



Smithsonian Institution

Office of Safety, Health and Environmental Management

March 24, 2009

Director
Office of Federal and State Materials
and Environmental Management Programs
Mail Stop T8-E24
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attn: Angela R. McIntosh

Re: Demand for Information: Tritium Exit Signs

Dear Ms. McIntosh:

This letter provides the Smithsonian Institution's (Smithsonian or SI) response to the Nuclear Regulatory Commission's (NRC) January 16, 2009 Demand for Information regarding tritium exit signs (TES). The NRC Demand required that recipients respond by March 16, 2009; however, the Smithsonian contacted the designated NRC representative for the Demand who granted an extension via e-mail dated March 13, 2009, allowing the Smithsonian to respond by March 30, 2009. The NRC's information request is noted below along with the Smithsonian's response.

1. Explain how you ensure compliance with the NRC requirements applying to the possession, transfer and disposal of tritium exit signs you have acquired. Identify and provide contact information for the individual you have appointed who is responsible for ensuring day to day compliance with these requirements.

Smithsonian Response:

Prior to receipt of the NRC Demand for Information, key personnel at the Smithsonian were not uniformly aware of specific requirements regarding TES contained in 10 C.F.R. § 31.5 and elsewhere. As such, the Smithsonian Institution's Safety Manual currently provides for the management and disposal of radioactive materials generally, without specific mention of TES. Now that the Smithsonian has become aware of these additional and specific requirements, however, the organization responsible for TES is revising its existing policies and procedures to incorporate measures to ensure compliance with the specific NRC acquisition, management and control requirements concerning the possession, transfer and disposal of TES. The amended policies and procedures will include specific direction regarding organizational processes for TES inventory, breakage

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(including urgent response), return and reporting of information concerning TES, as well as centralized control of purchases of new signs. The Smithsonian anticipates performing training pursuant to those policies and procedures to all relevant Smithsonian staff (e.g., facility engineers, building managers and safety coordinators) within 30 days of their issuance to further ensure awareness of and compliance with requirements. In addition, as part of the Smithsonian's project design review process, the Systems Engineering Division will oversee each facility using TES to improve inventory, management and disposition accountability for any newly installed TES.

With respect to both the installation and removal of TES, major construction, demolition and renovation projects at the Smithsonian are carried out by licensed contractors, under a federal contract. The Smithsonian's construction contracts include Federal Acquisition Regulation (FAR) 52.236-13, which obligates the contractor to safeguard the public and the Government in all its actions, and comply with federal health and safety standards for the construction, demolition or removal of improvements. While we appreciate that this FAR does not relieve the Smithsonian from its regulatory responsibilities regarding TES, it does complicate our assessment of any potentially unaccounted for signs. The Smithsonian is currently compiling information on all major construction and renovation projects carried out since approximately 1995 to determine the prime contractors on those projects and how they may have dispositioned TES in the past. As such, the Smithsonian may submit a supplement to this response to the NRC once that information has been gathered.

The following individual has overall responsibility for the day-to-day compliance with requirements pertaining to the tritium exit signs:

Kendra Gastright
Associate Director, Systems Engineering Division
Office of Facilities Management and Reliability
National Museum of Natural History, MRC 132
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Washington, D.C. 20560
Telephone: 202-633-2571
Facsimile: 202-312-1940
E-mail: gastrightk@si.edu

2. State the number of tritium exit signs you currently possess and the number of signs that, according to your records, should be in your possession.

Smithsonian Response:

The Smithsonian Offices of Facilities Management and Reliability (OFMR) and Safety, Health and Environmental Management (OSHEM) have now surveyed all SI locations in seven states and the District of Columbia believed to possibly have TES, to determine signs currently in the Smithsonian's possession. All currently installed signs have been

identified by location, manufacturer, model number, and serial number. According to our physical inventory results to date, the Smithsonian currently has 200 tritium exit signs in its possession in approximately twenty-two different facilities. This inventory includes both TES in use and those awaiting return to an appropriate specific licensee consistent with NRC regulations. As previously noted, the Smithsonian's past practice has been that it does not employ a centralized purchasing process; rather, the Smithsonian or its contractors purchased these TES over the course of many years via numerous individual SI units and/or departments within units in diverse geographic locations across the United States. Therefore, the Smithsonian will require more time to determine the total number of signs that should be in its possession and may supplement this response if additional information becomes available.

3. Explain the reasons for any discrepancy between the number of tritium exit signs you currently possess and the number of signs that should be in your possession.

Smithsonian Response:

Please see the response to Question 2, above. The Smithsonian is unable to determine at this time the total number of signs purchased by SI or on its behalf (by SI contractors) during the past several decades, a period that has included several major construction and renovation projects. Similarly, it is possible that any currently unaccounted for TES, if any, were disposed of during these construction and renovation projects by the contractors and/or subcontractors. We continue to investigate this area.

4. Describe the actions you have taken, or plan to take, to locate tritium exit signs that should be, but are not, in your possession.

Smithsonian Response:

As part of the Smithsonian's regular and extensive facility inspection programs, we currently inspect and will continue to inspect all facility areas and record any undocumented tritium exit signs. In addition, we are in the process of compiling information on all major recent renovation and construction projects, and will seek information from the prime contractors on those projects, if available.

5. Describe any actions you have taken, or plan to take, to prevent future losses of tritium exit signs.

Smithsonian Response:

As stated in the Smithsonian's response to Question 1, which is incorporated here by reference, the Smithsonian will amend its existing Safety Manual to incorporate guidance on NRC requirements concerning the acquisition, use and disposal of tritium exit signs and will ensure that all relevant employees are cognizant of the NRC requirements. The Smithsonian is centralizing responsibility for TES in its Office of Facilities Management and Reliability and will institute reporting requirements for all units concerning the purchase, monitoring and disposal of all tritium exit signs.

The Smithsonian's inventory of existing signs will be audited on a periodic basis to ensure

accurate accountability for all Smithsonian-owned signs. Newly acquired signs will be added to the current inventory and routinely monitored by responsible building management personnel to determine any evidence of damage, loss, or theft. The Smithsonian presently expects to return to the appropriate authorized entity approximately 50% of its current TES inventory and additional signs may be removed and returned if suitable replacements are found. By reducing the Smithsonian's inventory of TES, precisely coordinating monitoring NRC regulation compliance-related activities among all Smithsonian units, as well as instituting centralized reporting of the acquisition, use and disposal of TES, the Office of Safety, Health and the Environmental Management expects to be able to prevent any possible future unaccounted for signs and maintain continuous, positive control of TES.

We are confident that our existing and planned actions will enable us to maintain full accountability for all existing and acquired tritium exit signs, as well as assure their proper handling and disposal in accordance with NRC regulations. Please contact Rachel Gregory, Associate Director for Environmental Management, at (202) 633-2599, should you have any questions regarding this matter.

I, Roger F. Yankoupe, do declare under penalty of perjury that the information provided herein is correct and true to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read "Roger F. Yankoupe", with a long horizontal flourish extending to the right.

Roger F. Yankoupe, P.E.
Director, Office of Safety, Health and Environmental Management
Smithsonian Institution