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### U.S. NUCLEAR REGULATORY COMMISSION

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Amendment No. 28

# **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.

Licensee In accordance with letter dated October 7, 1997, 1. Department of the Army 3. License number 29-01022-07 is amended in U. S. Army Communications its entirety to read as follows: Electronic Command 2. 4. Expiration date October 31, 2002 Fort Monmouth, New Jersey 07703-5000 Docket No. 030-06989 Reference No. Byproduct, source, and/or special Chemical and/or physical form Maximum amount that licensee may nuclear material possess at any one time under this license A. Cesium 137 B. Cobalt 60 Authorized use: A. and B. To be used for irradiation of materials, except explosive and flammable materials, in a J. L.

## CONDITIONS

Shepherd & Associates Model 81-22 irradiator as specified in the device's Sealed Source and Device Registration Certificate issued by NRC pursuant to 10 CFR 32.210 or by an Agreement

10. Licensed material may be used at the licensee's facilities located at Building 2540A, Charles Wood Area, Wall Township, New Jersey.

Evans Area, and

11. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in accordance with the Freedom of Information (1) 13, 1998.

B. The Radiation Safety Officer for this license is Joseph



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- 12. Sealed sources containing licensed material shall not be opened or sources removed from the selfshielded irradiator by the licensee, except as specifically authorized by license condition.
- 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 NRC under 10 CFR 32.210 or by an Agreement State.
  - B. 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 prior to the transfer, a sealed source received from another person shall not be put into use until tested.
  - C. Sealed sources need not be leak tested if they are in storage and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been leak 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.
  - D. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the leak test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately remove the source from service, report to the Nuclear Regulatory Commission according to 10 CFR 30.52(b)(2) and (c)(1), and have the source decontaminated, repaired, or disposed of according to Commission regulations. The licensee shall file a written report according to 10 CFR 30.50(c)(2)
  - E. Tests for leakage and/or contamination shall be performed by the licensee or other persons specifically licensed by the Commission or an Agreement State to perform such services. In addition, the licensee is authorized to collect leak test samples for analysis by persons specifically licensed by the Commission or an Agreement State to perform such services.
- 14. Before initiation of irradiator operations or after reloading of sources in the irradiator and before restart of the irradiator, a radiation survey shall be conducted to determine radiation levels around, above and below the irradiator with the sources in the shielded position and in the exposed position. The results of the survey shall be sent to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Director, Division of Nuclear Materials Safety, 475 Allendale Road, King of Prussia, Pennsylvania 19406, not more than 30 days after the survey is conducted.
- 15. The licensee shall conduct a physical inventory at intervals not to exceed 6 months to account for all sources and/or devices received and possessed under the license.
- 16. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."

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- 17. Except for maintaining labeling as required by 10 CFR 20 or 71, the licensee shall obtain authorization from NRC before making any changes in the sealed source, device, or source-device combination that would alter the description or the specifications in the respective Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
- 18. The license shall not repair, remove, replace, or alter any of the following: electrical or mechanical systems that control source or shielding movement, the irradiator's shielding or sealed source, safety interlocks, or any component that may effect safe operation of the irradiator. These activities shall be performed by a person specifically licensed by the Commission or an Agreement State to perform such services.
- 19. For each J. L. Shepherd Mark I or 81-22 cesium-137 irradiator installed and used, the licensee shall:
  - A. Permit the use of the irradiator only when a calibrated and operable radiation survey meter or room monitor is available; and
  - B. Permit the irradiator door to be opened only after the operator has checked visual indicators to verify that the source has returned to the safe storage position; and
  - C. Have room monitors that will
    - (i) Operate at all times when the irradiator is in user and
    - (ii) Activate a visible and audible alarm when radiation exceeds 2 millirem per hour; and
    - (iii) Detect any radiation leaking from the irradiator door; and
    - (iv) Be visible to the irradiator user when the user is next to the irradiator; or
  - D. If a room monitor is not installed, have available a calibrated and operable survey meter which will be used to:
    - (i) Determine the radiation level at the irradiator door when the door is closed; and
    - (ii) Check for any increase in radiation levels each time the irradiator door is opened.
  - E. If abnormal radiation levels or malfunctions of the irradiator are detected at any time, stop using the irradiator, restrict access to the area housing the irradiator, immediately notify the Radiation Safety Officer, and if required by 10 CFR Parts 20, 21 or 30, report to the NRC.
  - F. Not repair or authorize repairs of the irradiator except by the manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.

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21.	licensed ma source chan Except as sp accordance any enclosu statements, restrictive th A. Letter d B. Letter d C. Letter d	e is exempted from decommissioning financial terial in sealed sources in quantities greater that ges only. This exemption is granted for no morpocifically provided otherwise in this license, the with the statements, representations, and process, listed below. The Nuclear Regulatory Commence of the regulations and procedures in the licenses and the regulations.  Itated February 13, 1998 Itated March 10, 1998 Itated March 13, 1998 Itated April 2, 1998 Itated April 2, 1998	en the limits in 10 CFR re than thirty days for a e licensee shall conducted in the edures contained in the emission's regulations	30.35 iny one ot its properties of the state	for the sould be soul	he p irce im ir ts in n un	urpo char n clud less	se of nge. ing the

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For the U.S. Nuclear Regulatory Commission

Date \_\_April 6, 1998\_\_\_\_\_

Original signed by Steven Courtemanche

Steven Courtemanche Nuclear Materials Safety Branch 3 Division of Nuclear Materials Safety Region I King of Prussia, Pennsylvania 19406 NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 4 PAGES Amendment No. 29

