing a Federal Facility Agreement.

Alternative water supplies (public water lines) have been provided to residents in the path of ground water contamination related to the releases from the plant. Residents have been offered the opportunity to change from the use of ground water to public water.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



**PANTEX PLANT (USDOE)
Pantex Village, TX**

Conditions at Proposal (July 29, 1991): The Pantex Plant is in Pantex Village, Carson County, Texas, approximately 17 miles northeast of Amarillo. The area is primarily agricultural. The plant is owned by the U.S. Department of Energy (USDOE) and operated under contract by Mason and Hangar-Siles Mason Co. The plant itself covers 9,100 acres. In addition, there is a buffer zone consisting of a 1,077-acre portion of Pantex Lake owned by USDOE and 3,170 acres of land leased by USDOE from Texas Technological University.

The plant began in 1942 as an Army Ordnance Corps facility. Nuclear operations began in 1950. Current operations -- which include fabrication of nuclear weapon ammunition and assembly, testing, and disassembly of nuclear weapons -- involve 141 solid waste management units. Past and present waste practices include burning of chemical wastes in unlined pits, burial of wastes in unlined landfills, and discharging of plant waste waters into on-site surface waters. More than 150 potential contamination sources have resulted from these practices, of which 15 are being evaluated initially.

In 1988, a USDOE contractor detected acetone, toluene, tetrahydrofuran, trichloroethylene (TCE), bromoform, 1,2-dichloroethane, arsenic, barium, chromium, lead, mercury, and silver in waste waters discharged to unlined ditches and surface impoundments on the site. USDOE also detected acetone, TCE, tetrahydrofuran, toluene, 1,2-dichloroethane, 2-butanone, tetrachloroethylene, and 1,1,1-trichloroethane in soil underlying a chemical burn pit used for evaporation and percolation of solvents contaminated with high explosives, and uranium in soil underlying firing grounds FS-4, FS-5, and FS-10.

Toluene is present at 329 feet below the surface in soils underlying the pit. The Ogallala Aquifer occurs at a depth of 390 to 420 feet beneath the site. A zone of low permeability occurs beneath the site at a depth of 350 feet; the thickness varies from 25 to 100 feet. Contamination is documented in this zone. The aquifer serves as the primary source of domestic and municipal water supply. Amarillo has a blended system that provides water to 160,000 customers, approximately 36% of them from a well field within 4 miles of Pantex; 20 domestic wells have been identified within 1 mile. Pumping by the city has created a cone of depression, causing ground water underlying Pantex to flow toward the municipal well field.

Surface water run-off from the facility is directed into on-site playas. While some are used as surface impoundments, others not receiving plant waste water are considered fresh water wetlands. Texas Tech Agricultural Research Station uses surface water from Playa 4 for both irrigation of crops and watering of livestock.

Under the Comprehensive Environmental Assessment and Response Program, USDOE has begun characterizing and cleaning up the most severe environmental problems and has developed an Environmental Restoration and Waste Management 5-Year Plan.

Status (May 1994): Pantex is conducting corrective action investigative work under their Resource Conservation and Recovery Act (RCRA) permit that was issued in April 1991. In addition, a citizen's advisory board is in the process of being finalized. The advisory board is expected to be established by May 1994.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



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May 1994

PATUXENT RIVER NAVAL AIR STATION
St. Mary's County, Maryland

Conditions at Proposal (January 18, 1994): Patuxent River Naval Air Station is a 6,400-acre facility on a broad headland peninsula known as Cedar Point. The peninsula is located at the confluence of the Patuxent River and the Chesapeake Bay in St. Mary's County, Maryland. Much of the peninsula is covered with woods or wetlands. The majority of the station's operations are concentrated on the western portion of the property.

Numerous potential sources of contamination to surface water have been identified on the facility. The three sources evaluated under the HRS model include the Fishing Point Landfill, the Former and Current Sanitary Landfills, and the Pesticide Control Shop Rinse Area.

The *Fishing Point Landfill* is a 25-acre area that was used from 1960 to 1974 as the main disposal site for solid and hazardous waste. The landfill is located in wetlands. It received sewage treatment plant sludge, cesspool wastes, spent oil absorbents, paints, antifreeze, solvents, thinners, pesticides, and photolab wastes.

The *Former Sanitary Landfill* was used as a disposal area from 1974 to 1980; the adjacent *Current Sanitary Landfill* has been used since 1980. The total area covered by the landfills is estimated to be 16.5 acres. Wastes deposited in the landfills include sewage treatment plant sludge, cesspool wastes, paints, thinners, solvents, antifreeze, pesticides, hospital wastes, asbestos, and photolab wastes.

