

MATERIALS LICENSE

Amendment No. 32

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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Licensee

1. Department of the Army
U.S. Army Armament and Chemical
Acquisition and Logistics Activity
2. ATTN: AMSTA-AC-SF
Rock Island, IL 61299-7630

In accordance with letter dated
May 12, 1997

3. License Number 12-00722-06 is amended in
its entirety to read as follows:

4. Expiration Date April 30, 1995

5. Docket or
Reference No. 030-13027

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

A. Hydrogen-3

A. Gas in sealed glass
ampoulesA. Not to exceed 10
curies (370 GBq)
per device (See
Condition No. 10)

B. Hydrogen-3

B. Gas in sealed glass
ampoulesB. Not to exceed 10.2
curies (377 GBq)
per device (See
Condition No. 10)

C. Hydrogen-3

C. Gas in sealed glass
ampoulesC. Not to exceed 5.76
curies (213 GBq)
per unit (See
Condition No. 10)

D. Promethium-147

D. 3M Model IE2X Sealed
Glass encapsulated
ceramic bound
sources used as
rifle sightsD. One millicurie per
sight, total not to
exceed one curie

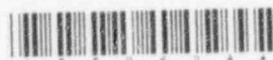
E. Hydrogen-3

E. Tritium gas sealed
in glass in rifle
sightsE. Nine millicuries
per sight, total
not to exceed nine
curies

F. Hydrogen-3

F. Sealed glass
ampoules in sights
(Mb Microtec AG
Model Nos. 400/1,
400/2, 400/3, 400/4,
400/5 or 400/6)F. No single sight
to exceed 210
millicuries, 42
curies total

100087



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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

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9. Authorized Use:

- A. To be used in fire control devices containing self-luminous tritium sources as described in Tables A and B, Supplement 3 of application dated April 12, 1987, and application dated February 26, 1986, and for possession incident to maintenance and repair of these devices and installation into end products, as described in Table C, Supplement 3 of application dated April 12, 1982. Distribution for use throughout the U.S. Army, U.S. Navy, and U.S. Marine Corps.
- B. For use in Muzzle Reference Sensors (MRS) on the U.S. Army and U.S. Marine Corps family of main battle tanks.
- C. For use in the M67 sight unit on the M120 and M121, 120MM mortar.
- D. and E. For possession in front post sight of M16A1 rifles. The material may be distributed throughout the U.S. Department of Defense. For possession only, pending disposal as described in letter dated January 31, 1996.
- F. To be used in Ranger Antiarmor Antipersonnel Weapon system for enhanced night firing capability.

CONDITIONS

- 10. The total possession limit for Hydrogen-3 shall not exceed 1.5×10^6 curies (55 PBq).
- 11. A. Licensed material listed in Item 6.A. may be used and stored in bulk quantities at Letterkenny Army Depot, Anniston Army Depot, Red River Army Depot, Rock Island Arsenal, new Cumberland Army Depot, Sharpe Army Depot, Albany, Georgia Marine Corps Logistics Base and Barstow, California Marine Corps Logistics Base. Licensed material may also be used at temporary job sites of the licensee anywhere in the United States where the Nuclear Regulatory Commission maintains jurisdiction for regulating the use of material. Ampoules containing hydrogen-3 shall not be opened or removed from fire control devices except as necessary for device repair and maintenance only at the Letterkenny Army Depot, Anniston Army Depot, Rock Island Arsenal, Albany Georgia Marine Corps Logistics Base and Barstow, California Marine Corps Logistic Base.
- B. Licensed material listed in Item 6.B. may be used throughout the United States at temporary job sites of the licensee. Storage and stockpile of MRS devices shall be as described in the licensee's application dated December 11, 1984.

