

U.S. NUCLEAR REGULATORY COMMISSION

**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.

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<p>Licensee</p> <p>1. PAH P&amp;U LLC</p> <p>2. 7000 Portage Road Kalamazoo, MI 49001</p>	<p>In accordance with the letter dated <b>November 12, 2012,</b></p> <p>3. License number 21-00182-03 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date July 31, 2015</p> <hr/> <p>5. Docket No. 030-04781 Reference No.</p>
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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
A. Hydrogen-3	A. Any	A. 20 curies
B. Carbon-14	B. Any	B. 8 curies
C. Iodine-125	C. Any	C. 150 millicuries
D. Iodine-131	D. Any	D. 150 millicuries
E. Phosphorus-32	E. Any	E. 150 millicuries
F. Phosphorus-33	F. Any	F. 150 millicuries
G. Sulfur-35	G. Any	G. 150 millicuries

9. Authorized Use:

A. through G. For pharmaceutical research and development as defined in Section 30.4, 10 CFR Part 30, including animal studies.

CONDITIONS

- 10. Licensed material shall be used only at the licensee's facilities located at 333 Portage Street, Kalamazoo, Michigan and 5300 N. 28th Street, Richland, Michigan.
- 11. A. Licensed material shall be used by, or under the supervision of, individuals designated by the Radiation Safety Committee.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
21-00182-03Docket or Reference Number  
030-04781**Amendment No. 73**

- B. The Radiation Safety Officer for this license is Timothy Popp.
12. The licensee shall not use licensed material in or on human beings except as provided otherwise by specific condition of this license.
  13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
  14. Experimental animals or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
  15. 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."
  16. The licensee is authorized to hold radioactive material with a physical half-life of less than 120 days for decay-in-storage before disposal in ordinary trash provided:
    - A. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate survey meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
    - B. A record of each disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

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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. 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 December 21, 2004; and
- B. Letters dated January 26, 2005, January 27, 2005, June 17, 2005, June 20, 2005 (with attached Decontamination and Decommissioning Final Report), January 25, 2007, April 17, 2007, August 22, 2007, (with attached Building 172 Incinerator and North Tank Farm, Decontamination and Decommissioning Final Status Report), July 9, 2008, (with attached Building 267 Decontamination and Decommissioning Final Report), November 7, 2008, September 24, 2012, October 16, 2012 and **November 12, 2012.**

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JAN 08 2013By *Toye L. Simmons*Toye L. Simmons  
Materials Licensing Branch  
Region III