The *Pesticide Control Shop Rinse Area* has been located in Building 841 since 1962. Records indicate that from 300 to 400 gallons of rinsate per day were generated from this source.

The wetlands filled by the Fishing Point Landfill area are located directly on the confluence of the Patuxent River and the Chesapeake Bay. The water in this area is used for shellfishing and fishing. Hazardous substances were disposed of in the wetlands that existed before the landfill was established. The wetlands were located along the southern and northern borders of Fishing Point. Two fishing areas on the site, Pond 3 and Pine Hill Run, are located in the surface water pathway of the Pesticide Control Shop Rinse Area and the Former and Current Landfills. Pine Hill Run empties into the Chesapeake Bay.

Status (May 1994): A remedial investigation for the facility is currently being conducted by the Navy. Based on this work, the Navy has performed a removal action at the Fishing Point Landfill to control the erosion of the landfill into the Patuxent River.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



**PORT HADLOCK DETACHMENT (USNAVY)
Indian Island, Washington**

Conditions at Proposal (June 23, 1993): Port Hadlock Detachment of the U.S. Navy, is located on Indian Island in Jefferson County southeast of the city of Port Townsend, Washington. The 2,700-acre island is approximately 4.5 miles long and 0.5 miles wide.

The island was purchased by the Navy in 1948 to store explosives. Currently, the island receives, stores, maintains, and issues Naval ordnance; assembles anti-submarine rocket airframes; and provides mine maintenance.

Sources of hazardous waste activity at the site include municipal and industrial landfills, drum and container storage areas, above and below ground storage tanks, burn pits, spills, and possible areas of illegal dumping. Potentially hazardous wastes associated with the sources at the site include heavy metals, pesticides, PCBs, solvents, explosives, paints and pigments, and acids and bases.

Site investigations conducted by the Navy in 1989 documented marine sediments contaminated with heavy metals, PCBs, and other organic compounds. Shellfish have also been found contaminated with heavy metals and pesticides.

Commercial and recreational harvesting of shellfish occurs on the beaches at the north and south ends of the island, at Bishop's Point on the east side of the island, as well as in coastal waters surrounding the island. The beach at the north end has been posted as closed for the collection of shellfish. Although most of the island is restricted, civilians occasionally enter along beaches by boat to collect clams. Native Americans also are permitted access for collecting shellfish. Fort Flagler State Park is located a few hundred feet from the north end of the island.

Status (May 1994): The Washington State Department of Ecology issued an enforcement order to the Navy in June 1991, requiring further investigation and cleanup. The Navy is currently conducting removals, under the guidance of EPA and the State, at three areas on the base that were formerly used to dispose of ordnance, which should eliminate the need for further cleanup in these areas. The Navy is near completion of a remedial investigation/feasibility study of two former landfills on the base. A cleanup decision for the landfills is planned for late 1994.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



PORTSMOUTH NAVAL SHIPYARD
Kittery, Maine

Conditions at Proposal (June 23, 1993): Portsmouth Naval Shipyard (PNS) is located on Seavey Island in the Piscataqua River in Kittery, York County, Maine. The 278-acre Seavey Island is composed of three smaller islands (formerly Seavey, Jamaica, and Dennett's Islands) connected by 90 acres of fill. Filling of the tidal flats between the original islands took place gradually as space needs for PNS increased. The PNS property also includes the undeveloped Clark's Island, which is connected by a bridge to Seavey Island.

PNS, established in 1690, became a Navy shipyard in 1800. During its operational history, the shipyard was used for construction of ships and submarines and is currently used to overhaul nuclear propulsion fleet ballistic missile submarines and attack submarines. PNS consists of three dry docks, 6,500 linear feet of berthing, and 376 buildings and other structures. Hazardous wastes have been stored, disposed of, spilled, and/or treated at more than 30 areas on the site.

From 1945 to 1975, untreated acidic and alkaline wastes, waste battery acid and lead sludge, waste water and spent baths from an electroplating operation, and other wastes from various industrial shops were discharged into the Piscataqua River via industrial waste outfalls. From 1945 until approximately 1978, 25 acres of tidal flats between Jamaica and Seavey Islands were filled with wastes including chromium-, lead-, and cadmium-plating sludge; asbestos insulation; trichloroethylene; methylene chloride; toluene; methyl ethyl ketone; drums of waste paint and solvents; mercury-contaminated materials; sandblasting grit containing various metal wastes; and dredged sediments from the Piscataqua River.

