

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 22, 1978

OFFICE OF THE
COMMISSIONER

MEMORANDUM FOR: Acting Director, NMSS
FROM: John Ahearne *[Signature]*
SUBJECT: TARAPUR

In a December 19 letter to the Chairman, Deputy Assistant Secretary of State Nosenzo challenged the November 29, 1978 NMSS assessment of Tarapur safeguards.

Please provide the NMSS response to Mr. Nosenzo's comments by January 7.

cc: Chairman Hendrie
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Bradford
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

January 11, 1979

Mr. Samuel J. Chilk
Secretary
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: In the Matter of Edlow International
Company (Agent for the Government of
India on Application to Export Special
Nuclear Material) License No. XSNM-1222,
Docket No. 70-2738

Dear Mr. Chilk:

Pursuant to the Commission's Order of December 8, 1978, enclosed please find copies of NRC staff comments to be submitted at the hearing in the above captioned matter. The comments were prepared by Mr. J. R. Shea, Director, Office of International Programs, drawing upon the assistance of Mr. T. S. Sherr, Chief, Technology Assessment Branch, Division of Safeguards, Office of Nuclear Material Safety and Safeguards, in the subject area of adequacy of IAEA safeguards at the Tarapur facility, and by the Office of the Executive Legal Director.

Sincerely,

Joanna M. Becker
Counsel for NRC Staff

Enclosure

Dupe of 7901490187 (1/22)
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)	
EDLOW INTERNATIONAL COMPANY)	License Application No. XSNM-1222
(Agent for the Government of India)	
on Application to Export Special)	Docket No. 70-2738
Nuclear Materials))	

NRC STAFF COMMENTS
ON
PROPOSED EXPORT OF SPECIAL NUCLEAR MATERIAL
TO INDIA FOR THE TARAPUR ATOMIC POWER STATION

The NRC staff hereby submits its views on issues raised in connection with the subject pending license application:

License No. XSNM-1222, as amended, to authorize Edlow International Company to export 16,803.6 kilograms of uranium, enriched to a maximum of 2.71%, to India for use in the Tarapur Atomic Power Station (TAPS).

On December 8, 1978, the Commission ordered a public hearing focusing on four topics: (1) the sufficiency, for purposes of the Nuclear Non-Proliferation Act (NNPA), of Indian Prime Minister Desai's assurances that "he will not authorize nuclear explosive devices or further nuclear explosions;" (2) the adequacy, for purposes of the NRC's determination under the NNPA, of the safeguards applied by the International Atomic Energy Agency at the Tarapur facility, and of U.S. Government information on those safeguards; (3) the status of U.S.-India negotiations regarding the return of spent fuel from Tarapur to the United States for storage; and (4) the need for the fuel requested. The following staff comments are keyed to these four topics.

TOPIC 1

The question of Indian assurances regarding nuclear explosions has been addressed in the Executive Branch analysis of XSNM-1222

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Dupe of 7901190189 (13pp)

dated September 15, 1978 and in the staff's analysis dated November 20, 1978 (SECY 78-596). The Commission's determination under Criterion 2 of Section 127 of the Atomic Energy Act need not rest, of course, solely on the Desai statement quoted above. The Executive Branch has cited the written assurance contained in a letter dated September 17, 1974 from Dr. Homi Sethna, Chairman of the Indian Atomic Energy Commission, to Dr. Ray, Chairman of the U.S. Atomic Energy Commission, 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."

SECY 78-596 quoted several additional statements by Prime Minister Desai relevant to the question of peaceful nuclear explosives. Since that paper was prepared, the Prime Minister is reported to have made the following statement in response to a Parliamentary question during the November 30, 1978 Rajya Sabha debate on nuclear policy:

It has been our policy for all the past years, started by Jawaharlal Nehru, that we will not have anything to do with nuclear weapons and that we will develop nuclear energy for peaceful purposes. This is the policy to which we are sticking, and if any explosion can be made without any fallouts and without any such things which lead to atomic weapons and only for peaceful purposes, that explosion is never debarred.

TOPIC 2

A. Application of Safeguards

The staff wishes to comment first on the contention of the National Resources Defense Council, the Sierra Club and the Union of Concerned Scientists (NRDC et. al.) (Motion of October 31, 1978, pages 2-4) that the Commission is not in a position to determine that Criterion 1 or its equivalent is met because the material to be exported under XSNM-1222 is not covered by IAEA safeguards as required by Article III(2) of the Nuclear Non-Proliferation Treaty (NPT). NRDC et. al. note that the objective of safeguards agreements conforming to IAEA INFCIRC/66/Rev. 2, the type of agreement covering the TAPS facility, is "to prevent the use of safeguarded materials to further any military purpose," whereas the objective of agreements conforming to IAEA INFCIRC/153, applicable to safeguards agreements under the NPT, is "to prevent the diversion of safeguarded materials for use in any nuclear explosives." The argument of NRDC et. al. here implies that only INFCIRC/153-type agreements satisfy the requirement of Criterion 1 of Section 127 of the Act, and that INFCIRC/66-type agreements do not. The staff believes that this interpretation of the NNPA is erroneous. INFCIRC/153 safeguards agreements, for example, require the application of IAEA safeguards on all nuclear activities under the jurisdiction or control of the State concerned. Had the Congress intended that only the

