

Head of Indian nuclear agency loses job after going critical

New Delhi. The head of India's nuclear watchdog agency, A. Gopalakrishnan, who recently raised questions about the safety of the country's ageing nuclear power plants, has paid the price for being forthright. Although he could have continued as head of the Atomic Energy Regulatory Board (AERB) for another three years, the government last week refused to renew his contract, and replaced him with his junior.

Gopalakrishnan's unceremonious exit has brought into the open a long-standing conflict between AERB and the Department of Atomic Energy (DAE), which presides over the country's nuclear research laboratories and power stations, and whose activities the board is supposed to regulate.

In a scathing attack that has embarrassed both DAE and the government, Gopalakrishnan claimed that the DAE was obsessed with secrecy and intolerant to criticism. He said he was leaving in protest at the way the DAE had ignored the board's recommendations for improving the safety of nuclear facilities.

"The DAE wants the government and the people to believe that all is well with our nuclear installations, but I have documentary evidence to prove that this is not so," he told the *Times of India*.

The secretary of DAE, R. Chidambaram, said the government has a right to renew or cancel the job contract. He argued that there is no serious safety problem with India's nuclear plants and denied charges that DAE was unresponsive to the board's recommendations.

There has been friction between the two agencies ever since Gopalakrishnan, a nuclear engineer trained in the United States, took charge of AERB in 1993 and began to try to increase its effectiveness.

But the real trouble started three months ago when AERB brought out a report listing as many as 150 safety issues — 20 of them in nuclear power stations and the rest in DAE's other establishments — that it said "needed urgent attention". According to Gopalakrishnan, DAE's response was disappointing.

Specifically, AERB inspectors said that the emergency core cooling systems in three out of five power stations were defective. Tanks storing several thousand tonnes of liquid wastes at the Bhabha Atomic Research Centre (BARC) in Bombay have welding defects and needed repairs.

Gopalakrishnan alleged that BARC failed to act on the board's suggestion that there should be a study of the impact of a possible accident at the 100-MW research reactor in Bombay, five kilometres from residential areas.

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Japan protests at charge of 'dumping' supercomputer

Tokyo & Washington. Japan's Ministry of International Trade and Industry (MITI) expressed "grave concern" last week that attempts by the US Congress to block the purchase of a Japanese supercomputer by the US National Center for Atmospheric Research (NCAR), effectively increasing the centre's computing power by a factor of ten, may constitute a violation of international trade rules.

The strong words came in reaction to legislation being considered in the US House of Representatives this week that would deny salaries to any officials of the National Science Foundation (NSF) who approve NCAR's intended purchase of four NEC supercomputers — if it is determined that the Japanese supercomputers are being sold below fair market value.

The amendment was inserted into the NSF's 1997 appropriations bill by two senior Democrats, David Obey of Wisconsin and Martin Sabo of Minnesota, in whose districts the US supercomputer manufacturer Cray Research is based. Their move followed claims by Cray that NEC won the bidding process by 'dumping' below cost, a conclusion supported by a controversial analysis by the US Department of Commerce suggesting that NEC will lose more than US\$100 million on the sale.

Having solicited bids for high performance computers at a fixed price of US\$35 million, NCAR selected Federal Computing Corporation (FCC), a US company whose bid includes four NEC SX-4/32 supercomputers. NCAR, which will use the computers to run complex climate models, says the FCC proposal won out because it exceeded all performance criteria by at least a factor of two, and provided better cost/performance ratios than bids from three other manufacturers, including Cray.

Last month, when it became clear that NEC was going to win the bid, Cray began to claim that NEC was dumping at below

cost. The Commerce Department took up the issue and last week released an analysis suggesting that NEC is making a loss of US\$111.16 million on the sales, the bulk of the loss being due to high research and development costs. But NEC denies it is selling at a loss, and challenges the validity of the Department of Commerce figures.

NEC has refused to disclose its figures. But it did supply a breakdown of its costs to the University Corporation for Atmospheric Research (UCAR), which runs NCAR. In turn, UCAR commissioned an independent review of the FCC/NEC bid from two consultancy companies. This concluded that NEC's bid was not below "fair value".

Tomio Tsutsumi, Japan's deputy minister for international trade and industry, said last week that the legislation now before Congress, seeking to block the deal, "could violate the principle of non-discrimination in government procurement". MITI officials have suggested it violates international trade rules set by the World Trade Organisation.

The Obey-Sabo amendment was scheduled for debate in the House this week. Jim Kolbe (Republican, Arizona), a strong advocate of free trade, last week proposed his own amendment striking the provision from the appropriations bill, and arguing that any allegation of dumping should be handled through a formal Commerce Department investigation, rather than the intercession of Congress. By the beginning of the week, no such investigation had been initiated, although the department has warned the NSF that it has "significant concerns" about the purchase.

If the award to NEC stands, the NSF will still have alienated two powerful members of Congress. In particular, Obey is likely to chair the House appropriations committee if the Democrats regain a majority in November. In comments accompanying their amendment, Obey and Sabo criticize the NSF for looking after its own interests at the expense of US industry.

They also made a veiled threat. While some scientists argue that the needs of research should take precedence over national economic concerns, they wrote, "wisely, NSF directors have chosen to ignore that advice and, as a result, the foundation has been spared the deep cuts which have been imposed on most other areas of the domestic discretionary budget."

National security is also believed to be an issue in the dispute, with the US Defense Department — which uses Cray computers — reportedly worried that a failure to win the NCAR contract may endanger the company's viability.

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Cost vs price for NEC supercomputer system (as estimated by US Dept. of Commerce)

	US\$ (million)
Federal Computing Corporation*	19.38
Manufacturing	24.90
Sub total	44.28
Research and development	96.00
Marketing	5.28
Other	1.15
Grand total	146.71
Contract value	35.25
Loss	-111.46

* Federal Computing Corporation (FCC) made the bid and will be the system integrator of the NEC supercomputers.

Source: Nihon Kogyo Shimbun.