



DEPARTMENT OF STATE

Washington, D.C. 20520

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BUREAU OF OCEANS AND INTERNATIONAL
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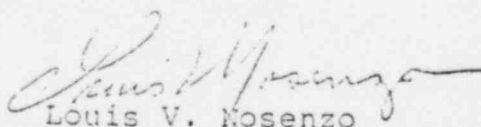
OFFICE OF
POLICY AND
PLANNING

May 7, 1980

MEMORANDUM FOR JAMES R. SHEA
NUCLEAR REGULATORY COMMISSION

Enclosed is an Executive Branch analysis covering a license application for the export of low-enriched uranium to India. In accordance with P.L. 95-242, the analysis explicitly addresses 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).

The Executive Branch, on the basis of its review of this case, has concluded that the requirements of the Atomic Energy Act and P.L. 95-242 have been met and that the proposed export would not be inimical to the common defense and security of the United States. Moreover, India has adhered to the provisions of its Agreement for Cooperation with the United States. Therefore, the Executive Branch recommends issuance of the requested export license.


Louis V. Nosenzo
Deputy Assistant Secretary

Enclosure:
As stated

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EXPORT LICENSE APPLICATION ANALYSIS

XSNM01569

Country: India

Transaction: 487.3 kilograms of U-235 contained in 19,858.8 kilograms of uranium, enriched to a maximum of 2.71% U-235. This material is to be delivered to the Nuclear Fuel Complex (NFC) at Hyderabad for the fabrication of re-load fuel assemblies for the Tarapur Atomic Power Station (TAPS)

Applicant: Edlow International Company, as agent for the Government of India

Applicant's Reference: INDS-3

Date of Application: August 17, 1979

Purpose of Export

The Tarapur Atomic Power Station (TAPS) consists of two 200 MWe boiling-water reactors, sited near Bombay, India. The proposed export represents approximately the normal annual fuel requirement for TAPS.

The supply of fresh slightly enriched uranium feed for the Nuclear Fuel Complex (NFC) in Hyderabad, at which the TAPS fuel is fabricated, was exhausted in mid-December 1978. A fuel export license for TAPS, XSNM-1222, for 16,804 kilograms of uranium, was issued March 23, 1979.

Application XSNM01379, also for 19,858.8 kilograms of low-enriched uranium, sufficient to fuel TAPS for one year, was filed with the NRC on November 1, 1977 and returned to the NRC with favorable Executive Branch views on March 28, 1979.

XSNM01379, if approved, would allow operation of TAPS Unit I until August 1984 and Unit II until March 1984, assuming less than optimum loading of approximately 60 assemblies per unit per annum and no serious operational problems such as fuel leakage. XSNM01569, if approved, would allow another refueling and an additional year of operation for both Units, i.e., until November 1985 for Unit I and June for Unit II. Early approval of both XSNM01379 and 1569 by the Commission is recommended to permit shipments by sea and to avoid disruptive shutdowns of fuel fabrication operations by the Nuclear Fuel Complex.

Gurdip S. Bedi,
First Secretary



भारतीय राजदूतावास
वाशिंगटन, डी. सी.
EMBASSY OF INDIA
WASHINGTON, D. C.

No. WAS/POL/110/6/79

September 11, 1979

Dear Mr. Hudgins,

Reference Edlow International Company's application No. IN/DS-3 of August 20th, 1979 to the NRC for a license to export nuclear material to India for the Tarapur Atomic Power Station. On behalf of the Government of India I hereby certify that :-

- a) the material which will be transferred under this application for use at the Tarapur Atomic Power Station will be subject to all the terms and conditions of the Agreement for Cooperation between the US Govt. and the Govt. of India concerning civil uses of atomic energy which entered into force on October 24, 1963;
- b) the NFC Complex of the Deptt. of Atomic Energy, Maula Ali, Hyderabad 40, Andhra Pradesh (India) is authorised to receive the material for conversion into fuel assemblies for the Tarapur Atomic Power Station;
- c) Edlow International Company, an agent of the Govt. of India, is authorised to apply for an export license for the shipment of 487.3 kgs. of U-235 contained in 19,858.8 kgs. of uranium enriched to a maximum of 2.71 %;
- d) physical security measures will be maintained at a level comparable with that set forth in IAEA INFCIRC 225 Rev. I.

Yours sincerely,

(Gurdip S. Bedi)

Mr. Vance H. Hudgins,
Assistant Director for
Politico-Military Security Affairs,
Division of International Security Affairs,
U.S. Deptt. of Energy,
20 Mass. Ave. NW,
Washington D. C. 20545

EXPORT LICENSE APPLICATION ANALYSIS

1. Applicable Agreement for Cooperation

This supply of low-enriched uranium is subject to all of the terms and conditions of the Agreement for Cooperation for Civil Uses of Atomic Energy Between the United States and India. This was confirmed in a letter from the Government of India, a copy of which is enclosed. The Agreement for Cooperation came into effect on October 25, 1963.

