



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

COMMISSION
CORRESPONDENCE

September 11, 1980

The Honorable John Glenn, Chairman
Subcommittee on Energy, Nuclear
Proliferation and Federal Services
Committee on Governmental Affairs
United States Senate
Washington, D. C. 20510

Dear Chairman Glenn:

In response to your letter of May 6, enclosed are NRC's answers to the seven questions posed by Senator Mathias in connection with the Commission's April 18 appearance before the Committee on Governmental Affairs.

I would also like to take this opportunity to comment on a reference Senator Mathias made in the introduction to his questions.

I have estimated that as much as 38 percent of the Commissioners' time is spent on nuclear export matters. To clarify this percentage, this followup is provided.

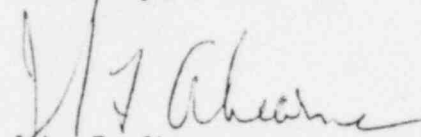
How much of the Commissioners' time is spent on international related matters is difficult to estimate and depends on the individual Commissioners and the priority of other issues that must be addressed. In a September 11, 1979 speech--"Does the Emperor Have Any Clothes?"--that I presented to the American Nuclear Society Executive Conference, I used the number of official papers as an indication of the time spent by the Commissioners on international related matters. Looking at the number of papers I found that:

- For the year preceding the passage of the Non-Proliferation Act (March 10, 1977 to March 10, 1978), the Commissioners received 911 official papers. Of these, 27 percent were related to international, including 14 percent related to exports.
- For the year following the passage of the Non-Proliferation Act (March 11, 1978 to March 11, 1979), the Commissioners received 962 official papers. Of these papers, 38 percent were related to international, including 23 percent related to exports. Note that the 38 percent relates to all international papers, not to exports as is implied in the introduction to the questions.

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Commissioners Gilinsky and Bradford believe that under the regular procedures resulting from the NNPA, nonproliferation concerns related to exports have occupied less than 10 percent of the Commissioners' time and less than 1 percent of the agency's resources. "The use of Commission paperwork as a guide to Commission time is misleading here. The 'Information Reports' are inflated by a very high percentage of notices regarding routine exports (to say nothing of imports) handled by the staff requiring no Commission time and by international health and safety matters not related to exports. Most of the 'Action Papers' in the export areas are equally routine. It would be just as incorrect to say that the NRC's agency priorities were heavily slanted toward nuclear medicine because we have issued thousands of licenses in that field and have issued only 70 nuclear power plant operating licenses. A review based on Commission meetings shows that in the 23 months since the NNPA took effect, international matters have taken about 9.3 percent of the Commission's meeting time, with about 7.6 percent devoted to nonproliferation. A better guide to the future may be the last year (post-TMI and also post-the adoption of formal NNPA procedures) when the total is 6.5 percent and the nonproliferation subtotal only 4.1 percent."

Sincerely,



John F. Ahearne

Enclosure:
Answers to seven questions

Question 1. What independent expertise can the Commission bring to bear in making its export licensing decisions? How does this expertise differ from that present in the Executive Branch? In particular, how is the Commission's expertise relating to technical matters such as safeguards and physical security different from that in the Department of Energy and the Arms Control and Disarmament Agency?

Chairman Ahearne and Commissioner Hendrie believe that, in general, the types of expertise which the Commission brings to bear in making its independent assessments and judgments of export licensing matters are similar to that of the Executive agencies, particularly in such areas as nuclear export policy, international legal matters related to nuclear exports, and foreign intelligence. At the same time, of course, the number of NRC staff specialists in these areas is substantially less than that available to the Executive Branch.

Commissioners Gilinsky and Bradford believe that the Commission possesses special expertise with regard to safeguards issues. Because of its extensive experience with domestic safeguards, the Commission is better able to evaluate the effectiveness of safeguards abroad. It should be noted that the Commission has generally been more sensitive to the need for full and effective safeguarding than has the Executive Branch. With regard to the other issues such as nuclear export policy, international legal matters related to nuclear exports, and foreign intelligence, the Commission's expertise is comparable to that of the Executive Branch but more narrowly focused on satisfaction of the policies of the NNPA.

The Commission would like to point out that expertise was not the sole basis for vesting in the NRC the responsibility for licensing nuclear exports. Another reason was that the Commission is an independent agency. Relevant in this regard were Senator Percy's comments on the role of the NRC during the February 7, 1978

Senate floor debate on the NNPA, namely:

"I am committed to the concept of a strong independent check on executive branch nuclear export decisions.... The executive branch still plays the leading role in the implementation of U.S. nuclear export policy. But we must recognize that in their zeal to achieve their own institutional interests, these agencies may well overlook important nonproliferation concerns."

With regard to the two technical areas to which you referred, the differences in emphasis between NRC and the Executive Branch may be summarized as follows:

- (a) International safeguards and physical security matters (policy and technical aspects). In this connection, the NRC staff has technical expertise in areas of material control and accounting and physical security protection for nuclear materials and facilities that, while similar to that of specialists in DOE and ACDA, is more narrowly directed toward determining compliance with the NNPA.
- (b) Nuclear Safety Expertise, which is drawn upon as deemed appropriate by the Commission in examining the health, safety and environmental impacts of reactor exports on the territory of the U.S. and the global commons. NRC has extensive capabilities from its domestic nuclear safety responsibilities. However, these capabilities cannot be used to their fullest extent in foreign country or area specific situations unless the host country or countries agree to provide us with information which would permit us to do the same types of geologic, demographic, and technical reviews we require for domestic nuclear facilities.

Question 2. What independent information gathering capability does the Commission have? Please list all NRC employees working on exports, including Commissioners and Commission staff assistants, who had prior experience gathering intelligence or in the assessment of such information?

