

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/CERTIFICATE HOLDER
The Regents of the University of Michigan
Radiation Safety Service Occupational Safety
and Environmental Health
Location Inspected:
multiple locations
1239 Kipke Drive
Ann Arbor, MI 48109

2. REGIONAL OFFICE
US NRC - Region III
2443 Warrenville Road
Lisle, IL 60532

REPORT NUMBER(S)
2008-001

3. DOCKET NUMBER(S)

030-01988

4. LICENSE/CERTIFICATE NUMBER(S)

21-00215-04 (Broad scope)

5. DATE(S) OF INSPECTION

3/16-13 /2008

Inspection Procedures Used:
87134

Inspection Focus Areas: 02.03 thru 02.11; 02.12e, 02.13 thru 02.14; 02.16 thru 02.19; and 02.21.

LICENSEE/CERTIFICATE HOLDER:

The inspection was an examination of the activities conducted under your license/certificate as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license/certificate. 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 violation(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, NUREG-1600, 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 in the attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

STATEMENT OF CORRECTIVE ACTIONS

I hereby state that, within 30 days, the actions described by me to the inspector and as described in the attachment 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/ CERTIFICATE HOLDER	Mark Driscoll, RSO		3/ /2008
NRC INSPECTOR	Darrel G. Wiedeman		3/13 /2008

NRC FORM 591X PART 3 <small>(11-2001) 10 CFR 2.201</small>		<i>Docket File Information</i>		U.S. NUCLEAR REGULATORY COMMISSION	
SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION					
1. LICENSEE/CERTIFICATE HOLDER University of Michigan			2. REGIONAL OFFICE Region III, Lisle, IL 60532		
REPORT NUMBER(S) 2008-001					
3. DOCKET NUMBER(S) 030-01988		4. LICENSE/CERTIFICATE NUMBER(S) 21-00215-04 (Hospital Blood Bank and Broad scope)		5. DATE(S) OF INSPECTION 3/ 10-13 /2008	
Supplemental Inspection Information					
Program Code(s): 02110		Priority: 2		Licensee Contact: Mark Driscoll, RSO	
				Telephone No.: 734-647-2251	

- ☐ Main Office Inspection
- ☐ Field Office **see this report for locations inspected**
- ☐ Temporary Job Site Inspection

Next Inspection Date: **03/2010**

Program Scope

This licensee is a State of Michigan owned and operated university. Currently the licensee has a student population of 38,820 students at the Ann Arbor campus, 8,032 students at the Dearborn campus and 6,506 students at the Flint campus. The university hospital and medical facility is an 880 bed hospital located within the university complex. The licensee has an annual workload of approximately 9,000 routine nuclear medicine studies/year. During this inspection human research programs and medical programs were reviewed. During this inspection the licensee had 401 active permits that were previously approved by the Radiation Safety Committee and included 1,314 laboratories that were approved for use of radioactive materials. At this time the licensee has approximately 3,900 monitored and trained radiation workers. In conjunction of this routine inspection the inspector conducted a follow-up to the previous inspection of the Increased Controls (ICs) for licenses Nos. 21-00215-04, 21-00215-06 and SNM-179 (see Report No. 2008-002).

The inspectors toured the Hospital Blood Bank, Medical Science Research Building, Biological Research Building, and Oncology Research Building and observed the self-shielded, self-contained irradiators. These irradiators are used to irradiate human blood and/or small mammals and cell tissues. The facilities are monitored and staffed 24 hours/day, 7 days per week. All irradiators were leak tested at 6-month intervals (every April and October) and the leak tests showed <.005 microcuries of removable contamination.

During this inspection of the broad scope license the inspector interviewed researchers, physicians, physicists, medical technologists and observed licensed activities at the following university owned and operated facilities:

University of Michigan Hospital and Medical Center, Nuclear Medicine Department;
 Cyclotron Facility;

University of Michigan Hospital and Medical Center, Radiation Oncology;

University of Michigan, Radiation Safety Office;

Self-Shielded irradiators located at: U of Mi Medical Center Blood Bank, Medical Science Research Building, Biological Medical Science Research Building and the Life Sciences Building.

The next scheduled routine inspection should focus primarily on the licensee's research programs at all campus locations. According to the licensee staff that were interviewed, since the last NRC inspection there have been no fires, explosions, or fatalities involving radioactive materials, medical events or over exposures to radiation. The inspectors did not identify anything contrary to the above statements made by licensee staff.

The inspectors reviewed the licensee's incident/event logs for the period CY 2007. During this period, 27 events in 2007 were documented by the licensee and reviewed by the inspectors. It was the view of the inspectors that the licensee took appropriate corrective actions in response to these events. No violations of NRC requirements were identified.