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PUERTO RICO NS
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REPORT SECTION FOR DRONE WASH AREA AND POLYCHLORINATED BIPHENYL
DISPOSAL DRY DOCK AREA ROOSEVELT ROADS NAVAL ACTIVITY PUERTO RICO

7/25/1993
VERSAR, INC.

DRONE WASHDOWN AREA, ROOSEVELT ROADS
(Site No. 8)

The target drone washdown area (Site 8) is located at Building 860 of Roosevelt Roads. The drones were launched from Cabras Island at the eastern entrance to Roosevelt Roads Harbor. Drones that were not destroyed during target practice were recovered by helicopter in Vieques Passage for reuse and returned to Building 860.

After each drone was retrieved, the outside of the drone was washed with fresh water to remove the saltwater and marker dye, and any remaining fuel was removed from the fuel tank. Fuel and waste water were disposed of in a drainage ditch which flows to a mangrove swamp and eventually into the harbor. From about 1960 to mid-1970s all residual fuels (JP-4 and JP-5) contained in the used drones were disposed of in this ditch.

Analytical sampling was recommended for this site based on the conclusions of the Preliminary Assessment. During the site investigation surface water and composite sediment and soil samples were collected for identification of potential contamination on two occasions. Samples were analyzed for volatile organic compounds, lead, and oil and grease. Samples were taken upstream and downstream of the probable entry point of the drone washdown fluids into the drainage ditches north, south, and southeast of the site.

The only constituent of concern that was detected in the soil and sediment samples collected at Site 8 at elevated levels was oil and grease. Lead concentrations were below or near the lower range of naturally occurring concentrations. Elevated oil and grease concentrations were detected upstream of the drone washdown area, indicating that oily water may be entering the drainage ditch on an irregular basis from upstream of this area.

The surface water data indicates the sporadic presence of low levels of oil and grease and volatile organic compounds that may have originated from fuel or degreasing solvents. However, similar to the findings discussed for the sediment data, the surface water data indicates that the constituents of concern are emanating from upstream areas. Because the constituent levels detected are below EPA environmental standards, no additional monitoring is recommended for Site 8.

The oil/water separator system for Site No. 8 appears to be operating effectively. During a recent inspection, no signs of petroleum products or sheens were noted and vegetation appeared lush and healthy. Activities related to the drone washdown area are no longer impacting the surrounding drainage ditch, and that the concentrations of contaminants detected warrant no further investigations or remedial action.

PCB DISPOSAL-DRY DOCK AREA, ROOSEVELT ROADS
(Site No. 9)

In approximately 1968, twentyfive 5-gallon cans containing Askarel (a PCB dielectric fluid) were reportedly disposed of by dropping them into Puerca Bay off the south side of the wharf at the dry dock (Site 9). Some of the cans, were in a rusty condition at the time of the disposal. The site is located in an area designated as critical habitat for the Caribbean Manatee, and is also a known habitat for several rare and endangered species, including several species of sea turtles, as well as corals, bivalves, clams, and worms, predators of benthic organisms (fish), and the people who use the wharf for recreational fishing.

A visual inspection of the bottom of Puerca Bay directly adjacent to the pier in the dry dock area failed to locate any of the 5-gallon metal cans, which had been reportedly dropped in the water. Only metal and glass drink containers were found on the bottom, along with other miscellaneous metal scrap. Thirty sediment samples and 4 surface water samples were also collected on both sides of the pier's third stanchion where the disposal reportedly took place. Surface water and sediment samples were analyzed for PCBs. No PCBs were detected in any of the surface water or sediment samples that were analyzed.

Because no PCBs were detected in any of the surface water and sediment samples analyzed for Site 9, no additional sampling and analysis was recommended. Assuming the reports of PCB disposal were correct, the cans apparently sank into soft sediment or were later buried by sediment. Because of the low solubility of PCBs in water, no migration is anticipated. Additionally, the sampling indicated that the PCBs have not been dispersed from the area along the wharf where the cans were reportedly disposed. If present in the sediment adjacent to the wharf, the PCBs seem to be isolated from the surrounding environment and are not migrating. Under present conditions, the potential for environmental damage resulting from the alleged PCB disposal does not appear to present a risk to human health and the environment. PCBs strongly adsorb to sediment particles. There is relatively little activity (construction, etc.) in the area that would be expected to resuspend the sediment, except dredging activities. With time and additional deposition of sediment, the cans, if actually present, would be further isolated from the environment.

Because dredging activities could potentially disturb the disposal location and mobilize PCB-contaminated sediment, some institutional controls to limit dredging activities near the site will be adopted. A magnetometer survey is also being conducted.