



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

July 11, 2013

Docket No. 03030945

License No. 08-05938-13

David Peters
Radiation Safety Officer
Smithsonian Institution
Office of Safety, Health, and Environmental Management
Suite 7106 MRC 514
600 Maryland Avenue, SW
P.O. Box 37012
Washington, DC 20013-7012

SUBJECT: NRC INSPECTION REPORT NO. 03030945/2013001, SMITHSONIAN INSTITUTION, WASHINGTON, D.C. SITE, THE NATIONAL MUSEUM OF AMERICAN HISTORY, WASHINGTON, D.C., THE PAUL E. GARBER FACILITY, SUITLAND, MARYLAND, AND THE CONSERVATION AND RESEARCH CENTER, FRONT ROYAL, VIRGINIA, AND NOTICE OF VIOLATION

Dear Mr. Peters:

On February 11 and 14, 2013, Dennis Lawyer of this office conducted a safety inspection at the National Museum of American History, 14th and Constitution Avenue, NW, Washington, D.C.; the Paul E. Garber Facility, 3904 Old Silver Hill Road, Suitland, Maryland; and the Conservation and Research Center, Front Royal, Virginia of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selective examination of representative records. Additional information provided in your correspondence dated February 28, April 4, 8, 9, 15, April 15, May 8, 30, and July 9, 2013, and during telephone conversations between you and this office on May 9, 13, and July 9, 2013, were also examined as part of the inspection. The findings of the inspection were discussed with you at the conclusion of the inspection.

Based on the results of this inspection and in accordance with the NRC Enforcement Policy, the NRC has determined that two Severity Level IV violations of NRC requirements occurred. The violations involved: 1) the failure to survey areas where carbon-14 was released in a field study and 2) the release of carbon-14 without a specific license condition authorizing this release. The violations are cited in the enclosed Notice of Violation (Notice), because the violations were identified by the NRC.

During our inspection exit meeting on July 9, 2013, you indicated that you have stopped performance of unsealed field studies and have performed an evaluation of the remaining activity left in the field. Additionally, you stated that you will evaluate the removal of the field location on the license, have taken corrective and preventative actions to address each violation,

and that the Smithsonian Institution is committed to radiation safety and to compliance with NRC regulations and licensed conditions.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. For your consideration and convenience, an excerpt from NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," is enclosed. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's website at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy (Under 'Related Information')**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture. You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

Please contact Dennis Lawyer at 610-337-5366 if you have any questions regarding this matter.

Sincerely,

Original signed by Todd J. Jackson, CHP for

Judith A. Joustra, Chief
Commercial and R&D Branch
Division of Nuclear Materials Safety

Enclosures:

1. Notice of Violation
2. NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action,"

cc: District of Columbia
State of Maryland
Commonwealth of Virginia

D. Peters

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DATE	7/11/2013		Via email 7/11/13		7/11/13			

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NOTICE OF VIOLATION

Smithsonian Institution
Washington, DC

Docket No. 03030945
License No. 08-05938-13

During an NRC inspection conducted on February 11 and 14, 2013, two violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 20.1501(a) requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present.

10 CFR 20.1003 defines a Survey to mean an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation. When appropriate, such an evaluation includes a physical survey of the location of radioactive material and measurements or calculations of levels of radiation, or concentrations or quantities of radioactive material present.

10 CFR 20.1302(a) requires that each licensee make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10 CFR 20.1301.

Contrary to the above, as of February 11, 2013, the licensee did not make appropriate surveys of radiation levels in unrestricted and controlled areas or materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10 CFR 20.1301. Specifically, the licensee released 0.9 millicuries of carbon-14 into an outdoor area, currently a controlled area, during a field study in August 1993 and did not perform a survey of the activity in the soil, until June 27, 2013.

This is a Severity Level IV violation (Section 6.7).

- B. License Condition 12 of NRC License No. 08-05938-13, Amendment 5, dated April 15, 1993, and in effect during the field study, requires that the licensee not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.

Contrary to the above, in August 1993, the licensee used licensed material in a field application where activity was released but was not authorized otherwise by another specific condition of the license. Specifically, during that time, the licensee released 0.9 millicuries of carbon-14 by application to six plants during a field experiment at the

outdoor experimental area within the Environmental Research Center when there was no specific license condition authorizing this field application.

This is a Severity Level IV violation (Section 6.3).

Pursuant to the provisions of 10 CFR 2.201, Smithsonian Institution is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

Your response will be placed in the NRC Public Document Room (PDR) and on the NRC Web site. To the extent possible, it should, therefore, not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated This 11 day of July 2013