NRC gathers and maintains its own files of information, of a nonintelligence nature, on the nuclear activities of other countries, including information on international safeguards and physical security. These files encompass information gathered through the review of open literature, proceedings of international symposia, bilateral technical exchanges, and meeting participation. Information is also acquired through routine channels from other U.S. Government agencies. In the conduct of its export licensing responsibilities, NRC is a user of intelligence information and relies on intelligence information produced by the Executive Branch. NRC does not maintain an independent information gathering capability, although some information on export-related matters may come our way from time to time independently of the Executive Branch. Many of the senior NRC staff officers responsible for export license review functions have prior experience in intelligence collection and/or assessment. The following list includes all officers (including managers) who have prior experience in intelligence collection or assessment, who participate in NRC export review-related activities.

Office of International Programs

James R. Shea, Director - foreign nuclear programs intelligence production and assessment, CIA (1961-69); nuclear arms control/national security-related intelligence assessment, ACDA (1969-76).

James B. Devine, Assistant Director (Designate) - foreign policy and national security intelligence assessment, DOD (1961-70); U.S. Embassy Rome (1970-74) and U.S. Embassy Saigon (1974-75); export-related intelligence assessment, Department of State (1975-77).

Marvin R. Peterson - military intelligence collection (1968-69); export-related intelligence assessment, DOD (1970-73) and ERDA (1973-76).

Kenneth D. Cohen - military intelligence collection and assessment (1966-69); U.S. Marine Corps (1966-69); Naval Intelligence Service (1967-68).

William Upshaw - military intelligence collection and assessment (1972-76); Ft. Huachuca, Arizona; 223rd MI Detachment, Army Reserve, Gaithersburg, MD.

Office of Nuclear Material Safety and Safeguards/Division of Safeguards

Robert F. Burnett, Director - threat assessment and development of protective systems, U.S. Secret Service (1969-77).

Donald R. Chappell, Deputy Director - military intelligence assessment and management, U.S. Marine Corps (1952-1974).

George McCorkle - military intelligence collection and assessment, U.S. Air Force and DOD (1948-71).

Elizabeth A. Quinn - threat assessment and development of protective systems, U.S. Secret Service (1970-77).

H. Brant Jones - threat assessment, domestic nuclear activities, USNRC (1977-79).

Office of the Executive Legal Director

Howard K. Shapar, Director - military intelligence collection and assessment, U.S. Armed Forces, Germany (1946).

Question 3. How many times has the Commission held a public hearing on an export application? How many times has it requested comments from the public on an individual application? In response to both questions, please list cases where this has occurred, the issues involved, non-government participants, their positions, and the final disposition of the application.

Under 10 CFR Part 110 of the Commission's regulations dealing with exports and imports, a public hearing may consist of an oral hearing or of the filing of written comments on an export license application. If this definition is used, the Commission has held three public hearings. If "public hearing" is an oral hearing, then the Commission has held one public hearing. The Commission has requested comments from the public in two additional cases where "written hearings" were not held.

Export licensing cases in which the Commission has held a hearing or requested comments are as follows:

1. In the Matter of Edlow International Company (Agent for the Government of India to Export Special Nuclear Material) Export License Application No. XSNM-805 and Export License Application No. XSNM-845.

On March 2, 1976, NRC received petitions for leave to intervene and for a public hearing in two separate proceedings for licenses for the export of special nuclear material to India: XSNM-805, an application for a license to export 3055.20 kilograms of low enriched special nuclear material and XSNM-845

for 18371.4 kilograms of low enriched special nuclear material, all for use as fuel in the Tarapur power reactor. The petitions to intervene were filed by the Natural Resources Defense Council, Inc., the Sierra Club, and the Union of Concerned Scientists.

Petitioners' substantive contention was that the Commission could not conclude that the export would not be inimical to the common defense and security or the health and safety of the public because:

1. India is not a party to the Treaty on the Nonproliferation of Nuclear Weapons (NPT);
2. Past and present friction between India and neighboring countries raises the specter of international conflict which might disrupt implementation of safeguards and physical security measures at Tarapur;
3. The U.S. has not required India to refrain from developing additional nuclear explosive devices;
4. The U.S. has not required India to permit international safeguards on all its nuclear facilities;
5. The U.S. has not required India to refrain from developing enrichment and reprocessing facilities;
6. The U.S. has not required India to agree, prior to the shipment of nuclear fuel to Tarapur, to safeguards and physical security requirements for any future reprocessing of such, should reprocessing be permitted;

7. The U.S. has not required India to establish any physical security requirements applicable to operations at Tarapur;
8. The U.S. has not required India to accept bilateral safeguards supplementing the international safeguards applied by the IAEA at Tarapur;
9. The U.S. has not required India to agree to U.S. control over the disposition of plutonium produced at Tarapur;
10. The U.S. has failed to require India to establish effective programs to protect the health and safety of the public in the operation of the Tarapur reactor;

Petitioners also contended that the license could not be granted until the requirements of the National Environmental Policy Act (NEPA) had been met.

In addition it was argued that the exports would be inconsistent with and would violate U.S. obligations under the NPT.

On May 7, 1976, the Commission ruled that (1) the petitioners had no standing to intervene as a matter of right; (2) the petition of two of the petitioners was not filed in a timely fashion, (3) a legislative type hearing would be held as a matter of discretion; and (4) the request for funding for the intervenors would be denied without prejudice. 3 NRC 563. Included in the Commission opinion was the conclusion that consideration of health and safety effects in foreign countries resulting from export licensing is outside the jurisdiction of the Commission, and that issuance or denial of a particular export license for special nuclear material does not constitute a "major Federal action" for purposes of NEPA.

On July 1, 1976, the Commission found that License No. XSNM-805 met all relevant standards for issuance under the Atomic Energy Act of 1954 and directed its issuance. 4 NRC 1. Commissioner Gilinsky dissented from this opinion. After receipt of favorable Executive Branch views on the case on June 9, 1977, the Commission subsequently held oral hearings on XSNM-845. On June 28, 1977, the Commission authorized the grant to Edlow of XSNM-845. The Commission found that the agreement for cooperation between the U.S. and India would apply, that consideration of health, safety and environmental effects in foreign countries resulting from export licensing is outside the jurisdiction of the Commission, that the export would not be inimical to the common defense and security of the U.S., and that the Treaty on the Non-Proliferation of Nuclear Weapons does not prohibit the U.S. from exporting special nuclear material to countries which have not ratified the Treaty, provided that international safeguards are applied to all U.S.-supplied material.