India has adhered to the provisions of this Agreement for Cooperation with the United States.

2. Extent to Which Export Criteria Are Met

A. Section 127 Criteria

As provided in Section 127 of the Atomic Energy Act, the following criteria govern exports for peaceful nuclear uses from the United States of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology:

Criterion (1)

"IAEA safeguards as required by Article III(2) of the Treaty will be applied with respect to any such material or facilities proposed to be exported, to any such material or facilities previously exported and subject to the applicable Agreement for Cooperation, and to any special nuclear material used in or produced through the use thereof."

The United States, India and the International Atomic Energy Agency entered into a trilateral agreement, signed January 27, 1971, for Application of Safeguards by the IAEA. IAEA safeguards provided in this Agreement are in accordance with guidelines provided in INFCIRC/66/Rev. 2. This Agreement covers material and facilities exported to India pursuant to the U.S.-India Cooperation Agreement and to special nuclear material used in or produced through the use thereof.

Therefore, it is the Executive Branch view that criterion (1) is met.

Criterion (2)

"No such material, facilities, or sensitive nuclear technology proposed to be exported or previously exported and subject to the applicable Agreement for Cooperation, and no special nuclear material produced through the use of such materials, facilities, or sensitive nuclear technology, will be used for any nuclear explosive device or for research on or development of any nuclear explosive device."

The Government of India has given the United States written assurance that "...the special nuclear material that has been or is hereafter made available for, or used, or produced in the Tarapur Atomic Power Station located at Tarapur will be devoted exclusively to the needs of that Station unless our two Governments hereafter specifically agree that such material be used for other purposes." Obviously, the U.S. would not agree to use of such material in any nuclear explosive device.

Since this assurance applies to material, facilities and sensitive nuclear technology previously exported and subject to the U.S.-India Agreement for Cooperation and to special nuclear material used in or produced through the use thereof, and will apply to the proposed export and any special nuclear material produced through its use, it is the view of the Executive Branch that criterion (2) is met.

Criterion (3)

"Adequate physical security measures will be maintained with respect to such material or facilities proposed to be exported and to any special nuclear material used in or produced through the use thereof. Following the effective date of any regulations promulgated by the Commission pursuant to Section 304(d) of the Nuclear Non-Proliferation Act of 1978, physical security measures shall be deemed adequate if such measures provide a level of protection equivalent to that required by the applicable regulations."

India has established physical security measures at Tarapur which, as a minimum meet those recommended by the IAEA in INFCIRC/225/Rev.1, "The Physical Protection of Nuclear Material". This fact has been confirmed by letter from the Embassy of India, a copy of which is enclosed with this analysis.

A U.S. Physical Security Review Team, including an NRC member, which visited India in November 1975, judged the security measures observed at the Tarapur Atomic Power Station to be in accordance with physical security guidelines recommended by the IAEA in INFCIRC/225/Rev.1 and adequate to protect the nuclear material at the Station.

Therefore it is the view of the Executive Branch that criterion (3) is met.

Criterion (4)

"No such materials, facilities, or sensitive nuclear technology proposed to be exported, and no special nuclear material produced through the use of such material, will be retransferred to the jurisdiction of any other nation or group of nations unless the prior approval of the United States is obtained for such retransfer. In addition to other requirements of law, the United States may approve such retransfer only if the nation or group of nations designated to receive such retransfer agrees that it shall be subject to the conditions required by this section."

Article VII A.(2) of the U.S.-India Agreement for Cooperation provides that no material, equipment or device transferred to the Government of India pursuant to this Agreement will be transferred beyond the jurisdiction of the Government of India without the agreement of the United States. Article II F. of this Agreement provides that any special nuclear material produced in the Tarapur Atomic Power Station which is not to be retained in India for use in its civil nuclear program may only be transferred beyond the jurisdiction of the Government of India with the approval of the United States.

Therefore, it is the Executive Branch view that criterion (4) is met.

Criterion (5)

"No such material proposed to be exported and no special nuclear material produced through the use of such material will be reprocessed, and no irradiated fuel elements containing such material removed from a reactor shall be altered in form or content, unless the prior approval of the United States is obtained for such reprocessing or alteration."

Article II E. of the U.S.-India Agreement for Cooperation provides: "that when any special nuclear material utilized in the Tarapur Atomic Power Station requires reprocessing, and recourse is not taken by the Government of India to the provisions of Article VI C. of this Agreement, such reprocessing may be performed in Indian facilities upon a joint determination of the Parties that the provisions of Article VI (Safeguards) may be mutually agreed. It is understood, except as may be otherwise agreed, that the form and content of any irradiated fuel element removed from the reactors shall not be altered before delivery to any such reprocessing facility." The proposed export is only for use at Tarapur.

