

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. Department of the Army U.S. Army Communications - Electronics Command AMSEL-SF-RER</p> <p>2. Fort Monmouth, New Jersey 07703-5024</p> | <p>In accordance with the letter dated November 18, 1998,</p> <p>3. License number 29-01022-06 is amended in its entirety to read as follows:</p> <p>4. Expiration date February 28, 2005</p> <p>5. Docket No. 030-05248 Reference No.</p> |
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| <p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with atomic numbers 1 through 83</p> <p>B. Any byproduct material with atomic numbers 84 through 95</p> <p>C. Hydrogen 3</p> <p>D. Cobalt 60</p> <p>E. Strontium 90</p> <p>F. Cesium 137</p> <p>G. Uranium (Natural or Depleted)</p> <p>H. Thorium (Natural)</p> <p>I. Polonium 210</p> <p>J. Plutonium 238</p> <p>K. Americium 241</p> <p>L. Californium 252</p> <p>M. Cesium 137</p> | <p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Accelerator targets</p> <p>D. Sealed sources</p> <p>E. Sealed sources</p> <p>F. Sealed sources</p> <p>G. Any</p> <p>H. Any</p> <p>I. Any</p> <p>J. Sealed sources</p> <p>K. Any</p> <p>L. Sealed source</p> <p>M. Sealed sources (J.L. Shepherd Model 6810)</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not to exceed 1 curie per radionuclide and 10 curies total</p> <p>B. Not to exceed 1 millicurie total</p> <p>C. 30 curies</p> <p>D. 1 curies</p> <p>E. 5 curies</p> <p>F. 1 curies</p> <p>G. 5 kilograms</p> <p>H. 10 kilograms</p> <p>I. 10 microcuries</p> <p>J. 10 microcuries</p> <p>K. 1 millicurie</p> <p>L. 1 curie</p> <p>M. 1 curies</p> |
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Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 2
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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
29-01022-06

Docket or Reference Number
030-05248

Amendment No. 46

- | | | |
|---|---|--|
| 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 |
| N. Cesium 137 | N. Sealed source (J.L. Shepherd Model 6810) | N. [] curies Ex 2 |
| O. Cesium 137 | O. Sealed source (J.L. Shepherd Model 6810) | O. 130 millicuries |

9. Authorized use:

- A. Research and development as defined in 10 CFR 30.4; for training and instrument calibrations; analysis of test samples as a service for persons as defined in 10 CFR 20.1003; calibration of instruments as a service for persons as defined in 10 CFR 20.1003 and the storage of contaminated materials.
- B. through L. Research and development as defined in 10 CFR 30.4; for training and instrument calibrations; analysis of test samples as a service for persons as defined in 10 CFR 20.1003; calibration of instruments as a service for persons as defined in 10 CFR 20.1003.
- M. For use in a J.L. Shepherd Model 81-14Q calibrator; calibration of instruments as a service for persons as defined in 10 CFR 20.1003.
- N. and O. For use in a J.L. Shepherd Model 89-260 calibrator; calibration of instruments as a service for persons as defined in 10 CFR 20.1003.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at the U.S. Army Communications - Electronics Command, Fort Monmouth, New Jersey.
11. A. Licensed material shall be used by, or under the supervision of, individuals designated in writing by the Radiation Safety Committee, Joseph M. Santarsiero, Chairman.
- B. The Radiation Safety Officer for this license is Joseph M. Santarsiero.
12. Licensed material shall not be used in or on human beings.
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. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.

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SUPPLEMENTARY SHEET**License Number
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15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- 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 three months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, 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 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.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the appropriate U. S. Nuclear Regulatory Commission, Regional Office referenced in Appendix D of 10 CFR Part 20. The report shall specify the source or detector cell involved, the test results, and corrective action taken.