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- C. Licensed material listed in Item 6.C. may be used throughout the United States at temporary job sites of the licensee. Storage and stockpile of M67 Site Units shall be as described in the licensee's letter dated January 29, 1996.
- D. thru F. Licensed material listed in Items 6.D. through 6.F. may be possessed and/or used throughout the United States and any other locations where the Commission maintains jurisdiction for regulating the possession and/or use of licensed material.
12. A. Licensed material shall be used by, or under the supervision of, John Mattila, Jeffrey Havenner or Gavin Ziegler, or U.S. Army and Marine Corps. civilian and/or military personnel trained in accordance with application dated April 12, 1982.
- B. Radiation Protection Officers at Army depots, maintenance facilities and its independent test laboratory may be approved by the licensee's Radiation Safety Officer as outlined in letters dated December 23, 1985 and May 29, 1986.
- C. Radiation Safety Officer: Tim Mohs
- D. Alternate Radiation Safety Officer: Gavin Ziegler
13. Sealed sources containing licensed material shall not be opened.
14. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
15. The licensee shall conduct a physical inventory on material listed in Item 6.B every twelve (12) months to account for all sealed sources received and possessed under the license in accordance with letter dated October 21, 1985. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, location of sealed sources and the date of the inventory.
16. The licensee shall maintain records of information related to decommissioning at Headquarters, U.S. Army Armament, Munitions and Chemical Command, Rock Island, Illinois as specified in 10 CFR 30.35(g) until this license is terminated by the Commission.

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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. 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. Applications dated April 12, 1982 (with enclosures), May 6, 1982, December 24, 1984, February 25, 1986 (with enclosures), November 6, 1988 (with enclosures), November 22, 1988, May 29, 1990 and March 20, 1995 (limited to Items transferred from terminated License No. 12-00722-04):
 - B. Letters with enclosures dated June 8, 1983, June 17, 1983, August 24, 1984, October 21, 1985, December 23, 1985, May 29, 1986, April 29, 1987, September 19, 1988, March 28, 1990 (with attachment), May 10, 1990, June 22, 1990, August 16, 1990, November 19, 1992, December 13, 1993, January 26, 1994 (with enclosures), September 2, 1994; May 18, 1995, September 19, 1995, January 29, 1996, January 31, 1996 and May 12, 1997; and
 - C. Letter received December 19, 1990 and letter dated February 24, 1994 (excluding any reference to the fire-control device M67 Sight Unit).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUN 03 1997

By

Loren J. Hunter
Nuclear Materials Licensing Branch, Region III

COPY

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03124
Status Code: 2
Fee Category: EX 3P
Exp. Date: 19950430
Fee Comments: 170.11(A)(5)
Decom Fin Assur Req'd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: ARMY, DEPARTMENT OF THE
Received Date: 970516
Docket No: 3013027
Control No.: 302646
License No.: 12-00722-06
Action Type: Amendment

2. FEE ATTACHED

Amount: -----
Check No.: Ø-----

3. COMMENTS

Signed D. Hersey
Date 5-20-97

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ✓)

1. Fee Category and Amount: -----

2. Correct Fee Paid. Application may be processed for:

Amendment -----
Renewal -----
License -----

3. OTHER -----

Signed -----
Date -----

170.11(A)(4)
FEE EXEMPT



DEPARTMENT OF THE ARMY
UNITED STATES ARMY TANK - AUTOMOTIVE AND ARMAMENTS COMMAND
ARMAMENT AND CHEMICAL ACQUISITION AND LOGISTICS ACTIVITY
ROCK ISLAND, ILLINOIS 61299-7630

May 12, 1997

REPLY TO
ATTENTION OF

Office of the Director, Armament and
Chemical Acquisition and Logistics Activity

U.S. Nuclear Regulatory Commission, Region III
ATTN: Materials Licensing Sections
801 Warrenville Road
Lisle, IL 60532-4351

Dear Sir:

There have been some changes in personnel in the U.S. Army Tank-automotive and Armaments Command, Armament and Chemical Acquisition and Logistics Activity (TACOM-ACALA) Safety Office due to retirements. Request that the following licenses be amended to reflect personnel currently working in the Safety Office:

12-00722-06 (H3, Pm 147 Fire Control Devices)

License Manager: Mr. Jeff Havenner

Radiation Safety Officer: Mr. Tim Mohs

Alternate Radiation Safety Officers: Mr. Gavin Ziegler

12-00722-13 (Am 241 Chemical Agent Alarm)

License Manager: Mr. Jeff Havenner

Radiation Safety Officer: Mr. Tim Mohs

Alternate Radiation Safety Officers: Mr. Gavin Ziegler

12-00722-14 (Ni 63 Chemical Agent Monitor)

License Manager: Mr. Jeff Havenner

Radiation Safety Officer: Mr. Tim Mohs

Alternate Radiation Safety Officers: Mr. Gavin Ziegler

SUB 1340 (M7/M8 Uranium 238 Check Sources)

License Manager: Mr. Jeff Havenner

Radiation Safety Officer: Mr. Tim Mohs

Alternate Radiation Safety Officers: Mr. Gavin Ziegler

XB001141 (Tritium Export License)

License Manager: Mr. Jeff Havenner

Radiation Safety Officer: Mr. Tim Mohs

Alternate Radiation Safety Officers: Mr. Gavin Ziegler

Attached is the resume for Mr. Mohs.

