



DEPARTMENT OF THE ARMY  
THE U.S. ARMY CENTER OF MILITARY HISTORY  
103 THIRD AVENUE  
FORT LESLEY J. MCNAIR, DC 20319-5058

15 November 2011

AAMH-ZA

(New)

Br. 2

Licensing Assistance Team  
Division of Nuclear Materials Safety, Region 1  
U.S. Nuclear Regulatory Commission,  
475 Allendale Road  
King Of Prussia, Pennsylvania 19406-1415

LL 31461  
03038509  

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02710

Dear Sir or Ma'am:

(08-31461-01)

Enclosed is a Center of Military History Nuclear Regulatory Commission (NRC) License application to authorize the possession of historical items containing radium-226 in the Army Museum System. NRC Form 313 and items 5 through 11 are submitted per the guidance of NUREG 1556, Volume 7, Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope, December 1999.

Please contact, Ms. Carrie Gutierrez, with any questions or concerns at [carrie.m.gutierrez@us.army.mil](mailto:carrie.m.gutierrez@us.army.mil) or by phone at (202) 685-2407. Thank you for your support.

Sincerely,

Robert J. Dalessandro  
Director

RECEIVED  
REGION 1  
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NMSS/RGN1 MATERIALS-002

(3-2009)  
10 CFR 30, 32, 33,  
34, 35, 36, 39, and 40

**APPLICATION FOR MATERIALS LICENSE**

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

**INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.**

<p><b>APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:</b></p> <p>OFFICE OF FEDERAL &amp; STATE MATERIALS AND ENVIRONMENTAL MANAGEMENT PROGRAMS DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001</p> <p><b>ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:</b></p> <p><b>IF YOU ARE LOCATED IN:</b></p> <p>ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:</p> <p>LICENSING ASSISTANCE TEAM DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415</p>	<p><b>IF YOU ARE LOCATED IN:</b></p> <p>ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:</p> <p>MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352</p> <p>ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:</p> <p>NUCLEAR MATERIALS LICENSING BRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 612 E. LAMAR BOULEVARD, SUITE 400 ARLINGTON, TX 76011-4125</p>
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**PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.**

<p>1. THIS IS AN APPLICATION FOR <i>(Check appropriate item)</i></p> <p><input checked="" type="checkbox"/> A. NEW LICENSE</p> <p><input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____</p> <p><input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____</p>	<p>2. NAME AND MAILING ADDRESS OF APPLICANT <i>(Include ZIP code)</i></p> <p><b>U.S. Army Center of Military History</b> <b>103 Third Ave, Bldg 35</b> <b>Fort McNair, DC 20319-5058</b></p>
<p>3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED</p> <p><b>U.S. Army Center of Military History, Army Museum System.</b></p>	<p>4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION</p> <p><b>Carrie Gutierrez</b></p> <p>TELEPHONE NUMBER</p> <p><b>(202) 685-2470</b></p>

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

<p>5. RADIOACTIVE MATERIAL a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.</p>	<p>6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.</p>		
<p>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.</p>	<p>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.</p>		
<p>9. FACILITIES AND EQUIPMENT.</p>	<p>10. RADIATION SAFETY PROGRAM.</p>		
<p>11. WASTE MANAGEMENT.</p>	<p>12. LICENSE FEES <i>(See 10 CFR 170 and Section 170.31)</i></p> <table style="width:100%;"> <tr> <td style="width:70%;">FEE CATEGORY <b>3R (2)</b></td> <td style="width:30%;">AMOUNT ENCLOSED <b>\$ 4,500.00</b></td> </tr> </table>	FEE CATEGORY <b>3R (2)</b>	AMOUNT ENCLOSED <b>\$ 4,500.00</b>
FEE CATEGORY <b>3R (2)</b>	AMOUNT ENCLOSED <b>\$ 4,500.00</b>		

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

<p>CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE</p> <p><b>Robert J. Dalessandro, Director, Center of Military History</b></p>	<p>SIGNATURE</p>	<p>DATE</p> <p><b>11/15/2011</b></p>
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**FOR NRC USE ONLY**

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

**Item 5. Radioactive Material:**

- a. Element and Mass Number: Radium ( $^{226}\text{Ra}$ ); mass number (138)
- b. Chemical and/or physical form: Solid in the form of radium paint previously applied to artifact.
- c. Maximum amount that will be possessed: 90 millicuries (3330 MBq) with a maximum of 2 millicuries (74 MBq) at any one site.

