



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

October 1, 2015

Mr. Eric Jeppesen, Manager
Environment, Health & Safety Office
MRI Global
425 Volker Boulevard
Kansas City, Missouri 64110

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03005083/2015001(DNMS) AND
NOTICE OF VIOLATION – MRI GLOBAL

Dear Mr. Jeppesen:

On September 17, 2015, inspectors from the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection at your facility in Kansas City, Missouri. The purpose of the inspection was to review activities performed under your NRC license to ensure that activities were being performed in accordance with NRC requirements. Mr. Ryan Craffey of my staff conducted a final exit meeting by telephone with you on September 18, 2015, to discuss the inspection findings. This letter presents the results of the inspection.

During this inspection, the NRC staff examined activities conducted under your license related to public health and safety. The staff also examined your compliance with the Commission's rules and regulations as well as the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has determined that three Severity Level IV violations of NRC requirements occurred. The violations were evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. Two of the violations concerned failures to perform leak tests of nickel-63 sources contained in electron capture detectors (ECDs) at the appropriate intervals, as required by Condition 13.A and 13.C of NRC Materials License 24-02564-02. The third violation concerned two examples of a failure to perform physical inventories of the same nickel-63 sources, as required by Condition 19 of the License. The violations are cited in the enclosed Notice of Violation (Notice). The NRC is citing the violations in the enclosed Notice because the inspectors identified them.

The inspectors determined that the root cause of the first two violations was a lack of adequate oversight for the sources contained in ECDs. Since these violations shared a common root cause, the NRC has decided to characterize them as one Severity Level IV problem. The

inspectors determined that the root cause of the third violation was also a lack of adequate oversight, but with ineffective corrective actions from a previous but similar violation as a contributing factor.

As corrective actions to restore compliance, you committed to collect and submit for analysis leak tests of all ECDs in storage, and to conduct a physical inventory of all sources possessed under the license. As corrective action to address the potential for recurrence of a similar violation, you committed to set electronic calendar reminders to ensure that future leak tests and physical inventories were performed at the appropriate intervals. You also stated that you would investigate the potential for disposing of the in-storage ECDs in the coming fiscal year.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The guidance in NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be useful in preparing your response. You can find the Information Notice on the NRC's website at: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1996/in96028.html>. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

The inspectors also reviewed the implementation and effectiveness of your corrective actions taken in response to three violations cited previously in IR 03005083/2011001(DNMS). The inspectors found your corrective actions adequate to address the violations concerning (1) the conduct of surveys necessary to demonstrate compliance with NRC regulations, and (2) the labeling of containers of licensed material; therefore, the NRC considers these violations to be closed. However, the inspectors were unable to close the third violation, concerning the conduct of physical inventories, as a similar violation was identified during this inspection. The NRC will continue to review the implementation and effectiveness of your corrective actions to address the potential for violations similar to these during a future inspection.

In accordance with Title 10 of the *Code of Federal Regulation* Section 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's 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 publicly available without redaction.

E. Jeppesen

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Please feel free to contact Mr. Craffey or Mr. Navid Tehrani of my staff if you have any questions regarding this inspection. Mr. Craffey can be reached at 630-829-9655, and Mr. Tehrani can be reached at 630-829-9809.

Sincerely,

/RA/

Aaron T. McCraw, Chief
Materials Inspection Branch
Division of Nuclear Materials Safety

Docket No. 030-05083
License No. 24-02564-02

Enclosure:
Notice of Violation

cc w/encl: State of Missouri

E. Jeppesen

-3-

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Docket No. 030-05083
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Enclosure:
Notice of Violation

cc w/encl: State of Missouri

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Enclosure

NOTICE OF VIOLATION

MRI Global
Kansas City, Missouri

License No. 24-02564-02
Docket No. 030-05083

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on September 17, 2015, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. Condition 13.A of NRC Materials License 24-02564-02, Amendment No. 68, states that sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such intervals as specified by the certificate of registration referred to in Title 10 of the *Code of Federal Regulations* (CFR) Section 32.310.

Contrary to the above, between June 4, 2013, and August 20, 2015, MRI Global failed to test four sources of nickel-63 at intervals not to exceed 6 months. Specifically, the licensee did not test any of these sources, found in operational Electron Capture Detectors (ECDs), during this period.

- B. Condition 13.C of NRC Materials License 24-02564-02, Amendment No. 68, states that sealed sources need not be tested if they are in storage and are not being used. However, no sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

Contrary to the above, as of September 17, 2015, the licensee stored at least four sources of nickel-63 for a period of more than 10 years without being tested for leakage and/or contamination. Specifically, the licensee did not test any of these sources, contained in ECDs, since removing the ECDs from service between October 1991 and November 2001.

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

- C. Condition 19 of NRC Materials License 24-02564-02, Amendment No. 68, states that the licensee shall conduct a physical inventory of all sealed and/or foil sources at intervals not to exceed 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license.

1. Contrary to the above, between June 4, 2015, and August 20, 2015, the licensee failed to conduct a physical inventory of four sources of nickel-63 at intervals not to exceed 6 months. Specifically, the licensee did not account for these sources, found in operational ECDs, during this period.
2. Contrary to the above, between January 7, 2011, and September 17, 2015, the licensee failed to conduct a physical inventory of 16 sources of nickel-63 at intervals not to exceed 6 months. Specifically, the licensee only accounted for these sources, contained in ECDs removed from services, at one time during this period, on January 21, 2014.

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

Enclosure

Pursuant to the provisions of CFR 2.201, MRI Global is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region III, 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: (1) the reason for the violations, or, if contested, the basis for disputing the violations or their severity level; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previously 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.

Your response will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

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

Dated this 1st day of October 2015.