EUROPEAN NUCLEAR SOCIETY
SOCIETE EUROPEENNE DE L'ENERGIE NUCLEAIRE
EUROPÄISCHE KERNENERGIE-GESELLSCHAFT

ENS Nucleus

6/2000

Ukraine set to close Chernobyl on December 15

Chernobyl nuclear power station's last operating reactor (No. 3) is due to be switched off December 15, thus completing closure of the station as agreed in a 1995 memorandum of understanding between Ukraine and the G7 leading industrial nations.

G7 are to be the main paymasters for the decommissioning of the station, as they already are for the strengthening of the structure entombing and sealing off the ruins of reactor No. 4, wrecked in the April 1986 accident.

Closure will hit the nuclear power station workers' town of Slavutich, 50 kilometres to the east. Plans to minimise the socio-economic impact are being prepared by a team funded by the European Commission.

World business paper hits Sweden's "folly" of quitting nuclear energy

"The folly of Sweden's commitment to shut down its nuclear power stations has been shown up by a much more enlightened policy of liberalising the electricity market.

As elsewhere, the move towards free trade in power has helped to cut prices sharply. But cheaper electricity has tended to reduce incentives to conserve power or to generate it expensively from renewable sources such as wind and waves.

So after the premature closure of its Barsebäck-1 (nuclear power unit in November 1999), Sweden faces a difficulty. If it were to continue with the early closure of the remaining 11 nuclear units it would risk a shortage of power as well as higher bills.

The government's decision to postpone closure of Barsebäck-2 until at least 2003 is a recognition of this economic reality (editor's italics)...

With the exception of the Chernobyl disaster in the Ukraine in 1986, there have been no fatalities directly attributable to nuclear generation. And although important lessons were drawn from Chernobyl, none of them suggested that well-run Western plants were dangerous.

Indeed, industrial accidents associated with power from coal, gas and even from windmills are consistently higher than those in the nuclear industry.

Not only has nuclear power proved safe: existing stations are very cheap to run. Once the capital costs have been incurred, there are therefore huge economic advantages in keeping them going for their full lifespan, of perhaps 40 years.

Premature closure is not only a waste of a capital resource. It requires a switch to alternative generation that may produce power at two to three times the cost, and is likely to have a worst safety record.**"**

Editorial opinion in *Financial Times*, September 28, 2000.

Swiss capital region votes two-thirds "yes" to nuclear station

Voters in the Swiss canton of Berne have strongly rejected an anti-nuclear initiative to close Mühleberg nuclear station, which generates about 40% of their electricity. The referendum cast 186 347 votes for the station to continue operating and 103 502 to close.

The modernised 28-year-old Mühleberg station has a license to work until 2012. It has the backing of a clear majority of cantonal parliament and government.

Analysis by the federal nuclear installations inspectorate (HSK) affirms that there are no technical or safety reasons to shut the station prematurely.

Hungary extends two reactors' working lives to 25 years

Regulators in Hungary have extended by ten years the operating licences of Paks-3 and -4, two of the power plant's four Russian-designed VVER-440 reactors.

Units 3 and 4 have been operating for 14 and 15 years. Their licence extensions have been granted after both modernised units were proved fit by safety review.

Czechs switching on East-West Temelin reactor

Czech state utility CEZ is linking Temelin-1 to the grid and moving it towards starting commercial production of electricity next spring. Temelin-2 is due to achieve full operation by August 2002.

The Temelin power plant's two VVER-1000 reactors are Russian-designed, with Western instrumentation.

ENS is the federation of 27 national nuclear societies.
Founded in 1975, it has a membership of over 20'000 nuclear scientists and engineers.

ENS Nucleus
P.O. Box 5032, CH-3001 Berne, Switzerland
Telephone +41 31 320 61 11, Telefax +41 31 320 68 45
e-mail: ens@to.aey.ch, Internet: http://www.euronuclear.org

South Africa aiming to build new-type reactor next summer

With British and US partners, South Africa is designing a reactor which could be the model for expanding the country's nuclear generation of electricity.

The project envisages building a demonstration module next summer – for initial commercial operation as early as 2005.

The aim is for the gas-cooled reactors (PBMRs) to compete with the pithead coal-fired stations which generate most of the nation's electricity.

Some 6% of South Africa's electricity is produced by Koeberg nuclear station (two French pressurised water reactors).

India expanding nuclear energy programme

New nuclear power stations coming on line could add 500 to 1000 megawatts a year to India's electricity generating capacity – which overall has to grow by 15 000 megawatts annually.

That's the view of V.K. Chaturvedi, chairman and managing director of the state-owned Nuclear Power Corporation of India.

He was speaking as the country's 13th power reactor (Kaiga-1) linked to the grid and the 14th (Rajasthan-4) was about to achieve its first sustained chain reaction.

Two other power reactors (Tarapur-3 and -4) are due to go on line in 2006.

And construction is planned to start next year of a Russian-designed two-reactor power station at Kudankulam at the southernmost tip of India.

France and Canada boosting nuclear energy links with China

As it pushes ahead with its nuclear power stations construction programme, China has signed new accords with France and Canada on safety, own manufacture and research.

France is to supply emergency safety software for the Daya Bay and Ling Ao nuclear stations and advanced instrumentation for Qinshan II.

Canada is to help develop Chinese manufacture of Canadian-type nuclear station components and is to join in setting up the Institute of Advanced Reactor Technology at Shanghai Jiaotong University.

Veteran earthwatcher says nuclear is the only alternative

"I hope that it is not too late for the world to emulate France and make nuclear power its principal source of energy. There is at present no other safe, practical and economic substitute for the dangerous practice of burning carbon fuels (coal, gas and oil)," says James Lovelock, one of the founders of the environmental movement.

In the introduction to a new edition of French bestseller *Environmentalists for Nuclear Energy* (see www.ecolo.org), Lovelock writes that the risks of nuclear electricity are small compared to the dangers posed to civilisation by continued reliance on burning fossil fuels.

Such burning "slowly impairs the Earth's capacity to self-regulate and sustain, as it has always done, a planet fit for life".

James Lovelock is the originator of the Gaia theory, which sees the Earth as a self-regulating living entity.

Nucleus is an ENS briefing sheet mailed to all members of the European Parliament's Energy Committee, the EU Commission, Economic & Social Committee, and Joint Research Centre. Nationally it is distributed to opinion leaders in most West and East European countries. It is published by ENS in English and translated into Bulgarian, Croatian, Czech, Dutch, Hungarian, Polish, Romanian, Russian, Serbian, Slovak, Slovenian and Ukrainian For details, see http://www.euronuclear.org/publications/nucleus/index.html

Editor: Peter Holt Production: Monika Bill November-December 2000 Published 6 times per year