**Item 6. Purpose for Which Licensed Material will be Used:**

This U.S. Nuclear Regulatory Commission (NRC) license application is for authorization for the U.S. Army Center of Military History (CMH), Army Museum System (AMS), to collect, display, transport, and dispose of historical property containing radium. The AMS consists of museums and historical collections that interpret U.S. Army history. These museums and collections contain historic dials, gauges, and knobs with radium paint. Some historical objects may also be marked with radium lettering. Specific functions to be performed under the license include handling the radioactive objects in order to clean, store, exhibit, and transport the historical property to other CMH museums and other privately owned museums that have a valid NRC or agreement state license. CMH museums may also apply approved methods adopted by the Smithsonian or other archives to reduce the potential for contamination from a device. Additional functions include radiological surveys to ensure that no areas are contaminated, to obtain information necessary to support development of decommissioning plans, to properly dispose of the material if no longer needed, and to properly decommission facilities that are to be closed or moved. Historical property containing radium that requires disposal shall be transferred to a licensed disposal facility, IAW AR 385-10, The Army Safety Program, DA Pamphlet 385-24, The Army Radiation Safety Program, and Army Joint Munitions Command AMSJM-SF Standing Operating Procedure, Shipping Procedures for Unwanted Radioactive Materials, dated February 2009.

**Item 7. Individual(s) Responsible for the Radiation Safety Program and Their Training Experience:**

Executive management and the CMH Radiation Safety Staff Officer (RSSO) will work as a team to oversee the Radiation Safety Program for this NRC license. The CMH RSSO directs the CMH Radiation Safety Program on behalf of the Director of CMH for all radium sources used or held within the AMS. In this capacity the CMH RSSO promotes good radiation safety practices throughout the AMS, provides radiation safety consultation, training, and resolves radiation safety issues.

Director of the CMH will ensure command compliance with conditions of this NRC license. This will be accomplished in part by designating, in writing, a trained RSSO who will be responsible for day-to-day operation of the CMH radiation safety program. The RSSO will have, as a minimum, training and experience commensurate with the scope of the license. Consistent with NUREG-1556, training will be from "a formal course designed for RSOs presented by an academic institution, commercial radiation safety consulting company, or a professional organization of radiation protection experts". Training will include the following subjects:

- Radiation Protection Principles

- Characteristics of Ionizing Radiation
- Units of Radiation Dose and Quantities
- Radiation Detection Instrumentation
- Biological Hazards of Exposure to Radiation
- NRC Regulatory Requirements and Standards
- Hands-on use of radioactive materials.

*a.* Specific CMH RSSO duties include:

(1) Performance of all radiation safety functions applicable to Federal, DOD, Army regulations, Army NRC licenses, and Army Radiation Authorizations (ARAs) conditions.

(2) Properly document, store, retain, and preserve radiation safety program records, including annual physical inventories, and radiation and contamination survey reports, to ensure availability during decontamination and decommissioning.

(3) Establish plans and procedures for handling credible emergencies involving radiation and radioactive materials. This includes coordination with civilian and military emergency response organizations as necessary.

In addition to the CMH RSSO, each museum will designate in writing, an AMS RSO. Each AMS RSO designee shall be trained (and periodically retrained, as necessary) to a level commensurate with the Radiation Safety Program scope and responsibilities. The CMH RSSO is responsible for identifying qualifying courses for AMS RSOs.

The AMS RSO establishes and directs the Radiation Safety Program (to include a written Radiation Safety Program document) and performs the specific duties as follows:

*b.* Specific AMS RSO duties include:

(1) Perform or be responsible for the performance of all radiation safety functions at the museum(s) for which they are appointed responsibility.

(2) Provide user-level training in the radiation safety aspects of radium source use or ensure users receive required training.

(3) Develop and maintain a radiation safety program for storage, inventory, tracking, leak testing of radium sources, and responding to broken and damaged radium sources.

(4) Manage the inventory of radium sources for the AMS. Conduct annual physical inventories and dose rate surveys, and forward the information to the CMH RSSO.

(5) Properly store and secure historical property containing radium in locked and properly posted locations when not in use.

