

## Uranium Shortage Turns to Glut

*Paris.* A new shadow has been cast over the medium-term commercial prospects for both fast breeder reactors and nuclear fuel reprocessing in Europe. This time it comes from the recent decision of the Australian Labour Party to drop its preelection commitment to tough restrictions on the export of uranium. Since Australia possesses the largest proven reserves in the non-Communist world, this could lead to yet further oversupply in the world's uranium market.

In addition, the Paris-based Nuclear Energy Agency (NEA) of the Organisation for Economic Cooperation and Development (OECD) last month drastically revised its forecasts of uranium supply and demand. NEA now estimates that supplies of uranium from known resources are likely to keep up with world demand "for several years beyond the end of the century." This contrasts sharply with a report released only at the end of last year by the agency, which suggested that the crossover point might occur by the end of the 1980's.

The figures reflect sharp upward assessments of known uranium reserves, including those of Australia. In March, the Australian Bureau of Mines placed the country's "reasonably assured resources," which could be processed for less than \$80 per kilogram, at 474,000 tonnes; only a year previously, the official figure had been 314,000 tonnes. The other major increase has come from Niger, where estimated reserves have been increased from 213,000 tonnes to 454,000 tonnes.

The new figures also reflect a steep drop in projections of future installed capacity for nuclear power. In 1982, the agency predicted, based on official government figures, that by the year 2000 member countries of the OECD would be producing 489 gigawatts (GW) of electricity by nuclear power; the agency's current official estimate for this date is 392 GW and members of the secretariat feel that the true figure could be as low as 320 GW (the level predicted 2 years ago for 1990).

Based on these new figures, NEA estimates that uranium production capability from existing and committed centers will be 54,000 tonnes a year by 1994, almost exactly the same as anticipated demand from nuclear reactors. If planned and prospective centers were included in the calculation, production could be as high as 72,000 tonnes by the year 2000, still considerably above predicted reactor requirements.

"The exploration push of the late 1970's means that the uranium reserve situation has improved considerably, both in absolute terms and relative to projected demand," says Pekka Silvennoinen, head of the NEA's nuclear development division. However, he adds that with the current depressed state of the uranium market—where the price of uranium oxide has fallen from about \$70 per kilogram in 1980 to less than \$40 today—mining companies might put off their long-term plans, so that future estimates of production capability could prove to be too high.

Even so, the revised uranium supply figures will undercut the economic argument in favor of the rapid development of fast breeder reactors, and thus by implication the reprocessing of spent fuel from power reactors. They have also taken on a particular significance in the light of the growing conflict between the governments of Australia and France over French testing of nuclear weapons at the South Pacific test site of Mururoa.

Australian Prime Minister Bob Hawke, having persuaded the Labour Party to accept his plans for expanded uranium mining, has also announced that the government will fulfill the party's commitment to ban the shipment of uranium to France as long as the tests are continued. Such a move would cut off a trade worth more than \$300 million in 1982.

Although the nuclear industry in France currently depends on Australia for one-third of its uranium needs, with the depressed state of the market it expects little difficulty in finding the uranium elsewhere. Hawke's action has, however, been strongly criticized by French Defense Minister Charles Hernu, who has complained that it represents "interference" in the country's internal affairs.—**DAVID DICKSON**

Kadec has certainly been frankly critical of the program. In a recent interview, she referred to it as a "management nightmare" and said that it is "too broad-based" to fit with EPA's mission. In a memorandum to her boss last January, she stated her views more emphatically: "I consider the CIS and its management over the past few years as an affront to the American people. . . . I am in no way supportive of the decision to prolong the life of this system, through further investment of time or money, study or any other action designed to cover past mistakes."

Asked for specific examples of problems, however, Kadec said only that the system is "not well defined," and that "files are uneven." But, she adds, "There's no question that [some] files within the system are extremely valuable." She notes that the system is undergoing a complete audit and that the agency's inspector general also is conducting an investigation, but will not elaborate.

There clearly have been serious management problems. For example, no one kept very good track of money flowing in and out of CIS. It never was an easy task because the billings and expenditures were not handled centrally. Besides, users were often agencies that also were providing some of the data bases and thus transactions were muddled on that level as well.

Yet another complication for CIS has been its frequently changing relationships with contractors and subcontractors. The recent handling of this has been sharply criticized by several members of Congress. For example, Fein-Marquart, which has held the major CIS contract for developing software and maintaining the data bases during the past 9 years, switched its subcontractor for computer services in May, even though its own contract runs only 5 months longer. Senator Durenberger and Senator Baucus tried to prevent this move, arguing that it "has the potential for causing additional disruptions in service that will further damage the system." (EPA documents indicate that this change of computers brought forth a rash of complaints from users this spring.)

In referring to "additional disruptions," the senators were alluding to an incident late in 1983 when CIS was shut down for several days due to lack of funds. These incidents and cuts in CIS funding recently led Representatives James H. Scheuer (D-N.Y.), Henry A. Waxman (D-Calif.), and James J. Florio (D-N.J.) to send a strongly worded letter to EPA Administrator William D. Ruck-