

VILLES

Beaconsfield

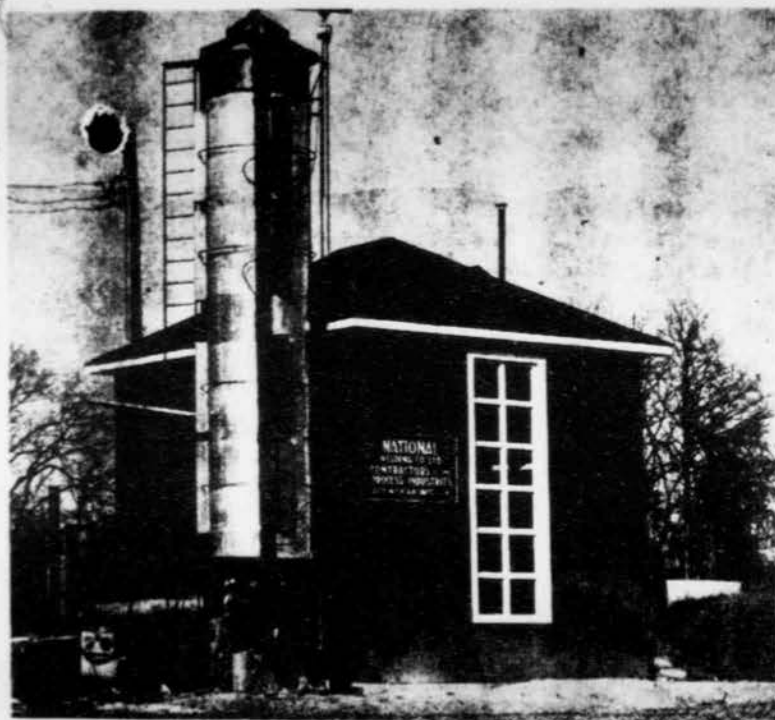
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Raw sewage solids are settled to the bottom of a primary settling tank situated beyond the right-hand margin of the picture. The overflow is chlorinated for discharge into the river, and the solids are pumped into a smaller settling tank just to the right of the building where they are concentrated to a sludge at about 10% solids content. After being pumped into a storage tank inside the building, this goes through a disintegrating machine and is sent to the top of the tower (the AST reactor). Here the sludge is atomized with pressure nozzles into the empty tower whose walls are held at a high temperature (1400°F at the top and 1000°F at the bottom) by four banks of electric heaters controlled individually and automatically. As the water in the atomized spray flashes into superheated steam, the solid particles are completely dried by the time they have fallen halfway down the tower. At this point, air is introduced at low pressure from a compressor inside the building. The solid particles combine with the oxygen in the air and the organic material in them is burnt to a dry, fine dust of harmless inorganic ash. Bacteria and odors are destroyed completely by the high temperature.

BEACONSFIELD, QUE. —

First Municipality in the World to Adopt New Method of Sewage-Sludge Disposal

Described in detail in our December, 1958, issue, a revolutionary new method for destroying the bacteria, odor and organic materials in settled, primary, raw sewage sludges has been declared successful by the town of Beaconsfield, Que., after several months of community-scale testing, and the town council has accepted and agreed to pay for the equipment involved, on the recommendations of H. W. Lea, consulting engineer of Montreal and Dr. Theo. J. Lafreniere, chief sanitary engineer of Quebec Ministry of Health. This action was taken at a meeting of the Beaconsfield town council on November 30, 1959. Thus, Beaconsfield becomes the first community in the world to have this new method at its recently installed sewage-treatment plant.

The new procedure is known as the Atomized Suspension Technique, or AST for short. It was invented and patented by Dr. Wm. H. Gauvin, head of the Chemical Engineering Division of the Pulp & Paper Research Institute of Canada, in Montreal. He made this discovery in 1953 during the

course of research studies aimed at the much more complicated and costly business of recovering sulphur and other chemicals and heat from the spent liquors of sulphite pulpmills.

Canada's National Research Council was drawn into participation in this work. Part of it went forward in Ottawa, in the laboratories of the Applied Chemistry Division under the supervision of Dr. Paul E. Gishler, now research director of Canadian Chemical & Cellulose Ltd., Edmonton, Alta., and Dr. L. Osberg. The rest was carried on at the Pulp & Paper Research Institute's headquarters on McGill University Campus in Montreal.

When it became evident, in 1956, that this procedure might be used to destroy the organic materials in sanitary sludge, Canada's pulp and paper companies permitted the Institute to pursue this unexpected side issue of the research, at their expense, during the past three years. Thus, while seeking answers to their problems of stream pollution, the Research Institute appears to have come up with a streamlined solution to an even more wide-

spread and probably more serious problem from the standpoint of human health and welfare.

