



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

March 29, 2016

EA-16-040

Nicholas Childs, PhD, Radiation Safety Officer
Office of Research Compliance
Montana State University
CFT5 Suite 229
P.O. Box 173085
Bozeman, MT 59717

**SUBJECT: NRC INSPECTION REPORT 030-00871/2015-001 AND EXERCISE OF
ENFORCEMENT DISCRETION, AND NOTICE OF VIOLATION**

Dear Dr. Childs:

This letter refers to the routine, unannounced inspection conducted on August 31, 2015, at your Bozeman, Montana, facility with continued in office review through March 22, 2016. This inspection examined activities conducted under your license as they relate to safety and compliance with the U.S. Nuclear Regulatory Commission's (NRC) rules and regulations and with the conditions in your license. Within these areas, the inspection consisted of an examination of selected procedures and representative records, observations of activities, and interviews with personnel. The enclosed report presents the results of this inspection. The inspectors discussed the preliminary inspection findings with you and Mr. Justin Cook, Director of the Office of Research Compliance, at the conclusion of the on-site portion of the inspection. A final exit briefing was conducted with you on March 22, 2016.

Based on the results of this inspection, the NRC has determined that three Severity Level IV violations of NRC requirements occurred. These violations were evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. These violations are cited in the enclosed Notice of Violation (Notice). These violations are being cited in the Notice because the NRC identified the violations during the inspection. These violations involved: (1) The failure to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal; (2) failure to lock the portable gauge case or the portable gauge to prevent unauthorized removal of the source from its shielded position; and, (3) use of uncalibrated instruments to perform surveys.

A violation of 10 CFR 30.34(i) was identified during this inspection and is described in the enclosed Notice. In accordance with the Enforcement Policy, although such violations are normally categorized at Severity Level III and considered for escalated enforcement action, because (1) one physical control existed to prevent loss or theft of the portable gauge; (2) you retained possession of the gauge; (3) the violation was isolated; and, (4) no indication of programmatic weakness was identified, NRC is exercising discretion to categorize this violation as Severity Level IV.

The NRC has concluded that the information regarding (1) the reason for the violations; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in correspondence dated January 9, 2016 (ML16069A076). Therefore you are not required to respond to this letter unless the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

If you have any questions concerning this matter, please contact Ms. Martha Poston-Brown of my staff at 817-200-1181.

Sincerely,

/RA/

Ray L. Kellar, P.E., Chief
Nuclear Materials Safety Branch A
Division of Nuclear Materials Safety

Docket No: 030-00871
License No: 25-00326-06

Enclosure:
Notice of Violation

cc: Mr. Roy Kemp, Interim Administrator
Quality Assurance Division – DPHHS
2401 Colonial Drive
P.O. Box 202953
Helena, MT 59620-2953

The NRC has concluded that the information regarding (1) the reason for the violations; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in correspondence dated January 9, 2016 (ML16069A076). Therefore you are not required to respond to this letter unless the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

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NOTICE OF VIOLATION

Montana State University
Bozeman, Montana

Docket No: 030-00871
License No: 25-00326-06
EA-16-040

During an NRC inspection conducted on August 31, 2015 with continued in-office review through March 22, 2016, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 30.34(i) requires, in part, that portable gauge licensees to use a minimum of two independent physical controls that form tangible barriers to secure the gauge from unauthorized removal whenever the portable gauge is not under the control and constant surveillance of the licensee.

Contrary to the above, on August 31, 2015, the licensee failed to have two independent physical controls that form tangible barriers to secure the gauges from unauthorized removal whenever the gauges are not under the control and constant surveillance of the licensee. Specifically, the licensee failed to protect 10 of the 21 gauges stored in metal cabinets in the radiation safety office. Although, the metal cabinets appears to be locked but when tested by the inspectors, one of the three cabinets was unlocked. The unlocked cabinet contained 10 gauges, not under the control and constant surveillance of the licensee.

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

- B. License Condition 16 of NRC License 25-00326-06, Amendment 64, dated August 10, 2015, requires, in part, that each portable nuclear gauge shall have a lock or outer locked container to prevent unauthorized or accidental removal of the sealed source from its shielded position.

Contrary to the above, on August 31, 2015, the licensee failed to have a lock or outer locked container to prevent unauthorized or accidental removal of the sealed source from the shielded position. Specifically, during the August 31, 2015, inspection, the 21 portable gauges in storage were found to not have the required locking mechanism. The inspector observed 16 of the gauges, however, the Radiation Safety Officer confirmed that all the gauges were in an unlocked configuration as the licensee was not aware of the license condition until it was identified by the inspectors.

This is a Severity Level IV violation (Section 6.3)

- C. 10 CFR 20.1501(c) requires, in part, that the licensee shall ensure that instruments and equipment used for quantitative radiation measurements are calibrated periodically.

License Condition 29.H, Item 10.2.B, of NRC license 25-00326-06, Amendment 64, dated August 10, 2015, requires, in part, Montana State University will calibrate its inventory of radiological detection instruments at intervals not to exceed one year.

Contrary to the above, on August 31, 2015, the licensee failed to calibrate its inventory of radiological detection instrumentation at intervals not to exceed one year. Specifically the inspectors identified the following instruments in use with calibration that exceeded one year or were without calibration information: (1) two Ludlum Model 3 with pancake probes (S/N 161185 and S/N 233263) did not have calibration stickers or calibration paperwork and were being used for contamination surveys in a research lab using I-125; (2) a Ludlum 18 (S/N 157698) used in Tietz Hall for contamination surveys, whose calibration expired 7/29/2015; (3) Two survey instruments used for package receipt surveys in the radiation safety office (S/N 2088. and S/N 127778) whose calibrations expired 7/15/15, and 2/26/14 respectively; and, (4) a ThermoScientific mini 900 scintillation monitor (S/N 32697) used for desktop counting whose calibration expired 2/29/15.

This is a Severity Level IV violation (Section 6.7)

The NRC has concluded that the information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved are already adequately addressed on the docket in an email dated January 9, 2016 [ML16069A076]. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region IV within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information.

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

Dated this 29th day of March 2016