NRC FORM 591M PART 1
(07-2012)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Manchester ~~College~~ University 604 E. College Avenue North Manchester, IN 46962 REPORT NUMBER(S) 2018001	Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-~~01594~~ 08302	13-00267-04	March 8, 2018

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

☒ 1. Based on the inspection findings, no violations were identified.

☒ 2. Previous violation(s) closed.

☐ 3. The violations(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, to exercise discretion, were satisfied.

_____ Non-cited violation(s) were discussed involving the following requirement(s):

☐ 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
(Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE	DATE
LICENSEE'S REPRESENTATIVE			
NRC INSPECTOR	Dennis P. O'Dowd	Dennis P. O'Dowd	03/08/2018
BRANCH CHIEF	Aaron T. McCraw		3/22/18

NRC FORM 591M PART 3
(07-2012)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information

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030-08302	13-00267-04	March 8, 2018

6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
87126	03.01-03.07

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
03620	5	Dwight B. Beery, Ph.D.	(260) 982-6021

☑ Main Office Inspection Next Inspection Date: 03/08/2023

☐ Field Office Inspection

☐ Temporary Job Site Inspection

PROGRAM SCOPE

This was an unannounced, routine inspection of a small liberal arts academic program authorized by its NRC license for the use of one neutron howitzer, containing 5 Ci of americium-241, for activation studies in the undergraduate physics program. The college had an overall enrollment of 1300 students. The radiation program was composed of the Radiation Safety Officer (RSO) and a supervising user, who served as the Assistant RSO. The neutron howitzer was used only about twice a year, typically in the spring semester, to activate metals for a modern physics laboratory. The neutron howitzer was stored, and authorized for use, in a locked room of the Physics Department.

PERFORMANCE OBSERVATIONS

The inspector observed the area in which the unit was stored, and determined that the device was located as described in submitted license documentation, and was adequately secured and not readily accessible to members of the general public. According to licensee staff, the source was used and stored in this room, and was kept locked at all times of non-use. Interviews conducted during the inspection with the RSO and assistant RSO revealed that the unit is operated exclusively under the supervision and control of these two individuals. Independent measurements taken indicated a maximum reading of approximately 5.0 mR/hr at the unit surface and 0.5 mR/hr at three feet. Unrestricted areas (wall surface) adjacent to the stored device indicated less than 0.2 mr/hr. The licensee maintained two calibrated CDV survey instruments used during the academic year. A review of one instrument indicated adequate operation and comparison with the NRC unit. A review of select records since the previous inspection included: (1) survey meter use and calibration; (2) leak tests; and (3) inventory, with no issues identified.

The licensee was previously cited during a routine inspection conducted on February 25, 2013, (ref. IR 03008302/2013001(DNMS)) for two violations of regulatory requirements, specifically, for failure (1) to calibrate its survey meters every twelve months, as required by the license, and (2) to perform leak testing of its Am 241 sealed source every six months, as required by the license. The inspector confirmed that these two violations were corrected, and that the licensee's actions to prevent recurrence were effective in ensuring that no further violations of the survey meter calibration and leak testing requirements occurred. These violations are therefore closed.

No violations of NRC requirements were identified during this inspection.