(6) Conduct surveys of storage areas, as required by the NRC license and radiation safety program.

(7) Perform periodic leak tests, as required.

(8) Conduct transportation surveys and ensure that radium source shipments are certified by a qualified Hazardous Material (HAZMAT) shipping official when required. Provide a Radioactive Material Movement Form (RMMF) to the transportation officer or HAZMAT officer prior to shipment.

(9) Investigate accidents or incidents involving lost, stolen, broken, or damaged radium sources. Report the event to the garrison RSO and the CMH RSSO.

(10) Properly secure, label, and store damaged historical property containing radium.

(11) Initiate request for disposal of damaged radium sources through the garrison and the CMH RSSO.

(12) Maintain radiation safety program records.

(13) Maintain "ACTIVE" (health and safety calibrated) calibrated Radiation Detection, Indication And Computation (RADIAC) instruments required to perform mandated surveys.

### **Resume for Primary RSSO.**

***Carrie Gutierrez***

Email: [carrie.m.gutierrez@us.army.mil](mailto:carrie.m.gutierrez@us.army.mil)

Work: (202) 685-2470

### **Work Experience**

*US Army Center of Military History, Museum Division*

*Fort McNair, Washington, DC*

*(7/5/2011 – Present)*

*Museum Curator*

Independently perform technical and professional duties related to the management of the Army historical collection, inspections and Command Supply Discipline Program (CSDP) assessments in the Army Museum System.

Performs duties related to the identification of artifacts and determination of standard and non-standard nomenclatures for all artifacts in preparation for their entry into the Army Museum Information System (AMIS).

Analyzes artifact data across broad area in the database and recommends changes of policy or practice to the Chief, Museum Programs Branch.

Lead contractor and other staff, determining legal, administrative, and operations requirements for the program Army-wide.

Performs quantitative analysis of overall collections in the areas of historical significance, research and development, and mission relationships. Performs research to identify, determine the significance of, and catalog items.

Serves as Radiation Staff Safety Officer for Army Museum System.

*The First Division Museum at Cantigny*

*Wheaton, IL*

*(5/24/2011 – 7/1/2011)*

*Assistant Curator of Collections*

High visibility projects include the restoration/curation of the following macro artifacts: French 75mm Gun, the UH-1C Huey Helicopter, and the Landing Craft for Vehicle, Personnel (LCVP). Initiated and led curatorial work on the Samuel Iredell Parker, MOH loan.

In addition, perform the following:

Acts as Curator in her absence and assists the Curator in all aspects of departmental administration.

Served as project manager for first wall to wall inventory of the entire permanent collection consisting of over 11,000 artifacts, from planning through completion.

Registration of artifacts, including research to identify, determine the significance of, and catalog items. Identifies artifacts and determines standard and non-standard nomenclature for all artifacts in preparation for their entry into the database. Responsible for property accountability for the museum, to include macro artifacts and firearms, following all legal, administrative, and operations requirements. Performs firearms inspections.

Analyzes artifact data across broad areas in the database and recommends changes of policy or practice to the Curator.

Project manager and primary contact for accreditation inspection process.

Developed a highly organized and very successful internship program which is now used as a model for all museum departments. Manages all volunteers and interns in the Collections Department.

- Intern program includes a project oriented detailed syllabus with readings, projects that reflect all duties performed within the Collections Department (Curatorial, Registration, Collections Management), visits to other museum departments to actively see how all staff work as a team to accomplish the mission, a field trip to another museum/conservator in the area, complete orientation, formalized contracts, evaluations, and frequent meetings with the intern.

Only staff member outside of the Robert R. McCormick Research Center requested to conduct oral histories.

Acts as liaison with the Army Museum System in developing contacts, encouraging loans, increasing visibility and creating strong ties within the Army Museum community (MusNet user).

Developed and cultivated valuable relationships with area universities and high schools, resulting in behind-the-scenes tours and classroom presentations for history students.

*The First Division Museum at Cantigny*

*Wheaton, IL*

*(9/4/2011 – 2/1/2011)*

*Acting Senior Curator*

Responsible for property accountability of a growing collection of over 13,000 three-dimensional artifacts that represent the history of the 1st Infantry Division in the context of American military history. Established a specialized knowledge of the collection in order to enhance the exhibit, research, and educational value of each object and sub-collection. Oversees a macro-artifact collection of military objects (tanks, artillery pieces, vehicles, vessels, aircraft), including an operating historic vehicle fleet.

