


February 10, 2000


FOR: The Commissioners
FROM: Janice Dunn Lee, Director /RA/
Office of International Programs
SUBJECT: PROPOSED LICENSE TO EXPORT LOW-ENRICHED URANIUM TO SOUTH AFRICA FOR USE AS FUEL IN THE KOEBERG NUCLEAR POWER STATIONS 1 AND 2 (APPLICATION NO. XSNM03097)


PURPOSE:

To request Commission approval of a license to Westinghouse Electric Company authorizing the export to South Africa of low-enriched uranium for use as fuel in the Koeberg Nuclear Power Stations 1 and 2. The application is being referred to the Commission in accordance with [10 CFR 110.40\(b\)\(5\)](#) because this is the initial export to South Africa since March 10, 1978 of source or special nuclear material for nuclear end use.

DISCUSSION:

On July 28, 1999, Westinghouse applied for a license ([Attachment 1](#) ) to export to ESKOM (owner of Koeberg) 11,950 kilograms of uranium-235 contained in 239,000 kilograms of uranium, enriched to a maximum of 5.0 percent, in the form of uranium dioxide in fabricated fuel assemblies for reload of Koeberg Units 1 and 2. Westinghouse proposes an initial shipment of 4 lead assemblies followed by 9 reload regions to take place between February 2000 and December 31, 2008.

In response to NRC's request for views on the proposed export, the Executive Branch, in a letter dated January 28, 2000 ([Attachment 2](#) ) , recommends that the license be approved. The letter notes that the proposed export to South Africa would take place pursuant to the U.S.-South African Agreement for Peaceful Nuclear Cooperation which entered into force on December 4, 1997, as confirmed in the assurance letter and attachments from the South African Department of Minerals and Energy transmitted by the Embassy of South Africa on January 26, 2000. The Executive Branch judges that the proposed export will not be inimical to the common defense and security of the United States, and is consistent with the provisions of the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978.

Inasmuch as this is the first export of nuclear material to South Africa since the passage of the Nuclear Non-Proliferation Act of 1978, the Executive Branch has completed a detailed analysis as to how the requirements of Section 126 a.(1) of the Atomic Energy Act are met, including the specific criteria of Sections 127 and 128, as well as certain additional factors, envisaged by Section 126 a(1) ([Attachment 3](#) ) .

International Safeguards

South Africa is a party to the Non-Proliferation Treaty and, as such, accepts IAEA safeguards on all source and special nuclear material in its peaceful nuclear activities.

The latest IAEA Annual Report shows that IAEA Facility Attachments have been negotiated and are in force for the Koeberg 1 and Koeberg 2 power reactors in Cape Town, South Africa.

The staff notes that the IAEA Safeguards Implementation Report for 1998 states that, with the exception of the DPRK situation, "...the Secretariat did not find any indication that nuclear material which had been declared and placed under safeguards had been diverted for any military purpose or for purposes unknown, or that facilities, equipment or non-nuclear material placed under safeguards were being misused. All the information available to the Agency supports the conclusion that the nuclear material and other items placed under safeguards remained in peaceful nuclear activities or were otherwise adequately accounted for."

Physical Protection

With regard to physical protection, an evaluation was performed during a visit to South Africa in May 1998. The conclusion of this review was that South Africa's physical protection program for the Koeberg facilities was consistent with the then-current version of IAEA INFCIRC/225/Rev.3, for Category III material. In addition, staff has determined, on the basis of currently available information, that physical protection measures to protect against proliferation of nuclear weapons are in conformance with the current version of INFCIRC/225 (i.e., Rev 4).

Previous South Africa Request

SECY 99-126 (classified), which concerned a request from South Africa to transfer U.S.-origin highly enriched uranium from

the SAFARI I research reactor for storage at the Thabana pipe facility, reported the status of safeguards implementation and physical protection at the Pelindaba site. The information reported does not impact the current request for low-enriched uranium Category III material to the Koeberg facilities.

Review of Other Information

OIP has reviewed available State Department telegrams and other information and has identified no basis for concern about South Africa's commitment to full-scope international safeguards or its fulfillment of obligations to the U.S. under the U.S. - South Africa Agreement for Peaceful Nuclear Cooperation.

CONCLUSION:


The staff concurs with the Executive Branch judgment that the proposed export would not be inimical to the common defense and security of the United States and is consistent with the provisions of the Atomic Energy Act of 1954, as amended by the Nuclear Non-Proliferation Act of 1978. The Office of the Executive Director for Operations concurs. The Office of General Counsel has no legal objection.

RECOMMENDATION:

That the Commission authorize the issuance of the requested license to Westinghouse Electric Company.

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- Attachments**  1. 07/28/99 Westinghouse Electric Company Export License Application
: 2. 01/28/00 DOS Letter R.J.K. Stratford to J.D. Lee
3. 01/28/00 Executive Branch Analysis Covering Proposed Export