Dredged sediment samples collected in the late 1970s near the industrial outfalls were found to contain elevated concentrations of metals, PCBs, and other contaminants. Although Portsmouth Harbor and the lower Piscataqua River are heavily industrialized, the Navy has indicated that the probable source of the sediment contamination is the industrial outfalls at PNS. In addition, hazardous substances attributable to PNS are present at elevated levels in wetlands bordering Seavey Island.

Ground water supplies drinking water to over 10,000 people within 4 miles of the site. Salmon Falls, the Cocheco and Piscataqua Rivers, the Great Bay estuary, and coastal tidal waters within 15 miles downstream of PNS are used for commercial and recreational fishing. In addition, extensive wetlands communities exist along surface water bodies downstream of the PNS site.

Status (May 1994): The waste battery acid and lead sludge was voluntarily capped in early 1994.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



PUGET SOUND NAVAL SHIPYARD COMPLEX
Bremerton, Washington

Conditions at Proposal (May 10, 1993): The Puget Sound Naval Shipyard Complex is located in Bremerton, Washington, along Sinclair Inlet on Puget Sound approximately 15 miles west of Seattle. The Navy has owned and operated facilities at this location since 1891.

The complex, which consists of the Naval Shipyard and the Naval Supply Center, employs over 12,000 people. The site covers approximately 350 acres of land and an additional 340 acres of tidelands along 11,000 feet of shoreline. The complex contains over 300 buildings and structures, 6 deep water piers, 6 dry docks, and numerous moorings. The major industrial activities at the complex include construction, repair, overhaul, maintenance, mooring, berthing, and dry docking of naval ships and staging and supply of materials. The activities generate a large amount of hazardous waste.

EPA has identified 58 known or potential sources of contamination at the complex. In 1990 and 1991, the Navy found elevated levels of heavy metals, semi-volatile organic compounds, PCBs, and pesticides in surface soils, subsurface soils, and ground water in a number of areas throughout the complex, as well as in sediments of Sinclair Inlet adjacent to the shipyard. Based on these results, the Washington Department of Ecology (WDOE) issued separate administrative orders to the Naval Shipyard and the Naval Supply Center requiring the Navy to conduct further studies of the contamination.

Sinclair Inlet provides a habitat for a variety of marine fishes, the most important being the salmonid species. Commercial and recreational fishing, boating, and contact recreation occur in the inlet.

Status (May 1994): The complex has been split into four operable units: OU-NSC, the Naval Supply Center; OU-A, a former liquid waste disposal area; OU-B, the industrial core and marine portion; and OU-C, oil storage tank area. The first phase of the remedial investigation (RI) sampling was completed at OU-A and OU-NSC; plans for a second phase are complete. The first phase of RI sampling is underway at OU-B. A removal action was completed at OU-NSC (8000 tons of lead-contaminated surface soil were excavated and disposed of offsite) and one is planned for OU-C (steam-sparging of petroleum contaminated soil and ground water).

[The description of the site (release) is based on information available at the time the site was scored. 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.]



REDSTONE ARSENAL (USARMY/NASA)
Huntsville, Alabama

Conditions at Proposal (June 23, 1993): Redstone Arsenal (RSA) is located in Huntsville, Madison County, Alabama. RSA encompasses 38,300 acres, 36,459 of which the Department of the Army controls. The George C. Marshall Space Flight Center (MSFC) leases the remaining 1,841 acres. Approximately 18,400 acres are woodlands, 9,200 are leased for agricultural use, 4,100 are designated as the Wheeler National Wildlife Refuge, and the Tennessee Valley Authority (TVA) controls approximately 2,900 acres. Morton-Thiokol Chemical Corp., a government contractor-operator, uses a portion of RSA property for the development of solid rocket propellants and the General Aniline and Film Corp. leases approximately 10 acres for the production of iron carbonyl. Olin-Mathieson Chemical Co. (DDT manufacturing), Raytheon Co. (rocket motor assembly), Rohm and Haas Allied Chemical and Dye (chlorine manufacturing), and Stauffer Chemical Co. (chlorine manufacturing) have conducted operations at RSA in the past.

Three separate military facilities (Redstone Ordnance Plant, Huntsville Arsenal, and Gulf Chemical Warfare Depot) were established at RSA in 1941 and worked together from 1942 to 1945, producing conventional and chemical munitions used during World War II. After the war, Gulf Chemical Depot stored captured German chemical agents and surplus chemical munitions and agents. The munitions were buried in various locations throughout RSA. As activities increased, the Army incorporated all lands that the three facilities previously used into the present day RSA.

