

A fourth phase of the NEA TDB project was started in February 2008 and is planned to be completed in 2012. The project is, as in the two previous phases, guided by a Management Board, which consists of representatives from 17 organisations¹ with responsibilities in radioactive waste management in 13 OECD member countries. The Board has decided to perform:

- complementary studies of inorganic species and compounds of iron (Fe);
- a review of auxiliary data;
- an update of the selected value database accrued during the first three phases of the project;
- a review of inorganic species and compounds of molybdenum (Mo).

The first year of the project will be devoted to preparatory work and to establishing the review team, consisting of world experts in each field. The following two years will be devoted to reviewing available literature and data and to recommend selected values. The final year of the project will include peer reviews and editing for publication.

Further information on the TDB project, its database and publications is available at www.nea.fr/html/dbtdb. ■

Note:

1. The following organisations are participating in the fourth phase of the TDB project: NIRAS/ONDRAF (Belgium), NWMO (Canada), RAWRA (Czech Republic), POSIVA (Finland), ANDRA (France), CEA (France), FZK INE (Germany), JAEA (Japan), KAERI (Korea), ENRESA (Spain), SKB (Sweden), HSK (Switzerland), NAGRA (Switzerland), PSI (Switzerland), Nexia Solutions (UK), NDA (UK) and the Department of Energy (USA).

Einar SAELAND (1915-2008)

**NEA Director-General
1964-1977**



It is with great sadness that we learned that Einar Saeland passed away on 25 May 2008.

Einar was born on 3 April 1915 in Trondheim, Norway. His father was Sem Saeland, physicist and President of the University of Oslo, and his mother Gudrun Schöning Saeland, one of the first female Medical Doctors in Norway. Einar graduated in Physical Chemistry from the University of Oslo in 1939. In 1951, he married Elsebe Stoltenberg (1921-2000). They had two children: Sem (born 1952) and Nanna (born 1956).

In the early 1950s, Einar helped establish the Norwegian Nuclear Energy Research Institute at Kjeller, Norway. In 1955, he represented Norway at the 1st International Conference on the Peaceful Uses of Atomic Energy. He served as a Norwegian representative to the European Atomic Energy Society between 1951 and 1956. In 1958, he joined the OECD as NEA Deputy Director. He served as NEA Director-General from 1964 until his retirement in 1977.

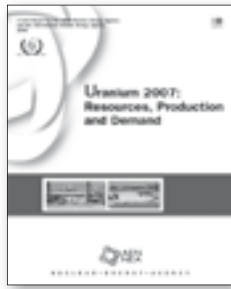
All those who knew Einar will undoubtedly remember an exceptional human being, whose intelligence, modesty, generosity, and sense of humor, served as a model to many. He will be greatly missed.

Uranium: Resources, Production and Demand

World demand for electricity is expected to continue to grow rapidly over the next several decades to meet the needs of an increasing population and economic growth. The recognition by many governments that nuclear power can produce competitively priced base-load electricity that is essentially free of greenhouse gas emissions, combined with the role that nuclear can play in enhancing security of energy supplies, has increased the prospects for growth in nuclear generating capacity.

With several countries building nuclear power plants and many more considering using nuclear power, uranium supply issues have become the focus of considerable attention. In response to rising demand and declining inventories, uranium prices have surged upward in recent years. As a result, the uranium industry is undergoing a significant revival, bringing to an end a period of over 20 years of underinvestment.

As the market price for uranium increases, worldwide uranium exploration and mine development



expenditures are rising significantly. Although the majority of global exploration activities remain concentrated in areas with potential for hosting unconformity-related and sandstone deposits amenable to *in situ* leach extraction in close proximity to known resources and existing production facilities, exploration efforts are also being expended in regions known to have good potential based on past work and in areas where little previous exploration has also taken place.

Higher uranium prices in the last few years have not only increased investment in such exploration but have led to the delineation of new resources through the re-evaluation of existing deposits and new discoveries. At current rates of consumption, identified resources are sufficient for about 100 years of supply. However, uranium resource figures are a “snapshot” of the available information on resources of economic interest. They are not an inventory of the total amount of mineable uranium contained in the earth’s crust. Should favourable market conditions continue to stimulate exploration, additional discoveries can be expected, just as has been the case during past periods of intense exploration activity. For example, Australia’s uranium resource base was increased by over 275 000 tonnes between 1 January 2007 and mid-2007 as a result of deposit extensions and new discoveries.

In contrast to the rapid response in exploration activity and resource assessments to increased uranium prices, mine production has not yet responded to the strengthened market. A combination of lower than expected ore grades, extreme weather events, supply chain disruptions and technical difficulties resulted in lower than expected output in recent years in several producing countries (e.g. Australia, Canada, Namibia and South Africa), offsetting significant production increases recorded

in Kazakhstan and, to a lesser extent, the United States. Although major expansions in mine production are being implemented or are planned in several countries, including Australia, Canada, Kazakhstan, the Russian Federation and the United States, and rapid development of new production centres is proceeding in Africa (Malawi, Namibia and South Africa), all these facilities will need to be developed in a timely fashion and produce near designed capacity in order to meet rising demand. It is clear that a sustained strong demand for uranium will be needed to stimulate the timely development of production capability and to further increase the uranium resource base.

Uranium 2007: Resources, Production and Demand (the “Red Book”), jointly prepared by the OECD Nuclear Energy Agency and the International Atomic Energy Agency, provides readers with a comprehensive update of these and other significant developments in the uranium mining industry. This recognised world reference on uranium, published in June 2008, is based on official information received from 40 countries. It provides a comprehensive review of world uranium supply and demand as of 1 January 2007, as well as data on global uranium exploration, resources, production and reactor-related requirements. Also included are substantive new information and updates on major uranium production centres in Africa, Australia, Central Asia, Eastern Europe and North America. Projections of nuclear generating capacity and reactor-related uranium requirements through 2030 are also featured, along with an analysis of long-term uranium supply and demand issues.

Although the focus of the Red Book remains uranium resources, production and demand, environmental aspects of the uranium production cycle are once again included in the 2007 volume. Information presented in a number of national reports include descriptions of monitoring programmes at mines currently in production (India, Kazakhstan and Ukraine), updates on decommissioning and remediation efforts at closed mines (Brazil, Bulgaria, Czech Republic, Germany, Hungary, Poland, Slovenia, Spain and the United States) and environmental assessments of proposed production increases (Canada and Niger). The book can be purchased online at www.oecdbookshop.org. ■