5 NRC 1358.

2. In the Matter of Edlow International Company (Agent for the Government of India to Export Special Nuclear Material) Export License Application No. 1222.

On February 13, 1978, petitioners NRDC, Union of Concerned Scientists and the Sierra Club petitioned for a hearing on XSNM-1222, raising issues as to (1) the adequacy of IAEA safeguards in India and the no explosive use assurances given by the Indian Government; and (2) return of spent fuel from Tarapur to the U.S.

On December 8, 1978, after receiving favorable Executive Branch views on the case on September 15, 1978, the Commission ordered a public hearing consisting of written comments (pursuant to its new export licensing regulations in 10 CFR

Part 110) on XSNM-1222, deferring its decision on whether to conduct oral hearings until it had the opportunity to review the written comments. It requested participants - the petitioners, NRC Staff, and Department of State - to focus 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 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 U.S. for storage; and (4) the need for the fuel requested. Members of the public were also invited to submit written comments on issues raised by the petitioners or any other issues pertaining to the proposed export and which relate to the statutory determinations required of the Commission by the Act, as revised by the NNPA. 8 NRC 675.

On January 29, 1979 the Commission determined that an oral hearing before the Commission on XSNM-1222 would not be in the public interest and terminated the public proceeding, thereby allowing statutory time limits under the NNPA for agency action to resume as of that date. 9 NRC 2.

On March 23, 1979 the Commission found that XSNM-1222 met all the requirements of the Atomic Energy Act for issuance of the license and directed its issuance. 9 NRC 209. Commissioners Gilinsky and Bradford dissented in this case.

3. In the Matter of Ten Applications for Low-Enriched Uranium Exports to EURATOM Member Nations. License Nos. XSNM 1116, 1117, 1119, 1142, 1145, 1162, 1167, 1176, 1180, and 1181.

Between May 20, 1977, and September 16, 1977, the Natural Resources Defense Council filed with the Commission five petitions seeking leave to intervene and a hearing on ten pending applications to export low-enriched uranium to nations in the European Atomic Energy Community (EURATOM).

Petitioner contended that these exports of low-enriched uranium to EURATOM countries would be inimical to the common defense and security of the U.S. because EURATOM countries may retransfer U.S.-supplied nuclear material or reprocess such material within the European Community without prior U.S. approval. NRDC contended that commercial reprocessing of nuclear fuel anywhere may lead to nuclear weapons proliferation and is therefore a threat to U.S. national security. Petitioner asserted that before the Commission could make the determination then required for issuance of an export license under the Atomic Energy Act (namely, that exports of low-enriched uranium to EURATOM countries are not inimical to the common defense and security of the U.S.), the Commission must condition each license to require a prior U.S. approval right for any retransfer or reprocessing of the exported fuel.

On October 4, 1977 the Commission determined that Petitioner lacked the requisite legal interest to intervene as a matter of right under section 189 of the Atomic Energy Act of 1954, as amended. Since imminent passage by Congress of nuclear non-proliferation legislation could resolve all of Petitioner's claims, the Commission deferred decision on whether a discretionary public hearing should be held. The Commission did decide that it would continue to process license applications for exports to EURATOM countries, while awaiting the outcome of Congressional deliberations, and would consider expressions of need by the applicants for the fuel as well as the then current statutory licensing requirements under the Atomic Energy Act. 6 NRC 525.

On November 10, 1977, upon receiving expressions of urgent need from EURATOM for the material covered by XSNM-1116, the Commission found that the proposed license met all the standards relevant for issuance under the Atomic Energy Act and Energy Reorganization Act of 1974 and directed issuance of the license. Because delay would adversely affect the conduct of U.S. foreign policy, the Commission decided not to hold a public hearing on the license application and it again noted that consideration of health and safety effects in foreign countries resulting from export licensing is outside the jurisdiction of the Commission. 6 NRC 719.

On December 22, 1977, pursuant to its earlier statement that it would address the issue of the desirability of discretionary public proceedings on the pending export license applications after Congress either enacted nuclear

non-proliferation legislation or recessed, the Commission invited written comments on those applications and stated that it would continue to process applications for exports to EURATOM countries while comments were being solicited. In addition, the Commission denied a motion by Petitioner to consolidate consideration of, and decision on, the applications. 6 NRC 849.

EXXON Nuclear Corporation, the license applicant, was opposed to further proceedings. License No. XSNM-1119 was issued on December 22, 1977. License No. XSNM-1142 was issued on April 7, 1978. The rest of the licenses were issued on December 30, 1977.

4. In the Matter of Transnuclear, Inc. (Three Applications for High-Enriched Uranium Exports to the Federal Republic of Germany) License Nos. XSNM-1026, 1138 and 1195.

Between December 27, 1976 and October 6, 1977 the Natural Resources Defense Council, Inc., filed three petitions with the Commission seeking leave to intervene and a hearing in proceedings regarding three pending license applications for export of high-enriched uranium to the Federal Republic of Germany. Favorable Executive Branch views on these cases were received on July 21, 1977 (XSNM-1026) and April 5, 1978 (XSNM-1138 and XSNM-1195). Petitioner asserted that these proposed exports of high-enriched uranium to the FRG would be inimical to the common defense and security of the U.S. because (a) high-enriched uranium is inherently unsafeguardable, and (b) both the high temperature gas-cooled reactor and liquid metal fast breeder reactor programs being conducted by the FRG necessarily involve the presence of substantial quantities of weapons-grade nuclear material as fuel and require development of reprocessing plants. In Petitioner's view, such developments posed an

unacceptable risk to U.S. national security interests because of the risk that such materials would be diverted for nuclear explosive purposes at a national or subnational level. NRDC also contended, among other things, that before acting upon these applications, NRC must prepare an environmental impact statement considering the impacts and alternatives of U.S. support for the breeder reactor program of the FRG.