Six mustard gas manufacturing plants operated at RSA from 1942 until 1943. These plants produced substantial quantities of sulfur monochloride, ethylene, brine, caustic soda, liquid caustic, chlorine, and thionyl chloride. Lewisite, a chemical warfare agent containing arsenic, was manufactured in four of the plants. Wastes generated from lewisite manufacturing were disposed of in shallow surface impoundments.

Following World War II, the chemical manufacturing facilities were leased to private firms for production of commercial chemicals and pesticides. The manufacture of DDT and other pesticides resulted in significant amounts of hazardous wastes. Large quantities of wastewater containing DDT residues were discharged to Huntsville Spring Branch. An 11-mile stream segment, including Huntsville Spring Branch, Indian Creek and a portion of the Tennessee River in the Triana area, was placed on the National Priorities List in 1983 due to past DDT disposal practices. In 1983, Olin-Mathieson, the principal DDT manufacturer, began cleanup actions under a U.S. Justice Department consent decree.

In October 1983, RSA submitted a RCRA closure/post-closure plan for DDT Landfill Q1. RSA also submitted a Part B permit application in May 1984. Based on information provided in the closure/post-closure plan, EPA authorized RSA to remove DDT Landfill Q1 from its Part B permit application. Following revisions to the Part B permit application, RSA was issued a permit for nine Hazardous Waste Storage Igloos in April 1986. RSA submitted a revised Part B permit application on October 21, 1988. The Storage Igloos, Open Burning Pans and four new Storage Igloos continued to operate under interim status. MSFC filed three Part A applications for several areas on its leased portion of the site; however, MSFC submitted a closure plan in lieu of a Part B application. The latest information provided to EPA indicates that there are approximately 198 solid waste management units or areas of concern distributed over the approximately 38,300 acre site.

Two aquifers beneath RSA are considered interconnected and are referred to as the Tuscumbia-Fort Payne aquifer. Three municipal systems have wells located within a 4-mile radius of RSA. An estimated 39,900 people utilize the wells as their source of drinking water.

Status (May 1994): New information indicates that there are approximately 198 areas of concern distributed over the approximately 38,300 acre site. EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]

Superfund hazardous waste site listed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended





RIPON CITY LANDFILL
Fond Du Lac County, Wisconsin

Conditions at Proposal (June 23, 1993): The Ripon City Landfill (RCL) site is located on approximately 7.3 acres of land in Fond Du Lac County, Wisconsin. The site is approximately 0.75 miles northwest of the City of Ripon, on County Road NN, south of the intersection with County Road FF. The site is located in a rural area with woods to the north, an active gravel pit operation to the west, and a private residence and an agricultural field to the south. East of the site, a portion of the old (original) gravel pit not used by RCL, is being filled with miscellaneous debris by passersby.

RCL is owned by Arlene Sauer, who leased the land to the City of Ripon in 1967 for the purposes of landfilling. In March 1968, the Wisconsin Department of Natural Resources (WDNR) issued a permit to the City for the operation of the landfill. WDNR conducted a routine site inspection of RCL in early 1968 and discovered that the landfill was being used to dispose of liquid wastes and containers from Speed Queen, an electric appliance manufacturer in Ripon. Speed Queen apparently had disposed of its waste at the site since 1966. In 1973, after reviewing the wastes Speed Queen dumped at the landfill, WDNR determined that the waste was considered hazardous and should not be disposed of at the City landfill. Speed Queen continued to dump at the facility until 1979. In 1981, WDNR requested that the City put together a closure plan for the landfill and install new monitoring wells since older monitoring wells were destroyed by site operations. At that time WDNR requested that the City conduct quarterly ground water sampling at the facility, as required by State law for all closed landfills. The facility was closed in February 1983.

During the fall of 1984, WDNR collected ground water samples from private wells surrounding the RCL. A residential well located 500 feet south and hydraulically downgradient of the landfill contained total-1,2-dichloroethylene, trichloroethylene, and vinyl chloride. Due to the detection of these contaminants, WDNR sampled a hydraulically downgradient monitoring well at the site; *trans*-1,2-dichloroethylene and vinyl chloride were detected. This sampling confirmed that the landfill was the source of contamination in the residential well.

In June 1984 and July 1985, EPA performed a site inspection at RCL. During the inspection, EPA sampled the monitoring wells and confirmed the presence of vinyl chloride, *trans*-1,2-dichloroethylene, benzene, and xylene in ground water beneath the site. The City of Ripon is currently submitting quarterly ground water sampling results from the monitoring wells onsite. The sampling results have found elevated concentrations of vinyl chloride in groundwater beneath and hydraulically downgradient of the site.

