

**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.

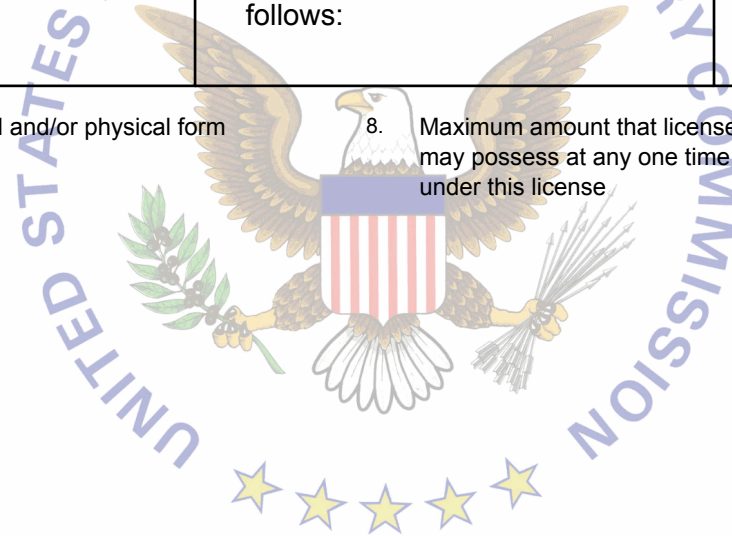
<b>Licensee</b>  1. Gamma Irradiator Service, LLC  2. 337 Distillery Hill Road Benton, PA 17814	In accordance with email dated November 04, 2020,	4. Expiration Date: May 31, 2024
	3. License No.: 37-30850-01 is amended in its entirety to read as follows:	5. Docket No.: 030-36438 Reference No.:

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



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SUPPLEMENTARY SHEET**

License No.: 37-30850-01

Docket or Reference No.:  
030-36438

Amendment No. 14

6. Byproduct, source,  
and/or special nuclear  
material

A. Cobalt-60

7. Chemical and/or physical form

A. Sealed Sources

8. Maximum amount that licensee  
may possess at any one time  
under this licenseA. Not Applicable  
(See Condition 10)

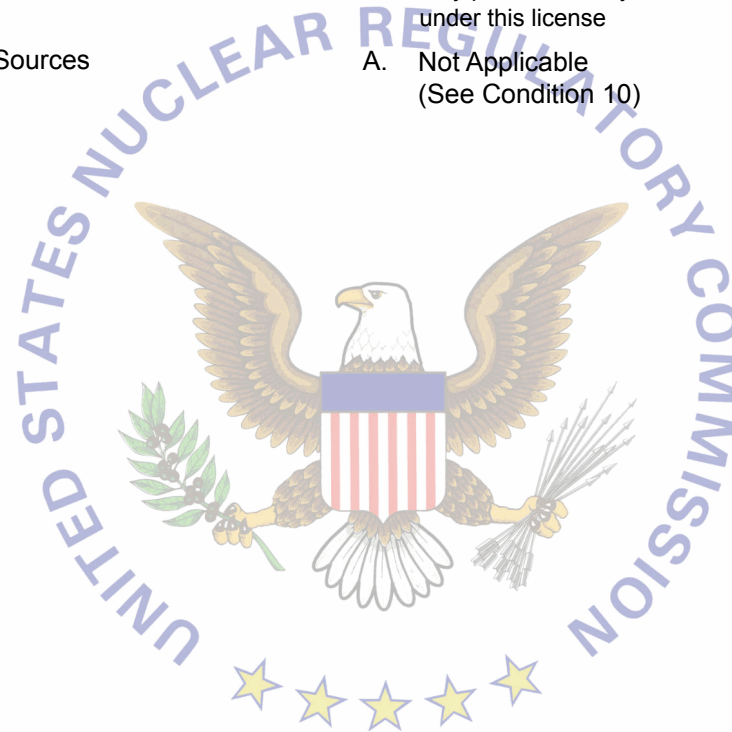
9. Authorized use

A. For use and storage incident to:

(1) Collection of leak test samples;  
analysis of test samples as a service  
for other persons as defined in 10 CFR  
20.1003.