On December 22, 1977 the Commission held that NRDC lacked standing to intervene as a matter of right under section 189 of the Atomic Energy Act, as amended. The Commission further decided to request public comments in connection with the license applications but retained the right to act on any license applications for export of HEU pending consideration of such comments. It denied as undesirable from a practical standpoint NRDC's motion to consolidate consideration of and decision on the three applications and, on the merits of XSNM-1026, it found that all applicable statutory licensing criteria had been met and that no environmental impact statement was required. 6 NRC 854. That license was issued the same day.

One comment by Tri-Cities Technical Council supporting issuance of the licenses was received. Licenses XSNM-1138 and 1195 were issued on April 7, 1978.

5. In the Matter of Westinghouse Electric Corporation, (Exports to the Philippines) Application Nos. XR-120, XCOM-0013.

These cases involved applications for licenses to export a nuclear power reactor (No. XR-120) and certain components for the reactor (No. XCOM-0013) to

the Philippines. A petition for leave to intervene and request for a hearing after publication (at different times) of notices of receipt of the reactor export license application and a related nuclear fuel export license application, was filed by the Center for Development Policy, Jesus Nicanor P. Perlas, III and the Philippine Movement for Environmental Protection.

Petitioners specifically requested a hearing on seven issues: (1) the nature and magnitude of seismic and geological risks posed by the reactor site; (2) the adequacy of the reactor's seismic design; (3) the environmental impact of the proposed reactor and disposition of its spent fuel; (4) dangers to the health and safety of the Philippine citizens posed by the reactor; (5) dangers to the health and safety of U.S. citizens residing in the Philippines; (6) risks to the effective operation of U.S. military installations in the Philippines; and (7) generic safety questions posed by nuclear power plants, and by Westinghouse reactors in particular. Petitioners did not raise any issues pertaining to whether the Philippine applications met the licensing criteria relating to nuclear proliferation and safeguards set forth in Sections 127 and 128 of the Atomic Energy Act.

In response to the hearing request, on October 19, 1979 the Commission ordered further public proceedings on issues raised by the Philippine license applications XR-120 and XCOM-0013 to assist it in making the statutory licensing determinations required by the Atomic Energy Act and to advance the public interest. The Commission invited members of the public to submit views on six specific generic issues relating to the proper scope of the Commission's jurisdiction to examine health, safety and environmental

questions arising from construction and operation of exported nuclear facilities, and the appropriate procedural framework for considering such issues, if they were found to lie within NRC's authority. The Commission decided not to solicit comments at that time on issues related to the particular health, safety and environmental aspects of the nuclear power reactor proposed to be exported and to defer consideration of such issues until the Commission ruled on the jurisdictional and procedural questions.

On January 29, 1980, after reviewing comments received from more than twenty individuals, groups, organizations, and agencies, the Commission met in public session to discuss the jurisdictional issues. The Commission determined the scope of its jurisdiction, and decided to solicit additional public comments specifically focusing on the Philippine applications. On February 8, 1980 the Commission published an order requesting comment upon (a) the health, safety or environmental effects the proposed exports would have upon the global commons or the territory of the United States, and (b) the relationship of these effects to the common defense and security of the United States. The Commission received twelve submissions in response to this request.

The petitioners argued that in making its export licensing determinations on the Philippine export license applications the Commission must consider the health, safety and environmental impacts of the proposed reactor export upon (a) Philippine citizens residing near the site; (b) the 30,000 American citizens residing near the site; and (c) the effective operation of two U.S. military installations in the Philippines - Clark Air Force Base and Subic Bay Naval Base.

On May 6, 1980 the Commission decided to adhere to the policy reflected in its earlier export licensing decisions and to consider only those health, safety and environmental impacts arising from exports of nuclear reactors that affect the territory of the United States or the global commons. (CLI 80-15.) The Commission decided that it would not consider these impacts when acting upon exports of components or special nuclear material. It was stated that the health, safety, and environmental impacts from individual fuel shipments or component shipments are generally de minimis and the Commission has consistently taken the position that individual fuel exports are not "major federal actions." Commissioner Bradford dissented.

The Commission determined that License Applications XR-120 and XCOM-0013 met all the applicable export licensing criteria set forth in the Atomic Energy Act of 1954, as amended, and would not create unacceptable health, safety or environmental risks to U.S. territory or the global commons, and directed issuance of these licenses to the Westinghouse Electric Company. (CLI 80-14.)

A petition for review of the Commission's decision was filed in the U.S. Court of Appeals for the District of Columbia Circuit by the National Resources Defense Council, Philippine Movement for Environmental Protection, Union of Concerned Scientists, Sierra Club, Friends of the Earth and Center for Development Policy immediately thereafter.

Question 4. In what manner does the Commission's review consider factors different from those considered in the reviews conducted by the Executive Branch agencies?

Both the Executive Branch and the Commission must, by statute, consider the same factors in reviewing export license applications. However, there are some differences in emphasis. For example, the Commission believes that it has consistently placed greater emphasis on detailed examination of safeguards and physical security considerations in its review of applications and currently requests detailed assessments in these areas for each relevant application. The Commission believes that the Executive Branch reviews, while taking into account the relevance of safeguards and physical security adequacy, have typically not involved such detailed and specific reviews.

