

**Docket File Information
SAFETY INSPECTION REPORT
AND COMPLIANCE INSPECTION**

1. LICENSEE Saint Louis University REPORT NUMBER(S) 2005-001		2. NRC/REGIONAL OFFICE Region III	
3. DOCKET NUMBER(S) 03011789	4. LICENSE NUMBER(S) 24-00196-07	5. DATE(S) OF INSPECTION September 20, 2005	
6. INSPECTION PROCEDURES USED 87134	7. INSPECTION FOCUS AREAS 03.01 - 03.07		
SUPPLEMENTAL INSPECTION INFORMATION			
1. PROGRAM CODE(S) 02230	2. PRIORITY 2	3. LICENSEE CONTACT Mark Haenchen, RSO	4. TELEPHONE NUMBER 314/577-8608
<input checked="" type="checkbox"/> Main Office Inspection		Next Inspection Date: September 2007	
<input checked="" type="checkbox"/> Field 3635 Vista Avenue and 1034 S. Brentwood Blvd., St. Louis, MO			
<input type="checkbox"/> Temporary Job Site			

PROGRAM SCOPE

This broad scope medical licensee used a variety of isotopes in medical and research applications. The radiation safety committee has approved approximately 110 research permit users for supervision in 150 research labs. The majority of research laboratories possessed various quantities of P-32, H-3, C-14, Cr-51, or I-131. In addition, the licensee possesses 5610 Ci of Cs-137 for use as a blood irradiator. The radiation safety staff consists of the RSO and three technical staff. The research and blood irradiator were inspected during the previous inspection and not within the scope of this inspection. The current inspection focused on nuclear medicine, brachytherapy, and new locations of use added to the license since the previous inspection. New locations of use added to the license since the previous inspection conducted on March 5-6, 2003, are: 1) St. Mary's Health Center - West Pavilion, 1027 Bellevue Avenue, St. Louis, MO, and 2) 1034 South Brentwood Blvd., Suite 1120, St. Louis, MO. No licensed activities were being conducted at St. Mary's Health Center. At 1034 S. Brentwood Blvd., only cardiac studies are conducted which consisted of 3 Cardiolite® studies per day with one FT NMT and one PT NMT. On campus, nuclear medicine studies were conducted on 2nd floor South at 3625 Vista Avenue. The staff consisted of four FT NMTs and various residents and students in training. An average of 20-25 scans, including cardiac studies, are conducted daily using unit doses delivered by a local nuclear pharmacy. I-131 dosages for carcinoma therapy routinely are 100 millicuries with the patients released after administration, and average 1 procedure per month. Other therapy radiopharmaceuticals are administered, but very infrequently. The licensee was currently conducting human research with an IND involving I-131 tagged scorpion venom for carcinoma treatments. The nuclear medicine rad. safety program was audited quarterly by SLU's rad. safety staff.

The radiation oncology department has a decommissioned high dose rate remote afterloader that has not been used since 2004. Currently, all brachytherapy treatments are conducted with accelerator-produced beam therapy.

Performance Observations

During the inspection, the licensee's staff demonstrated/discussed: (1) survey meter use and calibration; (2) package check-in procedures; (3) unit dose prep and safe handling; (4) wipe test counting; (5) dosimetry; (6) written directives; (7) waste handling; (8) security of licensed material; (9) radiation safety program audits; (10) human use protocols; and (11) corrective action for one SL IV violation from the previous inspection.