

March 7, 1978

SECY-78-134

COMMISSIONER ACTION

For: The Commissioners

From: James R. Shea, Director
Office of International Programs

Thru: Executive Director for Operations *JRS*

Subject: PENDING RETRANSFER FROM SPAIN TO THE UNITED KINGDOM (UK)
FOR REPROCESSING (SECY 77-634)

Discussion: SECY 77-634 informed the Commission of four proposed retransfers to the UK for reprocessing and requested Commission guidance for providing NRC views to the DOE under established interagency consultative procedures. The four cases were:

1. Beznau (Switzerland) - 27 assemblies
2. Zorita (Spain) - 22 assemblies
3. Garona (Spain) - 128 assemblies
4. Oskarshamn (Sweden) - 97 assemblies

The Commission expressed no objection to the Zorita and Beznau retransfers; did not provide its views on the Swedish retransfer since the Executive Branch is obtaining further information; and did not provide its views on the Garona retransfer pending the development of further information. Specifically, Commissioners Gilinsky and Bradford requested further information concerning (1) Spanish regulatory requirements for a full core discharge capability and (2) the need to completely empty the spent fuel storage pool before undertaking any reracking program. Partly in response to Commissioner requests, the Department of Energy has received additional information from the Spanish Embassy (Appendix C). The letter from the Spanish Embassy notes that:

1. "It has been the operation procedure recommended by the Spanish nuclear regulatory agency for the utilities to have enough space in the pools for the reactor's core"

Contact:
M.A. Guhin (492-7866)
M.R. Peterson (492-8155)

NATIONAL SECURITY
INFORMATION

Unauthorized Disclosure Subject To
Criminal Sanctions.

SUBJECT TO GENERAL DECLASSIFICATION SCHEDULE
EXECUTIVE ORDER 11652 AUTOMATICALLY DECLASSIFIED ON
AT TWO YEAR INTERVALS AND DECLASSIFIED ON

1984

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U.S. NRC Declassification Review

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Discussion:
(continued)

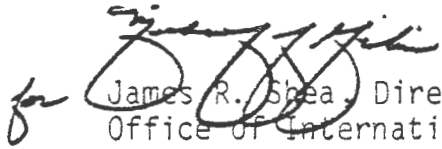
2. "In order to accomplish (the reracking) operation with the maximum of safety assurance, it would be very desirable to have the pool empty. Otherwise, it would be required to move the elements around in the pool, increasing the possibility of damage and subsequent radioactivity release."

As noted in the State Department's memorandum of December 1977 (Appendix B), which was attached to SECY 77-634, the Executive Branch's favorable recommendation concerning the Garona retransfer was also contingent upon receipt of a firm commitment for the early augmentation of Garona's spent fuel storage capabilities. The letter from the Spanish Embassy notes that the operator of the Garona plant has decided to increase the spent fuel pool capacity and estimates 23-36 months for completion of this reracking.

In view of the above developments, I believe our position should be that we have no objection to the proposed retransfer subject to the conditions stated in the Executive Branch's December 19 memorandum, particularly that concerning US control over the disposition of any recovered plutonium. Because of the urgency expressed by the Spanish (deriving from the availability of shipping casks) and the imminent signing of the Nonproliferation Act by the President (which will require the implementation of new MB-10 review procedures as discussed in my memorandum of March 6 concerning the Tsuruga retransfer), DOE has requested expeditious NRC review of this retransfer request.

Recommendation: That the Commission approve the proposed response to DOE at Appendix A.

Coordination: OELD has no legal objection. NMSS wishes to inform the Commission that it has not received country-specific information which permits it to make an independent conclusion as to the effectiveness of EURATOM and IAEA material control and accounting safeguards to deter and detect diversion in the UK.


for James R. Shea, Director
Office of International Programs

Enclosures:

1. Appendix A - Proposed letter to DOE
2. Appendix B - State Department's memorandum dtd December 19, 1977
3. Appendix C - Letter to H. Bengelsdorf from M. Gallego dtd February 8, 1978

NOTE: Commission comments should be provided directly to the Office of the Secretary by c.o.b. Friday, March 10, 1978.

Commission staff office comments, if any, should be submitted to the Commissioners NLT Thursday, March 9, 1978, with an information copy to the Office of the Secretary.

