

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. Consumers Energy Company Laboratory Services</p> <p>2. One Energy Plaza Jackson, MI 49201-2276</p> | <p>In accordance with letter dated June 4, 2007,</p> <p>3. License number 21-08606-10 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date November 30, 2013</p> <hr/> <p>5. Docket No. 030-18031 Reference No.</p> |
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| <p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium-137</p> | <p>7. Chemical and/or physical form</p> <p>A. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license.</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. No single source to exceed the maximum activity specified in the certificate of registration issued by NRC of an Agreement State, total possession limit of 800 millicuries.</p> |
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| <p>9. Authorized Use</p> <p>A. To be used in Kay-Ray, Inc. Model 7080 source holder for level measurement.</p> | |
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CONDITIONS

- 10. Licensed material listed in Subitem A. shall be used at the J. C. Weadock Plant, 2555 North Weadock Highway, Essexville, Michigan.
- 11. A. Licensed material shall be used by or under the supervision of individuals who have received the training described in application dated November 11, 2003. The licensee shall maintain records of the individuals designated as users for 3 years following the last use of licensed material by the individual.
 - B. The Radiation Safety Officer for this license is **John S. Merrill.**
- 12. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 3 years.

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- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Sealed sources need not be leak tested if 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- E. The leak test shall be capable of detecting the presence of 0.005 microcurie (**185 becquerels**) of radioactive material on the test sample. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. 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.
- F. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
14. 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.
15. A. Each gauge shall be tested for the proper operation of the on-off mechanism (shutter) and indicator, if any, at intervals not to exceed 6 months or at such longer intervals as specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or the equivalent regulations of an Agreement State.
- B. Notwithstanding the periodic on-off mechanism (shutter) and indicator test, the requirement does not apply to gauges that are stored, not being used, and have the shutter lock mechanism in a locked position. The gauges exempted from this periodic test shall be tested before use.
16. The following services shall not be performed by the licensee: installation, initial radiation surveys, relocation, removal from service, dismantling, alignment, replacement, disposal of the sealed source and non-routine maintenance or repair of components related to the radiological safety of the gauge (i.e., the

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sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding). These services shall be performed only by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

17. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the Commission or an Agreement State. A record of the results of this survey shall be maintained for the duration of the license.
18. The licensee shall operate each gauge within the manufacturer's specified temperature and/or environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
19. The licensee shall assure that the shutter mechanism is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify as appropriate its "lock-out" procedures whenever a new gauge is obtained to incorporate the device manufacturer's recommendations.
20. 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 received May 28, 2003;
 - B. Application dated November 11, 2003 (with attached Items 7, 9, and 10); and
 - C. Letters dated December 2, 2004, January 25, 2005 and June 4, 2007 (with attachments); and
 - D. Facsimile (consisting of three letters) received August 1, 2007.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date AUG 02 2007

By *Loren J. Hueter*
Loren J. Hueter
Materials Licensing Branch
Region III