

The Standard Times

MAR 13 1977

Area faces long hassle with PCB pollution

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The problems posed by PCBs in the New Bedford marine environment are likely to be ones that are not going to disappear overnight.

Even though state and federal officials have taken strides in the past year to identify the PCB problem locally, they readily admit to having little, if any, idea of how to deal with eradicating the situation on a long term basis.

One of the characteristics that has made the chlorine-based compounds an environment hazard — their stability and resistance to breaking down — poses a clean-up dilemma.

Thus most of the PCB effort to date has been directed to minimizing further PCB discharges into area waters, such as through permits from the U.S. Environmental Protection Agency (EPA), and through warnings of the potential health hazards of the chemicals, like that issued last week by the state Department of Public Health.

'Don't know enough'

"We don't know enough about the long range aspects of PCBs to have long range plans," Commissioner David Standley, head of the state Department of Environmental Quality Engineering, noted. "Our long range plan at the mo-

ment is a short to mid-range information gathering program."

Neither Standley nor a spokesman for the EPA, Paul Keogh, are able to say with certainty whether some means of eradication, such as dredging, can be used practically to deal with the PCB problem.

"We don't know whether an abatement program would work," Standley commented. "We don't know how fast it would go away if we left it alone, or if it would go away."

Keogh, the public affairs officer for the Boston EPA office, added, "Before we can determine the feasibility of cleaning it up, we should know more about the extent of the problem."

State not alone

"In the long run it may be better environmentally to let what's there stay there," he said. Even if dredging of contaminated spoils is economically feasible, he noted, there would be an additional problem of disposal of the contaminated spoils.

If Massachusetts is to be in a quandary over PCBs, it is far from being alone.

In New England cities such as Pittsfield, North Adams, Bennington, Vt., and Bridgeport, Conn., officials are dealing with the problem.

The Great Lakes area, New York state and many southern states are

attempting to deal with the newly recognized problem, and according to federal officials, fish from every major watershed show some traces of the compound.

In New York, the state Environmental Conservation Commission, is studying the matter but has come to no conclusion.

An area of the Hudson River from Ft. Edward to Troy has been closed to all types of fishing because of PCBs, and commercial fishing has been banned from Troy south to the battery in New York City.

Cleaning effort planned

The state and General Electric, which has discharged the chemicals in the past, have agreed to pool \$6 million toward cleaning up the river and the electric company has added another \$1 million to research the problem.

According to Robert McLane, public affairs director for the commission, the state "hasn't made any decision on whether to dredge it or leave it. We've got consulting contracts out now to get some advice on what to do with it."

PCBs is the common abbreviation for polychlorinated biphenyls, colorless, odorless, syrupy liquids derived from a mixture of closely related chlorine-based compounds.

Because of their high degree of

stability and heat resistant nature, they proved adaptable for many commercial uses. In addition to their more recent use in the manufacture of transformers and capacitors in the electrical industry, they were used as additives for plastics, paints and rubber, in heat transforming equipment and the manufacture of carbonless copying paper.

Two New Bedford firms, Aerovox Industries, Inc., and Cornell Dabiller Electric Corp. have been using PCBs in their manufacturing process, which with other sources over the years, have contributed to the local problem.

First evidence in 1960

Like many man-made compounds currently coming under scientific scrutiny, evidence began to first accumulate in the mid-1960s, more than 25 years after they were first produced commercially, that PCBs could pose environmental problems.

Initially, traces of the compounds were discovered by Swedish scientists testing fish and wildlife samples in 1960.

Two years later, however, adverse effects on humans were noted when a woman ate a disorder, later labeled the Yusho syndrome, developed in Japanese families who accidentally ingested rice contaminated by a commercial PCB brand.

Symptoms found among affected Japanese included upper eyelid swelling, visual impairment, acrocyanosis, skin pigmentation. Patients also exhibited neurological disorders, signs of hearing loss, and in some instances, traces of PCBs were passed on to babies at birth.

Subsequently laboratory tests on monkeys at the University of Wisconsin School of Medicine and on rats at the Center for Disease Control in Atlanta, Ga., produced marked reproductive failure in the monkeys and signs that PCBs were a cancer source in the rats.

In November of 1975 the PCB problem came to the fore in the United States when then EPA Director Russell Train called for a national ban on the use of the chemical substance and the agency itself began a stepped up program of monitoring on the compounds.

Production to stop

The major U.S. manufacturer of the compounds, meanwhile, the Monsanto Co., made a decision to stop further production of PCB by the end of 1977.

In April the EPA, which was developing proposed PCB discharge standards, indicated that the two New Bedford firms using PCBs were discharging up to 16.6 ounces of the chemical daily into the Acushnet River and city sewer system.

Last September the EPA released test findings which showed some sediment samples that registered among the highest PCB levels then in nationwide testing and shellfish samples which contained the highest levels found in testing to that date.

Those findings triggered off a crash sampling program among federal, state and local officials of both sediment, shellfish and fish which led to last week's health warning by the state Department of Public Health.

Although the warning applied to bottom feeding finfish and eels taken from points north of a line drawn from Minnabon Point to Rocky Point on West Island, and shellfish taken inside a line from Ricketson Point to Wilbur's Point, the state and federal government plan to continue monitoring samples in an effort to determine whether other types of marine life, such as lobsters and migratory game fish like striped bass and bluefish might be affected.

Earlier this year the EPA set discharge standards from Aerovox and Cornell Dabiller that will require both firms to discharge PCBs in concentrations not exceeding 10 parts per million. At the same time a ban on the use of PCBs was imposed nationally through its legislation order, effective next year.

The long term solution to the problem already here, however, remains elusive.