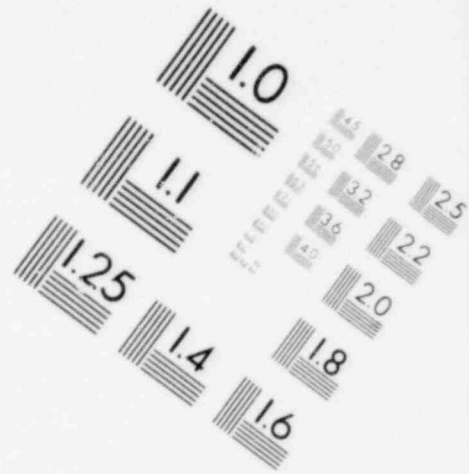
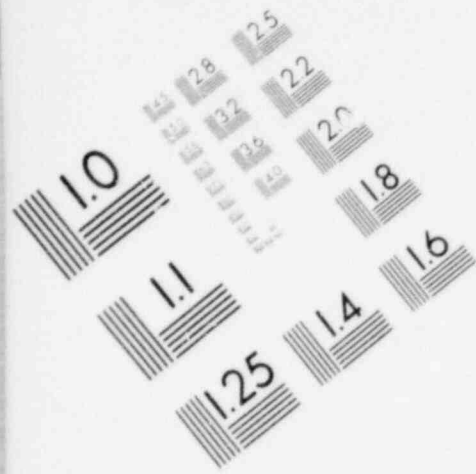
For example, in the international safeguards area, the Executive Branch normally references the general conclusion of the IAEA Safeguards Implementation Report that, while some deficiencies exist in the system, no diversion of a significant quantity of nuclear material was detected in any of the states in which inspections were carried out during the year. On the other hand, NRC staff was requested by the Commission to analyze, in connection with proposed exports, all available information relative to the effective implementation of safeguards in the countries involved; identify safeguards information needs and attempt to obtain such information from U.S. sources; and identify areas of concern, including any unavailable information. These technical assessments, to the degree that information is available, evaluate the country's capability to support the IAEA safeguards system and the effectiveness of IAEA safeguards implementation in relation to the quantity and types of material and the specific facilities where the material will be processed or utilized.

Question 5. To what extent do Commission export licensing reviews require technical analysis? Does this analysis occur prior to the decision on all applications or only in selected instances? Please give examples and provide backup material of such technical analysis for a representative sampling of applications.

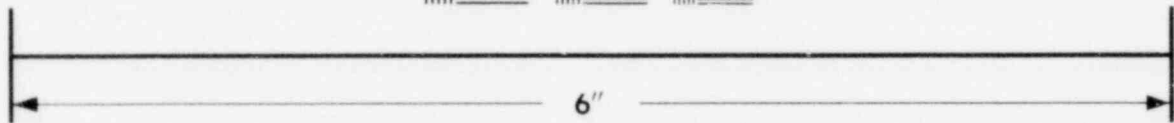
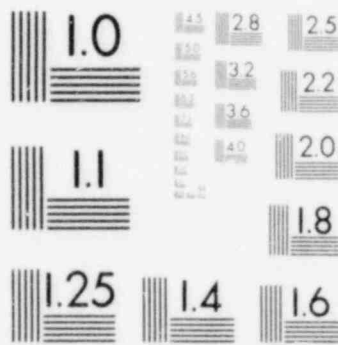
All major export licensing cases, as well as consultation requests from other agencies regarding technology or material retransfer approvals, are subjected to technical safeguards and physical security review by staff of the Office of Nuclear Material Safety and Safeguards (NMSS). The scope and level of detail in these evaluations vary depending on the amount of information available, the type and quantity of material involved, and the sensitivity of the proposed exports in terms of U.S.-nonproliferation interests.

As an example, nuclear material exports involving foreign fabrication of fuel elements are reviewed to assess the capability of national systems of accounting and control and plant safeguards programs with regard to (1) measurement of material receipts, shipments and waste discards, (2) quality control programs to provide calibration and control of measurement accuracy and precision, (3) periodic physical inventory taking, (4) a system of accounting, (5) operating records, (6) an audit program, and (7) procedures for providing reports to the IAEA. In addition, the technical capabilities of the IAEA to provide timely detection of possible diversion are also assessed. Unfortunately, we often have very little detailed information on which to base these comments.

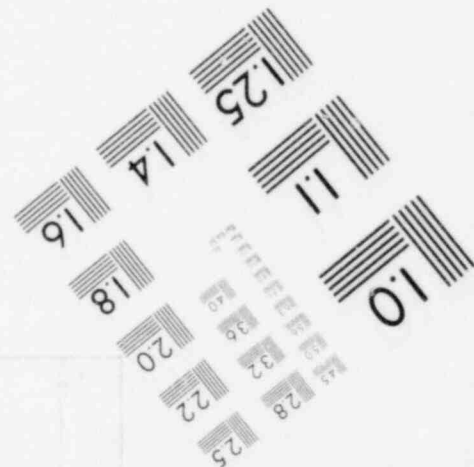
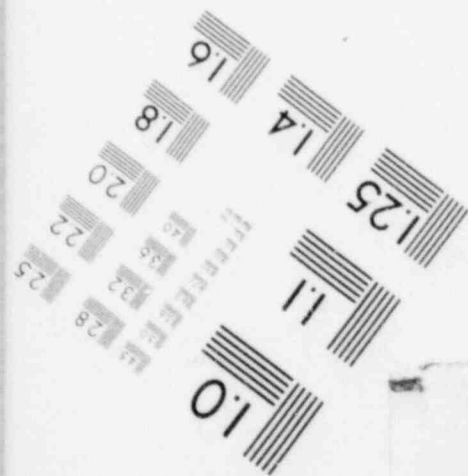
Additionally, for each country that imports from the U.S. significant quantities of highly enriched uranium or plutonium, NMSS prepares a detailed analysis and assessment of the physical protection measures that will be used to protect these materials. The adequacy of physical protection measures for the material is evaluated against international standards. Specific NMSS technical reviews are classified. We would be pleased to provide samples on this basis, if desired.

