A commercial unit capable of treating 7,500 cubic feet a minute of "dirty" gas was constructed and installed in an iron foundry in Winnipeg on a furnace used to melt cast iron. The packed-bed filter removed particulate matter from the hot-waste gas, permitting it to be safely vented to the atmosphere. The foundry is considering the possibility of heating its buildings with the clean waste gas. The Manitoba government has approved the unit as a satisfactory pollution-abatement device.

Uranium resource estimates increased

Canada's estimated uranium resources have increased by nearly 8 per cent over 1974 estimates, according to the annual report of the federal Uranium Resources Appraisal Group of the Department of Energy, Mines and Resources.

The report, entitled *1975 Assessment of Canada's Uranium Supply and Demand,* has revised the estimates of uranium recoverable by today's technology from the 1974 figure of 526,000 short tons of uranium oxide to 562,000 tons, an increase of 7.8 per cent. The increase does not include 1975 production of 4,600 tons.

Uranium recoverable at two prices, up to $20 a pound and up to $40 a pound of uranium oxide, was included in the assessment of measured, indicated and inferred resources. The 1974 assessment prices of $15 and $30 a pound had been increased to reflect inflation and the increased market value of uranium.

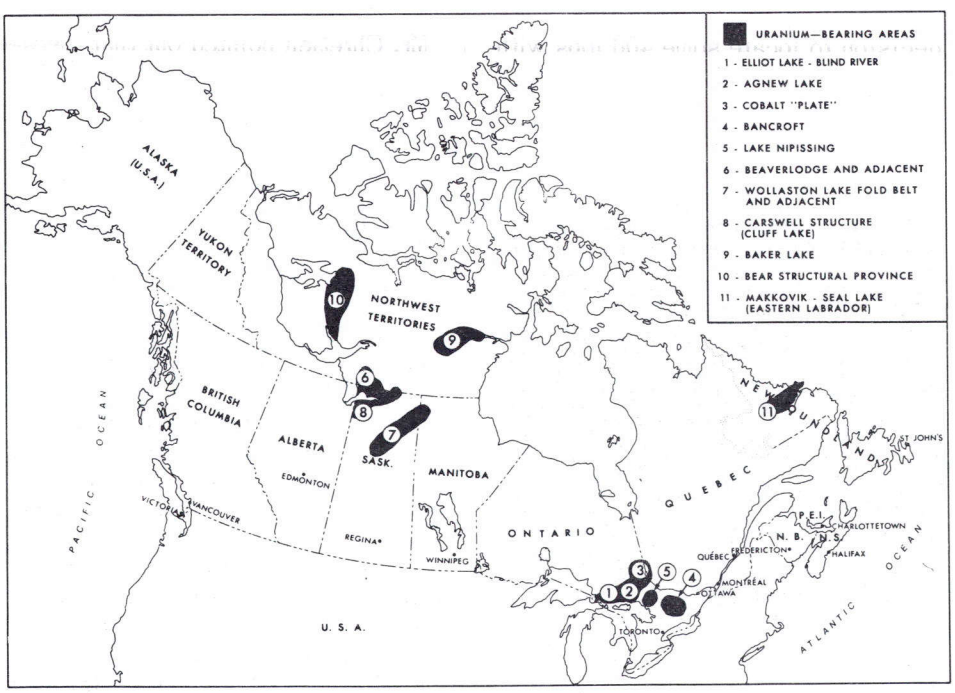
Part of the increase was due to a more extensive study of data on deposits in established mines and part to the discovery of new resources.

Even these estimates are an incomplete appraisal of uranium resources in the two price ranges as the assessment was restricted to the principal deposits in Canada. With increased uranium exploration activity in Canada expected during 1976, estimates of resources in both price categories can be expected to increase.

Allocations for meeting domestic requirements have been applied to each Canadian producer's tonnage. Approximately 21 per cent of each producer's uranium reserves will be required to provide the 30-year fuelling requirements of 81,000 tons of uranium oxide for the 14,700 megawatts of nuclear capacity expected to be operating in Canada by 1986.

Domestic utilities are expected to have contracted for 33,000 tons of uranium oxide to provide a 15-year fuelling requirement for the 11,900 megawatts of nuclear generating capacity now operating or committed for construction. Canadian uranium producers have contractual export commitments for about 110,000 tons of uranium oxide. Over and above these commitments and domestic allocations, Canadian producers will still have almost 50 per cent of their resources uncommitted to meet future export or domestic needs.

Canada's annual uranium production capability is expected to grow from 7,600 tons in 1976 to 13,000 tons in 1980 and to 15,000 tons by 1985.



New satellite station

A station that will receive, record, process and distribute satellite imagery of Newfoundland and a large area of the North Atlantic Ocean was installed at Shoe Cove near St. John's, Newfoundland, last month.

The Portable Earth Resources Ground Station (PERGS), with its 30-foot dish antenna, control computer, and ground data handling system, was assembled and tested by MacDonald Dettwiler and Associates of Vancouver.

The portable station, constructed for $114 million, is believed to be the cheapest of its kind ever built. The cost of the first station built by the United States National Aeronautics and Space Administration (NASA), for example, was $28 billion.

The Canada Centre for Remote Sensing (CCRS), part of the Department of Energy, Mines and Resources, will operate the new station. It will receive signals from NASA's earth resources satellites, Landsat 1 and 2, and a weather satellite, Noaa-3.

The techniques used in PERGS to record, store and transform data into images are not limited to one particular satellite. Aside from a special box for each spacecraft, the system does not require any unique components to receive signals from all satellites.

PERGS will produce black and white "quicklook" imagery and tapes for computer use. It will also be able to transmit facsimilie images directly from computer disks to their destination by telephone line. By avoiding photographic processing, the quality of the data is not lowered and 45 minutes to two hours can be saved in distribution time.

When it begins operating next October, PERGS will supplement the services provided by another CCRS station in Prince Albert, Saskatchewan, which receives data for all Canada except Newfoundland and the east coast.