

**OFFICIAL USE ONLY**

Withhold from Public Disclosure under Revised Code 149.433(A) & (B)

Amendment No. 2

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**OHIO DEPARTMENT OF HEALTH  
LICENSE FOR RADIOACTIVE MATERIAL**

Pursuant to Chapter 3748 of the Ohio Revised Code, and in reliance on statements and representations made by the licensee, a license is hereby issued authorizing the licensee named herein to receive, acquire, possess, and transfer radioactive material as 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 applications of Chapter 3748 of the Ohio Revised Code and all applicable rules promulgated thereunder. This license is subject to all applicable rules, regulations and orders of the Ohio Department of Health now or hereinafter in effect and to any conditions specified below.

<p>LICENSEE</p> <p>1. <b>Advanced Gauging Technologies. LLC</b></p> <p>2. <b>8430 Estates Court Plain City, Ohio 43064-5015</b></p>	<p>LICENSE NUMBER</p> <p>3. <b>03620500001</b></p> <hr/> <p>EXPIRATION DATE</p> <p>4. <b>January 1, 2023</b></p> <hr/> <p>FILE NUMBER – ID NUMBER</p> <p>5. <b>500493-14028</b></p>
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<p>6. RADIOACTIVE MATERIAL</p> <p>A. Any radioactive material with atomic numbers 3 to 83, 88, 94, 95, 96, and 98, inclusive</p> <p>B. Iron-55</p> <p>C. Krypton-85</p> <p>D. Curium-244</p> <p>E. Cobalt-57</p> <p>F. Cobalt-60</p> <p>G. Strontium-90</p> <p>H. Barium-133</p> <p>I. Cesium-137</p> <p>J. Gadolinium-153</p> <p>K. Radium-226</p> <p>L. Plutonium-238</p> <p>M. Americium-241</p> <p>N. Americium-241/Beryllium</p> <p>O. Sodium-22</p> <p>P. Nickel-63</p> <p>Q. Krypton-85</p> <p>R. Ruthenium-106</p>	<p>7. CHEMICAL AND/OR PHYSICAL FORM</p> <p>A. Sample Media</p> <p>B. Sealed Source</p> <p>C. Sealed Source</p> <p>D. Sealed Source</p> <p>E. Sealed Source</p> <p>F. Sealed Source</p> <p>G. Sealed Source</p> <p>H. Sealed Source</p> <p>I. Sealed Source</p> <p>J. Sealed Source</p> <p>K. Sealed Source</p> <p>L. Sealed Source</p> <p>M. Sealed Source</p> <p>N. Sealed Source</p> <p>O. Sealed Source</p> <p>P. Sealed Source</p> <p>Q. Sealed Source</p> <p>R. Sealed Source</p>	<p>8. MAXIMUM QUANTITY THAT LICENSEE MAY POSSESS AT ANY ONE TIME UNDER THIS LICENSE</p> <p>A. As needed (see item 9.A, below)</p> <p>B. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).</p> <p>C. No single source to exceed 74 GBq (2 Ci), total possession not to exceed 740 GBq (20 Ci).</p> <p>D. No single source to exceed 37 GBq (1 Ci), total possession not to exceed 370 GBq (10 Ci).</p> <p>E. No single source to exceed 370 MBq (10 mCi), total possession not to exceed 3.7 GBq (100 mCi).</p> <p>F. Total possession not to exceed 37 GBq (1 Ci).</p> <p>G. No single source to exceed 37 GBq (1 Ci), total possession not to exceed 185 GBq (5 Ci).</p> <p>H. No single source to exceed 37 MBq (1 mCi), total possession not to exceed 370 MBq (10 mCi).</p> <p>I. No single source to exceed 1.11 GBq (30 Ci), total possession not to exceed 3.7 TBq (100 Ci).</p> <p>J. No single source to exceed 740 MBq (20 mCi), total possession not to exceed 37 GBq (1 Ci).</p> <p>K. No single source to exceed 370 MBq (10 mCi), total possession not to exceed 37 GBq (1 Ci).</p> <p>L. One source not to exceed 3.7 GBq (1 Ci).</p> <p>M. No single source to exceed 185 GBq (5 Ci), total possession not to exceed 2.7 TBq (85 Ci).</p> <p>N. No single source to exceed 37 GBq (1 Ci), total possession not to exceed 1.85 TBq (50 Ci).</p> <p>O. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).</p> <p>P. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).</p> <p>Q. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).</p> <p>R. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).</p>
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S. Cadmium-109	S. Sealed Source	S. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).
T. Iodine-125	T. Sealed Source	T. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).
U. Promethium-147	U. Sealed Source	U. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).
V. Thallium-204	V. Sealed Source	V. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).
W. Curium-244	W. Sealed Source	W. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).
X. Californium-252	X. Sealed Source	X. No single source to exceed 3.7 GBq (100 mCi), total possession not to exceed 37 GBq (1Ci).

9. Authorized Use

- A. Possession incident to collection of leak/wipe test samples
- B, C, and D. Possession and use incident to research and development as defined in OAC 3701:1-38-01.
- B and E through X. Possession and use incident to manufacture, testing, leak testing demonstration, distribution, installation, initial radiation survey, relocation, removal from service, dismantlement, alignment, replacement, disposal of the sealed source, and non-routine maintenance or repair of components listed in the renewal application dated August 2, 2017.

