Considerable Areas Polluted With PCB

The Government's PCB Pollution Countermeasures consisting of nine ministries and agencies Thursday announced the result of a six-month survey on the present state of PCB (polychlorinated biphenyls) contamination of the nation indicating that a considerable number of places in the nation are contaminated heavily with the chemical.

One example is the 82,000 ppm of PCB detected in the mud below the waste discharge outlet of a condenser plant in Shizuoka Prefecture and smaller 43 ppm found in an eel caught in Beppu Bay, Oita Prefecture.

PCB production in Japan was discontinued in June.

The government agencies which took part in the survey were the Environment Agency, International Trade and Industry Ministry, Transport Ministry, Construction Ministry, and Agriculture-Forestry Ministry.

The survey found environs of plants that treat PCB were most heavily contaminated.

Of 1,884 places checked, 20 were found to have more than 0.01 ppm above the standard set by the Environment Agency.

Of them, 13 were around condenser plants and used paper reprocessing plants, including Fuji Research Institute in Oita Ward, where 0.43 ppm was found.

Mud samples from below three waste discharge outlets showed readings of over 10,000 ppm, with that from the Kyowa plant of C. I. Kasei, Shizuoka Prefecture, providing the highest count of 82,000 ppm.

River and irrigation canal water samples taken near plants also yielded considerable readings such as 0.39 ppm near Matsushita Electric Industrial Co. plant in Toyonaka, Nippon Condenser Co. plant in Kusatsu, Shiga Prefecture.

Water samples from rivers in general also provided some alarming readings, such as the Fuefuki River in Yamanashi Prefecture (0.9 ppm), Oita River (0.054) and Shiga River in Amagasaki (0.02 ppm).

Surveys of soil samples from 88 farms located near factories dealing with PCB revealed that 53 farms are contaminated.

The highest reading of 1,300 ppm came from a farm near a Nippon Condenser Co. plant in Kusatsu, Shiga Prefecture. Three other farms yielded readings of more than 10 ppm.

Rice harvested at the farm near the Nippon Condenser plant yielded 1.38 ppm.

The Government plans to ban all PCB contained in condensers and heat exchangers at 3,000 plants by the end of December 1972.

It was the first nationwide survey on PCB pollution in Japan although some local communities and universities have conducted localized surveys on the pollution.

The nationwide survey has revealed that the pollution is still going on around plants which use PCB.

Plants that produce large condensers and transformers and utilize heat exchangers, where limited use of PCB is still allowed, have been found to be discharging PCB into rivers and farms around them.

Observers believe this still lingering pollution could only be eliminated by recalling all PCB containing stuffer still in use and also by dredging the rivers and bays around the plants and by replacing the soil of farmlands around the plants.

The International Trade and Industry Ministry is conducting administrative guidance to have all matter containing PCB as heat conveyers recalled by the end of 1972.

Such guidance, however, would not be effective in eliminating PCB continued in used paper because paper reprocessing plants would continue to pollute the environment with PCB, observers believe.

Some of such PCB will wind up accumulating in fish and shellfish and the authorities will be obliged to set up a system whereby fish and shellfish will be put to scrutiny and, if PCB is found above a certain limit, they would be discarded.

Fish Contamination

Inshore fish were found to contain more polychlorinated biphenyls (PCB) than the permissible level, a joint survey by the Environment and Fishery agencies said Thursday.

The two agencies surveyed 588 sample fish of 80 kinds taken from 160 bodies of water, both sea and fresh, in 44 prefectures throughout the country.

As a result of the survey conducted from May, 18 samples taken in 11 water areas were found to be contaminated with more than 3 parts per million (ppm) of PCB, the temporary permissible level of the substance.

The highest concentration detected in the survey was 43 ppm in eel caught in Beppu Bay in Oita Prefecture.

Mackerel, sea-eel, and rock-trout caught in Osaka Bay were found in cases of more than three ppm of PCB. Some gray mullet and puncture in Harima Sea in the Inland Sea were also found to be contaminated by over 3 ppm of PCB.