Study of the application of AST to sanitary engineering began in the spring of 1957, and on July 30 in that year, the Institute demonstrated the technical feasibility of the process in a pilot plant designed and built by its own personnel. This was operated outdoors on one corner of the McGill Campus, using a sludge supply from the R.C.A.F. base at St. Hubert, Que., some 15 miles away.

National Welding Co. Ltd. (8235 Mountain Sights Ave., Montreal) became interested in the application of AST to sanitary engineering problems, and hired Douglas J. Inglis, a young sanitary engineer who had just emigrated to Canada from Scotland, to attend the Institute for several months of orientation-training in AST applications and in the operation of pilot-scale AST equipment.

On November 25, 1957, at a special meeting of the Beaconsfield town council, approval was given for the

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installation by National Welding of an AST sludge-disposal reactor in conjunction with the new sewage-treatment system being installed by the town. National Welding had agreed to provide and operate the AST plant and to await payment until it had been declared satisfactory both to the town and provincial authorities.

Because there were construction defects in the collection system, there were many intervals during which no sludge was available with which to test the AST reactor. Also, like any new plant erected to demonstrate a completely novel industrial procedure, there were mechanical and electrical "bugs" in this unit. Only during this past fall has there been sufficient sludge to give the unit rather continuous trial. There is still not enough to keep it operating 24 hours around the clock, day in and day out. That will

JAN 1960

Beaconsfield wants time on metro plan

By BOB HAYES

The City of Beaconsfield yesterday strongly recommended that no legislative action be taken on a proposed metropolitan government "until the matter has been studied in depth."

The municipal council stated in a resolution that a final draft bill, when it is prepared by the Quebec government, should be submitted to the various municipalities for study. It added that sufficient time must be given for each municipality to advance arguments for, and against the bill's contents.

Regional scheme acceptable

The city said it objected to the implementation of a Montreal Urban Community plan as outlined by Municipal Affairs Minister Dr. Robert Lussier last month, but accepted "in principle" some form of West Island regional government.

"The plan as revealed by the minister can at best serve as a stopgap to provide tax relief for the citizens of Montreal without due regard for the needs of residents in the total region," the council stated.

The resolution said the minister's plan as outlined would "seriously affect the development and growth of Beaconsfield because of the requirement of additional and excessive taxes to provide for the services."

Beaconsfield is silent on case

Beaconsfield's Public Works Superintendant, Henry Paul Rheault, has entered a not guilty plea on charges of theft over \$200 and receiving.

Rheault, 50, is a 20 year employee of the city, and no disciplinary action has been taken so far.

"In the interests of justice to the individual concerned, I am not prepared to say anything at this time," said Mayor Pat Rustad.

A preliminary inquiry begins in Montreal on Tuesday.

Employee acquitted in loan of tools

By ROD MACDONELL
of The Gazette

The public works director of Beaconsfield was acquitted of theft yesterday by a Sessions Court judge who criticized the city for lax administration.

Henri-Paul Rheault, the public works director, and his son Daniel, a city blue-collar worker, were acquitted of stealing and receiving an unspecified quantity of property.

Judge Gilbert Morier said he was "somewhat angered" by the "lack of control" Beaconsfield officials had over city property.

"He (Rheault) cannot alone be held responsible for the vacuum of administrative rigor."

Former city manager Allan Mainville, who now works for Hawkesbury, Ont., said city records would not permit him to determine how many chain saws Beaconsfield owned.

Seized items

"The auditors told us it was a weakness in the system."

Det.-Sgt. Conrad Leroux testified he seized a chain saw, generator and 74 lengths of skating rink boards last Dec. 5 at a property in Les Cedres owned by 23-year-old Daniel Rheault. The items belonged to Beaconsfield.

Leroux said he also seized a lawn tractor and trailer belonging to the West Island suburb from the public works director's cottage in Grenville Township.

Rheault's lawyer tabled five receipts, saying they proved his client had paid \$15 for the lawn tractor and had bought the trailer in a load of scrap iron.

The parks foreman testified he gave Daniel Rheault the skating rink boards because they were in an advanced state of disrepair.

Two city blue-collar workers testified they had given permission to Daniel Rheault to borrow a generator and a chain saw for work on a house.

Common practice

Pilon told Rheault's lawyer it was a common practice for city workers to borrow tools belonging to Beaconsfield and he borrowed equipment regularly.

Five other witnesses confirmed that workers often borrowed equipment after obtaining Rheault's authorization.

City manager Georges Krcmiry said in a telephone interview that an inventory of city equipment is currently being conducted and "a person will be hired to handle the perpetual inventory system."

Krcmiry said employees are no longer permitted to borrow city tools and equipment.