If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:

Commissioners
Commission Staff Offices
Exec Dir for Operations
Secretariat

Mr. Nelson F. Sievering
Deputy Assistant Secretary for
International Programs - Rm. 8104
U.S. Department of Energy
20 Massachusetts Avenue, N.W.
Washington, D.C. 20545

Dear Mr. Sievering:

This letter will inform you that the Nuclear Regulatory Commission has no objection to the proposed retransfer from Spain (Garona) to the UK for reprocessing of 128 irradiated fuel assemblies (AG/1162/2). It is our understanding that this retransfer will be subject to all the conditions associated with it as detailed in Mr. Nosenzo's memorandum of December 19, 1977.

Sincerely,

James R. Shea, Director
Office of International Programs



DEPARTMENT OF STATE

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL
ENVIRONMENTAL & SCIENTIFIC AFFAIRS

December 19, 1977

MEMORANDUM

TO: ACDA - C. Van Doren
PM/NPP - G. Oplinger
L/OES - R. Bettauer
EUR/RPE - W. Salisbury
DOE/IA - N. Sievering
DOE/ISA - V. Hudgins
NSC - J. Tuchman

FROM: OES/NET - Louis V. Nosenzo

SUBJECT: Pending Retransfers to the UK or France for
Reprocessing

Based on comments received, the general approach to reprocessing retransfer requests proposed in my memorandum of December 5 on the above subject appears to be acceptable. The purpose of this memorandum is to clarify certain details and to describe our action plan for proceeding.

It is the consensus that U.S. willingness to approve retransfers for reprocessing should not only be based on a showing of clear need but also upon a demonstrated and serious effort by the requestor and/or his Government to implement relatively near-term spent fuel disposition plans which are dependent neither on reprocessing nor return of fuel to the United States. Such plans may include (a) reracking of storage basins with high-density, neutron-absorbing racks, (b) movement of fuel among storage basins of various reactors to optimize overall utilization, or (c) provision of new fuel storage capacity, including away-from-reactor central storage. Generally, these plans cannot be implemented immediately, but we should expect to obtain some sort of commitment to proceed and steady progress toward completion or an explanation which is acceptable to us as to why this is not possible.

GDS

Further, it appears to be the overall feeling that having obtained such a commitment or acceptable explanation, it would be preferable for us to give such approvals as may be required prior to the time that alternative spent fuel disposition plans can be implemented in a manner which minimizes the appearance of continued U.S. acquiescence in requests for reprocessing retransfers. This will be done by having the approvals cover justified retransfer requirements within the framework of the mutually agreed upon spent fuel disposition plan and in a way which minimizes the possible need for extensions or reapprovals in the event that changes in fuel discharge or transport plans make it impossible to make the actual spent fuel retransfer at the time originally contemplated.

With respect to the question of increasing capabilities for spent fuel disposition, the following situation exists with regard to MB-10 retransfer requests presently under consideration:

Beznau -- In order to perform work on the emergency core cooling system, the entire core must be discharged, which requires the transfer of 27 elements to BNFL in order to provide sufficient space. Following this work, the Swiss have indicated that new racks would be installed provided that the licensing authorities issued the necessary permit. However, a thorough evaluation of seismic risks must be undertaken before authorization can be considered.

Zorita -- Studies are being carried out to install a new high-density storage system; however, it will be necessary to have the pool completely empty (22 assemblies presently in pool plus 20 to be discharged from reactor in February 1978) before the installation of these new racks could begin.

Garona -- The reactor operator has gone out for international tenders for reracking the pool, which would increase its capacity (over and above a full-core discharge capability) by over 200 percent. However, there is no indication of the time required to accomplish such reracking.

Oskarshamn-I -- There appears to be no need to authorize spent fuel retransfers from this reactor until at least mid-1978. In fact, although we have received no MB-10 request to date, the spent fuel storage situation at Oskarshamn-II (which has a small basin) probably will

become critical first -- perhaps by the spring of 1978. We have been informally advised that pool reracking is planned at both Oskarshamn reactors, although the schedule for such reracking presently is not clear. Further, the utility's management is participating in a group preparing and submitting for Swedish Government approval plans for a large, central spent fuel storage facility which would be completed by late 1983, at the earliest. At the same time, we have been informed that transfers between the two Oskarshamn reactor storage basins are not feasible, since there are no casks available to the utility for such transfers.

