



Smithsonian Institution

Office of Safety, Health and Environmental Management
Environmental Management Division

September 30, 2020

Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713

Attn: Licensing Assistance

Re:	License Number:	08-05938-13
	Expiration Date:	June 30, 2025
	Docket Number:	030-30945
	Mail Control No.:	622584

Dear Ms. Kauffman:

The Smithsonian Institution (SI) is providing the following information in response to the Nuclear Regulatory Commission (NRC) Request for Additional Information letter dated September 8, 2020.

1. Vanessa Nagengast is a Supervisory Museum Specialist in the National Air and Space Museum's Collections Processing Unit, which is responsible for protecting the National Collections of Aeronautics and Space artifacts. In her position, Ms. Nagengast provides oversight for collection artifacts and serves as a custodial authority in the field of museum collections care and physical security. Ms. Nagengast has worked in the Collections Processing Unit for approximately 6 years and has been a Supervisory Museum Specialist for over 3 years.

With respect to licensed materials, Ms. Nagengast provides custodial oversight and supervision for the care of collection objects, primarily radium in solid form, sealed and contained in painted dials, gauges and instruments in microcurie quantities. A very small portion of the collection contains radium in unsealed form, such as a dot of paint on a toggle switch. She has over 3 years of experience working with radioactive objects. She has received training as described in our application letter of December 22, 2014.

Ms. Nagengast and her staff conduct regular tasks required to maintain the collection, meet regulatory requirements and license conditions for objects in

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storage or on display. Such tasks include but are not limited to: cataloging, routine inventory, condition assessments, packing and care for storage, exposure rate measurements, leak testing, contamination control and management of radioactive waste. In addition, she is responsible for the security of licensed materials and to ensure authorized access only.

Additional licensed material that is part of the National Air and Space Museum's collection which we request authorization for Ms. Nagengast is Promethium 147 contained in the instrument dials of the Lunar Rover. Originally in millicurie quantities almost 50 years ago, this item would be treated with the same methods used with other radioactive instrument dials.

2. Frank A. Blazich, Jr. is a curator of modern military history in the National Museum of American History's Division of Political and Military History. As a curator, he is responsible for the custodial supervision and oversight, authorized access and physical security of the department's collections. He received training as described in our application letter of December 22, 2014 and has more than two years of experience working with radioactive materials.

Mr. Blazich has worked with the military history collections manager, authorized users and the current American History authorized user, Mr. Sherman. Mr. Blazich and Mr. Sherman are the curatorial representatives which museum staff contact with questions regarding radioactive materials and surveys of objects containing radioactive material. Surveys and assessments are conducted of artifacts and objects which contain radioactive material, primarily radium, in solid sealed form, contained within dials, gauges and instruments, in microcurie quantities. To a much lesser extent, unique objects such as gun sights, may contain microcurie amounts of unsealed radium paint. Routine duties for objects in storage or on display include but are not limited to inventory to: validate catalogue identification and location, condition assessments, packing and storage care, exposure rate measurements, leak testing, contamination control and management of radioactive waste.

Additional licensed materials that are part of the National Museum of American History's collections and which we request authorization for Mr. Blazich are Cesium 137 and depleted uranium. Cesium 137 which is contained in graphite blocks, is in solid form, and microcurie quantities. The depleted uranium is a shielding component of a thermoelectric generator, a solid metal and less than 11 kilograms. Both items contain radioactive material in a static matrix, which are stored as a part of the museum's collections. Mr. Blazich will provide technical assistance with applicable survey methods common to instruments and dials to validate inventory, exposure rates and security protocols for authorized access. Custodial duties for these items are minimal.

Mr. Blazich is a member of the museum's collection hazards and safety committee which addresses safety in collections management and hazard assessments for objects that require additional specific controls and handling requirements. Examples of potential collection hazards include materials such as radium, cadmium, lead, asbestos, beryllium and chemical reagents.

Please contact David Peters at (202) 438-6715, should you have any questions regarding this amendment request.

Sincerely,

A handwritten signature in blue ink that reads "Hayes C. Robinson, III". The signature is fluid and cursive, with the "III" written as a stylized flourish at the end.

Hayes C. Robinson, III, M. S.
Associate Director for Environmental Management