

**EXPORT LICENSE**

NRC FORM 250  
(10-07)

**UNITED STATES OF AMERICA**  
Nuclear Regulatory Commission  
Washington, D.C. 20555

NRC LICENSE NO.: XMAT411

DOCKET NO.: 11005831

LICENSE EXPIRES: December 31, 2014

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.

<p align="center">LICENSEE</p> <p>Sigma-Aldrich Corporation and Subsidiaries 6000 North Teutonia Avenue Milwaukee, WI 53209</p> <p>Attn: Susan Haertling</p>	<p align="center">ULTIMATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES)</p> <p>Ontario Power Generation 100 University Avenue Toronto, Ontario M5G 1X6 Canada</p> <p>(Heavy Water for purification/upgrade from a 60% solution [in water] to 98% pure deuterium oxide for future return to the U.S.)</p>
--	--

<p align="center">INTERMEDIATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES)</p> <p align="center">NONE</p>	<p align="center">OTHER U.S. PARTY(IES) TO EXPORT</p> <p align="center">NONE</p>
--	--

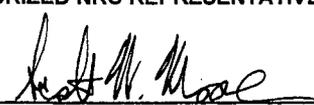
<p>APPLICANT'S REFERENCE NO.: Appl. Dated 9/18/09</p>	<p>ULTIMATE DESTINATION: Canada</p>
---	-------------------------------------

QUANTITY	DESCRIPTION OF MATERIALS OR FACILITIES
<p align="center">8,400.0 Kilograms</p> <p>////////////////////////////////////</p>	<p>Heavy Water In the form of deuterium oxide (Heavy Water) (42,000.0 kg) shipped as 70,000.0 kg spent deuterium oxide (D<sub>2</sub>O concentration ~60%) in water.</p> <p align="center">////////////////////////////////////END////////////////////////////////////</p>

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

SIGNATURE: 

NAME AND TITLE: Scott W. Moore, Deputy Director  
Office of International Programs

DATE OF ISSUANCE: November 4, 2009

**EXPORT LICENSE**