Supervises and coordinates the collections staff to include the Collections Manager, Registrar, Conservation Exhibits Technician, all Collections volunteers and interns on all curatorial requirements, conservation, registration, collections management, budget, and special projects, promoting staff development and training.

Performs quantitative analysis of overall collections in the areas of historical significance, research and development, and mission relationships; uses this analysis of artifact data across broad areas in the database to recommend changes of curatorial policy or practice; improves the quality and scope of the collection through soliciting donations and making targeted acquisitions based on approved collection plan; recommends accessions and deaccessions to the Museum Collections Committee and is a voting member of that committee. Plays integral role in developing and revising Collections Policy and Plan.

Participates in long-range planning, including future exhibits, special events, accreditation inspection, expansion, digitization, and capital projects.

Member of Exhibits Planning Committee and recommends artifacts for display, responsible for their safe display, and monitors and inspects artifacts on display to prevent deterioration and ensure property accountability. Develops, writes labels for, and installs/de-installs exhibitions.

Recommends changes of policy or practice in the department; develops requirements for collections management, registration of artifacts, and curatorial procedures. Ensures that all legal, administrative, and operations requirements are fulfilled for policies and practices.

Supervises the historic vehicle macro artifact program; coordinates the installation, preservation and maintenance of the statically displayed vehicles, equipment, and other macro-artifacts. Ensures safety requirements are met by all employees and volunteers working with macro-artifacts.

Ensures firearms property accountability in compliance with federal, state, and local legal requirements; maintains the firearms bound book required by the Bureau of Alcohol, Tobacco, and Firearms in order to maintain the museums federal firearms license, as well as other appropriate administrative documentation, is responsible for the safe and secure storage and exhibit of the firearms collection. Accountable for firearms inspections.

Establishes, develops, and maintains donor relations through personal contacts and attendance at veterans events; develops donations for the collection resulting in more curatorial information about veterans experiences.

Knowledge to answer inquiries and special assignments concerning the care, identification, and accountability of historical property (permanent and macro artifacts). Publicizes the research potential of the collection and provides research services and public access to the collection; assists the public with research requests; and provides staff and volunteers necessary information for interpretation of three-dimensional artifacts.

Prepares budget recommendations and follows budget guidelines; directs the collections departments use of time, materials, and staff resources.

Knowledge and ability to perform duties related to the identification of artifacts and determination of standard and non-standard nomenclature for all artifacts. Determines significance of artifacts and performs registration of artifacts. Administers care and security for acquisition candidates as well as the three-dimensional collection according to best practices requirements.

Knowledge and ability to perform technical and professional duties related to the management of the historical collections and inspections. Manages, supervises, and performs in-house conservation and coordinates outside conservation when needed. Participated in Conservation Assessment Program (CAP) with AAM, 2010.

Chair of Planning Committee/member of Steering Committee for Illinois Association of Museums Conference 2010.

-Responsible for educational content, selecting experts in the field, scheduling/coordinating, and attending to all details regarding keynote speakers, concurrent sessions, roundtable discussions, and field trips.

Prepares reports or other documents on the artifact collection as required.

Leads school and VIP tours, targeting educational level for each specific group.

Works with other departments of the museum, Cantigny Park, other museums, and US Army as necessary.

### **Education**

*Loyola University Chicago* [REDACTED]  
*Chicago, Illinois, United States*

Degree: Masters of Arts – Major: Public History; Minor: United States History

*Loyola University Chicago* [REDACTED]  
*Chicago, Illinois, United States*

Degree: Bachelor of Arts – Major: History and Communication

**PERSONAL INFORMATION WAS REMOVED  
BY NRC. NO COPY OF THIS INFORMATION  
WAS RETAINED BY THE NRC.**



### **Special Training**

Operational Radiation Safety Course (10/17/2011- 10/21/2011)

Campbell Center for Historic Preservation, Mount Carroll, Illinois (2004)  
One Day Environmental Control and Monitoring Workshop, Certificate.

Inorganic and Organic Materials: Examination and Documentation Workshop, Certificate (2005).

