The Seattle Daily Times
D. 247,540 SUN. 308,612

MAR 7 1976

Costly cleanup of toxic chemical resumes

By BOB LANE

The costly cleanup of toxic polychlorinated biphenyls which spilled into the Duwamish River 18 months ago resumed Friday.

The work will continue on an around-the-clock basis in an effort to have the job done by the end of the month.

At work were the Corps of Engineers' snag boat, the Puget; an unusual privately owned dredging system; an Environmental Protection Agency mobile waste-water-treatment plant from New Jersey, and about 25 men.

The Puget is in slip 1 on the river, where the chemical was spilled in September, 1974, when a government transformer was dropped. On the Puget's deck are an air compressor and distributor system for The Pneuma System dredge, a three-headed device working on the bottom of the river.

THE E.P.A.'s mammoth portable treatment plant is stationed nearby at the site of an abandoned Seattle sewage-treatment plant, where spoils pumped up by the dredge are being dumped into ponds.

Water draining from the river muck will be treated by the E.P.A. system to remove final traces of the chemical, commonly known as PCB, before it flows back into the river.

Most of the PCB will stay in the settling ponds with mud and sand from the river. Eventually it will be covered with soil.

This phase of the cleanup will cost about $650,000. The E.P.A. spent about $125,000 cleaning up some of the spilled PCB in late 1974.

ABOUT 200 gallons of the fluid spilled from the transformer when it was dropped while being shipped to an Alaska Air Force base. The E.P.A. recovered between 75 and 90 gallons in its first cleanup effort; the corps hopes to recover about 150 gallons more before the end of the month.

Polychlorinated biphenyls resemble mineral oil in consistency. Until 1971 the chemical was used in many products, including braided insulators in electrical wiring, high-pressure hydraulic fluids, gasket sealers, cutting oil, epoxy paint, carbonless reproducing paper, adhesives and plastic containers.

After many expressed concern about the environmental effect of PCB, the only American supplier, the Monsanto Chemical Corp., restricted uses of the chemical to sealed containers such as transformers and capacitors.

About 40 million pounds are produced annually. The chemical does not break down in the environment and it leaches from wastes in dumps, draining into waterways.

BECAUSE THE chemical normally flows into rivers and bays it has its greatest effect on waterfowl, fish and other marine life. The chemical does not kill or maim immediately on contact.

The chemical is not easily soluble in water and clings to particles of sediment. It is consumed by plankton which are eaten by small fish which in turn are eaten by birds and larger fish.

The concentrations of PCB in fatty tissues of marine life increases thousands of times from the bottom to the top of the food chain.

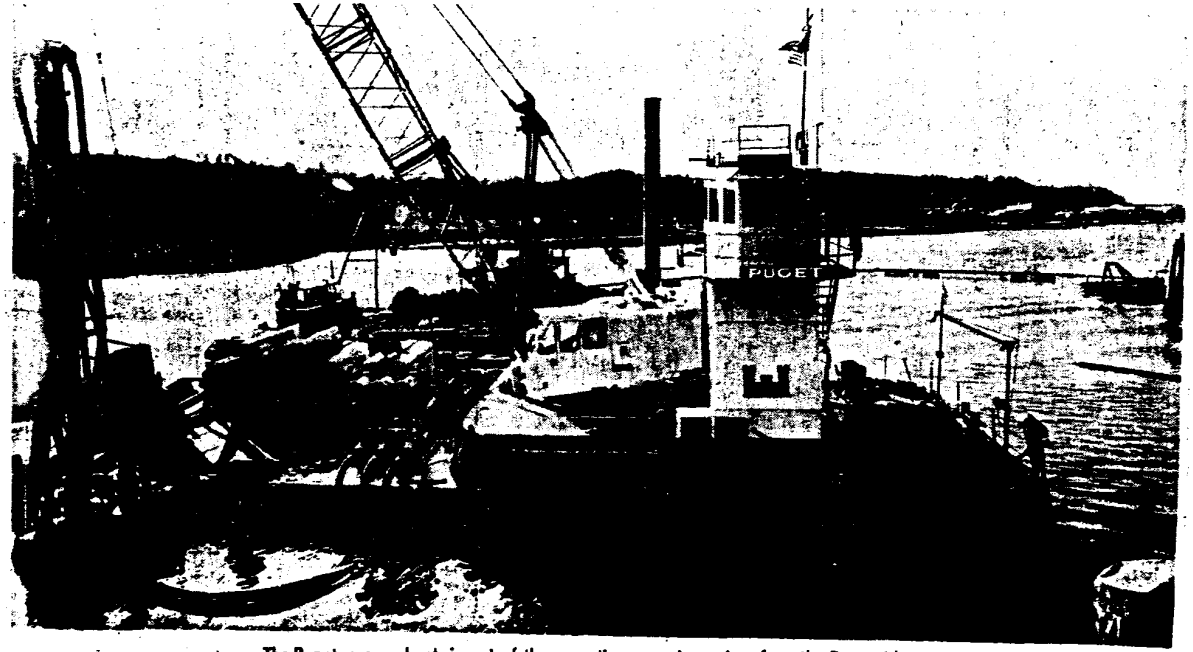
PCB interferes with reproduction and cause birds to lay thin-shelled eggs. It causes liver damage, lowers immunity to disease and is believed to cause cancer.

The Pneuma System dredge, one of only a few in the nation, will remove up to two feet of sediment from the river bottom, about 40,000 cubic yards.

The dredge will operate about 10 hours a day, but the E.P.A. treatment plant will run around the clock filtering sediment and PCB from water draining out of the ponds.

The Army Material Command, which was moving the transformer when it was dropped, has assumed responsibility for the spill and will pay for the cleanup work.

MONS 037099



The Puget, a snag boat, is part of the operation removing poison from the Duwamish

—Staff photo by Ron DeRosa