### **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.

Licensee In accordance with letter dated November 30, 1998, 1. Department of the Army 3. License number 29-01022-07 is amended in U. S. Army Communications its entirety to read as follows: **Electronic Command**  Expiration date October 31, 2002. Fort Monmouth, New Jersey 07703-5000 5. Docket No. 030-06989 Reference No. Byproduct, source, and/or special Chemical and/or physical form Maximum amount that licensee may nuclear material possess at any one time under this ligense A. Cesium 137 B. Cobalt 60 Authorized use: To be used for irradiation of materials, except explosive and flammable materials, in a J. L. A. and B. Shepherd & Associates Model 81-22 irradiator as specified in the device's Sealed Source and

#### CONDITIONS

Device Registration Certificate issued by NRC pursuant to 10 CFR 32.210 or by an Agreement

10. Licensed material may be used at the licensee's facilities located at Charles Wood Area, and stored in Room 109 of Township, New Jersey.

State.

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions — 6238

FORM 2606 — 6238

Evans Area, and Charles Wood Area, Wall

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License Number 29-01022-07	_
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- 11. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in letters dated February 13, 1998 and March 13, 1998.
  - B. The Radiation Safety Officer for this license is Joseph Santarsiero.
- 12. Sealed sources containing licensed material shall not be opened or sources removed from the selfshielded irradiator by the licensee, except as specifically authorized by license condition.
- 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 NRC under 10 CFR 32.210 or by an Agreement State.
  - B. 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 prior to the transfer, a sealed source received from another person shall not be put into use until tested.
  - C. Sealed sources need not be leak tested if they are in storage and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been leak 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.
  - D. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the leak test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately remove the source from service, report to the Nuclear Regulatory Commission according to 10 CFR 30.52(b)(2) and (c)(1), and have the source decontaminated, repaired, or disposed of according to Commission regulations. The licensee shall file a written report according to 10 CFR 30.50(c)(2).
  - E. Tests for leakage and/or contamination shall be performed by the licensee or other persons specifically licensed by the Commission or an Agreement State to perform such services. In addition, the licensee is authorized to collect leak test samples for analysis by persons specifically licensed by the Commission or an Agreement State to perform such services.
- 14. Before initiation of irradiator operations or after reloading of sources in the irradiator and before restart of the irradiator, a radiation survey shall be conducted to determine radiation levels around, above and below the irradiator with the sources in the shielded position and in the exposed position. The results of the survey shall be sent to the U.S. Nuclear Regulatory Commission, Region I, ATTN: Director, Division of Nuclear Materials Safety, 475 Allendale Road, King of Prussia, Pennsylvania 19406, not more than 30 days after the survey is conducted.
- 15. The licensee shall conduct a physical inventory at intervals not to exceed 6 months to account for all sources and/or devices received and possessed under the license.

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## **MATERIALS LICENSE** SUPPLEMENTARY SHEET

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- 16. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."
- 17. Except for maintaining labeling as required by 10 CFR 20 or 71, the licensee shall obtain authorization from NRC before making any changes in the sealed source, device, or source-device combination that would alter the description or the specifications in the respective Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
- 18. The license shall not repair, remove, replace, or alter any of the following: electrical or mechanical systems that control source or shielding movement, the irradiator's shielding or sealed source, safety interlocks, or any component that may effect safe operation of the irradiator. These activities shall be performed by a person specifically licensed by the Commission or an Agreement State to perform such services.
- 19. For each J. L. Shepherd Mark I or 81-22 cesium-137 irradiator installed and used, the licensee shall:
  - A. Permit the use of the irradiator only when a calibrated and operable radiation survey meter or room monitor is available, and
  - B. Permit the irradiator door to be opened only after the operator has checked visual indicators to verify that the source has returned to the safe storage position; and
  - C. Have room monitors that will:
    - Operate at all times when the irradiator is in use; and (i)
    - Activate a visible and audible alarm when radiation exceeds 2 millirem per hour; and (ii)
    - Detect any radiation leaking from the irradiator door; and (iii)
    - Be visible to the irradiator user when the user is next to the irradiator; or
  - D. If a room monitor is not installed, have available a calibrated and operable survey meter which will be used to:
    - (i) Determine the radiation level at the irradiator door when the door is closed; and
    - Check for any increase in radiation levels each time the irradiator door is opened.
  - If abnormal radiation levels or malfunctions of the irradiator are detected at any time, stop using the irradiator, restrict access to the area housing the irradiator, immediately notify the Radiation Safety Officer, and if required by 10 CFR Parts 20, 21 or 30, report to the NRC.
  - F. Not repair or authorize repairs of the irradiator except by the manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.

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			For the U.S	. Nuclear Regulator	y Commis	ssion	ł		
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#### December 7, 1998

Docket No. 030-06989 Control No. 126315 License No. 29-01022-07

Barry J. Silber
Health Physicist
Department of the Army
U.S. Army Communications - Electronics Command
Ft. Monmouth, NJ 07703-5000

Dear Mr. Silber:

This refers to your license amendment request. Enclosed with this letter is the amended license. This amendment adds the new facility as requested to enable you to move your licensed activities. Prior to release of your current facility for unrestricted use, you must receive an amendment removing your current facility from your license. Include in the request, the results of surveys demonstrating that the levels of residual activity in the facility are acceptable. When you submit the amendment request please refer to the Control Number at the top of this letter.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original signed by Steven Courtemanche

Steven Courtemanche Health Physicist Nuclear Materials Safety Branch 1 Division of Nuclear Materials Safety

#### Enclosures:

- 1. Guidelines for Decontamination of Facilities and Equipment
- 2. Amendment No. 29

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