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- G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
17. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
18. This license does not authorize commercial distribution of licensed material.
19. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
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 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. Letter dated February 15, 1995
 - B. Letter dated March 15, 1995
 - C. Letter dated May 19, 1995
 - D. Letter dated August 15, 1995
 - E. Letter dated March 10, 1997
 - F. Letter dated April 11, 1997
 - G. Letter dated May 12, 1997
 - H. Letter dated July 30, 1997
 - I. Letter dated August 27, 1997, with attachment
 - J. Letter dated December 2, 1997
 - K. Letter dated July 30, 1998
 - L. Letter dated May 13, 1998, with attached survey report
 - M. Letter dated November 18, 1998

For the U.S. Nuclear Regulatory Commission

Original signed by Steven Courtemanche

Date November 30, 1998

By

Steven Courtemanche
Nuclear Materials Safety Branch 1
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

November 30, 1998

Docket No. 030-05248
Control No. 126298

License No. 29-01022-06

Commander
Department of the Army
U.S. Army Materiel Command
ATTN: AMCSF-P
5001 Eisenhower Avenue
Alexandria, VA 22333-0001

Dear Commander:

This refers to your license amendment request. Enclosed with this letter is the amended license.

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

Enclosure:
Amendment No. 46

cc:
Joseph M. Santarsiero, Acting Director, Safety Risk Management/RSO
Barry Silber

ML10

Commander
Department of the Army

DOCUMENT NAME: G:\DNMS\DOCWORK\ICLTRL2901022.06

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To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

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|--------|---------------|---|---------|--|---------|--|---------|
| OFFICE | DNMS/RI | N | DNMS/RI | | | | |
| NAME | SCourtemanche | | | | | | |
| DATE | 11/27/98 | | 11/ /98 | | 11/ /98 | | 11/ /98 |

OFFICIAL RECORD COPY



DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
AND FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703-5000

REPLY TO
ATTENTION OF

November 18, 1998

U.S. Nuclear Regulatory Commission
Region I
ATTN: Mr. Steven Courtemanche
Health Physicist
Nuclear Materials Safety Branch 1
Division of Nuclear Materials Safety
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. Courtemanche:

This refers to U.S. Nuclear Regulatory Commission (NRC) License Number 29-01022-06, Docket Number 030-05248, NRC License Number 29-01022-10, Docket Number 030-09718, and your letter dated November 10, 1998.

We are requesting that you terminate NRC License Number 29-01022-10. Provided at enclosure 1 is a copy of the executed J.L. Shepherd and Associates (JLS) Certification of Source/Device Possession Transfer documentation. As indicated by this document, JLS has taken title to, and possession of, the sealed sources contained in the underwater irradiator. These sealed sources were removed, packaged and shipped from Fort Monmouth, NJ, to Southwest Research Institute, San Antonio, TX, on May 1, 1998.

Provided at enclosure 2 is a copy of the latest pool irradiator sealed source leak test result. We are also confirming that our leak test records for the pool irradiator sealed sources indicate that no sealed source, while in our possession, ever leaked radioactive material.

We have not as yet performed a closeout or final radiological survey of the pool irradiator since the removal of the sealed sources. This is due to budgetary issues involved with the Base Realignment and Closure (BRAC) of our Evans Area.

[REDACTED] within where the pool irradiator is located, is actively being used as an authorized facility for the use of licensed radioactive material, authorized under our NRC license Numbers 29-01022-06, 29-01022-07 and 29-01022-14.

Ex 2

Based on the fact that our latest leak test results of the pool identified levels of less than our lower limit of detection (LLD) and that all of our historical data for the pool water analyses indicated the same, and since JLS has already removed the sealed sources from our pool irradiator for ultimate disposal as radioactive waste, we are requesting approval of our request to terminate this NRC license. We propose that the closeout/final radiological survey of the pool irradiator be considered as part of our overall BRAC decommissioning survey for the closure of the Evans Area, including [redacted]. This will satisfy all regulatory requirements and better preserve valuable budgetary resources in these austere times. Since the Evans Area is scheduled for final closure by September 1999, all BRAC related issues must be long resolved, including all decommissioning issues, prior to that time frame. Ex 2

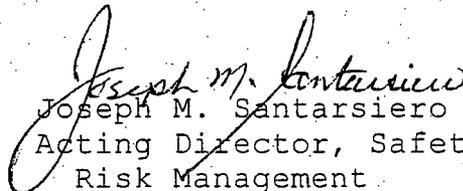
We anticipate that the radioactive waste generated as a result of the source removal will be disposed of during the Fiscal Year 1999 time frame.

Based on the above, we are requesting that NRC Broad Scope License Number 29-01022-06 be amended to include the transfer of the closeout/final radiation survey requirement for the pool irradiator and the disposal of contaminated material collected as a result of the removal of the Cobalt-60 sealed sources by JLS, and NRC License 29-01022-10 be terminated.