Ground water is the primary route through which people may be exposed to contaminants associated with the RCL site. Within 4 miles of the site, residents obtain drinking water solely from ground water. The City of Ripon has a population of 11,286 people and is entirely within 4 miles of the site. The City of Green Lake (southwest of the landfill) utilizes one municipal well that serves approximately 500 people within 4 miles of the site. In addition, approximately 2,077 people, including residents, students, and workers, not served by the municipal drinking water sources receive drinking water from private wells. There is no drinking water source other than ground water available for people living within 4 miles of RCL.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release is based on information available at the time the site was scored. 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.]



SOUTH WEYMOUTH NAVAL AIR STATION Weymouth, Massachusetts

Conditions at Proposal (June 23, 1993): South Weymouth Naval Air Station (SWNAS) is located east of Pond Street (Route 18) at the southern end of Weymouth, Norfolk County, Massachusetts, and extends into the Towns of Abington and Rockland, Plymouth County, Massachusetts. SWNAS is approximately 1,500 acres in size. The surrounding area is suburban, with a mixture of residential, industrial, and commercial land use.

The U.S. Navy acquired the property in 1941 and used it as a support facility for aircraft during World War II. The facility is comprised of two active runways and approximately 200 buildings used for the support of flight operations. Activities performed at the facility include aircraft maintenance, refueling, personnel training and housing, and administrative support services.

Reportedly, station-generated wastes, some of which can be classified as hazardous, were disposed of in three onsite landfills. The West Gate landfill operated from 1969 to 1972. The Rubble Disposal area and the Small Landfill operated from 1972 until the mid-1980s. Flammable liquid wastes were reportedly burned in the onsite firefighting training area. Small amounts of waste battery acid, possibly containing lead, may have been disposed of in a tile leachfield. The U.S. Coast Guard operates a buoy maintenance depot on the property through an agreement with the Navy. The buoy depot reportedly sandblasted lead-based paint from buoys from 1972 until 1986. Other potential source areas onsite include 12 PCB transformers and a sewage treatment plant.

The Navy completed a preliminary assessment of SWNAS in April 1988, and prepared a Draft Environmental Impact Statement in August 1990. A site investigation of SWNAS was completed by the Navy in February 1992, and included the installation of 21 ground water monitoring wells around six of nine identified source areas on the property. Soil samples were collected during the installation of these wells, and ground water, surface water, sediment, and soil samples were collected from the vicinity of source areas on the property. Soil samples were found contaminated with volatile organic compounds and heavy metals. Ground water samples collected down from the West Gate Landfill, the Rubble Disposal area, fire fighting training area, and the tile leachfield were contaminated primarily with heavy metals.

Eighteen municipal drinking water wells are located within 4 miles of source areas at SWNAS. These wells provide drinking water to approximately 74,000 people. In addition, approximately 85 private drinking water wells located within 4 miles of SWNAS draw from the same aquifer.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



SPECTRON, INC.
Elkton, Maryland

Conditions at Proposal (October 14, 1992): Spectron, Inc., covers approximately 8 acres at 111 Providence Road in Elkton, Cecil County, Maryland. The area is primarily rural. From the 1800s until 1946, the site was occupied by several paper manufacturers. In 1961, Galaxy Chemicals, Inc., began recovering organic solvents from wastes generated by the electronics, pharmaceutical, paint, lacquer, coatings and chemical process industries. In 1975, the company went bankrupt. In 1976, Solvent Distillers, Inc., began operations at the property. In 1978, the company changed its name to Spectron, Inc. The facility closed in August 1988, and Spectron is currently in bankruptcy proceedings.

Throughout the years, several lagoons reportedly were in use. The location of one evaporation lagoon can be documented. During a joint EPA/Maryland Water Resources Administration inspection at the site in 1979, approximately 1,500 drums were found in the area of the former evaporation lagoon. Approximately 500 of these drums were damaged, rusting, open, and leaking. Adjacent to this lagoon was a sludge pit that received solid residues. It had been filled in June 1969. Also located on the site were between 50 and 73 tanks holding 582,000 gallons of hazardous substances, including chlorinated solvents, other organic compounds, and heavy metals.

Spectron has been inspected many times by both EPA and the Maryland Department of the Environment (MDE). In 1979, MDE sampled cooling water discharges into Little Elk Creek. Results indicated elevated levels of chlorinated solvents, benzene, ethylbenzene, toluene, and xylenes. In 1989, EPA detected similar contaminants in leachate seeps entering Little Elk Creek and also in water samples of the creek downstream of the facility.