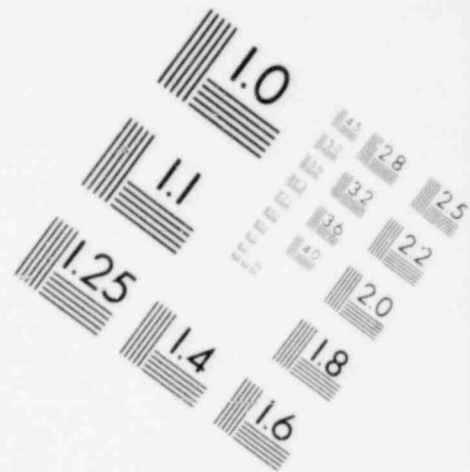
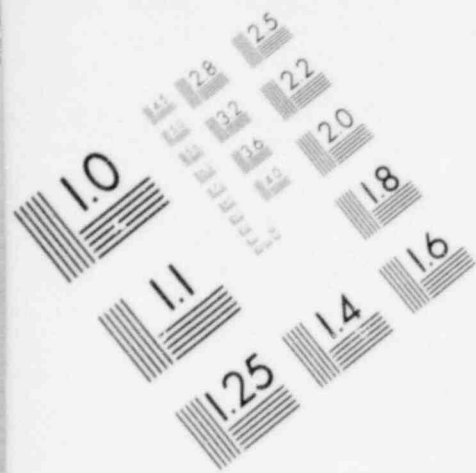


**IMAGE EVALUATION
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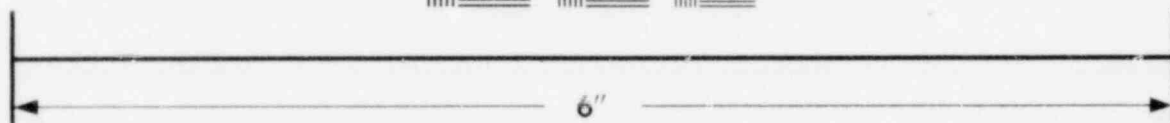
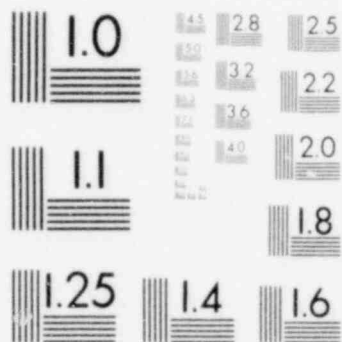


MICROCOPY RESOLUTION TEST CHART

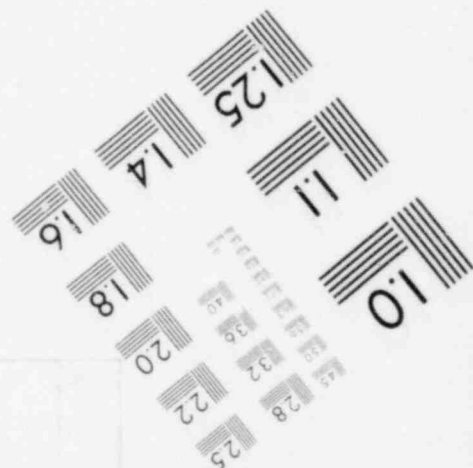
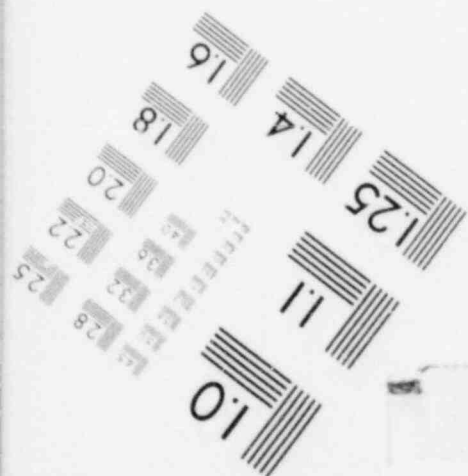




**IMAGE EVALUATION
TEST TARGET (MT-3)**



MICROCOPY RESOLUTION TEST CHART



Another example where NRC technical analyses were made involved the question of when future proposed exports of fuel for the Indian Tarapur Atomic Power Station would be needed in order to avoid adversely affecting the operations there or at the related fuel fabrication plant. A copy of the latest such analysis is enclosed along with the Commission's most recent order.

A third example involved the issues raised in connection with evaluation of the proposed export of a reactor to the Philippines (Application XR-120).

The Commission reviewed certain jurisdictional and procedural issues raised by this proposed export. After reading a decision on these issues, the Commission requested views on substantive issues raised by the Philippine applications falling within the Commission's jurisdiction. Copies of the Commission orders in this matter are enclosed.

Question 6. How many times has the Commission denied an export license?
In any of these instances did the Commission base its finding on the common defense and security standard?

To date, the Commission has referred eight export license applications to the President, denied one, and returned one to the applicant without taking action. (It should be noted in this connection that, under the NNPA, if favorable Executive Branch views have been received on a proposed export, NRC can only issue the license or refer the application to the President for action, but not deny the license. If negative Executive Branch views have been received, NRC must deny the application or return it without action.) In one instance involving license application XSNM-1060, requesting authority to export low enriched uranium to India for use in the Tarapur Atomic Power Station, the Commission was unable to make the statutory determinations required for issuance of the license. Consequently, the application was submitted to the President for determination pursuant to Section 12b(2) of the Atomic Energy Act as amended, and on April 26, 1978, the President issued an Executive Order authorizing the export. After lying before Congress for the requisite period of time, the Executive Order became effective and the material was subsequently exported.

On May 16, 1980, the Commission voted to refer seven applications for the export of nuclear material and equipment to India for use in the Tarapur facilities for Presidential action on the basis that the NRC cannot make the necessary statutory determinations required by Sections 109, 127 and 128 of the Atomic Energy Act for their issuance. In none of these Indian export referrals was the finding based on the common defense and security standard. In addition, after receiving unfavorable Executive Branch views, the Commission on July 11, 1980, returned without action an application for a license to export a globe stop valve to the Bhabha Atomic Research Center in India.

