

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

<p>1. LICENSEE/CERTIFICATE HOLDER</p> <p>The Curators of the University of Missouri 311 Jesse Hall Columbia, MO 65211</p> <p>Location Inspected: IC Controls Entire Campus</p>	<p>2. REGIONAL OFFICE</p> <p>US NRC - Region III 2443 Warrenville Road, Suite 210 Lisle, IL 60532</p>
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<p>REPORT NUMBER(S) 2007-002,</p>	<p>3. DOCKET NUMBER(S)</p> <p>030-02278</p>	<p>4. LICENSE/CERTIFICATE NUMBER(S)</p> <p>24-00513-32 (Broadscope)</p>	<p>5. DATE(S) OF INSPECTION</p> <p>December 13, 2007</p>
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<p>Inspection Procedures Used:</p> <p>MC 2800/038</p>	<p>Inspection Focus Areas: 02.03 thru 02.11; 02.12e, 02.13 thru 02.14; 02.16 thru 02.19; and 02.21.</p>
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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:

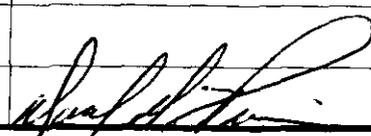
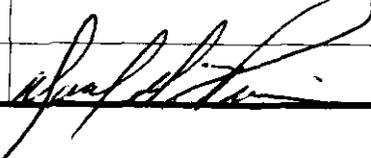
- 1. Based on the inspection findings, no violations were identified.
- 2. Previous Violation(s) Closed (2006-004 AND 2007-001)
- 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective 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	Jack Crawford, RSO		
NRC INSPECTOR	Darrel G. Wiedeman		12/13/2007



NRC FORM 591 PART 2 (11-2001)

NRC FORM 591X PART 3 (11-2001) 10 CFR 2.201	Docket File Information SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION	U.S. NUCLEAR REGULATORY COMMISSION
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1. LICENSEE/CERTIFICATE HOLDER University of Missouri	2. REGIONAL OFFICE Region III, Lisle, IL 60532	
REPORT NUMBER(S) 2007-002		
3. DOCKET NUMBER(S) 030-02278	4. LICENSE/CERTIFICATE NUMBER(S) 24-00513-32 (broadscope)	5. DATE(S) OF INSPECTION December 11-13, 2007

Supplemental Inspection Information

Program Code(s): 02110	Priority: 2	Licensee Contact: Jack Crawford, RSO	Telephone No. : 573-882-0931
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- Main Office Inspection Next Inspection Date: **12/2009**
- Field Office **see this report for locations inspected**
- Temporary Job Site Inspection

Program Scope

This licensee is a State of Missouri owned and operated university. Currently the licensee has a student population of 28,253 students at its Columbia, Missouri campus. As of December 2007 the licensee had 686 trained radiation workers that were approved to work under the supervision of an authorized user.

This licensee is authorized to use licensed materials at numerous locations (temporary job sites in the State of Missouri). During this inspection the inspector was informed that currently the licensee had no projects involving use of radioactive material with portable moisture-density gauges. At the time of the inspection all gauges were in storage and not being used.

During this NRC inspection the inspector focused on "high risk activities" and follow-up to previous violations with the IC Order (see report 2006-004 for details of compliance with the NRC IC Order). The licensee no longer has radioactive materials in quantities of concern.

The Radiation Safety Committee (RSC) continues to meet at appropriate intervals to conduct business. Currently the RSC has approved 174 applications (users) and approximately 388 laboratories for specific uses of radioactive materials. Each incident or event involving radioactive material (minor spills, contamination, radiological findings by the health physics staff, etc.) are reviewed by the RSC. The licensee implemented a "real time" computer based system that provides an immediate readout of user information, training, inventory, waste disposal, permit information, etc. The licensee also developed an Internet based web page (<http://www.missouri.edu/~muehs>) that provides additional information regarding the licensee's radiation protection program.

The inspector concluded through interviews with the RSO and health physics staff along with independent reviews of selected minutes from the radiation safety committee meetings and review of the licensee's outside consultant compliance reports, that the licensee's management organization is continuing responsible oversight and support for the radiation safety program.

The inspector interviewed researchers and laboratory technologists and observed licensed activities at the following university owned and operated facilities:

**University of Missouri, Research Park, Research Reactor, Columbia, MO.;
Cyclotron Facility, MURR- Reactor Building;
Medical Science Building, Columbia, MO.;
Animal Science Research Center, Columbia, Mo.
Life Science Building, Columbia, MO;
Radioactive Waste Building, Columbia, MO, and
Clydesdale Veterinary Hospital.**

During this inspection the NRC inspector interviewed certain selected authorized users/professional investigators (PIs) and laboratory technicians. Discussions were held regarding the licensee's procedures for ensuring that appropriate radiation surveys are conducted to determine if residual contamination remains in the work areas. Each person that was interviewed provided documentation (weekly or monthly radiation survey records) or demonstrated their knowledge that supported adherence to the licensee's approved procedures. The inspector toured approximately thirty (30) research laboratories located in the following buildings: Animal Science Research Center, Life Science Research Center and Medical Science Buildings. The inspector did not observe any eating, drinking or smoking in the laboratories, gross contamination or poor laboratory safety practices.

During the inspection the inspector reviewed 16 internal event/incident reports that occurred during CY 2007. It was the inspector's impression that the licensee took appropriate corrective action for each of the reported events/incidents. Most of the reported events were accidental spills of radioactive material and/or minor contamination found in the research laboratory.

During this inspection the three (3) hospitals covered under this license were not inspected. The next routine inspection should focus on the licensee's medical programs.

According to the licensee staff that were interviewed, since the last NRC inspection there have been no fires, explosions, fatalities involving radioactive materials, medical events, recordable events or over exposures to radiation. The inspector did not identify anything contrary to the above statements by licensee staff.

Personnel dosimetry records for users of byproduct materials indicated that the highest wholebody exposure for CY 2007 was 374 mrem and the highest extremity exposure was 1,880 mrem. Records of X-Ray users indicated significant exposures when compared with byproduct material users, e.g., 1,892 mrem wholebody and 5,310 mrem extremity. Records of an audit by an outside consultant on March 7-9, 2006 showed no significant findings or violations of NRC requirements.

No violations of NRC requirements were identified.

RADIATION SAFETY TRAINING SIGN-IN SHEET

PROGRAM: NRC EXIT MEETING INSTRUCTOR: MR. WEIDEMAN
 DATE: 12/13/07 TIME: 200 LOCATION: EHS RM 12

#	PRINT NAME	EMPL. ID or STUDENT #	DEPARTMENT	24-00573 37 AUTHORIZED USER
1	JACK CRAWFORD	N/A		
2	LEE SWENGERMANN	-	EHS	
3	GARY LEWIS	-	EHS	
4	Mary Aldrich	-	EHS	
5	Casey Nelson	-	EHS	
6	Tim G. Arnold	-	EHS	
7	Scott Furst	-	EHS	
8	Mary Stone	-	EHS	
9	Peter Ashbrook	-	EHS	
10	JACKIE JONES		ADMINISTRATIVE SERVICES	
11	DAVID BURGESS	-	EHS	
12	Ronald J. Dohy, Jr.	-	MURR	
13	Mare Weichert	-	Essential Isotopes	
14	John Ernst	-	MURR	
15				

COURSE ID: _____ COURSE HX: _____ DATE ENTERED: _____ INITIALS: _____

COMMENTS: _____