Since no joint determination under Article II E. can be made without the agreement of the United States, it is the view of the Executive Branch that criterion (5) is met.

The Government of India has been advised that the U.S. is not able at this time to make a determination that the provisions of Article VI can be effectively applied with respect to the existing Tarapur reprocessing facility (PRDFRE).

Criterion (6)

"No such sensitive nuclear technology shall be exported unless the foregoing conditions shall be applied to any nuclear material or equipment which is produced or constructed under the jurisdiction of the recipient nation or group of nations by or through the use of any such exported sensitive nuclear technology."

The proposed export does not involve the transfer of sensitive nuclear technology. Criterion (6) is, therefore, not applicable.

B. Section 128 Criterion

Section 128 a.(1) of the Atomic Energy Act establishes the following additional criterion: "As a condition of continued United States export of source material, special nuclear material, production or utilization facilities, and any sensitive nuclear technology to non-nuclear-weapon states, no such export shall be made unless IAEA safeguards are maintained with respect to all peaceful nuclear activities in, under the jurisdiction of, or carried out under the control of such state at the time of the export."

As provided in Section 128 b., this criterion only applies to export license applications filed after 18 months or for which the first export would occur at least 24 months after the date of enactment of P.L. 95-242 (i.e., following March 10, 1980).

It is the view of the Executive Branch that the Section 128 criterion does not apply to this application because it was submitted prior to September 10, 1979 and the initial shipment of the material was to occur prior to March 10, 1980.

3. Additional Factors

A. Safeguards Implementation

The IAEA Secretariat has noted in its Special Safeguards Implementation Report that with regard to nuclear material subject to IAEA safeguards, while some deficiencies exist in the system, no diversion of a significant quantity of nuclear material was detected in any of the 45 states in which inspections were carried out. Although recognizing the need to correct existing deficiencies in safeguards implementation, the Executive Branch has no reason to believe that the IAEA Secretariat's conclusion is not a valid one with specific regard to nuclear material subject to the U.S.-India Agreement for Cooperation. In the light of this and other factors associated with the proposed export, the Executive Branch believes the framework of commitments, assurances, and safeguards is adequate for the purposes of this export.

Questions previously have been raised by the NRC and others as to the use of cameras and seals in safeguarding TAPS fuel. The Executive Branch has made information in this regard available to the NRC in Mr. Nosenzo's September 12, 1978 letter to Mr. Shea, which is incorporated in this analysis by reference.

B. Indian Policy on Non-Proliferation

Since winning the January 1980 election, Prime Minister Gandhi has made several statements about India's nuclear policy. During a January 10 radio interview, Mrs. Gandhi was asked if India would "equip itself with a nuclear weapon" if Pakistan detonated a nuclear explosive device. Mrs. Gandhi responded negatively and said that India would want to use nuclear energy "only for peaceful ends and for economic development." On March 13, Mrs. Gandhi was asked in the Indian Parliament whether she planned to change the nuclear policies of the two previous governments. Mrs. Gandhi responded that the "Government of India remains committed to its policy of utilizing atomic energy for peaceful purposes." Under further questioning the Prime Minister stated "We remain committed to the uses of atomic energy, whether for peaceful purposes or we have to have explosions or implosions. Whatever is necessary for our development and other peaceful purposes; this will be done in the national interest."

We are concerned that the new Indian Government is not prepared to make a more forthcoming statement concerning continued forbearance on development or testing of nuclear explosives, and continue to believe that restraint in this regard is key to international stability. However, we do not believe that withholding the pending export would advance U.S. interests in this regard.

C. Non-Proliferation and Other Foreign Policy Implications

As noted above, we believe this license meets all relevant criteria in the Non-Proliferation Act of 1978, and the Executive Branch believes that U.S. non-proliferation objectives would not be advanced by withholding these licenses. We further believe that failure to supply fuel to India at this time would be inimical to broader U.S. interests in India and the region. In our view, this would seriously strain relations with India and present opportunities that could be exploited by our adversaries in a manner contrary to our interests. Events in the area over the last few months make it essential that we make every effort to avoid actions, if at all possible, which might complicate our relations with key states in the area.

D. Other Considerations

The Commission has been kept currently advised of non-proliferation and related developments with India, including the status of all negotiations, through a series of classified briefings. Similar briefings will be given as subsequent substantive developments warrant.

4. Inimicality Judgment

Based on review of the proposed export, it is the judgment of the Executive Branch that the proposed export will not be inimical to the common defense and security, and that the license should be issued.