INFCIRC/153 type of safeguards agreement be considered to satisfy Criterion 1, full-scope safeguards coverage would have become an immediate licensing requirement upon enactment of the NNPA. But the Act, in Section 128, explicitly defers full-scope safeguards coverage as a licensing condition for an 18-24 month period after enactment of the NNPA. Moreover, a large number of States receiving U.S. nuclear exports have safeguards agreements modeled on INFCIRC/66/Rev. 2; to interpret Criterion 1 in the manner suggested by NRDC et. al. would have resulted in immediate termination of further U.S. nuclear exports to all such States, and it is clear from the legislative history of the NNPA that this result was not intended or expected. (See, e.g., S. Rep. No. 95-467, 95th Cong., 1st Sess., Oct. 3, 1977, p. 16)

Furthermore, the reference in Article III(2) of the NPT to "safeguards required by this Article" has been interpreted by the parties to the Treaty, in dealing with non-nuclear weapons States who are not parties to the NPT, as a reference only to the means of verifying the undertaking in Article I of the NPT as follows:

ARTICLE I

Each nuclear weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage,

or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

Thus, if the material to be exported will be subject to IAEA safeguards under INFCIRC/66/Rev. 2, it can be said that IAEA safeguards as required by Article III(2) of the NPT will be applied with respect to the material to be exported, as provided in Criterion 1 of section 127 of the Atomic Energy Act of 1954, as amended.

That the Senate, in ratifying the NPT, was aware of the above interpretation is evidenced by a statement in Senate Executive Report No. 91-1, Treaty on the Non-Proliferation of Nuclear Weapons, 91st Cong., 1st Sess., March 6, 1969, as follows:

ARTICLE III

It is in the context of the problem of gaining the widest possible adherence to the treaty that the committee records its interpretation of Article III.

One interpretation of Article III would seem to demand that a country that neither signs the treaty nor extends international safeguards to all its nuclear facilities should be denied all forms of peaceful nuclear assistance from signatories such as the United States. Alternately, there is a less rigid interpretation of Article III that a non-signatory can continue to receive nuclear aid if the material and equipment provided by a signatory is covered by international safeguards.

The committee appreciates the administration's uneasiness about any suggestion that the United States should adopt a hard and fast policy of nuclear embargo on nonsignatories. Such a policy could destroy the very incentives to adherence to the treaty that the United States wishes to encourage. To stimulate nuclear autarky by a rigid application of the

very means designed to encourage international cooperation in the nuclear field is obviously not the intent of the Non-proliferation Treaty.

It is the view of the committee that the treaty does not obligate nuclear-weapons states to treat nonnuclear signatory and non-signatory states on the same basis. Neither does the treaty require that preferences be given to signatory nonnuclear states. As a practical matter, however, it is the view of the committee that the nuclear powers should be most reluctant to treat nonsignatory states on the same basis as signatory states, despite the fact that the treaty does not prohibit such action.

The benefits and services to nonsignatories should surely be far less than those accruing to those countries who decide to sign the treaty. By any standard it would be consistent with the intent of the treaty to be more willing to provide, for example, assistance in the nuclear excavation field to a signatory country as it becomes available rather than to a nonsignatory. Similarly, the United States should be more willing to extend its assistance in the nuclear desalting field to signatories of the treaty rather than to those countries who decide not to sign.

It is the view of the committee, therefore, that the application of article III should be handled with a carefully considered appreciation of what will encourage states to adhere and what will encourage them to abstain.

While there are differences in scope (and other differences) between safeguards agreements under INFCIRC/66/Rev. 2 and those under INFCIRC/153, it should be noted that the Secretariat of the International Atomic Energy Agency has interpreted the undertaking in INFCIRC/66/Rev. 2 agreements not to use the safeguarded materials to further any military purpose as including the obligation not to divert them to nuclear weapons or other nuclear explosive devices. The position of the IAEA Secretariat

is that the "no military purpose" undertaking includes "no nuclear explosive device" in all INFCIRC/66 agreements, past and future.

At a meeting of the Board of Governors in February 1975 in which, among other things, a trilateral safeguards agreement involving an exchange of notes between the parties reflecting this concept was considered, the view of the Secretariat was stated as being that Agency safeguards from the outset had been intended to ensure, to the extent possible within the Agency's powers, that safeguarded nuclear materials were not used for nuclear explosions or any other military purpose, and that in the future, the use of an exchange of letters for this purpose would be replaced by including a provision in the agreement itself.

