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SECY-80-427A

November 21, 1980

# COMMISSIONER ACTION

The Commissioners

For:

From:

William J. Dircks  
Executive Director for Operations

Subject:

EXPORT OF LASER ISOTOPE SEPARATION (LIS) EQUIPMENT TO FRANCE PURSUANT TO 10 CFR 810 (SECY-80-427)

Review Date:

The normal expiration date for NRC review was October 10. However, the staff requested additional information from DOE which was only received on November 10. On November 12, DOE informed the staff that they would allow NRC a "reasonable" amount of time to complete its review.

Purpose:

To obtain Commission approval of a proposed response to DOE.

Discussion:

Laser Analytics, Inc. (LAI) has submitted a request to DOE under 10 CFR Part 810 to export two tunable diode lasers (Model SDL-40) to France for use at the CEA research laboratory in Saclay for spectroscopic measurements of gases at low pressure (SECY-80-427). The Commission will recall that, in August 1978, NRC received a similar request to export two SDL-1 tunable diode lasers to France. DOE approved this request before NRC comments were provided. (See SECY-78-442 and SECY-78-571).

The SDL-40 model, which is very similar to the SDL-1, is designed for studies of uranium spectra related to laser isotope separation. It provides tunable laser radiation over a broad spectrum of infrared frequencies, using individual diodes to cover incremental portions of this frequency range. It has a very high resolution capability which is about 10 times better than any other comparable device in the 616-629 cm-1 region. The region of 616-629 cm-1 is of special significance since this is where the infrared spectrum of UF<sub>6</sub> is located. Spectral data on 235 UF<sub>6</sub> recorded to more than three significant figures is classified Confidential Restricted Data. The SDL-40 model has the capability to produce spectra of seven significant figures. In connection with its planned approval of this request, DOE has advised us that it will request assurances from the French that (1) the SDL-40's would not be reexported or replicated and (2) all U-235 UF<sub>6</sub> spectra in the 16 micron region to more than three significant figures would be treated as Confidential Restricted Data.

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 5  
FOIA 92-436

Contact: William Upshaw, IP (49-2E)

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Discussion:  
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During the period 1974-75, approval was granted by Commerce to export SDL-1's to West Germany, South Africa, France, and the U.K. This was prior to the imposition of strict trade control measures on these diode lasers by U.S. authorities. In September 1977, ERDA authorized the export of two SDL's to the U.K. and in 1978, as stated above, DOE authorized a similar export to France. These exports were approved after interagency review, although the exports to France were authorized prior to receipt of NRC comments. More recently, in March 1979 DOE received a request to export SDL-1 equipment to West Germany. For this case, the Commission recommended that the transfer be deferred until (1) U.S. LIS export policy and criteria are developed and (2) the FRG provides specific assurances that the equipment will not be reexported or replicated and any U-235 infrared spectral data recorded to more than three significant figures would be treated as Confidential Restricted Data or its West German equivalent (See SECY-79-309). DOE has advised us informally that this request has not been approved since the West Germans have not yet provided the requested assurances.

The Commission will recall that NRC has requested since November 1978 (most recently on August 29, 1979) that the Executive Branch develop overall policy guidelines regarding LIS-related exports. When the staff brought this matter to the attention of DOE again, in connection with the review of the current French export request, we were advised that it is impractical to develop detailed guidelines for LIS-related exports because it is not possible to identify in advance the specific U.S.-related exports which may arise. Hence, meaningful policy judgments in a general guidelines paper cannot be made regarding the proliferation significance of prospective LIS-related exports. As a result, DOE has concluded that it is preferable to adopt a "first case" approach regarding LIS-related exports using the broad policy guidelines for enrichment-related exports as contained in the interagency guidelines for U.S. exports involving incidental assistance to foreign reprocessing and enrichment facilities (see SECY-79-627). In view of DOE's response, the staff does not intend to pursue further NRC's request to the Executive Branch to develop more specific LIS-related export guidelines.

Conclusion:

The staff notes that this equipment is marketed in the U.S. without Government restrictions. We also note that equipment capable of performing functions similar to the SDL-40's has been developed in Canada and France (the availability of comparable assistance from other sources is a valid consideration under Part 810). Furthermore, we note that (1) France is a

Conclusion:  
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weapon state; (2) similar equipment has been previously exported to France; and (3) similar, more expensive, equipment is already available in France.

In view of the foregoing, the staff believes that NRC should not oppose this export, provided appropriate assurances, as stated above, are obtained.

Recommendation:

That the Commission approve the dispatch of the attached letter to DOE.



William J. Dircks  
Executive Director for Operations

Attachment:

Letter from Shea  
to V. Hudgins (Draft)

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. Tuesday, December 2, 1980.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT November 28, 1980, 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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