

Effect on the River.

In regard to the proposed zinc plant it is desirable to consider whether any acid or other liquors would be discharged into the river and whether any such discharge would be likely to create a nuisance. Such acid liquors may result, for example, from the cleaning of roaster gases in preparation for the contact process, or from the humidifying of furnace gases in preparation for electrical precipitation of fume and dust. As the proposed location of the zinc plant is above the point in the river at which the City water supply is taken, it must be considered whether any effluent from the plant would be likely to reach the intake and whether it would affect the water in any way.

The water flowing past Montreal comes in part from the St. Lawrence and in part from the Ottawa rivers, which mix to some extent by the time they reach the intake of the City water supply. I have obtained figures for the maximum and minimum flow of both of the rivers, and also the chemical analyses of the St. Lawrence river, the Ottawa river and the Montreal City water. It appears that any effluent from the proposed plant is liable to reach the City intake, but that it will be so diluted that no harm can possibly result. The water of both rivers contains in solution a considerable amount of calcium carbonate, and this is amply sufficient to neutralise any amount of sulphuric acid that would be likely to be discharged.

In view of the intention of the Company to locate their plant near a part of the river that is at present largely free from industrial pollution, the Board of Trade should consult the Department of Marine and Fisheries at Ottawa with regard to the probable effect on the fish in Lake St. Louis of liquors containing sulphuric acid or sulphates of iron, zinc and other metals. # In any case the Company should be restricted in regard to the amount of such liquors that may be discharged at any time and should be required to filter any wash-waters containing lead, arsenic or other objectionable suspended matter before allowing such waters to enter the river.

This will of course be unnecessary if the Company can undertake that there will be no such discharge.