

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.

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|------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Licensee 1. Ushio America, Inc. 2. 5440 Cerritos Ave. Cypress, CA 90630 | | In accordance with email dated January 14, 2018. 3. License number: 04-23968-01E is amended in its entirety to read as follows: 4. Expiration Date: March 31, 2019 5. Docket No.: 030-37966 Reference No.: | |
| 6. Byproduct, source, and/or special nuclear material A. Krypton-85 | 7. Chemical and/or physical form A. Gas | 8. Maximum amount that licensee may possess at any one time under this license A. No Possession Authorized | 9. Authorized use A. In accordance with 10 CFR 32.14, the licensee is authorized to distribute electron tubes (lamps), containing not more than 30 microcuries of krypton-85, to persons who are exempt from the requirements under 10 CFR 30.15(a)(8), or equivalent regulations of any Agreement State. |

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030-37966

Amendment No. 4

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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. Thorium | B. Sealed Sources | B. No Possession Authorized | B. In accordance with 10 CFR 40.52, the licensee is authorized to distribute lamps, containing not more than 50 milligrams of thorium thorium in in each lamp, to persons exempt from licensing under 10 CFR 40.13(c)(1), or equivalent provisions of any Agreement State. |

CONDITIONS

10. This license does not authorize possession or use of licensed material.
11. The licensee is authorized to distribute only from its facilities located at 5440 Cerritos Ave. Cypress, California.
12. The licensee shall submit periodic material transfer reports as specified in 10 CFR 32.16, and 10 CFR 40.53.
13. Except as specifically provided otherwise by 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.. Application dated April 25, 2008 (ML081300055);

B. Letter dated September 10, 2008 (ML090690089);

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- C. Letter dated November 5, 2008, (ML090690078);
- D. Letter dated February 17, 2009 (ML090680793);
- E. Letter dated April 7, 2009 (ML091040330);
- F. Letter dated October 18, 2017 (ML17297A123);
- G. Letter dated November 30, 2017 (ML17338A048);
- H. Email dated January 14, 2018 (ML18030A935);
- I. Letter dated March 1, 2018 (ML18060A014).



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: March 1, 2018By: /RA/Shirley S. Xu
Headquarters