



Plant superintendent Jack Marsh examines sintered fly-ash pellets.

of coal used, the fly-ash produced in Ontario's power stations has a relatively high carbon and iron content, making it less acceptable as a raw material than fly-ash in some parts of the U.S. and Europe. The beneficiation process removes this disadvantage.

After beneficiation, the material is fed into a furnace for sintering into pellets which are later crushed and screened into various sizes of light-weight concrete aggregate.

Although the Lakeview fly-ash process plant is owned and operated by Ontario Hydro, responsibility for marketing its products falls on a private company, Enercon Limited. Once the plant is in full operation, it will run 24 hours a day, seven days a week. Between 26 and 30 people will be employed there.

Ontario Hydro first used fly-ash concrete on a trial basis in one block of the dam at the Otto Holden Station on the Ottawa River. That was in 1949. Repeated comparisons of the test section with the concrete used in the remainder of the dam have indicated no deterioration, even at the waterline where weathering is most severe.

Since then, Hydro has used fly-ash concrete in a number of major power stations including the St. Lawrence and Mountain Chute dams and such thermal-electric plants as Lakeview, Lambton, Nanticoke and the nuclear station at Pickering, east of Toronto. At Pickering, fly-ash has reduced the amount of cement in the 400,000 yards of concrete by about 20 per cent.

FLY-ASH AS LANDFILL

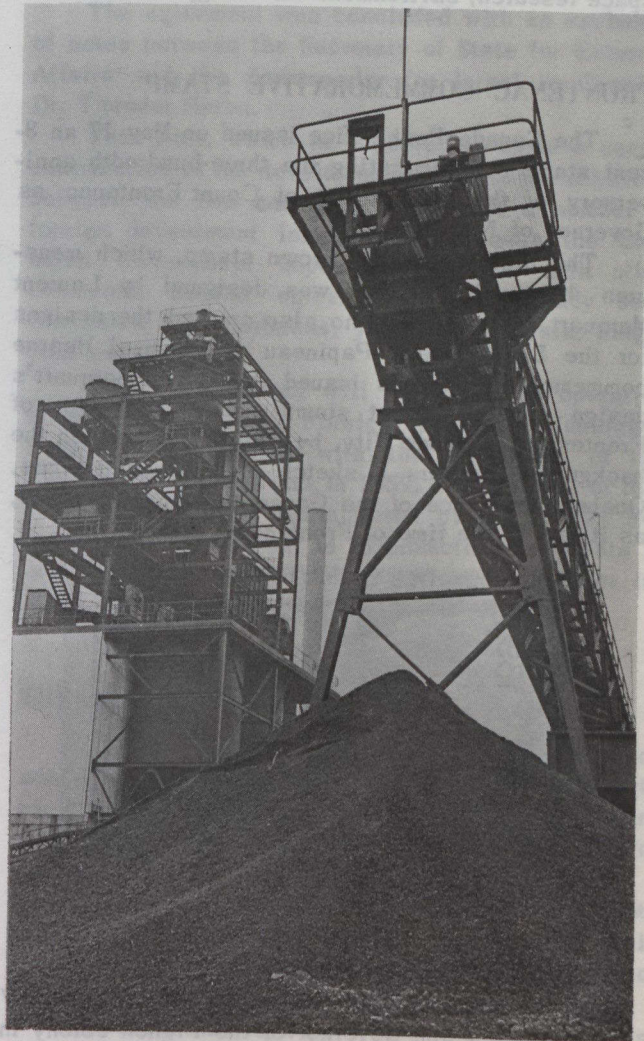
Besides its role as an additive in concrete, fly-ash has been used as landfill in a number of recreational projects. Thanks to fly-ash trucked from Lakeview, an eight-acre splash of green with swings, baseball diamond and soccer pitch, has replaced the open sore of a Mississauga gravel pit.

Now known as Oakridge Park, the old pit was filled to a depth of 25 feet with fly-ash, which was then compacted, capped with top soil and sodded.

An even more imaginative project is a dumping experiment involving the J. Clark Keith generating station in Windsor. Thousands of tons of fly-ash were trucked to a Sandwich West township site and bulldozed at Hydro's expense into a 70-foot ski hill. Hydro also covered the hill with topsoil and upgraded a road to the site.

Jack Menard, chairman of the township's parks and recreation committee, said it would have "cost us a fortune to build a hill like that".

The township didn't stop there. It took advantage of the Federal Government's local initiative program and obtained a grant of more than \$24,000 to plant 720 trees, create nature trails and build picnic tables, log fences and a shelter. A small lake will be created and part of the 12-acre site may eventually be used as an overnight camping area. (Story and pictures courtesy Ontario Hydro News, March 1972 issue.)



Stacking conveyor which transports pellets from the sintering plant.