(2) Installation of sealed sources into  
or removal of sealed sources from ANSI  
Category I self-shielded irradiators as  
described in the licensee's Authorized  
Work Activities Procedure AP-004  
dated April 30, 2014 and Procedure for  
Unloading/Loading Single Source  
Irradiators Procedure GIS-014 dated  
April 30, 2014.

(3) Relocation, radiation surveys,  
realignment, repair, routine and  
non-routine maintenance, and servicing  
of ANSI Category I self-shielded  
irradiators and ANSI Category II  
irradiators that have been registered  
either with the U.S. Nuclear Regulatory  
Commission under 10 CFR 32.210 or  
with an Agreement State as described  
in the licensee's Preventive  
Maintenance Procedure GMP-002  
dated April 30, 2014 and Relocation  
and Preparation for Shipping Procedure  
GIS-REL-003 dated April 30, 2014.



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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

(4) Instruction and training of individuals in the safe use and operation of ANSI Category I self-shielded irradiators and ANSI Category II irradiators that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.

(5) Performing preventative maintenance on the modified J.L. Shepherd Mark I Model 25 irradiator as described in the licensee's Preventive Maintenance Procedure GMP-002 dated April 30, 2014.

B. Strontium-90

B. Sealed Sources

B. Not Applicable  
(See Condition 10)

B. See Authorized Use 9.A.

C. Yttrium-90

C. Sealed Sources

C. Not Applicable  
(See Condition 10)

C. See Authorized Use 9.A.

D. Cesium-137

D. Sealed Sources

D. Not Applicable  
(See Condition 10)

D. See Authorized Use 9.A.

E. Europium-152

E. Sealed Sources

E. Not Applicable  
(See Condition 10)

E. See Authorized Use 9.A.

F. Americium-241

F. Sealed Sources

F. Not Applicable  
(See Condition 10)

F. See Authorized Use 9.A.

G. Americium-241/  
Beryllium

G. Sealed Sources

G. Not Applicable  
(See Condition 10)

G. See Authorized Use 9.A.

H. Californium-252

H. Sealed Sources

H. Not Applicable  
(See Condition 10)

H. See Authorized Use 9.A.

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030-36438**CONDITIONS**

10. The licensee does not take possession of the radioactive materials and/or sealed sources while at the customer's facility except for analytical samples.
11. Licensed material may be used only at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States.

If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

12. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, Doyle Terry Stout or John H. Oreo.
- B. The Radiation Safety Officer (RSO) for this license is Mr. John H. Oreo.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State. In the absence of a registration certificate, sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months, or at such other intervals as specified.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

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- C. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- D. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- E. Sealed sources need not be tested if they 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The leak test shall be capable of detecting the presence of 185 becquerels (0.005 microcuries) of radioactive material on the test sample. If the test reveals the presence of 185 becquerels (0.005 microcuries) 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.
- G. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- H. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
14. Except for maintaining labeling as required by 10 CFR Part 20 or 71, the licensee shall obtain authorization from U.S. Nuclear Regulatory Commission before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective Certificates of Registration issued either by the Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or by an Agreement State.

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15. The licensee shall comply with the "Limitations and/or other considerations of use" described in the Sealed Source and Device Registrations when servicing ANSI Category I self-shielded irradiators and ANSI Category II irradiators.
16. At least 14 days before initiating activities involving source reloads and source exchanges in NRC jurisdiction, the licensee shall notify, in writing, the Director, Division of Nuclear Materials Safety, Region I, 2100 Renaissance Boulevard, Suite 100, King of Prussia, Pennsylvania 19406-2713. The notification shall include the estimated project start date and the customer's NRC license number.
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. 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. Letters received on May 15, 2014 with Procedures dated April 30, 2014 (ML14142A145 and ML14142A146)
  - B. Letter received February 4, 2016 (ML16060A402)
  - C. Letter received June 4, 2019 (ML19162A316)
  - D. Email received November 4, 2020 (ML20314A291)

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: January 21, 2021By: \_\_\_\_\_  
Michael Reichard  
Region 1