



NEWS RELEASE

HOLD FOR RELEASE

January 23, 1991--4

NORTH AMERICA'S FIRST INTEGRATED SOIL RECYCLING PLANT TO BE BUILT
BY THE TORONTO HARBOUR COMMISSION

The Toronto Harbour Commission today unveiled a pilot project designed to clean contaminated soil on Toronto's waterfront. A demonstration plant, to be built at a cost of \$4.3 million, will be the first of its kind in North America.

A \$60,000 study, funded by the Commission last October, has shown that technology exists today to clean the type of soil and contaminants that are present in the 1,200-acre Port Industrial District.

"We found that the soil remediation can be done in an environmentally safe and controlled manner," said Commission Chairman Frank R. Smith.

"But most important of all," he added, "the soil and groundwater cleaning can be performed at a cost per tonne that will be less than the option of removing this soil to a licensed landfill site."

At present, the cost of removing small volumes of contaminated soil, including excavating, hauling, disposal in a licensed landfill and replacing the removed soil with clean fill, is approaching \$200 per tonne. For larger volumes, the cost would be much more, even if a disposal site could be found.

A soil cleaning plant handling 300,000 tonnes of material a year could remediate the soil at \$160 per tonne.

Soil clean-up involves a three-stage process. The first step sees the contaminated soil washed under high water pressure.

Soil cleaning ... 2

The resulting clean sand, which makes up about 80 per cent of the port district's soil, would then be recyclable as backfill.

The remaining contaminated slurry will require further treatment.

The second step will see the removal of inorganic materials, mainly toxic heavy metals from the contaminated slurry, using a leaching process adapted from the metals mining industry.

The third step will involve the treatment of organic contaminants by bioremediation under controlled conditions in reactors.

"The soil cleaning plant we have in mind will have an annual throughput of 300,000 tonnes," said Mr. Smith. "Our Engineering Department and our consultants, SNC Inc., of Montreal estimate the port industrial district contains in excess of two million tonnes of contaminated soil."

The Chairman indicated that the permanent plant site and storage area could be located on 20 acres of land just east of the Richard L. Hearn Generating Station on Unwin Avenue.

"This is an ideal location," he added, "because the size of the enclosed plant will not be out of place with the Hearn facility."

Mr. Smith identified three possible sites for the demonstration plant, two on the north side of the Ship Channel east of Cherry Street and the third east of the Hearn Generating Station.

"Our demonstration plant should consist of the soil washing plant, the heavy metals extraction plant and the bioslurry operation," he said.

However, Mr. Smith noted there is no available soil washing plant that could be brought to the site.

"Since we cannot bring a plant to our soil, we will bring the soil to an existing soil washing plant," he said.

He said that sometime this summer, the Commission will ship up to 6,000 tonnes of soil by vessel to a plant in Western Europe, either in Holland or in Germany, where it will be processed.

"This bulk sample could be excavated and shipped abroad while our demonstration plant was being assembled," Mr. Smith pointed out.

"We will collect the cleaned soil, the contaminated slurry and the wash water and return them to our demonstration plant where they will be put through the other two stages of the process ... for heavy metals extraction and then for bioremediation.

"If the Industrial District is to grow, then soil remediation is a must," said the Chairman. "We know this can be done in an environmentally acceptable manner and at a reasonable cost. Our demonstration will prove this to be so.

"For the first time ever in North America, we will see large volumes of contaminated soil being cleaned and made usable again."

Mr. Smith said the project has been discussed with the Ministry of the Environment at the staff level and has received enthusiastic response.

(30)

John Jursa
Director, Public Affairs
Toronto Harbour Commission
60 Harbour Street
Toronto, Ontario
M5J 1B7

Phone: (416) 863-2036