**CONDITIONS**

- 10. Licensed material may only be used at the licensee's facilities located at
  - A. 8430 Estates Court Plain City, Ohio 43064-5015
  - B. Temporary job sites anywhere within the State of Ohio
- 11. The Radiation Safety Officer for this license is: **Scott A. Cook**
- 12. Licensed material shall be used by or under the physical supervision of **Scott A. Cook, John P. Fearing, Todd R. Allen, Craig J. Walkup, Walter S. Venters, William S. McCarver** or individuals who have completed training in accordance with OAC 3701:1-38-10(B) and have been instructed in the licensee's routine and emergency operation procedures. The licensee shall maintain training records of the individuals who have been designated as authorized users.
- 13. All sealed sources that are used or obtained shall have been evaluated or approved under the provisions of OAC 3701:1-46-49, or equivalent NRC or Agreement State regulations.
- 14.
  - A. No generally licensed device shall be installed by the licensee in such manner or in such location that any person could receive more than 5 mSv (500 mrem) in a calendar year under ordinary circumstances of use.
  - B. The licensee shall furnish to each general licensee to whom he transfers a device pursuant to this license, the documents identified in OAC 3701:1-46-31, or the applicable NRC or Agreement State equivalent.
  - C. The licensee is permitted to distribute the following source holder device to persons generally licensed pursuant to OAC 3701:1-46-05, or the NRC or Agreement State equivalent:
    - i) OH-1064-D-101-G dated April 4, 2005 for device model AGT-400.
- 15. Sealed sources shall be tested for leakage and/or contamination in accordance with OAC 3701:1-38-24.
- 16. Sealed sources containing licensed material shall not be opened.
- 17. The licensee shall conduct a physical inventory every 6 months, or at another interval approved by the Director, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for at least 3 years from the date of each inventory, and shall include the quantities and kinds of licensed material, manufacturer's name and model numbers, location of the sources and/or devices, and the date of the inventory.
- 18. Prior to initial use and after installation, relocation, removal from service, dismantling, alignment, replacement, or any other activity involving the source removal of the shielding, the licensee shall assure that a radiologic survey is performed to determine the radiation levels in accessible areas around, above, and below the device, with the shutter open. This survey shall be performed only by persons specifically licensed by the Director, the NRC, or an Agreement State to perform such services.

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19. A. The licensee shall implement the applicable requirements specified in chapter 3701:1-37 of the OAC if the licensee possesses an aggregated category one or category two quantity of radioactive material as specified in Appendix A to rule 3701:1-37-01.
- B. The licensee shall notify the director at the location specified in rule 3701:1-40-04 at least ninety days prior to:
- i. Relocation of an aggregated category one or category two quantity of radioactive material to a new location.
  - ii. Receipt or aggregation of a category one or category two quantity of radioactive material, if the licensee is authorized to possess those quantities of materials but is not currently required to implement the applicable requirements specified in Chapter 3701:1-37 of the OAC.
20. A. At the time of installation by the licensee of each device distributed to persons generally licensed pursuant to the provisions of OAC 3701:1-46-05, the licensee shall assure that each device bears a durable, clearly visible and legible label or labels containing the information required by OAC 3701:1-46-30(A)(3) and the following or substantially similar statements:
- i) "Receipt, possession, use and transfer of this device are subject to a general license per OAC 3701:1-46-05 or equivalent U.S. Nuclear Regulatory Commission or Agreement State Regulation."
  - ii) "Abandonment or disposal is prohibited unless transferred to persons specifically licensed by the Director, U.S. Nuclear Regulatory Commission or an Agreement State."
  - iii) "Operation prohibited if there is indication of failure of or damage to shielding, source containment or on-off mechanism."
  - iv) "Installation, dismantling, relocation, maintenance, repair and testing involving radioactive material, its shielding or containment shall be performed by persons specifically licensed by the Director, U.S. Nuclear Regulatory Commission or an Agreement State."
  - v) "Device shall be tested for radioactive leakage and proper functioning of on-off mechanism and indicator, if any, at installation, at source replacement, and thereafter at no longer than six month or at such intervals as specified in the certificate of registration issued by the Director under OAC 3701:1-46-49 or by equivalent NRC or Agreement State regulation."
  - vi) "Loss, theft, or transfer of this device and failure of or damage to the shielding, the source containment or the on-off mechanism must be reported to the Director, U.S. Nuclear Regulatory Commission or an Agreement State."
- B. Each label required by this condition shall bear the statement: "Removal of this label is prohibited."
21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of sealed source licensed material to quantities below the minimum limit specified in OAC 3701:1-40-17 for establishing decommissioning financial assurance.
22. 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 Ohio Department of Health's statutes, rules, and orders shall govern unless statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Renewal application dated November 25, 2012 and correspondence dated December 5, 2012. Amendment No. 6 renews License No. 03620500001 in its entirety.
  - B. Correspondence dated September 26, 2014 (Amendment 7).
  - C. Correspondence dated December 15, 2014 and telephone conversation dated January 15, 2015 (Amendment 8).
  - D. Renewal application dated August 2, 2017 and telephone conversation dated August 10, 2017; Amendment 10 renews license number 03620500001 in its entirety.

For the Ohio Department of Health

DATE:

8-21-17

BY:

Gene Phillips, RS

W. Gene Phillips, MBA, RS  
 Chief Bureau of Radiation Protection  
 On behalf of the Director of Health

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