On May 12, the staff made its first recommendation for denial of a pending license application. The application involved highly enriched uranium for the Tehran Research Reactor in Iran. The Executive Branch returned this application to the NRC without action in April, concluding that the requirements of the Atomic Energy Act, as amended, have not been met in that there is no Agreement for Cooperation between the U.S. and Iran and it was unable to make a determination that the proposed export will not be inimical to the common defense and security of the United States in view of current conditions in Iran. The staff recommended denial of the application on the basis of the Executive Branch conclusion and the Commission denied this application.

Finally, applicants have sometimes chosen to withdraw applications rather than to pursue cases to conclusions which probably would have led to denial. These withdrawals have usually followed discussions between the NRC staff or the Executive Branch and the applicant during which the applicant was advised of particular problems affecting his application, for example, the lack of an agreement for cooperation between the U.S. and the proposed recipient country, or a proposed end-use incompatible with U.S. interests which would not permit a noninimicality finding.

Question 7. How many times has the Commission added a license condition based on its review of an application? Please give a list of such instances and the nature of the license conditions which were added.

All NRC licenses are subject to certain conditions. In this regard, in the past two years the NRC has issued:

- (1) Approximately 370 special nuclear material licenses, including 153 for significant quantities of material, of which 24 were for highly enriched uranium or plutonium;
- (2) 87 source material licenses;
- (3) About 150 byproduct licenses, including 20 licenses for the export of significant quantities of bulk tritium gas;
- (4) Four licenses for the export of utilization facilities; and
- (5) Over 430 licenses for nuclear-related components and materials.

More specifically, all licenses authorizing the export of nuclear material normally include the following condition: "This license authorizes export only and does not authorize the receipt, physical possession or use of the nuclear material." The second most common condition, which is placed on special nuclear material export licenses and less frequently on source material licenses, requires the licensee to advise the NRC in the event there is any change in the designation of the company which will package the material for export, or any change in the location of the packaging operation, in sufficient time to allow for NRC inspection or observation of the packaging operation for safeguards and security purposes. This latter condition is regularly placed on licenses for shipments of significant quantities of material originating from an NRC-licensed facility,

as distinguished from a government-owned plant.

Another example is a physical protection condition that requires that:

"The material to be exported under this license shall be protected in transit, while within U.S. jurisdiction, in accordance with the requirements of 10 CFR 73 and the licensee's approved security plan."

All licenses for the export of plutonium, regardless of quantity, currently are conditioned to advise the licensee of the legal restrictions governing transportation of plutonium by air.

The above conditions, and others of a similar nature which are used occasionally, are primarily for the purpose of calling the licensee's attention to regulatory or legal requirements set forth in NRC regulations. In this respect, they do not place any extraordinary restrictions or requirements upon the licensee. On the other hand, some licensing requirements do place added requirements or restrictions upon the licensee, particularly when the export of significant quantities of strategic materials is involved. These conditions most often follow recommendations of the NRC staff, but the Executive Branch occasionally requires restrictions, particularly for the export of large quantities of tritium.

In addition, there have been several instances where NRC reviews have led to increased U.S. Government assurance regarding satisfaction of NNPA requirements, without actual imposition of license conditions.

Commissioner Bradford notes that the concerns of the NRC resulting from a licensing review are expressed most frequently in letters to the Executive Branch rather than in the form of licensing conditions. On numerous occasions, the Commission or individual Commissioners have expressed specific concerns resulting from a licensing review and recommended Executive Branch action.



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

January 22, 1980

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Hendrie
Commissioner Bradford

FROM: Edward J. Hanrahan *[Signature]*

SUBJECT: COMPARISON OF FUEL REQUIREMENTS FOR THE INDIAN FUEL
FABRICATION FACILITY AND TARAPUR REACTORS

At the request of Chairman Ahearne, the fuel requirements for optimum production of Tarapur (TAPS) subassemblies (S/A) at the Indian Nuclear Fuel Complex (NFC) have been analyzed and compared with the actual need for subassemblies at the reactors.

For the first time since OPE has been looking at fuel supply questions for India, we have now obtained a fairly complete picture of past production and current status of the NFC. At our request, the Department of State obtained from the Indians answers to a series of questions we raised (Ref. DOS Cable - Bombay 2297). We have been able to determine that these new data from the Indians are fairly consistent with other information we have.

The last OPE analysis of fuel S/A needed for TAPS was provided to you in our memorandum dated June 5, 1979 (copy attached for your convenience). The new data subsequently obtained from India does not change the conclusions reached in our June 5 memorandum. In fact, somewhat greater operational flexibility exists since the March 1979 refueling of TAPS II used only 49 new S/A*, as opposed to the average of 60 which was assumed for our last analysis.

CONCLUSIONS ON FUEL REQUIREMENTS FOR NFC AND TAPS

1. The schedules for exports of U.S. supplied fuel feed material (XSNM-1379 and 1569) requested by the Indians appear to be based on maintaining optimum NFC fuel S/A manufacturing operations; i.e., not keyed to meeting TAPS operational requirements.

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Contact:
Bernie Snyder
63-43276

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

June 5, 1979

MEMORANDUM FOR: Chairman Hendrie
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Bradford
Commissioner Ahearne

FROM: B. J. Snyder, Acting Director, OPE *BJSnyder*

SUBJECT: ESTIMATED FUEL REQUIREMENTS FOR TARAPUR REACTORS

I am providing for your information a revised analysis of the fuel requirements and schedule for the Tarapur reactors. This updates information given to you in my previous memorandum dated January 16, 1979 and factors in the current application, XSNM-1379.

CONCLUSIONS

1. With the receipt of XSNM-1222 (approved by the Commission on March 23, 1979) and considering the fuel already on hand, the Indians have adequate material for operation of TAPS I until May 1983 and TAPS II until December 1982.
2. If approved, XSNM-1379 permits another refueling and year of operation for both plants: TAPS I probably can operate until August 1984 and TAPS II until March 1984.
3. Shipment of XSNM-1379 by sea could occur as late as December 1981 without any apparent impact on the reactor schedules. Air shipment could extend this date by up to two months, at considerably greater cost.
4. The above schedules of fuel supply and usage may not allow adequate operational contingency in case of a major problem (e.g., high leakage rate of fuel during reactor operations).

