

Erupting with flare

If early indications are correct, the sun may have recently awakened from a long hibernation at the tail end of its "11-year sunspot cycle", according to the National Research Council (NRC).

In late April, a violently active sunspot group produced major flares on four successive days after the group was brought around by the sun's rotation to its visible face. The rare photograph (*right*), taken with NRC's solar telescope near Ottawa, shows the biggest flare, believed to be the largest in two decades, about an hour after it first erupted on the morning of April 28. (The relative size of earth is indicated by a white circle in the shaded area at the upper right.)

From above, the spectacular flare appeared as two jagged, bright ribbons set against a swirling darker background. The shorter central ribbon flashed spark-like between the pits of two black sunspot cores. The long curving ribbon of intensely hot matter receded from these sunspots much like the crest of a wave.

During this event, NRC's solar radio telescope in Algonquin Park, Ontario, measured the greatest outburst of microwaves from the sun in over 30 years of daily observations with this instrument.



NRC photo

Uranium to be closely guarded

Rules governing foreign ownership of Canada's uranium-producing industry are contained in a bill introduced to Parliament recently.

The Uranium and Thorium Mining Review Bill draws heavily on policy principles limiting foreign ownership in the uranium industry that were first announced by the Prime Minister and the Minister of Energy, Mines and Resources in 1970.

The new bill, which provides further evidence that the Government is striving for at least 50 percent Canadian ownership in major resource industries, requires that, to produce uranium in Canada, a company must apply for an extraction permit issued by the Minister of Energy, Mines and Resources for a decision as to whether the company is qualified.

Criteria

Included in the requirements are the following criteria:

- Shares held by or for non-residents are not to exceed 33 per cent, with certain exceptions.
- Three-quarters of the company directors are to be Canadian citizens.
- The holding of working interests, royalty interests or managerial contracts by non-residents are not to exceed limits prescribed by the Governor-in-Council.

If the level of foreign ownership in an applicant company that meets the other two requirements exceeds 33 per cent, but does not exceed 50 per cent, and the applicant is able to demonstrate that it is Canadian controlled, the applicant will be considered qualified.

The criteria, including the 33 percent limit on shares held by or for non-residents, would not apply to companies that were producing uranium as of March 2, 1970, the day on which the Federal Government first announced its intention to limit foreign ownership in the uranium-producing industry. Also exempt from this limit would be companies that were exploring for uranium as of that date,

providing they had demonstrated a commercially extractable deposit by March 2, 1976. Any companies exempt from the 33 percent limit would not be permitted to increase the level of foreign ownership and if that level were reduced, it would become the new limit.

If the requirements are met, an extraction permit will be issued of up to ten years, with renewals subject to the same requirements for up to five years. Permits issued under the Uranium and Thorium Mining Review Bill would be in addition to any permits issued under the Atomic Energy Control Act, or the Nuclear Control and Administration Bill which is now under consideration by Parliament.

The bill further provides that in a case where the applicant is not considered qualified, he may re-apply for a permit on the grounds that the proposed project would be of significant benefit to Canada (unless the level of foreign ownership exceeds 50 per cent).