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 (NRC) issued pursuant thereto, and in reliance on the statements and representations herefore 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**

Thermo Fisher Scientific  
10010 Mesa Rim Road  
San Diego, CA 92121  

Attn: Robert Barnes

**Ultimate Consignee(s) in Foreign Country(ies)**

- See following page(s)

**Intermediate Consignee(s) in Foreign Country(ies)**

- None

**Other U.S. Party(ies) to Export**

- None

**Applicant's Reference**: 100429, 100790  
**Ultimate Destination**: United Arab Emirates

**Quantity(ies)**

- 48 grams

**Description of Material(s) or Facility(ies)**

Uranium containing up to 44 grams of uranium-235, enriched to 94 WGT % maximum. The uranium will be contained in 12 fission chambers, each fission chamber may (or can) contain up to 3.9 grams of enriched uranium. The fission chambers will be packaged into four triple fission chamber detector assemblies.

Conditions 3, 4, 6, and 7 on Page 2 of this license apply to this export.

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 the other provisions of said Acts, now or hereafter in effect and to all valid rules and regulations of the NRC.

**SIGNATURE**:  
David L. Skeen, Deputy Director  
Office of International Programs  
**DATE OF ISSUANCE**: July 18, 2019
## Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition 1</td>
<td>Reserved</td>
</tr>
<tr>
<td>Condition 2</td>
<td>Reserved</td>
</tr>
<tr>
<td>Condition 3</td>
<td>This license covers only the nuclear content of the material.</td>
</tr>
<tr>
<td>Condition 4</td>
<td>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 Part 71 and 10 CFR Part 73.</td>
</tr>
<tr>
<td>Condition 5</td>
<td>Reserved</td>
</tr>
<tr>
<td>Condition 6</td>
<td>This license authorizes export only and does not authorize the receipt, physical possession, or use of the nuclear material.</td>
</tr>
<tr>
<td>Condition 7</td>
<td>The shipper shall complete and submit a DOE/NRC Form 741 for each shipment of uranium, thorium, and plutonium (i.e., source or special nuclear material) exported under this license.</td>
</tr>
<tr>
<td>Condition 8</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
ULTIMATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES):

1. Barakah Nuclear Power Plants
   Emirates Nuclear Energy Corporation
   near Ruwais
   Abu Dhabi Emirate, Western Region
   United Arab Emirates
   (neutron flux monitoring at the Barakah Nuclear Power Plant, Units 1-4)

2. Emirates Nuclear Energy Corporation
   Irena Building Headquarters
   PO Box 112010
   Masdar City, Abu Dhabi
   United Arab Emirates
   (neutron flux monitoring at the Barakah Nuclear Power Plant, Units 1-4)