DISCUSSION

As discussed in my January 16 memorandum, the average usage during 1977 and 1978 has been 56 subassemblies (S/A) per refueling. Acknowledgement of this lower usage rate, as opposed to the optimum rate of 85 S/A per refueling, is given in the State Department's March 28 submission on XSNM-1379 (ref. SECY-79-233, M... S/A per refueling has been

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

POOR ORIGINAL

May 12, 1980

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Keedy
Commissioner Harrie
Commissioner Bradford

FROM: **EB** Leonard Bickwit, Jr., General Counsel

SUBJECT: APPLICATION OF SECTIONS 127 AND 128 OF THE
ATOMIC ENERGY ACT TO PROPOSED EXPORTS TO INDIA

On May 7, 1980, the Executive Branch submitted additional information on XSNM-1379 to the NRC as requested by the Commission in July and October of last year. The Executive Branch also provided its views recommending approval of the follow-on license application, XSNM-1569. Both of these license applications cover proposed exports of special nuclear material to be used at the Tarapur facility. The primary legal issue raised by these applications is whether the full-scope safeguards requirement set forth in Section 128 of the Atomic Energy Act is now applicable to either or both of these licenses.

Applicability of Section 128

In its May 7 submission the Department of State did not provide an analysis in support of its legal position on the Section 128 issue. Instead, the Executive Branch views include a one sentence, conclusory assertion that Section 128 of the Atomic Energy Act does not apply because the two applications were filed with the Commission prior to September 10, 1979, and the initial shipment of the material was reasonably planned to occur prior to March 10, 1980. This legal view appears to represent a change from earlier positions taken by the Executive Branch. For example, in testimony delivered shortly after enactment of the NNPA, when NRC referred Tarapur application XSNM-1060 to the President, Joseph Nye (then Deputy Undersecretary of State for Security Assistance, Science, and Technology) took the position before two congressional committees that the "... Nuclear Non-Proliferation Act ... establishes that a recipient country must, within two years, have all its peaceful nuclear activities subject to IAEA safeguards as a condition for U.S. supply after that time." (Emphasis supplied.) 1/

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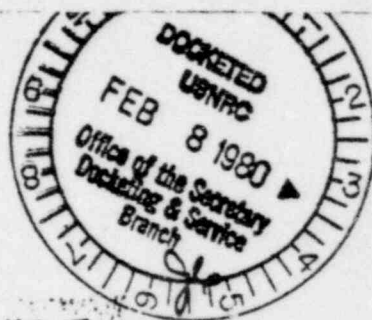
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



COMMISSIONERS:

John F. Ahearne, Chairman
Victor Gilinsky
Richard T. Kennedy
Joseph M. Hendrie
Peter A. Bradford

PACKET NUMBER
EXPORT-IMPORT. 110-00495

In the Matter of
WESTINGHOUSE ELECTRIC CORPORATION
(Exports to the Philippines)

Docket No. 110-0495
Application No. XR-120
Application No. XCOM-0013

ORDER
(CLI-80-2)

The Commission has reviewed the public comments submitted in response to its October 19, 1979 order requesting comment on the Commission's jurisdiction to consider the health, safety and environmental impacts occurring outside the United States of proposed nuclear reactor exports. Further public comment specifically relating to the Philippine applications before the Commission would be in the public interest and would assist the Commission in making the statutory findings required by the Atomic Energy Act.

The Commission invites comment upon: (a) the health, safety or environmental effects the proposed exports would have upon the global commons or the territory of the United States, and (b) the relationship of these effects to the common defense and security of the United States. For purposes of these comments, the term "global commons" means geographical areas such as the high seas, Antarctica, and the portions of the atmosphere that are not within the territorial jurisdiction of a single nation state. The term "United States" means territory of the 50 States, as well as U.S. trust territories and possessions.

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Comments should be sent to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Chief, Docketing and Service Branch by February 29, 1980. Comments should also be served upon other participants in this proceeding pursuant to 10 CFR 110.89(b).


In the near future the Commission will issue an opinion setting forth its jurisdiction to consider health, safety and environmental effects that may occur as a result of proposed nuclear reactor exports.

This public proceeding on pending license applications for nuclear export licenses to the Philippines will be completed on February 29, 1980.

Commissioner Bradford notes that the Commission's request for comments suggests that it may structure its export licensing reviews to assess the impact on the fish in international waters while declining to look into the impacts on the health and safety of concentrations of U.S. citizens located near exported reactors. The law clearly does not require this outcome, and as a policy decision, he finds it extraordinary. He would examine the potential health, safety and environmental effects of the proposed exports on U.S. citizens at Subic Bay Naval Base and Clark Air Force Base.

It is so ORDERED.

For the Commission


SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.

this 8th day of February, 1980.

POOR ORIGINAL

DOCKET NUMBER
EXPORT-IMPORT. 11000495

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

- Joseph M. Hendrie, Chairman
- Victor Gilinsky
- Richard T. Kennedy
- Peter A. Bradford
- John F. Ahearne



In the matter of
WESTINGHOUSE ELECTRIC CORP.
(Exports to the Philippines)

Application No. XR-120
Docket No. 110-0495
Application No. XCOM-0013

ORDER

On April 19, 1979, the Nuclear Regulatory Commission received a Petition for leave to intervene and for a hearing concerning a license application by Westinghouse Electric Corporation covering the export of slightly enriched uranium to the Philippines, and to consolidate consideration of that license with two other nuclear license applications pending for the Philippines.^{1/} The material would be used to fuel a nuclear power reactor being constructed by the Philippine National Power Corporation at Napot Point on the island of Luzon.

The Westinghouse Electric Corporation submitted an application to export a nuclear facility (XR-120) to the Philippines on November 18, 1976. The Commission did not receive final Executive Branch views on that application until September 28, 1979.^{2/} Because action had not been taken on the reactor application, on August 3,

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