Waste Plan Bestirs Scots Nationalists

London

Following fierce protests from local groups throughout the country over plans to build shallow burial structures for low- and intermediate-level radioactive waste, Britain seems set to resolve the problem by building a deep underground disposal facility at one of its existing nuclear installations.

Nirex, the company owned by Britain's main nuclear organizations which is responsible for disposing of most of the country's radioactive waste, announced last week that it is about to start detailed environmental and geological surveys to determine the possibility of locating this facility either at the British Nuclear Fuels' reprocessing facility at Sellafield, in Cumbria, or at the United Kingdom Atomic Energy Authority's research establishment at Dounreay, in the north of Scotland.

The two sites have emerged as a result of a yearlong search by Nirex for appropriate locations, in a procedure already approved by the government's Radioactive Waste Management Advisory Committee.

The company's decision coincided with a statement by the U.K. Environment Minister, Nicholas Ridley, saying that he was overruling local objections in Cumbria to a test bore being sunk at the Sellafield site—considered by many in the nuclear industry as the most likely of the two sites to be eventually selected—in order to investigate its geological suitability.

Sellafield already generates over two-thirds of both the low-level and intermediate-level nuclear waste produced in Britain. Rail access for the remaining waste, primarily from nuclear power stations, is considerably easier than it would be at Dounreay, where a new railway line would have to be built.

Three years ago, the government announced that after a $30-million search, it had selected a short list of four sites in Britain for a shallow repository to receive low-level wastes. However, each was subsequently shelved after strong protests from environmental groups, local residents associations, and politicians from across the political spectrum.

The new proposals for building a deep facility are already generating opposition at both candidate sites. The proposal calls for a complex situated 1000 feet underground, capable of accommodating almost 50 million cubic feet of nuclear waste in sealed steel drums, beginning in 2005.

Groups such as the Scottish Nationalist Party have announced that they are mounting a joint campaign against using the Dounreay site, arguing that Scotland should not become Britain's nuclear dustbin. One local councillor said last week that there was "unanimous opposition" to Nirex's plans for Dounreay from local authorities in Scotland.

Similar arguments are being used in Cumbria, where the proximity of Sellafield to Britain's picturesque Lake District is being used by local environmentalist groups such as Cumbrians Opposed to a Radioactive Environment to argue against any expansion of the reprocessing plant's current nuclear activities.

The critics argue that, given current uncertainties about the long-term safety of waste disposal methods, the most prudent approach remains temporary surface storage adjacent to existing nuclear sites. High-level waste is already kept in aboveground sites, and this policy will continue.

A document published jointly by Greenpeace and Friends of the Earth last week said that Nirex was placing too much reliance on computer models that used oversimplified data, and that there remained insufficient knowledge of, for example, "the potential for major disruptive events such as major climatic change."

In order to counter the argument that permanently sealed depositories could become a major hazard if something unpredicted went wrong, Nirex has now agreed that, if economically feasible, the nuclear waste will not be irretrievably sealed up. The company issued a statement saying that, even though it continued to believe that anaerobic storage was the most desirable, it was now prepared "to go some way with the demand for recoverability of wastes provided this does not prejudice long-term safety of the repository."

Both Nirex and the government, however, are hoping that environmentalist opposition will itself be overruled by the appeal of the economic benefits that the project is likely to bring, whichever area is selected.

Construction of the waste disposal facility is expected to provide thousands of jobs over a period of 7 years, and permanent jobs would be created for the operation of the facility. These would be particularly welcome at the UKAEA's Dounreay establishment, which could lose 80% of its work force as a result of cuts in Britain's fast breeder reactor development program.

Similarly at Sellafield, the construction of the waste facility would be welcomed as a follow-on project to the current $9-billion investment program, which will start running down in the mid-1990s. Environment Minister Ridley told the House of Commons last week that Nirex felt its best strategy was to concentrate its attention on sites where there was already likely to be local support for civilian nuclear activities.

■ **DAVID DICKSON**

France to Raise Faculty Enticements

The French government has announced the introduction of a new system of bonuses for teachers who take on higher-than-average teaching, research, or administrative responsibilities. It is designed to combat faculty morale and recruitment problems at a time when the number of students entering universities—particularly in science and engineering subjects—is expected to increase rapidly.

At present, all university teachers receive a standard salary linked to the rise in the cost of living, plus a nominal $450 a year "research bonus." Following negotiations with the teaching unions, who have been demanding significant all-round salary increases, Minister of National Education Lionel Jospin announced last week that this bonus is being increased to $1000.

At the same time, however, Jospin has introduced for the first time a thinly disguised merit award scheme, which has been strongly opposed by the unions but is justified by the minister as primarily an award system for specific activities. Similar procedures are widely used elsewhere in the French civil service to get around the rigidities of official salary structures based on age and length of service.

In particular, extra bonuses of $4500 a year for 4 years, which will be added to the standard research bonus, will be awarded to university staff who can demonstrate an active involvement in research, including extra responsibilities for supervising graduate students. Those who accept special teaching responsibilities above the minimum specified in their contracts will be entitled to an additional $1500 a year.

The government also plans to introduce a new scheme to persuade graduates to stay on and train as university teachers. The scheme will include significant increases in the size and number of postgraduate grants, the introduction of university teachers' training courses, and a telescoping of the first few years of the career ladder.

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