Many fish found to have high PCB concentrations were caught in areas near the mouths of rivers where sea and fresh water are mixed.

Thirteen samples contained just 3 ppm, the permissible level, and 67 others contained 1 to 3 ppm, according to the survey.

According to a Fishery Agency interim report on the survey of fish caught in 53 water areas in 21 prefectures released in August, only four sample fish including sea perch and sea-eels were contaminated by 4 to 5 ppm of PCB. At that time the agency said that this degree of PCB contamination was not alarming.

The Fishery Agency will conduct a detailed survey of 13 water areas in which PCB-contaminated fish were caught. The 13 areas will include the sea off Tateyama in Chiba Prefecture, Tsuruga Bay in Fukui Prefecture, southern part of Osaka Bay in Osaka and Hyogo prefectures, Harima Sea in Hyogo Prefecture, the sea off Iwakuni in Yamaguchi Prefecture, Minamata Bay in Kumamoto Prefecture, Beppu Bay in Oita Prefecture, Lake Biwa in Shiga Prefecture, and Tokyo Bay.

The agency said that most of the fish found to be contaminated with PCB were not being eaten by people in big cities, except for pastimes, sea bass and sea-eel.

The agency added that it would be able to trace most PCB-discharging plants in surveys to be conducted hereafter.

Local fishery cooperatives around Lake Biwa have demanded that Nichiren Capacitor Ltd. pay compensations for causing damage to fishery resources. Fishermen in Harima Sea have urged Kanegafuchi Chemical Industry Co. and Mitsubishi Paper Mills Ltd. to pay compensations.

Gov't to Examine 4,000 Persons For PCB Effects

The Health and Welfare Ministry announced Thursday it will conduct in January and February physical examination of 4,000 persons, mostly fishermen and their family members, in eight prefectures to determine the effects of PCB pollution.

The ministry plans to obtain the result of the survey by end of March. Each person will be checked for such symptoms of PCB poisoning as melanin pigmentation in limbs, and blackened facial skin, besides routine blood and other tests. A total of 70 items are covered in the health examination.

The eight prefectures are Chiba, Mie, Shiga, Hyogo, Shimane, Hiroshima, Kagawa and Oita where large amounts of PCB have been found in checks conducted by local governments, the Fishery Agency and universities.

Meanwhile, the ministry revealed Thursday it has been conducting survey on PCB contamination of fish and shellfish since the start of this month at 16 prefectures including Tokyo, Shizuoka and Fukuoka.

All the 16 prefectures have large fish markets.

Six predominant kinds of fish are checked twice a month for PCB.

When fish caught in distant seas are found to contain at least 0.5 ppm of PCB and those caught in inland seas or nearby seas are found to contain at least 3 ppm of PCB, they will be discarded and the sea areas where they are caught will be declared PCB-contaminated.

The ministry said this survey will be completed by March.

New Tolerance Standard Set For PCB in Air

The Environment Agency Thursday announced a tolerance standard for PCB contained in gas emanating from incineration of PCB-containing products such as condensers and non-carbon copy paper.

The new standard was set because of a PCB pollution alleviation measure calling for the recall of PCB-containing products and interesting them.

According to the Ministry of International Trade and Industry plan, 30,000 tons out of 36,000 tons of liquid PCB used in noncarbon paper, condensers and other electrical products are to be recalled by 1975.

The PCB-products will be incinerated at Kanegafuchi Chemical Co.'s Takasago plant in Hyogo Prefecture and Mitsubishi-Monsanto Chemical's Yokkaichi plant. They have a combined incineration capacity of 720 tons a year.

According to the new standard, the gas generated during incineration should not contain 0.01 ppm of PCB and the average ppm reading should not exceed 0.007.

The standard has been set to keep the amount of PCB absorbed into human bodies from the air to 2.5 micrograms a day, or one hundredth of the standard set by the Health and Welfare Ministry in August for ingestion through foodstuffs.

So far 8,000 tons of noncarbon copy paper containing 100 tons of PCB has been recalled and placed in storage for incineration.

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