170.11(A)(4)
FEE EXEMPT

Pm:5-14-97

RECEIVED

MAY 16 1997


REGION III

302646
MAY 16 1997

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The point of contact for this action is Mr. Tim Mohs, ACALA Safety Office, AMSTA-AC-SF, (309) 782-6228, e-mail amsta-ac-sf@ria-emh2.army.mil.

Enclosure



JIMMY C. MORGAN
Director, Armament and Chemical
Acquisition and Logistics Activity

RESUME of TRAINING and EXPERIENCE
Timothy J. Mohs

ACALA HEALTH PHYSICIST

EDUCATIONAL BACKGROUND:

Bachelor of Art, 1975: University of California, San Jose, CA.
Molecular Biology, Minor in Chemistry

Master of Divinity, 1979: Trinity Evangelical Divinity School, Deerfield, IL.
Masters of Divinity

RADIOLOGICAL TRAINING:

1965-66: Naval Nuclear Power School, one year intensive education in all aspects of nuclear reactor principles and operation preparatory to serving onboard Naval Nuclear Vessels. Vallejo, CA. and Idaho Falls, ID.

1966-71: Various Naval schools and informal training in radiation monitoring, exposure control, and work practices while serving onboard three Nuclear Submarine.

1971-79 Pursuit of formal education as listed above.

1979-82 Navsea 10% radiological training and practical application of fundamental radiological controls, Mare Island Naval Shipyard, Vallejo, CA.

1982 Qualified as a Radiological Control Technician at the Mare Island Naval Shipyard, Vallejo, CA.

1982-95 Informal training in monitoring and controlling radiological exposure during overhaul and repair of Naval Nuclear Submarines.

1993-94 Hazardous Material Management course, UC Davis, Davis CA. (174 hrs.)

1994 Hazardous Material Regulations course, SAIC (16 hrs).

1995-96 Radiological Protection and Tritium Devices (24 hrs.) and Radiological Material Handling (40 hrs.) Army ACALA sponsored courses

EXPERIENCE:

1964-71 Trained and served in Nuclear Submarines in a supervisory capacity. Worked with and operated monitoring equipment. Tracked and performed evaluations of radiological exposure and shielding requirements.

1971-79 Formal schooling as listed above.

1979-85 Interpreted and maintained sound radiological practices during submarine overhaul. Controlled personnel exposure to radiation and/or contamination during nuclear repair work. Interpreted and enforced technical requirements for radiological work practices. Operated and maintained radiological monitoring equipment. Performed and evaluated official surveys of radiation/contamination areas.

1985-90 Supervised radiological work and enforced sound radiological practices. Interpreted, and maintained technical radiological work instructions. Provided remote sight supervision and served as the radiological liaison between shops, codes, and the shipyard during complex, high risk radiological repair availabilities. Planned and implemented manhour requirements to successfully complete complex radiological work on nuclear submarines and surface craft.

1990-93 Wrote, reviewed, and approved technical documents emphasizing radiological aspects of work procedures. Interpreted government regulations and applied them to the work environment. Authored and implemented radiological control agreements between the shipyard and its customers. Provided interpretation and evaluation of radiation, contamination, shielding, and work practices to minimize personnel exposure during high risk work processes. Served as the Radiological Project Engineer for several high liability, off sight, projects.

1993-95 Provided radiological expertise for the handling and disposal of radioactive/hazardous waste. Performed curie content and isotopic analysis for radiological shipments. Wrote and implemented technical procedures for the safe processing, handling, storage, and disposal of radioactive/hazardous materials. Interpreted and implemented government regulations for the safe transportation and burial of radioactive waste. Planned, directed, and set policy for work practices related to the disposal of radioactive waste at Mare Island Naval Shipyard. Resolved technical, scientific, environmental, and engineering problems related to handling and shipping radioactive waste.

1995-to present Provide expert input to NRC Licenses held by the Army. Issue and enforce government regulations regarding the use, repair, and disposal of radioactive commodities controlled by the NRC/ACALA licenses. Provide expert advice and remediation on incidents and/or situations as they arise during operations involving radioactive commodities used by the Army and Marines. Establish and schedule training for the users of commodities containing isotopes under the NRC/ACALA license. Conduct license inspections at sites holding commodities licensed through the ACALA Office.