American Association of Museums  
Collections Policy Workshop (2004).  
Secrets of Accreditation Workshop (2006).  
Conference (2008).

Army Museum Training Conferences, 2005, 2009, and 2010.

AASLH Workshop Collections Camp: Military Artifacts (2007).

Mount Making Class Given by Earl Lock, Campbell Center Instructor (2008).

Project Management for Non-Project Managers Given by the Carroll-Keller Group (2009).

### **Special Leadership**

Chair of Planning Committee/member of Steering Committee for Illinois Association of Museums Conference 2010.

Responsible for keynote speakers, concurrent sessions, roundtable discussions, and field trips.

Non-Army Team Member of the U.S. Army Museum Certification Inspection Program (2010 – July 2011).

Presented at National Council for Public History 2010 Conference on the working group panel Interns to the Rescue! Public History/University Partnership in Financial Crisis.

AASLH Military History Affinity Committee Member, 2010 - Present.

### **Membership**

National Council on Public History  
American Association of Museums  
DuPage County Curator Roundtable

**Item 8. Training for Individuals Working in or Frequenting Restricted Areas.** All individuals authorized unescorted access to restricted areas in which radium is present will receive training to meet the requirements of 10 CFR 19 prior to working in or frequenting such areas. This site-specific training will be performed by the CMH RSSO and/or AMS RSO or

their designated representatives. Training will include the following subjects and will be focused on the specific hazards associated with radium artifacts:

- Radiation Protection Principles
- Characteristics of Ionizing Radiation
- Units of Radiation Dose and Quantities
- Radiation Detection Instrumentation
- Biological Hazards of Exposure to Radiation
- NRC Regulatory Requirements and Standards
- Hands-on use of radioactive materials.

#### **Item 9. Facilities and Equipment.**

Historical property possessed under this license is primarily used in exhibits to interpret U.S. Army history. In order to accurately interpret the history, museums strive to maintain and not compromise the esthetic and intrinsic properties of the historical property. The historical property shall be exhibited within cases or in displays with a physical barrier between the historical property and the general public. Additional items may be in storage or in a work area where a display is being prepared. Whenever possible and if the number of radium items justifies it, a work space will be designated solely for work with radium devices. However, because of the relatively infrequent handling of radium devices at most Army museums, it is anticipated that this will not be practicable. Storage locations for radium devices will also be minimized for control and prevention of contamination. However, overall dose rates will also be considered when planning for storage of radium items.

When not exhibited, the historical property shall be stored in secure storage. Historical artifacts require a considerable degree of physical security to prevent inadvertent loss of the artifact. These procedures are sufficient to ensure that artifacts containing radium are secure.

#### **Item 10. Radiation Safety Program.**

##### Radiation Survey Program

Dose rate surveys will be performed whenever a display containing licensed radium artifacts is created or rearranged in a manner which may increase the exposure to a member of the general public. Dose rate surveys will also be performed in storage locations whenever the quantity of radium changes or if the storage area is reconfigured. If none of these actions occur, a dose rate survey will be performed on an annual basis.

Contamination surveys will be performed on exhibits whenever the radium devices are removed from a display or if a reconfiguration could result in the spread of contamination. Contamination surveys will be performed on work tables on a monthly basis unless there was not any work involving a radium device. If no work with radium devices is noted, a survey will be performed at least annually. Survey results or the statement that no radium containing devices were on the work surface will be maintained by the AMS RSO or designee. If contamination is found, it will immediately be decontaminated to background. If not possible, the AMS RSO or designee will ensure contamination does not exceed an average of 100 dpm/100 cm<sup>2</sup>, with no area exceeding 300 dpm/100 cm<sup>2</sup>. Removable contamination will not exceed 20 dpm/100 cm<sup>2</sup>,

Leak tests will be performed by an organization authorized by the NRC or Agreement State to provide leak test services to other licensees. Leak tests will be performed at intervals not to exceed 6 months for radium artifacts in use and 2 years for artifacts in storage. Exceptions may

be granted in the case of displays where the physical act of obtaining a swipe would endanger the display. In these cases, the artifact will be considered in storage and the leak test interval extended to 2 years.

