

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, 37, 39, 40, 70 and 71, 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.

Licensee 1. DuPont Specialty Products USA, LLC Experimental Station 2. 200 Powder Mill Road PO Box 8352 Wilmington, DE 19803		In accordance with the letter dated October 19, 2021, 3. License No.: 07-13441-02 is amended in its entirety to read as follows:	4. Expiration Date: August 31, 2022 5. Docket No.: 030-20681 Reference No.:
6. Byproduct, source, and/or special nuclear material A. Iron-55	7. Chemical and/or physical form A. Sealed Sources (QSA Global, Model IEC.A1; Amersham/Searle, Model 696-696782, IEC, IEC.A1, and IEC.D1; DuPont, Model NER-460A; Eckert and Ziegler dba Isotope Products Laboratories, Model IEC.Dx series; Isotope Products, Model XFB; Texas Nuclear, Model 696-696782, 696-696803, and 696942)	8. Maximum amount that licensee may possess at any one time under this license A. 445 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U. S. Nuclear Regulatory Commission or an Agreement State	9. Authorized use A. To be used for calibration of and/or sample analysis in x-ray analyzer, x-ray spectrophotometric, or x-ray fluorescence devices that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with a Commission or Agreement State specific license authorizing distribution to persons specifically authorized by a Commission or Agreement State license to receive, possess, and use the devices.

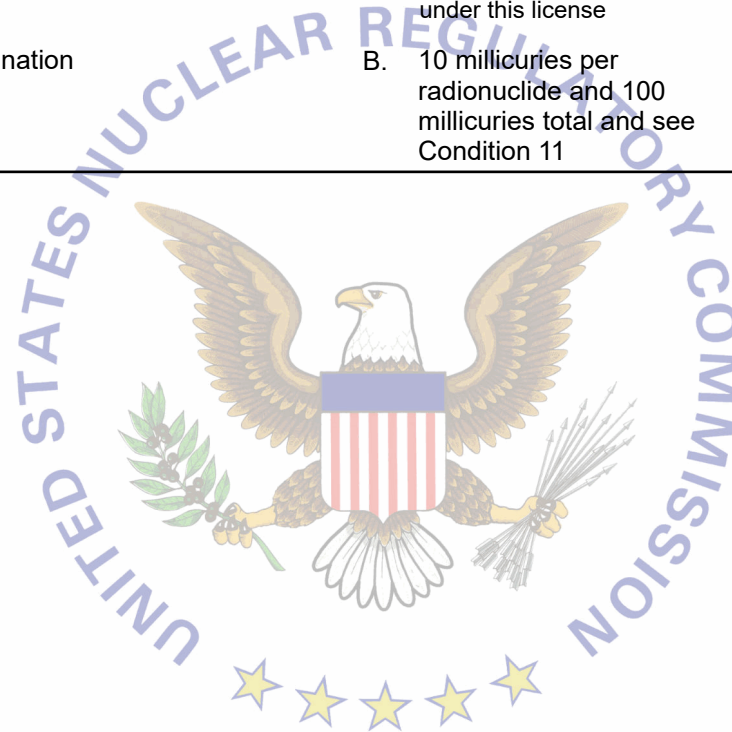
**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License No.: 07-13441-02

Docket or Reference No.:
030-20681

Amendment No. 31

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| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that licensee may possess at any one time under this license | 9. Authorized use |
| B. Any byproduct material with Atomic Numbers 1 through 83 | B. Contamination | B. 10 millicuries per radionuclide and 100 millicuries total and see Condition 11 | B. Residual contamination of facilities previously used for research and development activities. |



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030-20681**CONDITIONS**

10. A. Licensed material may be used or stored at the licensee's facilities located at: Experimental Station, 200 Powder Mill Road, Wilmington, Delaware, 19803
- B. Licensed material in Items 6.A. may be used at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States. If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.
11. In addition to the possession limits in Item 8, as specified in 10 CFR 30.35(d), the licensee shall further restrict the possession of unsealed byproduct material to quantities less than or equal to 10^4 times the applicable limits in Appendix B of 10 CFR Part 30.
12. Licensed material shall only be used by, or under the supervision of, individuals who have received the training described in the application dated April 21, 2012, Revision 2 (July 26, 2012), and have been designated in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
13. The Radiation Safety Officer (RSO) for this license is John M. Brisbin.
14. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State. In the absence of a registration certificate, sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months, or at such other intervals as specified.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

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- C. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- D. 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 the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- E. Sealed sources need not be tested if they contain only hydrogen 3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- F. Sealed 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 sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- G. The leak test shall be capable of detecting the presence of 185 becquerels (0.005 microcuries) of radioactive material on the test sample. If the test reveals the presence of 185 becquerels (0.005 microcuries) 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.
- H. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- I. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
15. Sealed sources, source rods, foil sources, or detector cells containing licensed material shall not be opened or sources removed from source holders or detached from source rods, or foil sources removed from detector cells by the licensee, except as specifically authorized.

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16. 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 sealed sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 3 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.
17. 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. This license condition applies only to those procedures that are required to be submitted in accordance with the regulations. 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 March 15, 2002 (ML020800049)
 - B. Letter dated July 26, 2012 with the application dated April 27, 2012, Revision 2 (July 26, 2012) (ML12223A045)
 - C. Letter dated January 21, 2022

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: January 24, 2022By: _____
Elizabeth Ullrich
Region 1