Little Elk Creek and Elk River are used for recreational fishing and are designated by the State for protection or maintenance of aquatic life. Little Elk Creek wetlands within 15 miles are also potentially threatened by air pollution. The site has a long history of complaints from nearby residents of odors apparently emanating from the lagoon and sludge pit. Various county, State, and Federal actions were taken against the facility, one leading to its closure in August 1988.

In 1980, MDE installed seven monitoring wells onsite. EPA sampling in March 1981 detected high levels of organic contaminants in several of the wells. EPA sampling in November 1987 confirmed the earlier results. The nearest private wells are within several hundred feet of the site. Approximately 5,200 people obtain drinking water from private wells within 4 miles of the site. Wells are also used for watering livestock.

In May 1989, EPA used CERCLA emergency funds to stabilize the site, preventing the release of contaminants that would be an imminent threat to human health or the environment.

In August 1989, under an Administrative Order on Consent (AOC) with the potentially responsible parties (PRPs) issued under CERCLA Sections 106(a) and 122, EPA removed and disposed of wastes and cleaned the tanks, berms, and dikes. In April 1990, EPA negotiated a second AOC to ensure that the PRPs had the opportunity to remove certain materials from the site, and in September 1991, EPA negotiated a third AOC calling for the PRPs to control releases from seeps or ground water at the site that are entering Little Elk Creek.

Status (May 1994): EPA is considering various alternatives for the site.

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



SPOKANE JUNKYARD/ASSOCIATED PROPERTIES
Spokane, Washington

Conditions at Proposal (October 14, 1992): The Spokane Junkyard/Associated Properties site covers 10.5 acres in a light commercial and residential area in Spokane, Spokane County, Washington. It is surrounded by single and multiple-family dwellings, as well as several private businesses and an elementary school.

From the 1940s until 1983, the Spokane Junkyard accepted military surplus items, automobiles, heavy equipment, appliances, and electrical transformers. On July 15, 1987, an explosive fire consumed the Spokane Junkyard property. Adjacent to the junkyard is a property where Spokane Metals Co. recycled scrap metal, including transformers, from 1936 to 1983. The site also encompasses a residential lot and a vacant field owned by two individuals, and an undeveloped strip of land dedicated to public use.

Following the 1987 fire, EPA used CERCLA emergency funds to transport 140 drums of hazardous liquids and solids (including PCB oils, flammable materials, corrosive materials, and chlorinated organic compounds) and 140 cubic yards of asbestos to regulated landfills. During 1987-89, EPA found elevated levels of heavy metals (including liquid mercury, cadmium, and lead) and PCBs in surface soils. An estimated 200,000 square feet of contaminated soil remain onsite. The site is currently fenced, but EPA has received reports of attempts at illegal access.

The site lies above the Spokane Valley Aquifer, designated a Sole Source Aquifer under the Safe Drinking Water Act. Approximately 165,000 people obtain drinking water from public and private wells within 4 miles of the site. Wells within 4 miles are also used for irrigation. The wells are potentially threatened because water is shallow (40 feet in some cases) and soils are permeable, permitting soil contaminants (as deep as 3.5 feet in some cases) to reach ground water.

Status (May 1994): EPA is considering various alternatives for the site.

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



**STAUFFER CHEMICAL CO. (TARPON SPRINGS)
Tarpon Springs, Florida**

Conditions at Proposal (February 7, 1992): Stauffer Chemical Co. is located in an industrialized area between Anclote Boulevard and the Anclote River in Tarpon Springs, Pinellas County, Florida, about 1.6 miles east of the Gulf of Mexico. Stauffer purchased the 160-acre facility from Victor Chemical Works in 1960. The facility's ownership has changed several times; it is currently owned by Stauffer Management Co.

From 1950 to 1981, the facility manufactured elemental phosphorus from phosphate ore. The processed ore was shipped off-site to be used primarily for production of agricultural pesticides, food-grade phosphates, and flame retardants.

During the years of operation, a number of processing wastes were disposed of on the site. A system of seven unlined lagoons, about 600 feet from the Anclote River, received discharges of waste scrubber liquid and phosphorus water, as well as overflow from a calcium silicate slag pit. At some time, two of the lagoons were dredged, and the dredged material, composed of calcium sulfate/sulfite, calcium silicate, calcium fluoride, phosphate sand, and calcined phosphate dust, was placed in two piles approximately 40 feet from the Anclote River.

Other onsite disposal activities included the dumping of furnace dust in an isolated pond and the burial of 900 drums of calcined phosphate sand consisting of 20% elemental phosphorus. Over 500,000 tons of chemical process wastes were disposed of on the site between 1950 and 1979.

