

Alberta approves coal-fired station

The Alberta Energy Resources Conservation Board has recommended approval of a major coal-fired electricity generating station proposed by the municipally owned Edmonton Power Ltd.

At the same time, the Board has deferred an application to expand an existing coal-fired plant proposed by Calgary Power Ltd. of Calgary.

Calgary Power had sought approval to add two 400-megawatt units to a central Alberta plant fuelled by coal. The board has decided to defer an approval until "the need for additional electricity generating capacity has been demonstrated."

Meanwhile, the company can go ahead, subject to provincial approval, with the construction of two 375-megawatt generating units and an adjacent coal mine producing 2.7 million tons of coal a year.

JET-age air traffic control

What's labeled as one of the world's most advanced air traffic control systems goes into action in Moncton Canada this month, and will ultimately span the country. Called JETS (Joint En-route Terminal System), it was jointly developed by Transport Canada and Toronto-based CAE Electronics Ltd., the prime contractor.

The \$26-million radar display system will show aircraft as small triangles instead of blips. Each triangle will indicate the aircraft's position, flight number, altitude, groundspeed and existence of an emergency on the aircraft (such as radio failure).

Another important feature of JETS: it will monitor the aircraft detected by remote radar sites, giving controllers a better idea of the traffic to expect at their terminal. Digitizers, costing another \$3 million, will convert signals from remote radar into electronic pulses for transmission through telephone lines.

Should JETS find success in the export market, several Canadian-based firms will benefit besides CAE. For instance, Perkin-Elmer Data Systems made the minicomputers, Vancouver's Anatek Ltd. the power supplies, Leigh Instruments the digitizers and Digital Methods Ltd. the computer programs.

Canadian Nuclear Industry

U.S. nuclear physicist and Nobel Prize winner Hans Bethe, quoted in The New Yorker, called the Candu reactor a "technical wonder" and praised its "fantastic" reliability. The science research unit at Sussex University recommended earlier this year that Britain, which has been putting its money into pressurized water reactors, adopt the Candu's heavy water system instead. The Sussex group described the Candu as the best heavy water reactor system in the world. Ontario Hydro, in a report on World Power Reactor Performance, found that of 222 nuclear reactors operating world-wide with over 500 megawatts in 1979, six of the top seven most efficient units were Canadian. (The exception, the second highest, was West Germany's *Stade 1*.)

Singapore Firm Acquires Canadian Submersible

Unmanned submersibles designed and manufactured in Port Moody, British Columbia, are rapidly becoming the workhorses of the offshore oil exploration industry.

International Submarine Engineering Ltd. (ISE), located in the Vancouver suburb, builds unmanned tethered remote control vehicles equipped with television cameras and a variety of manipulator systems. The submersible is able to perform a wide variety of underwater tasks such as inspection, survey and support.

ISE's latest development, the *DART*, has just completed testing, and the first unit has been delivered to the Singapore-based Kalatec Seatronics for underwater cable inspection.

ISE is now developing a submarine, the *Wrangler*, which will be manned by one person. The machine should be ready for testing in the coming months.

Works like diver

"We feel that up to 70 per cent of the jobs that once required a diver now can be performed by these vehicles," says Hari Sharma, ISE vice-president, finance.

"These units can inspect pipelines, drilling platforms, undersea cables, repair and recover articles, work under the ice caps — all at up to 3,000 feet below the surface," he says.

The submersible is controlled by an operator, sitting at a control panel on the oil rig or support ship, using the television camera as the operator's eyes and the manipulator to do the actual work.

ISE designs and manufactures three of the most popular submersibles; the large one- to three-ton *TROV*; the intermediate 450-lb. *TREC* and the *DART*, a 100-lb. deep access (1,200 feet) reconnaissance television camera.

The first *TROV* sale was to the Canadian Centre for Inland Waters, in September 1975. The ten other sales have been to American, French and British oil industry servicing companies. Their most recent sale, to the United States Navy, is in conjunction with their Underwater Recovery System. This *TROV* will recover test torpedoes on the bottom of undersea testing ranges.

The *TREC* has been sold exclusively to foreign buyers. A *TREC* for instance, was used to photograph the underwater damage caused by the June 1979 oil well accident in the Gulf of Mexico.

ASEAN Seminar on Technology Transfer

The Canadian International Development Agency (CIDA) in cooperation with the Canadian Department of Consumer and Corporate Affairs (CCA) and the World Intellectual Property Organization (WIPO) sponsored a seminar on licensing and technology transfer June 17 to 26 in Kuala Lumpur. Participants were from all ASEAN countries.

The purpose of the seminar was to promote better awareness and understanding of the industrial property system as an effective tool in the industrial development process and to provide initial advisory services for the improvement and modernization of the participants' industrial property systems. The seminar covered a wide range of topics related to licenses and agreements and their applications. The 24 participants were government officials and decision takers in the field of transfer of technology and industrial property specialists.