With this background in mind, we plan to take the following actions in each of the present cases:

Beznau -- Approve the present retransfer request for 27 assemblies upon obtaining a commitment that the reactor operator will proceed expeditiously with pool reracking upon obtaining the necessary Swiss licensing authorization. Hopefully, we could agree upon a tentative schedule to complete this reracking following the time that such authorization is granted.

Zorita -- Approve the present request for retransfer of 22 assemblies, with the clear understanding that subsequent approvals will be contingent upon specific steps being taken by the utility to rerack its storage basin. If the utility is able and prepared to do so at the time of the scheduled February 1978 discharge, we would be willing to approve now retransfer of the additional 20 assemblies to be discharged so that firm arrangements can be made in the near future for clearing the pool to permit reracking to begin as soon as these assemblies have been adequately cooled for shipment.

Garona -- As indicated in my memorandum of December 5, we do not actually have at present a specific request for retransfer; however, since the prior request was only approved in part, we expect such a request for the unapproved balance momentarily. In this situation, we would advise the utility, through the Spanish Government, that our favorable consideration of the anticipated request is contingent upon receiving firm plans for early implementation of a program to augment existing spent fuel storage capabilities. If such a plan is received, we would be prepared to approve retransfer of the number of spent fuel assemblies which

are essential to successful completion of the program (presumably if plans for reracking could be implemented in early 1978, this could vary between 68 assemblies, if only full core discharge capability is needed following the April 1978 discharge, and 288 if the pool must be completely emptied for reracking).

Oskarshamn-I -- We have informally advised a senior official of the Swedish Embassy that we plan no immediate action on this retransfer since there appears to be no urgent need, but will consider it on the same basis as Zorita and Beznau when such need arises. We also asked whether this position would pose any serious political problems for the Swedish Government. The Swedish official has promised to solicit his Government's reactions. In the interim, we will try to obtain additional information on plans for reracking the Oskarshamn reactors' storage pools.

In each case any approvals will, of course, be contingent upon meeting all other U.S. criteria for reprocessing retransfers, including the U.S. right of approval over transfers of recovered enriched uranium and plutonium. As requests for reprocessing retransfers are received in the future, they will be analyzed within the context of both need and the requestor's longer-term plans for spent fuel disposition and a recommendation will be made for appropriate action, subject to the concurrence of your agency.

In view of the urgency of the Zorita and Beznau requests, would you please provide any comments on the action plan to Dixon Hoyle (632-4101) by December 22.

cc: T/D - L. Scheinman
S/AS - G. Smith
NRC - J. Shea

Drafted: OES/NET/EIC:DHoyle:pab

[REDACTED]



EMBAJADA DE ESPAÑA
WASHINGTON

FICINA DE INDUSTRIA Y ENERGIA

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WASHINGTON, D.C. 20009
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Ref. No. 046

February 8, 1978

Mr. Harold D. Bengelsdorf
Director For Nuclear Affairs
International Programs
Department of Energy
Washington, D.C. 20545

Dear Mr. Bengelsford:

I am writing you in relation with the spent fuel transfers pending authorization, one of which was requested almost six month ago, and especially regarding the one for Garoña for it is the most urgent due to the circumstances surrounding the reactor's operation.

As you know, in June 1977 the EEC requested authorization to transfer 191 fuel elements, and my letter of August 22 explained the situation of the pool and the urgent need to obtain the authorization. Four months later, on October 28, the transfer of only 63 fuel elements was authorized (as an extension of a previously approved transfer of 81 fuel elements, of which only 18 had actually been sent). Therefore, since the urgency conditions continued, a new authorization for the transfer of the remaining 128 (191-63) was requested last November 22, 1977.

The reasons for the urgency of this approval are the following:

1. If the current program of spent fuel transfer is carried out, there will be 208 fuel elements in the storage pool before the next reload in April 1978, when 48 elements will be added. This will mean a total of 256, exceeding the safety limit of storage by 36. It has been the operation procedure recommended by the spanish nuclear regulatory agency for the utilities to have enough space in the pools for the reactors core, because being impossible to transfer spent fuel elements within Spain from one plant to another, in case of a reactor breakdown the plant would have to be shutdown due to lack of storage capacity.