However, at a later Board of Governors' meeting at which an INFCIRC/66 agreement containing such a provision was discussed, the Governor from India recalled the Secretariat's observations at the February meeting, and, while not raising any objection to the agreement before the Board, considered that the Secretariat's views constituted an important new policy which his delegation could not accept without study of its aspects and implications. He indicated his delegation's feeling that the new policy amounted to an attempt to include

in INFCIRC/66 agreements provisions relevant essentially to the NPT, and, accordingly, his delegation's opposition to incorporating such provisions as a standard feature of such agreements.

B. Adequacy of Safeguards Implementation

With respect to the adequacy of safeguards implementation in India, NRDC et. al. contend that the Commission is unable to make a positive determination, citing the failure of the Executive Branch analysis to take into account the Safeguards Implementation Report (SIR) for 1977, and the unwillingness of the NRC's Office of Nuclear Materials Safety and Safeguards (NMSS) to "certify that IAEA safeguards are adequate."

It is true that NMSS has taken the position that it has not received country-specific information which permits it to make an independent conclusion as to the effectiveness of IAEA material control and accounting safeguards in India. But the Act is ambiguous with respect to whether the Commission's determinations under Criterion 1 require a finding of safeguards adequacy; it requires the Commission to find, based on a reasonable judgment of assurances and other information available to the Federal Government, "that IAEA safeguards . . . will be applied." (For a discussion of Commission findings of safeguards adequacy under Section 127 of the Act, see Chairman Hendrie's letter of June 19, 1978 to Senator Glenn.)

The NRDC et. al. also cite press reports indicating that the 1976 SIR expressed concern about the IAEA's inability to verify that significant quantities of special nuclear material had not been diverted in five unnamed countries in which there are bulk handling facilities; the NRDC et. al. believe that India is among these five countries.

Apart from the question of the accuracy or inaccuracy of these press reports and assumptions, the staff believes that, as in other forms of audit reporting, the identification by the IAEA of system deficiencies does not necessarily mean that an agreement has been violated or that the auditor is unable to form a reliable judgment as to the status of the audited activity. With respect to 1977, the IAEA has confirmed, taking into account all circumstances including qualitative observations, that in all 40 states where safeguards agreements were in full implementation, all safeguarded nuclear material remained in the declared peaceful nuclear activity or was otherwise adequately accounted for. The IAEA reported that its safeguards operation did not detect any diversion of a significant quantity of nuclear material during 1976 and 1977. In addition, the Department of State has indicated that it has information which confirms that seals and cameras are in full use at the Tarapur Atomic Power Station, including the spent fuel storage basins, and that during 1977 cameras were effectively employed without serious camera failure.

However, the reporting of deficiencies does indicate that there is a definite need for improvement in the implementation

of safety. The U.S. Government strongly supports the efforts of the IAEA to review Agency safeguards critically and intends to work through the Agency to correct deficiencies noted in safeguards implementation reports.

The staff has addressed, in SECY 78-596, the question of the durability of Indian safeguards commitments. While the staff is not yet prepared to make a final recommendation on the Commission's determination under Criterion 1, it wishes to emphasize that this question is quite distinct and separable from the issue of safeguards adequacy.

TOPIC 3

The staff has no additional information or comment to provide on Topic (3) at this time.

TOPIC 4

The staff believes it is clear that the material proposed to be exported under XSNM-1222 will not be loaded into the TAPS reactors until well after March 10, 1980, the date when the full-scope safeguards requirement of Section 127 of the Atomic Energy Act of 1954, as amended, becomes effective. If the U.S. were exporting fully fabricated fuel to India, there would be no operational need for approval of the present application during the period before the full-scope safeguards requirement comes into effect. However, since the fuel is to be fabricated at the Hyderabad facility in India, lead times for normal and efficient operation of this facility may well require shipment of the fuel far in advance of March 10, 1980. The staff is presently analyzing recently acquired

information concerning current inventories of material in India and future fabrication and reload schedules and expects to provide the Commission with a more detailed assessment of this question in the near future.

Respectfully submitted,

Joanna M. Becker

Joanna M. Becker
Counsel for IIRC Staff

Dated at Bethesda, Maryland
this 11th day of January, 1979

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

EDLOW INTERNATIONAL COMPANY

(Agent for the Government of India
on Application to Export Special
Nuclear Materials)

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)
) License Application No. XSNM-1222

)
) Docket No. 70-2738
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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF COMMENTS ON PROPOSED EXPORT OF SPECIAL NUCLEAR MATERIAL TO INDIA FOR THE TARAPUR ATOMIC POWER STATION" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or air mail, or, as indicated by asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 11th day of January 1979.

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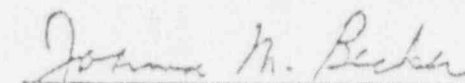
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