

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p>Licensee</p> <p>1. Quantel USA</p> <p>2. 601 Haggerty Lane, Suite C Bozeman, Montana 59715</p>	<p>In accordance with letter dated November 7, 2011</p> <p>3. License number 25-27639-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date January 31, 2020</p> <p>5. Docket No. 030-35151 Reference No.</p>
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Americium-241</p>	<p>7. Chemical and/or physical form</p> <p>A. Plated sources or foils (Nuclear Radiation Developments, Inc. Model A-001)</p>
<p>9. Authorized use:</p> <p>A. For use in research and development as defined in 10 CFR 30.4.</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 8.35 millicuries per source and 20 millicuries total.</p>

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at the Life of Montana Building, 601 Haggerty Lane, Bozeman, Montana.
11. Licensed materials may be used by, or under the supervision of, Justin Torgerson, or any individual who have received the training described in application dated July 15, 2009. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
12. The Radiation Safety Officer (RSO) for this license is Justin Torgerson.
13. A. Foils or plated sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State prior to the transfer, a foil or plated source received from another person shall not be put into use until tested.

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- C. Foils or plated sources need not be tested if they are in storage and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No foil or plated source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 1600 East Lamar Boulevard, Arlington, Texas 76011-4511, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- E. Tests for leakage and/or contamination shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. In addition, the licensee is authorized to collect leak test samples but not perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
- F. Records of leak tests results shall be kept in units of microcuries and shall be maintained for 3 years.
14. Foils or plated sources containing licensed material shall not be opened.
15. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory, and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
16. Maintenance, repair, cleaning, replacement, and disposal of foils or plated sources shall be performed only by the device manufacturer or other persons specifically authorized by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
17. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
18. The licensee shall use only foils or plated sources for which a sealed source registration certificate has been issued by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210(e) or an Agreement State. Possession and use of the foils or plated sources used must adhere to the conditions and limitations of the registration certificate.

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19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Letter dated April 10, 2008 (ML081420562)
B. Application dated July 15, 2009 (ML092330987)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Date February 1, 2012

By

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Nuclear Materials Safety Branch B
Region IV
Arlington, Texas 76011-4125