Your expeditious processing of this amendment request is appreciated.

Our Point of Contact is Mr. Barry J. Silber, Facsimile on (732) 532-6403 or (732) 542-7161; Voice on (732) 427-4427/3112.

Sincerely,


Joseph M. Santarsiero
Acting Director, Safety
Risk Management

Enclosures

Copy Furnished:

Commander, U.S. Army Materiel Command, ATTN: AMCSF-P, 5001
Eisenhower Avenue, Alexandria, Virginia 22333-0001

JL SHEPHERD & ASSOCIATES

1010 ARROYO AVE, SAN FERNANDO, CALIFORNIA 91340-1822

818-898-2361 FAX 818-361-8095

CERTIFICATION OF SOURCE/DEVICE POSSESSION TRANSFER

^{AS 02}
This document is to certify that on or about April 27, 1998, J.L. Shepherd and Associates took possession of and title to approximately One Hundred Eight Cobalt-60 sources (Dimensions: 0.9338" diameter x 10.63" long), with the total activity approximately 3,000 Curies of Cobalt-60, from a Pool at U.S. Army, CECOM, Fort Monmouth, Camp Evans, Fort Monmouth, NJ 07703, C/O New World Technology, 1236 Concannon Blvd., Livermore, CA 94550-6012. Ex 2

The transfer preparation for shipment took place under the direct supervision of J.L. Shepherd and Associates' engineer, under JLS&A'S State of California Radioactive Materials License and applicable 49CFR and CA Title 17 Transportation requirements, working under J.L. Shepherd and Associates State of California Radioactive Materials License 1777-19, Amendment 73, Expiration Date 10/11/95, with State of California issued Letter of Timely Renewal, Dated September 21, 1995, in accordance with 10CFR40.51, 49CFR, all regulatory agency licensing and transportation requirements. J.L. Shepherd and Associates per the attached license, or our designated hot cell facility, is licensed to receive, possess and store this source/device.

Joseph M. Santarosa
U.S. Army/CECOM/Fort Monmouth

Dated: 5-1-98

Todd E. Eastman
New World Technology

Dated: 5/1/98

J.L. Shepherd
J.L. Shepherd and Associates

Dated: 4/30/98

Encl 1

WIPE TEST ANALYSIS REQUEST FORM

(Instructions On Reverse Side)

(1) FROM: DSRM
Fort Monmouth, NJ
07703

(2) TO: Commander, U.S. Army CECOM
ATTN: AMSEL-SF-RE (LAB)
Building 2539
Fort Monmouth, NJ 07703-5024

| (3) SAMPLE # | (4) DESCRIPTION OF WIPE | (5) ISOTOPE | RESULTS (μCi) | DPM |
|--------------|-------------------------|-------------|----------------------------|-----|
| 1. | POOL LEAK TEST | ALPHA/BETA | \leq LLD | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

(6) WIPE TAKEN BY/DATE: Al Perrella/28 November 1997

(7) PHONE: DSN: 987-5606 COMMERCIAL: (732) 427-5606

(8) COMMENTS: POOL - ID # Co10 [] FJ

*****FOR USE BY DIRECTORATE OF SAFETY RISK MANAGEMENT ONLY*****

1. Reference FONECON between this directorate and your organization,
Al Perrella 28 November 1997
2. The above results are below the contamination limits as specified
in AR 385-11, Table 4-3, Ionizing Radiation Protection, 1 May 1980.
3. If you require further assistance, contact us at DSN 987-5370;
Commercial (732) 427-5370; FAX: Comm (732) 427-2667; DSN 987-2667.
3. The estimated lower limit of detection (LLD) for gross alpha radiation
is 2.30 E-6 uCi or 5.10 dpm . Gross beta radiation is 3.49 E-6 uCi or
 7.74 dpm .

Joseph M. Santarsiero

JOSEPH M. SANTARSIERO
Chief, Radiological
Engineering Division

Revised August 1997

Encl 2

OFFICIAL RECORD COPY

ML 10

1 2 6 2 9 8

This is to acknowledge the receipt of your letter/application dated

11-18-98, and to inform you that the initial processing which includes an administrative review has been performed. 29-01022-06

There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number **126298**.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (R)
(8-98)

Sincerely,
Licensing Assistance Team Leader