The site is underlain by a surficial aquifer composed primarily of sand and the Floridan Aquifer composed of limestone. Water is reached at an average depth of 8 feet below land surface. The Floridan Aquifer is encountered at 17 to 37 feet and is approximately 100 feet thick in the area of the site.

Onsite monitoring wells into both aquifers are contaminated with barium, chromium, lead, vanadium, zinc, copper, and arsenic, according to EPA tests conducted in 1988 and 1989. The 1989 tests found these metals in the onsite waste piles. An estimated 8,500 people in the Tarpon Springs area receive drinking water from 23 public wells and 3 private wells located within 4 miles of the site. Because of the depths of the aquifers, all drinking water wells within 4 miles of the site are potential targets.

Status (May 1994): In July 1992, Atkemux, a subsidiary of Stauffer Management Co., signed an Administrative Order on Consent, agreeing to conduct a remedial investigation/feasibility study (RI/FS) that EPA is overseeing. The RI has been completed and approved. EPA will complete the baseline risk assessment for the site in the summer of 1994. The FS is also expected to be completed in the summer of 1994.

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



SUMMITVILLE MINE
Rio Grande County, Colorado

Conditions at Proposal (May 10, 1993): Summitville Mine is located in the San Juan Mountains near Del Norte in Rio Grande County, Colorado. The 1,400-acre site is extremely remote at an elevation of more than 11,000 feet, making the site accessible by vehicle only in the summer months.

Mining began at Summitville in the late 1800s. The most recent operator, Summitville Consolidated Mining Corp., Inc. (SCMCI), began open pit mining and recovering gold by cyanide heap leaching in 1986.

SCMCI originally designed the mining operation as a non-discharging waste water facility. Problems with discharges eventually required SCMCI to obtain a National Pollution Discharge Elimination System (NPDES) permit from the State to operate a waste water treatment plant.

Several releases of water contaminated with cyanide and metals have been documented at the mine. The State has issued Notices of Violation to SCMCI for unpermitted releases of contaminated water. Fish kills have been reported from Wightman Fork downstream to Terrace Reservoir, approximately 20 miles downstream from the mine site.

Because SCMCI has declared bankruptcy, EPA is maintaining the site using CERCLA emergency funds to ensure that 150 million gallons of water contaminated with cyanide and heavy metals are not released into Wightman Fork. Wightman Fork flows into the Alamosa River 5 miles downstream.

Status (May 1994): Since December 1992, EPA has increased the capacity and efficiency of the water treatment plant; reduced the volume of process water in the heap leach pad by 60 percent; plugged the Reynolds Adit, which was a large source of metals contamination; conducted a pilot study to determine if cyanide within the heap leach pad could be removed by rinsing; and placed 1 million cubic yards of the Cropsy waste pile into the open mining pits at the site. The final cap of waste piles and revegetation of the cap placed in the mine pits is expected to be completed in 1995.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



UGI COLUMBIA GAS PLANT Columbia, Pennsylvania

Conditions at Proposal (June 23, 1993): UGI Columbia Gas Plant is a 1.6-acre site located on Front Street in Columbia, Lancaster County, Pennsylvania. From approximately 1853 to 1935, Columbia Gas used the site for gas manufacturing. Ownership of the property was transferred to Pennsylvania Power and Light (PP&L) in 1935, and the Lancaster County Gas Company in 1949. Lancaster County Gas merged with UGI Corporation and occupied the site until 1976, when the land was privately purchased. The property is currently used as a boat dealership. The land surrounding the site is predominantly residential. The Susquehanna River is located approximately 400 feet southwest of the site.

The primary sources of contamination at the site include the gas holder, the relief holder pit, and a 4,200 square-foot area of contaminated soil. The main waste streams consist of tar and purifier wastes. Hazardous substances associated with the contaminant sources and waste streams include volatile organic compounds (VOCs), semi-volatile organic compounds (semi-VOCs), polycyclic aromatic hydrocarbons (PAHs), heavy metals, and cyanide. During operation of the site, overflows from an onsite tar separator were directed to an open ditch that led to the Susquehanna River. Records show that local fishermen complained to the plant that their boats were being covered with tar.

The Pennsylvania Department of Environmental Resources (PADER) conducted a preliminary assessment of the UGI Columbia Gas Plant site in August 1984. In 1985, PP&L and UGI Corp. conducted a field investigation to determine the nature and extent of contamination at the site. Tar was encountered in test pits dug in the gas and relief holders and in several other test pit and boring areas onsite. Soil, sediment, sludge, tar, and ground water samples collected during this investigation revealed VOCs, semi-VOCs, heavy metals, and cyanide contamination. An area of Susquehanna River sediments directly downstream of the site was found to contain tar-related contaminants such as PAHs and cyanide.