./..

Garoña had operated under this recommendation since the startup in 1971, except for a four-month period between July and November 1976, and continuously since last April, when it lost that capacity owing to the difficulties in obtaining retransfer approvals.

In the country's present energy situation, shutdown of the Garoña reactor would seriously affect the electricity supply, strongly damaging the reliability of the United States as a nuclear supplier.

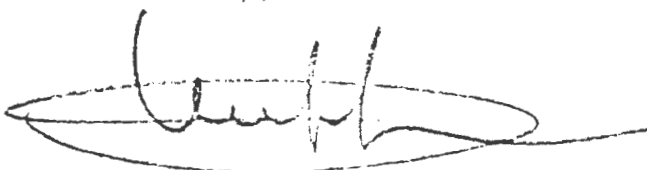
2. The operator of the Garoña plant has decided to increase the pool's capacity by replacing the current racks by more dense ones, and a period between 23 and 36 months has been estimated for the job to be completed.

In order to accomplish that operation with the maximum safety assurance, it would be very desirable to have the pool empty. Otherwise, it would be required to move the elements around in the pool, increasing the possibility of damage and subsequent radioactivity release.

3. Reducing the number of fuel elements in the Garoña storage pool will also favourably affect its radiation level, increased in the past by leakage experimented by some of the fuel elements.
4. In relation with the necessary transportation arrangements, a prompt authorization of the requested transfer is essential in order for BNFL to be able to use a new kind of larger flasks that can, however, only be assigned to Garoña for a short period of time.

It is for all these reasons that my country's authorities are very concerned about the problems and difficulties that a further delay could cause to the reactor's operation. I, therefore, ask you to please give the maximum priority to the transfer authorizations now pending, and especially the above mentioned one for Garoña, so that the situation can be alleviated and its operation continued under safe and proper conditions.

Sincerely,

A handwritten signature in dark ink, appearing to be 'Martín Gallego', written over a horizontal line.

Martín Gallego
Industry and Energy Counselor

c.c. Mr. Nelson Sieverino

13#10

AG/1162/2

Number

ETD/EULSR)-8

APPROVAL FOR RETRANSFER OF SPECIAL NUCLEAR MATERIAL
OF UNITED STATES ORIGIN

The approval of the United States Department of Energy is hereby requested
to the transfer J.E.N. FOR

from CENTRALES NUCLEARES DEL NORTE S.A. OF SPAIN

(Transferor)

to EURATOM SUPPLY AGENCY FOR BNFL WINDSCALE

(Transferee)

of United States supplied special nuclear material in the quantity and
meeting the specifications described below (hereinafter called "specified
material") which the transferor obtained pursuant to its Agreement for
Cooperation for Civil Uses with the United States Government. Material
was originally obtained by transferor from _____,
under Contract or Order Number SP/S/3.

SPECIFIED MATERIAL
(Fill in where applicable)

Identification

<u>Fuel Type</u>	<u>Marking, No., etc.</u>	<u>Total U (In Grams)</u>	<u>U-235, U-233 or Pu (In Grams)</u>	<u>Isotopic Percent U-235, U-233, or</u>
Irradiated fuels	128	24,475,264	U-235 210,904	Pu (F) 132,599

As listed in attachment 181,673

The specified material, which is now located at C.N. Sta. de Garoña, will
upon approval hereby by the United States Department of Energy be transferr
on or about February to July 1, 1977 for
use at Windscale Cumberland England and will be accepted for
the following specified purpose:

Reprocessing

The transferor, with the concurrence of the transferee, will notify within
30 days after the aforesaid date the United States Department of Energy
of the actual date and quantity of material transferred. It is agreed
by the transferor and transferee that as of that date the specified
material will cease to be subject to the Agreement for Cooperation and
contract indicated above and will be subject to the transferee's Agreement
for Cooperation for Civil Uses with the United States Government.

M.L. Rodríguez

JEN-SPAIN

EURATOM SUPPLY AGENCY

November 28th 1977

13, XII, 1977

SGT-JEN-SPAIN

(Date)

(Transferor)

(Date)

Above requested transfer under Article _____ of transferee's Agreement
for Cooperation for Civil Uses with the United States Government approved,
provided physical transfer is consummated by _____

(For the United States Department of Energy)