

January 23, 1979

SECY-79-58

COMMISSIONER ACTION

For: The Commissioners

From: William J. Dircks, Director
Office of Nuclear Material Safety and Safeguards

Thru: Executive Director for Operations *JW*

Subject: DECLARED ORIGIN OF NUCLEAR MATERIALS

Purpose: To obtain a Commission decision regarding a possible change in NRC regulations to require licensees to report origin swapping of nuclear materials.

Category: This paper concerns a minor policy issue.

Issue: Should the NRC be kept currently informed of the nuclear transactions involving licensees in which there is an origin swapping of nuclear materials?

Decision Criteria:

- (1) Are the proliferation implications of origin swapping of nuclear materials of sufficient Commission concern to justify levying a routine reporting requirement on licensees?
- (2) Would information from licensees alone, and not from DOE license-exempt contractors, provide the information deemed necessary by the Commission to assure that U.S. proliferation controls on exported nuclear materials are not being circumvented?

Alternatives:

- (1) Publish proposed rule changes in very near future without further study to require licensees to report origin swapping of nuclear materials.

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(2) Conduct a study of origin swapping transactions during the past year and those planned for the near future, including an informal survey (by phone or visit) of licensees and contacts with the Department of Energy and their contractors, and an assessment of the proliferation implications of such transactions. The need for, and likelihood of achieving internationally agreed supplier controls on swapping would also be assessed.

(3) Decide now not to require licensees to report origin swapping.

Discussion:

Background

Based upon verbal information received by NMSS, it is common practice for companies to "swap" nuclear materials originating in different countries. Swapping is an arrangement whereby nuclear materials that originated in one country are exchanged for nuclear materials held by another organization that originated in a different country without a physical transfer of material. This information came to light during our efforts to determine the location of nuclear materials of foreign origin currently within the United States so as to establish baseline country-origin accounts to implement the country of origin tracking system initiated by NRC on January 1, 1979. Information concerning this matter was requested by Commissioner Bradford and provided to him in a memorandum dated November 9, 1978 (Enclosure 1). After reviewing and considering this information, Commissioner Bradford has requested us to examine the possibility of requiring NRC licensees to report each "swap" in which they participate (Enclosure 2).

Analysis of Alternatives

Following is a listing of arguments pro and con for each alternative.

Alternative 1

Publish proposed rule changes in very near future without further study to require licensees to report origin swapping of nuclear materials.

Pro

- o Would permit NRC to evaluate each swapping transaction involving NRC licensees on a current basis and enable NRC to initiate timely action if a reported transaction indicates a potential for circumvention of U.S. proliferation controls on exported nuclear materials.
- o This alternative provides the quickest means to determine whether and to what extent origin swapping occurs and might be used in the future to circumvent U.S. export controls.

Con

- o We have not as yet identified a type of origin swapping transaction that could result in a possible circumvention of U.S. export controls.
- o Since such a reporting requirement would affect only NRC licensee transactions, it would be of limited value as a control measure.
- o The principal argument for imposing the reporting requirement would be to assess if a potential problem exists and such an assessment should properly be made before the requirement is imposed.
- o While it does not appear that reporting such information would be costly and difficult for licensees, we do not really know the extent to which origin swapping has occurred in the past and therefore do not really know what the cost impact might be on licensees.

Alternative 2

Conduct a study of origin swapping transactions during the past year and those planned for the near future, including an informal survey (by phone or visit) of licensees and contacts with the Department of Energy and their contractors, and an assessment of the proliferation implications of such transactions. The need for, and likelihood of achieving internationally agreed supplier controls on swapping would also be assessed.

Pro

- o Would develop information necessary to determine if such a reporting requirement is needed and permit NRC assessment of the possible impacts on licensee operations.
- o Would allow appropriate time for discussions concerning those swapping transactions involving DOE license-exempt contractors or swapping arrangements between foreign parties involving U.S. origin material.

Con

- o Could delay the date for taking action regarding future swapping transactions that could lead to a possible circumvention of U.S. export controls.
- o Licensees may not maintain complete information of this type and response may be incomplete.

Alternative 3

Decide now not to require licensees to report origin swapping.

Pro

- o We have not as yet identified a type of origin swapping transaction that could result in a possible circumvention of U.S. export controls.

Con

- o Without a careful examination of past and future origin swapping transactions (accomplished by Alternative 2), we could be prematurely deciding not to take action regarding origin swapping transactions that could undermine U.S. proliferation controls on exported nuclear materials.


If the Commission decides in favor of Alternative 1, it should consider encouragement of DOE to implement a similar requirement applicable to DOE license-exempt operations. Large quantities of normal UF₆ enter the U.S. each year consigned directly to DOE, and these do not involve a domestic licensee. Unless origin swapping transactions

involving all U.S.-supplied nuclear materials are currently scrutinized, the requirement applied only to licensees may not be justifiable.

Recommendation: The Commission:

- (1) Approve Alternative 2 that staff collect and conduct a study of data involving origin swapping of U.S. exported nuclear materials which occurred during calendar year 1978 and swapping planned in near future.
- (2) Direct the staff to carry out this study within a period of three months.

Coordination: The Office of International Programs concurs. The Office of the Executive Legal Director has no legal objections.


William J. Dircks, Director
Office of Nuclear Material Safety
and Safeguards

Enclosures:

1. Memo to Comm. Bradford fm
R.G. Page dtd 11/9/78
2. Memo to W.J. Dircks fm Comm.
Bradford dtd 1/5/79

Commissioners' comments should be provided directly to the Office of the Secretary by close of business Monday, February 5, 1979.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT January 30, 1979, 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.

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