

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.

<p style="text-align: center;">Licensee</p> <p>1. Midwest Bio-Products, Inc.</p> <p>2. 618 Liberty Street Covington, IN 47932</p>	<p>In accordance with letter dated November 28, 2017.</p> <p>3. License number: 13-20477-01 is amended in its entirety to read as follows:</p>	<p>4. Expiration Date: November 30, 2024</p> <p>5. Docket No.: 030-18424 Reference No.:</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Hydrogen-3</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 5 millicuries total</p>	<p>9. Authorized use</p> <p>A. For use in in-vitro laboratory research.</p>
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CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at: 618 Liberty Street, Covington, Indiana, 47932.

11. A. The Radiation Safety Officer (RSO) for this license is Masakazu Miyagi, Ph.D.

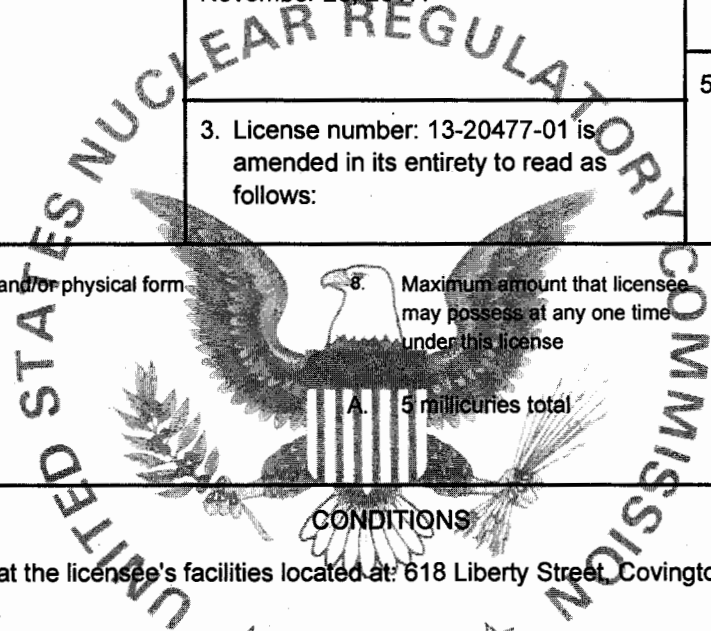
B. Licensed material shall only be used by, or under the supervision of:

Authorized Users

Masakazu Miyagi, Ph.D.
Mary Patricia Miyagi, Ph.D.
Heather Y. Miyagi, DVM, Ph.D.

Material and Use

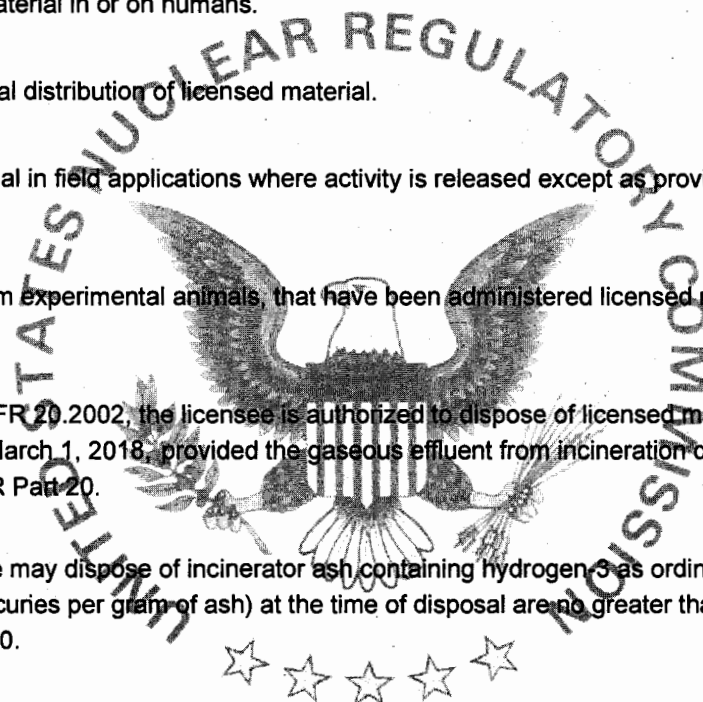
Hydrogen-3
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030-18424

Amendment No. 5

12. The licensee shall not use the licensed material in or on humans.
13. This license does not authorize commercial distribution of licensed material.
14. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
15. Experimental animals, or the products from experimental animals, that have been administered licensed material shall not be used for human consumption.
16. Pursuant to 10 CFR 20.1302(c) and 10 CFR 20.2002, the licensee is authorized to dispose of licensed material by incineration as described in letters dated November 28, 2017 and March 1, 2018, provided the gaseous effluent from incineration does not exceed the limits specified for air of Table II, in Appendix B of 10 CFR Part 20.
17. Pursuant to 10 CFR 20.2002, the licensee may dispose of incinerator ash containing hydrogen-3 as ordinary waste in a landfill, provided that the concentration of hydrogen-3 (in microcuries per gram of ash) at the time of disposal are no greater than one-tenth of the value of Table II, Column 2 in Appendix B of 10 CFR Part 20.



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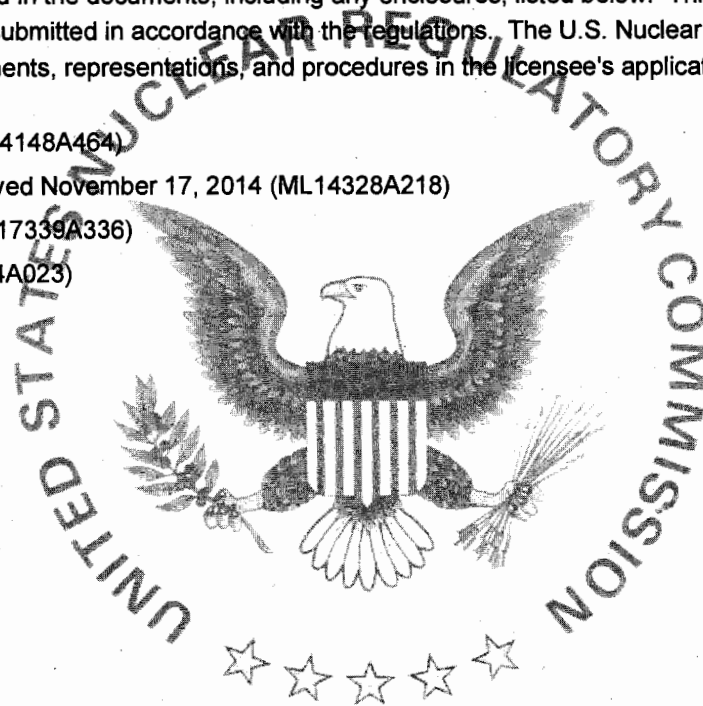
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18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. This license 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. Application dated May 27, 2014 (ML14148A464)
- B. Letter dated November 6, 2014 received November 17, 2014 (ML14328A218)
- C. Letter dated November 28, 2017 (ML17339A336)
- D. Letter dated March 1, 2018 (ML18064A023)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: MAR 13 2018By: Cassandra F. Frazier
Region 3