

ITEM	10
MANAGER'S REPORT NO.	72
COUNCIL MEETING	1980 11 24

RE: DISCHARGE OF POLYCHLORINATED BIPHENYLS INTO THE FRASER RIVER
 BELKIN PAPERBOARD, A DIVISION OF BELKIN PACKAGING LTD.
 8255 WIGGINS STREET, BURNABY, B.C.
 (ITEM 10, MANAGER'S REPORT NO. 3, 1980 JANUARY 14)
 (ITEM 12, MANAGER'S REPORT NO. 13, 1980 FEBRUARY 18)
 (ITEM 8, MANAGER'S REPORT NO. 36, 1980 MAY 12)

Following is a progress report from the Chief Public Health Inspector providing information requested by Council on the discharge of Polychlorinated Biphenyls into the Fraser River by Belkin Paperboard, a Division of Belkin Packaging Ltd.

RECOMMENDATION:

1. THAT the recommendation of the Chief Public Health Inspector be adopted.

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1980 November 18

Our File: 17-12-80

TO: MUNICIPAL MANAGER

FROM: CHIEF PUBLIC HEALTH INSPECTOR

RE: DISCHARGE OF POLYCHLORINATED BIPHENYLS INTO THE FRASER RIVER
 BELKIN PAPERBOARD, A DIVISION OF BELKIN PACKAGING LTD.
 8255 WIGGINS STREET, BURNABY, B.C.

RECOMMENDATION:

1. THAT this progress report be received for the information of Council.

SUMMARY:

Belkin Paperboard has effectively reduced the effluent discharge containing PCB's to the Fraser River in compliance with their Provincial Pollution Control Act Permit. The Federal Environmental Protection Service has not reached a conclusion on the effect of PCB's on resident fish species near the Belkin Paperboard outfall.

An objection to the Belkin Paperboard application for a refuse permit has been forwarded to the Director, Pollution Control, Waste Management Branch, Ministry of Environment, Victoria, B.C.

Additional information on the effect of PCB contamination on the Fraser River sediment near the Belkin outfall has been requested from Environment Canada, Environmental Protection Service. A further report will be submitted to Council upon receipt of this information.

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REPORT

On 1980 November 12 this Department received technical information from Environment Canada, Environmental Protection Service, Pacific Region, regarding the survey of the Polychlorinated Biphenyl levels in the Belkin Paperboard effluent and its impact on resident Fraser River fish species in the vicinity of the Belkin Paperboard outfall. We are now in a position to provide Council with the following requested information.

1. Level of Polychlorinated Biphenyls in the Fraser River Sediment

The joint Federal-Provincial study of the Fraser River Estuary reports that Fraser River sediment in the vicinity of the Belkin Paperboard outfall contains PCB accumulations ranging from 10 to 1,500 parts per billion.

2. Does the product that is being recycled by Belkin Paperboard contribute to the amount of PCB's in the effluent?

The PCB discharge from the Belkin Paperboard outfall can be attributed to their almost total reliance on recycled paper, which often contains significant levels of PCB's. The Fraser River Estuary report states that "PCB levels in effluent from other paper plants on the Fraser River were below detection. Paper production at these Vancouver-area plants incorporates a large portion of new material which is devoid of PCB contamination. The use of PCB's in carbonless copy paper and printing ink was terminated in 1971. It is expected that, as reserves of PCB-containing paper are depleted, Belkin's effluent concentrations will decrease and the potential for environmental contamination from this source should be reduced".

3. Current status of Belkin Paperboard's effluent to the Fraser River

Environment Canada, Environmental Protection Service, have advised that Belkin Paperboard has significantly reduced the PCB discharge level. The reduction in PCB discharge level is consistent with the suspended solids data, which shows that there has been an 81% reduction in the average daily discharge as compared to levels during 1979. Monitoring data provided by the company as part of the Provincial permit requirements, indicates that the improvement in solids removal has continued and is in compliance with their Provincial Pollution Control Act Permit.

