

THIS LICENSE EXPIRES 01 October 1983

## United States of America

Nuclear Regulatory Commission

XMAT0197

Pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974 and the regulations of the Nuclear Regulatory Commission issued pursuant thereto, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued

to the licensee authorizing the export of the materials and/or production or utilization facilities listed below, subject to the terms and conditions herein.

LICENSEE		ULTIMATE CONSIGNEE IN FOREIGN COUNTRY	
NAME	Showa Denko America, Inc. 200 Park Avenue, Suite 2309 New York, New York 10166  ATTN: K. Ibuki	NAME	Showa Denko K.K.  ADDRESS 13-9 Shiba Daimon 1-chome Minato-Ku Tokyo 105 Japan  (For resale to only the below listed Japanese companies and universities)
INTERMEDIATE CONSIGNEE IN FOREIGN COUNTRY		OTHER PARTIES TO EXPORT	
NAME	NONE	SUPPLIER:  Union Carbide Corporation, Linde Division Somerset, New Jersey	
ADDRESS			
APPLICANT'S REF. NO. #81312		COUNTRY OF ULTIMATE DESTINATION JAPAN	



QUANTITY	DESCRIPTION OF MATERIALS OR FACILITIES
15,000 Liters (13.5 kilograms)	Deuterium Gas Contained in three containers  (Deuterium 99.5%; Tritium, 0.005 uci/ml maximum; D <sub>2</sub> O 0.3% maximum)  The material will be resold to only the Electric Communications Institute, Ibaragi; Toshiba Electric Company; Tokyo University; Kyoto Univeristy; and Tohoku University for use in laser communications or as chemical tracers and biological tracer fields)  Condition 6 on page two of this license applies to this export. ////////////////////END////////////////////////////////////

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954, as amended and the Energy Reorganization Act of 1974.

This license is subject to the right of recapture or control by Section 108 of the Atomic Energy Act of 1954, as amended and to all of the other provisions of said Acts, now or hereafter in effect and to all valid rules and regulations of the Nuclear Regulatory Commission.

THIS LICENSE IS INVALID UNLESS SIGNED BELOW  
BY AUTHORIZED NRC REPRESENTATIVE

James B. Devine, Assistant Director  
Export/Import and International Safeguards  
Office of International Programs

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PDR XPORT  
XMAT-0197

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EXPORT LICENSE

U.S. NUCLEAR REGULATORY COMMISSION  
EXPORT LICENSE

Conditions

License Number XMAT0197

**Condition 1** — Licensee shall file with the Customs Officer or the Postmaster two copies, in addition to those otherwise required, of the Shipper's Export Declaration covering each export and mark one of such copies for transmittal to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. The following declaration should accompany or be placed on the Shipper's Export Declarations for such exports:

"This shipment is being made pursuant to specific license number (**specific license number**) filed at (**location of Customs office where license is filed**), on (**date license was filed**). This license expires on (**expiration date of license**), and the unshipped balance remaining on this license is sufficient to cover the shipment described on this declaration."

**Condition 2** — Exports authorized in any country or destination, except Country Groups Q, S, W, X, Y, and Z in Part 370, Supplement No. 1, of the Comprehensive Export Schedule of the U.S. Department of Commerce.

**Condition 3** — This license covers only the nuclear content of the material.

**Condition 4** — The material to be exported under this license shall be shipped in accordance with the physical protection requirements for special nuclear material in 10 CFR 73.

**Condition 5** — Special nuclear material authorized for export under this license shall not be transported outside the United States in passenger carrying aircraft in shipments exceeding (1) 20 grams or 20 curies, whichever is less, of plutonium or uranium 233, or (2) 350 grams of uranium 235.

**Condition 6** — This license authorizes export only and does not authorize the receipt, physical possession, or use of the nuclear material.

**Condition 7** — The licensee shall complete and submit an NRC Form 741 for each shipment of source material exported under this license.

**Condition 8** — The licensee shall advise the NRC in the event there is any change in the designation of the company who will package the nuclear material to be exported under this license, or any change in the location of the packaging operation, at least three weeks prior to the scheduled date of export.