In 1987, PP&L and UGI recovered approximately 100 cubic yards of tar-contaminated material which had been pushed into a railroad pedestrian tunnel bordering the site. They disposed of the tar sludge in a facility permitted under EPA's Resource Conservation and Recovery Act (RCRA). Also during 1987, it was determined that approximately 80 cubic yards of sediment southwest and directly downstream of the site were contaminated with tar from the tar separator and open ditch.

In January 1991 EPA conducted an expanded site inspection of the UGI Columbia Gas Plant. The ground water, soil, and surface water samples from the Susquehanna River confirmed previously reported contamination of VOCs, semi-VOCs, PAHs, and cyanide. Within 15 miles downstream of the site, approximately 90 people use the Susquehanna River as a source of drinking water. Approximately 1,000 people use ground water wells within 4 miles of the site for water.

Status (May 1994): EPA is considering various alternatives for the site.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



VANCOUVER WATER STATION #1 CONTAMINATION Vancouver, Washington

Conditions at Proposal (June 23, 1993): Vancouver Water Station #1 is located at East Reserve and Northeast Fourth Plain Boulevard in Vancouver, Clark County, Washington. Vancouver Water Station #1 is one of several stations that consists of ground water wells that supply drinking water through a blended system to approximately 134,000 people. In October 1992, EPA listed a nearby water station, Vancouver Water Station #4, on the National Priorities List.

In response to the Safe Drinking Water Act (SDWA), ground water from the wells at Vancouver Water Station #1 was sampled in 1988. Since 1988, increasing levels of tetrachloroethene (PCE) have been detected in each of the wells comprising Vancouver Water Station #1. While levels of PCE have exceeded the EPA maximum contaminant level established under SDWA, the City of Vancouver has used blended water from the Vancouver Water Station #1 wells by selectively pumping lower concentration wells.

An extensive soil gas and ground water study conducted by the City of Vancouver was unsuccessful in identifying the source of contamination in Vancouver Water Station #1 wells. In addition, a subsequent soil gas and ground water study conducted by EPA was also unsuccessful in identifying the source of ground water contamination. Although a definitive source has not been identified, several drycleaning facilities, gas stations, and other facilities in the area are suspected contributors of ground water contamination.

Status (May 1994): Since June 1993, the city of Vancouver has been operating five water treatment towers designed to "strip" PCE from the water. EPA is currently considering various alternatives for further evaluation of potential sources and performing remediation of the existing ground water contamination.

[The description of the site (release) is based on information available at the time the site was scored. 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.]



WHITING FIELD NAVAL AIR STATION
Milton, Florida

Conditions at Proposal (January 18, 1994): Whiting Field Naval Air Station is a naval aviation training facility approximately 7 miles north of Milton, Santa Rosa County, Florida. The facility is located in the northwest Florida panhandle, 20 miles northeast of Pensacola on State Route 87A.

In July 1943, the 2,560-acre facility was commissioned to instruct student naval aviators. Various types of wastes have been generated at the base throughout its history. Through the early 1980s, construction and demolition debris, garbage, waste solvents and oils, tank bottom sludges, fuels and machine fluids were disposed of in different locations at the facility. Solvents have been used for cleaning structural metal components prior to repair or fabrication, and for stripping paint from aluminum, steel, and alloys. The facility does not have a Resource Conservation and Recovery Act treatment, storage, and disposal permit, but it is listed as a generator of hazardous wastes.

Three onsite wells currently supply Whiting Field. On August 28, 1986, the Florida Department of Environmental Regulation requested that one drinking water supply well (W-S2) be shut down due to concentrations of benzene exceeding the State drinking water standard. Within one month, the State similarly requested that an additional drinking water supply well (W-W3) be shut down due to concentrations of trichloroethylene exceeding State drinking water standards. These wells were retrofitted with a charcoal filter system and subsequently returned to service. Approximately 6,500 people located within 4 miles of the facility obtain their drinking water from ground water.

The U.S. Navy has developed a program to monitor and control the environmental effects of activities involving hazardous substances at naval installations. In accordance with this program, Whiting Field is proceeding with its investigations and cleanup efforts.

Status (May 1994): The U.S. Navy, in consultation with EPA and the Florida Department of Environmental Protection, is continuing remedial investigation work at Whiting Field. The multi-media investigation includes studies of ground water, surface water, soils, and wetlands on and around Whiting Field. In addition, all three base supply wells currently have carbon adsorption systems.

[The description of the site (release) is based on information available at the time the site was scored. 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.]