The Provincial Ministry of Environment, Waste Management Branch, have advised that Belkin Paperboard's significant reduction in suspended solids has resulted in the final effluent meeting the Provincial Control Permit requirement of .11 kg/day PCB, analysed using the single extraction method.

4. Status on Belkin Paperboard's application under the Pollution Control Act for a Refuse Dumping Permit

This permit application is the direct result of the 1980 May 21 charges by the Ministry of Environment under the Pollution Control Act against Belkin Paperboard for discharging non-recyclable material on their property without a Pollution Control Act Permit. Ministry of Environment officials advise that the charges are awaiting court hearing.

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Our letter of 1980 November 13 to the Director, Pollution Control, Victoria, regarding Belkin's refuse application stated the following:

"This Department has perused data provided by the Waste Management Branch, Lower Mainland Region, regarding Polychlorinated Biphenyl content in a sample of refuse from Belkin Packaging Limited, the subject of their recent application for permit.

The sample data indicated that the refuse material contains Polychlorinated Biphenyls. As the refuse area is subjected to flooding and an extremely high water table, plus no provisions are shown on the application as to means to protect the water table from possible contamination, this Municipality must object to the granting of a permit under the Pollution Control Act.

Would you please advise this Department as to the final decision on the Belkin Packaging Limited application for a refuse permit under the Pollution Control Act."

5. Survey results on PCB levels in resident fish species near Belkin Paperboard's outfall.

The Regional Director, Pacific and Yukon, Environment Canada, Environmental Protection Service, has advised this Department as follows:

"The recent survey of resident fish tissue data shows that PCB (Arochlor 1242) was detected at all stations, however, the sample sizes were not large enough to attempt to determine significant differences in PCB levels between the sampling stations. Also, with one exception (chub sample collected at station #1), the concentration of PCB in fish tissue did not exceed the 2 ppm limit for edible tissues set by the Department of National Health and Welfare. The Department of Fisheries and Oceans has conducted a similar but larger scale study during April 1980 and we expect that the results will soon be available. We will be reviewing this data with officials from Fisheries and Oceans before making any definitive conclusions regarding the PCB levels in fish as a result of the Belkin Paperboard discharge."

On 1980 November 18, this Department forwarded a letter to Mr. B.A. Heskin, P.Eng., Regional Director, Environment Canada, Environmental Protection Service, advising as follows:

"On 1980 November 12 this Department received a report on Belkin Paperboard's effluent and the PCB level in resident fish tissue from Mr. M. Ito, P.Eng., Director, Environmental Protection Branch.

We are vitally interested in receiving a conclusion from your agency on the PCB level in resident fish species as a result of Belkin Paperboard's discharge. We would request your assistance in having the Federal Fisheries and Ocean officials provide the required data as soon as possible.

In addition, we note that in your letter of 1980 March 21 the Fraser River sediment near the Belkin Paperboard outfall contains up to 1,500 ppb of PCB. Would you please advise this Department on the possible long-term effect that the PCB sediment concentration could have on resident fish species and whether there are possible measures that could be taken to offset any long-term effect.

The Municipality of Burnaby is very concerned about the possible effects that PCB's could have on the Fraser River, specifically, near the designated park site 2,000 feet downstream and the existing Fraser River Foreshore Park, 6,500 feet downstream of Belkin Paperboard's outfall.

I would take this opportunity to express our appreciation for Environment Canada, Environmental Protection Branch assistance on this matter."

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Upon receipt of this information, a further report will be submitted to Council.

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The Environment Canada, Environmental Protection Service report on "Monitoring of Polychlorinated Biphenyls in the Lower Fraser River" will be forwarded to the 1980 November 26 meeting of the Pollution Committee.

Respectfully submitted,

G.V. Harvie

G.V. Harvie, C.P.H.I.(C)
CHIEF PUBLIC HEALTH INSPECTOR

GVH:1a