#### Radiation Monitoring Equipment

The U.S. Army has a broad range of radiological detection equipment and associated capabilities to include a variety of different military and commercial RADIAC instruments. DoD also has significant organic radioanalytical capabilities. Each U.S. Army Command has assigned RADIAC instruments (and qualified users) as needed to fulfill a variety of tactical and non-tactical nuclear and radiological missions. Although the specific instruments will vary to some extent, military RADIAC instruments generally available at all Army installations typically include the AN/VDR-2 RADIAC Set and the AN/PDR-77 RADIAC Set. Army organizations may also possess a wide variety of different types of commercial RADIAC instrumentation or older model sets such as the AN/PDR-27. ASM RSO will use instruments that meet the radiation monitoring instrument specifications published in Appendix M to NUREG – 1556 volume 7, “Program Specific Guidance About Academic, Research, and Development, and Other Licenses of Limited Scope,” dated December 1999. CMH reserves the right to upgrade survey instruments as necessary.

#### Material Receipt and Accountability.

It is not anticipated that transfers of radium sources will routinely occur. The site AMS RSO will handle any transfer of radium sources into or out of the facility. Physical inventories will be conducted at intervals not to exceed 12 months to account for all sealed sources and devices received and possessed under this license.

#### Occupational Dose.

Displays and or physical spacing will be such that at no time will members of the general public be exposed to more than 2 millirem in any one hour. CMH has performed a prospective evaluation and determined that unmonitored individuals are not likely to receive, in one year a radiation dose in excess of 10% of the allowable limits in 10 CFR part 20.

#### Safe Use of Radionuclides and Emergency Procedures.

Procedures have been developed to allow the safe use of radium sources in Army Museums authorized to possess radium sources under this license. The procedures include handling of radium devices, proper display, storage, accountability, and damage to a device.

### **11. Waste Management.**

“Screening levels for clearance” are defined in Regulatory Guide 1.86. Materials and equipment exceeding these standards (or comparable criteria as NRC may establish in the future) will be disposed of as radioactive waste by transfer to a properly permitted and/or licensed disposal facility. Releases to the environment will also assure compliance with water and air standards contained in 10 CFR 20, Appendix B.

### **12. License Fees:**

Category/Amount: 3R (2) \$4500



DEPARTMENT OF THE ARMY  
THE U.S. ARMY CENTER OF MILITARY HISTORY  
103 THIRD AVENUE  
FORT LESLEY J. MCNAIR, DC 20319-5058

15 November 2011

AAMH-ZA

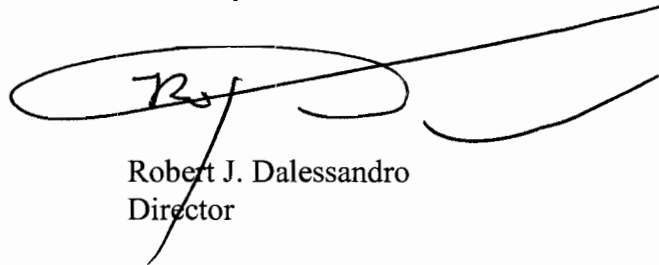
Licensing Assistance Team  
Division of Nuclear Materials Safety, Region 1  
U.S. Nuclear Regulatory Commission,  
475 Allendale Road  
King Of Prussia, Pennsylvania 19406-1415

Dear Sir or Ma'am:

As Director of the Center for Military History, I exercise the authority to request funding for decommissioning of all operations within my activity. The estimated funding requirement associated with decommissioning of each activity is estimated to be less than \$100,000. It is intended, subject to availability, that funding will be available sufficiently in advance of decommissioning to prevent delay of required actions.

A copy of my appointment is enclosed as evidence that I am authorized to represent the Center for Military History in this transaction.

Sincerely,

A handwritten signature in black ink, appearing to read "R. J. Dalessandro", with a large, sweeping flourish extending to the right.

Robert J. Dalessandro  
Director



Presented to

Mr. Robert J. Dalessandro

in recognition of selection  
as a member of the

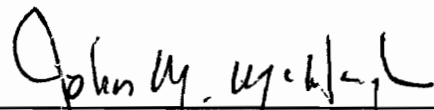
**SENIOR EXECUTIVE SERVICE**

Department of the Army



February 13, 2011

Date

  
Secretary of the Army

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

11/15/2011, and to inform you that the initial processing which includes an administrative review has been performed.

**New License Application (03038509)**  
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

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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** 576444  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.