JUN 03 1997

Jimmy C. Morgan
Director, ACALA
Department of the Army
U.S. Army Armament and Chemical
Acquisition and Logistics Activity
AMSTA-AC-SF
Rock Island, IL 61299-7630

Dear Mr. Morgan:

Enclosed are Amendment No. 32 to NRC Material License No. 12-00722-06, Amendment No. 28 to NRC License No. 12-00722-13, Amendment No. 26 to NRC License No. 12-00722-14, Amendment No. 14 to NRC License No. SUB-1340.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that NRC Region Offices do not issue licenses or amendments to export type licenses. In order to amend your NRC export License No. XB001141, you will need to contact Betty Wright, Office of International Programs at (301) 415-2342.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or

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- b. When the mailing address listed on the license changes. (No fee is required if the location of byproduct material remains the same.)
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when a decision is made to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;
 - b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
 - d. Change ownership of your organization.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Statement of Policy and Procedure for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when

J. Morgan

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dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
Loren J. Hueter
Nuclear Materials Licensing Branch

License Nos.: 12-00722-06 12-00722-13,
12-00722-14, SUB-1340
Docket Nos.: 030-13027, 030-21073,
030-22274, 040-08700

Enclosures: As stated

cc w/encl: Tim Mohs
Radiation Safety Officer

DOCUMENT NAME: M:\03013027.CL7

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII	<input checked="" type="checkbox"/>							
NAME	LHUETER:jaw	<input checked="" type="checkbox"/>							
DATE	06/02/97	<input checked="" type="checkbox"/>							

OFFICIAL RECORD COPY

CONVERSATION RECORD

TIME

DATE

5-29-97

☐ VISIT☐ CONFERENCE☒ TELEPHONE☐ INCOMING☐ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT

ORGANIZATION (OFFICE, DEPT. ETC.)

TELEPHONE NO.

Tim Mohs

Dept. of Army

309-

782-2962

SUBJECT

CNos 302646 ; 302647 ; 302648 ; and 302666

SUMMARY

1. Tim confirmed that Elizabeth Peterson has retired and should be removed from licenses as an authorized user as well as any RSO or alternate duties.
2. Tim confirmed that his work experience during overhaul and repair of Naval Nuclear submarines involved not only high levels of direct radiation but high levels of contamination involving many different radionuclides both beta and gamma. Also he has had experience with high levels of tritium contamination in his incident response activities since working for ACALA.
3. Tim confirmed that we could send all four amendments under one cover letter to Jimmy C. Morgan, Dir. of

ACTION REQUIRED ACALA.

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Loren Hunter

5-29-97

ACTION TAKEN

SIGNATURE

TITLE

DATE



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

May 21, 1997

Tim Mohs
Radiation Safety Officer
Army, Department of the
US Army Armament and Chemical
Acquisition & Logistics Activity
ATTN: AMSTA-AC-SF
Rock Island, IL 61299-7630

SUBJECT: ACKNOWLEDGEMENT OF CORRESPONDENCE(Letter Dated 05/12/97)

Dear Licensee:

In response to your request, we have completed the initial processing, which is an administrative review of your application for a(n):

☐ New License ☒ Amendment ☐ Renewal

No administrative deficiencies were identified during this initial review. However, it should be noted that a technical review may identify omissions in the submitted information.

It appears that your request is routine (see 1-3 below, as applicable).

1. New and amendment actions are normally processed within 90 days, unless we find major deficiencies, or policy issues requiring central program office assistance.
2. Renewal actions are normally processed within 180 days, however, under timely filing (before expiration), you may continue to operate under your existing license.
3. Termination actions are normally processed within 90 days, unless confirmatory surveys following decontamination/decommissioning activities are involved.

A copy of your correspondence has been forwarded to our Licensing Fee and Debt Collection Branch (301/415-6097) for approval of the fee category and amount, if required.

If you have a compelling safety or business-related reason for requesting expedited review, please contact the Materials Licensing Branch at (630) 829-9887. We will try to complete your request as soon as practicable. Any correspondence about this request should reference the control number.

Nuclear Materials Support Branch

LICENSE #'S

CONTROL #'S

12-00722-06
12-00722-13
12-00722-14

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