

QUESTIONS?

This fact sheet is part of a community relations plan designed to keep the public informed about environmental activities at NAS Memphis. The NAS Memphis Public Affairs Office is available to answer questions or comments by calling (901) 873-5761.

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**INSTALLATION RESTORATION
AT
NAS MEMPHIS**



**AN ENVIRONMENTAL
UPDATE ON
CORRECTIVE ACTIONS**

OCTOBER 1992

INTRODUCTION

NAS Memphis is addressing similar challenges facing other military bases and private companies. Environmental regulations require all DOD facilities to review past disposal practices to determine if any contamination has been released into the environment or if a potential exists for future release. The Navy meets those requirements through the Installation Restoration Program and by complying with local, state and federal environmental laws. This fact sheet provides information on current regulations, project status and site descriptions.

REGULATIONS

In 1980, Congress passed the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This law set up a "Superfund" for clean up at hazardous waste sites nationwide, placing the responsibility for these sites with the Environmental Protection Agency (EPA). When first implemented, CERCLA did not apply to federal facilities. Therefore, DOD established the Installation Restoration Program (IRP), which paralleled CERCLA requirements. The Navy has been engaged in installation restoration activities since 1980 and has taken an aggressive approach to resolving environmental issues. In 1986, congress amended CERCLA with the Superfund Amendments and Reauthorization Act (SARA), requiring for the first time that DOD and other federal facilities meet the regulations outlined in CERCLA. Accordingly, the terminology and procedures for the IRP were changed to match those given in the National Contingency Plan (NCP). The NCP is the basic regulation that implements the statutory requirements of CERCLA.

In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA) which established a national strategy for the management of ongoing solid and hazardous waste operations. RCRA was amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984. Under HSWA, section 3004(u) requires corrective action be included as a permit condition for past releases of hazardous waste or constituents from any solid waste management unit (SWMU). A SWMU according to the *Federal Register* is "any discernable waste management unit from which hazardous constituents may migrate,

irrespective of whether that unit was intended for the management of hazardous waste." The RCRA corrective action process is virtually equivalent to a CERCLA response action. As required by law, NAS Memphis holds a RCRA hazardous waste permit and consequently is regulated under the RCRA corrective action program.

STATUS

As a condition of its RCRA permit, NAS Memphis conducted a RCRA Facility Assessment (RFA) in 1987 to identify and characterize all active and inactive SWMUs at the facility. A RCRA Facility Investigation (RFI) is planned to evaluate the SWMUs known, suspected or presumed to have releases of hazardous substances. Sixty-two SWMUs have been identified at NAS Memphis. Forty-two of the SWMUs will be investigated during the RFI. EPA does not require further action on the remaining SWMUs.

A Corrective Action Management Plan (CAMP) has been prepared to outline the strategy for verifying and characterizing suspected releases of hazardous substances into the environment. The CAMP subdivides the 42 SWMUs into 7 ranked groups that will be investigated in an overlapping phased approach. Group I consists of SWMU 1 (Fire Department Drill Area) and portions of SWMU 4 (Building N-121 Plating Shop Storm Sewer and Drainage Ditch) and SWMU 5 (Aircraft Firefighting Training Area). This group is being investigated because of planned construction at these sites. This action will identify any potential health risks to construction workers. An Interim Measures Work Plan (IMWP) has been designed to address only those parts of the SWMUs that will be directly affected by construction. The SWMUs will be investigated in their entirety during the RFI field work.

WORK PLAN

On October 16, 1992, NAS Memphis will begin implementing the IMWP at SWMUs 1, 4 and 5. The scope of this investigation includes the characterization of the surface and subsurface soils. The first step of the plan involves collecting soil samples. When the data has been gathered and evaluated, a determination will be made on the necessity of corrective measures before beginning the planned construction projects at these sites. Additional fact sheets will provide up-to-date information on the findings.

WORK SITES

The following section contains descriptions of sites included in Group I. Information on other SWMUs at NAS Memphis will be published in later fact sheets.

SWMU 1, Fire Department Drill Area. SWMU 1 occupies approximately 3,000 square feet of asphalt runway and grass in the northwest quadrant of the North Complex at NAS Memphis. The area was used once a month for fire fighting training at a simulated crash site, from 1960 through 1981. Training was conducted by spraying jet fuel (JP-4, highly volatile) on an aircraft shell, lighting the fuel, and then extinguishing the fire. Approximately 55 to 100 gallons of fuel were used during each training session. From 1960 until the late 1970s, there was no containment device to prevent surface runoff from leaving the site. After the late 1970s, runoff of the fuel was prevented with curbing; however, the asphalt runway contained cracks. Penetration of the fuel through the asphalt may have occurred.

SWMU 4, Plating Shop Storm Sewer and Drainage Ditch. This SWMU is a storm sewer on the south side of Casablanca Road which flows southwesterly from Building N-121 until it discharges into an open drainage ditch which eventually empties into North Fork Creek. Building N-121 contained a plating shop which conducted cadmium, chromium, copper and nickel plating using cyanide-based solutions. The shop discharged a reported 17,000 gallons of diluted plating wastewater to the storm sewer each day from 1951 through 1976.

SWMU 5, Fire Fighting Training Area. SWMU 5 has been used to train fire fighters in rescue techniques since 1949 and is still in operation. The area is located in the north central section of the base and consists of three rectangular concrete lined pits and two circular concrete lined pits. Prior to 1977, overflow discharges of JP-4 fuel from these pits drained into the adjoining storm drainage ditch (SWMU 4). Since 1977, the fuel has been allowed to burn itself out, thus preventing overflow. The two circular pits have a double-lip curb to contain fuel during the burning operation. After the installation of an oil-water separator in the early 1970s, several explosions occurred in the drain line to the separator, as a result of ignition of fumes from the unburned fuel. Cleaning of the separator and modification of operating procedures have eliminated this problem.