



**SAINT LOUIS UNIVERSITY
HEALTH SCIENCES CENTER**

MATSON

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Office of the Vice President

December 16, 1993

John A. Grobe
Chief
Nuclear Materials Inspection Section 2
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Grobe:

This letter is sent in response to your letter dated November 17, 1993 regarding the routine safety inspection of Saint Louis University facilities conducted by your office on November 1 - 3, 1993 (License No. 24-00196-07, Docket No. 030-11789; and License No. 24-04581-19, Docket No. 030-11623). During that inspection, a concern was identified regarding procedures and criteria for initially assessing the need for radiation workers to be issued film badges and extremity monitoring and for assessing their need to be included in a bioassay program. Information addressing this concern is enclosed for your review.

I would like to take this opportunity to thank your staff for their constructive appraisal of our Radiation Safety Program. If you have any questions regarding the enclosed information, please feel free to contact our Radiation Safety Officer, Mr. Mark Haenchen, at (314) 577-8609.

Sincerely,

Robert M. Swanson, Ph.D.
Associate Vice President
for the Health Sciences Center

enclosure

pc: J. Wendell Davis, Ph.D., Director, Environmental Safety & Services
Francis K. Herbig, Radiation Safety Committee Chairman
Mark G. Haenchen, Radiation Safety Officer

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**RESPONSE TO NRC CONCERN
IDENTIFIED DURING
NOVEMBER 1-3, 1993 INSPECTION**

- (A) **CRITERIA FOR PROVISION OF WHOLE BODY DOSIMETERS:** The criteria for initial assessment of the need for radiation workers to be issued whole body dosimeters (e.g. film badges) will be consistent with 10CFR20.1502(a).
- (B) **CRITERIA FOR PROVISION OF EXTREMITY MONITORING:** The criteria for initial assessment of the need for radiation workers to be issued extremity monitors will be based upon two factors. If the activity of a gamma/x-ray emitting radionuclide or a strong beta emitting radionuclide to be handled by an individual at any one time exceeds 1 mCi, an extremity monitor will be provided. In the event that lesser activities are handled at any one time, an extremity monitor will be provided if the cumulative annual activity of a gamma/x-ray emitting radionuclide or a strong beta emitting radionuclide to be handled by an individual exceeds 10 mCi.
- (C) **CRITERIA FOR INCLUSION IN BIOASSAY PROGRAM:** The criteria for initial assessment of the need for radiation workers to be included in a bioassay program are defined in the Saint Louis University Broad Scope license (license no.24-00196-07), as well as in the renewal application for that license which is pending approval by the NRC.
- (D) **PROCEDURES FOR IDENTIFICATION OF RADIATION WORKERS FOR INCLUSION IN EXTERNAL AND INTERNAL DOSE MONITORING PROGRAMS:** The mechanisms for identifying these individuals for inclusion in the external or internal monitoring programs will consist of the following:
1. A Radiation Worker Status form has been developed and is the subject of Radiation Safety Bulletin #9. A copy of this Bulletin including the form is enclosed. Each Radionuclide Use Permit Holder is being requested to provide to the Radiation Safety Office a completed copy of the "Radiation Worker Status Notification Form" for each present and future employee or student radiation worker in their laboratory, and whenever there is a significant change in the radionuclides and/or increase in the activities that are handled by any of these individuals.
 2. The Radiation Safety Officer or his designee will review all new and amendment applications for radionuclide use permits, and verify that the appropriate notification has been provided to the Radiation Safety Office regarding (a) new radiation workers, or (b) significant changes in the radionuclides and/or activities handled.
 3. Radiation Safety Office Staff will inquire during routine audits of research laboratories and clinical facilities regarding new workers or changes in radionuclide work load, and verify that the appropriate notification has been provided to the Radiation Safety Office.
 4. Upon receipt of Radiation Worker Status Notification Forms, Radiation Safety Office Staff will evaluate the need of each worker to be included in the whole body, extremity, and/or bioassay monitoring programs using the criteria identified above.

SAINT LOUIS UNIVERSITY

RADIATION SAFETY BULLETIN #9

RADIATION WORKER STATUS & EVALUATION OF POTENTIAL FOR EXPOSURE

INTRODUCTION

In order to enhance the effectiveness of the personnel monitoring program at Saint Louis University, and to assure compliance with new 10 CFR 20 requirements, it is essential that the potential for exposure of each radiation worker to radioactivity (both internal and external) be consistently evaluated. Such evaluations must be conducted as new individuals are hired into laboratories, including employee/student transfers or rotations from one laboratory to another. It is equally important to provide these evaluations when there are significant changes in the radionuclides and/or activities that are to be handled by individuals already employed within a given laboratory.

It is the purpose of this bulletin to communicate the need to provide notification to the Radiation Safety Office of new employees and students who may work with radioactive materials within your laboratory, as well as any significant changes in radionuclides and/or activities handled by any radiation workers operating under the radionuclide use permit for your laboratory. This bulletin also includes the mechanism for providing notification to the Radiation Safety Office. The "Radiation Worker Status Notification Form" has been developed for that purpose.

Initially, the Radiation Worker Status Notification Form will need to be completed for all employees and students that currently work with radioactive materials within your laboratory. Subsequently, the form will need to be completed when the radionuclides and/or activities that an individual handles change significantly, or when a new employee or student that will be handling radioactive materials is added to your staff.

Please complete a copy of the enclosed form for each radiation worker in your laboratory, and return to the Radiation Safety Office at your earliest convenience. If you have any questions regarding completion of the form, please feel free to contact me at 577-8609. Thanks for your cooperation!

Mark Haenchen
Radiation Safety Officer
December 16, 1993

Saint Louis University - Radiation Safety Office
**RADIATION WORKER STATUS
 NOTIFICATION FORM**

Effective Date: _____

Name Of Individual: _____ Name Of Permit Holder: _____
 Social Security Number: _____ Date Of Birth: _____ Department: _____
 Laboratory Location: _____ Lab Phone No.: _____ Permit Holder Phone No.: _____

SECTION 1: RADIATION WORKER STATUS (check only one):	
<input type="checkbox"/> A	New radiation worker within laboratory and new employee to University/Health Sciences Center
<input type="checkbox"/> B	New radiation worker within laboratory but current employee of University/Health Sciences Center (e.g. transfer) Previous department: _____ Previous permit holder under whom radionuclide work was conducted: _____
<input type="checkbox"/> C	Current radiation worker within laboratory; radionuclide use change only

SECTION 2: TRAINING AND DOSIMETRY HISTORY			
Has the named individual completed the Saint Louis University Radiation Safety Orientation Course & Exam? <div style="text-align: center;"><input type="checkbox"/> yes <input type="checkbox"/> no</div>			Date Completed: _____
Has a whole body dosimeter (i.e. badge) been previously provided:	By Previous Employer? <input type="checkbox"/> yes <input type="checkbox"/> no	By Previous SLU/HSC Department? <input type="checkbox"/> yes <input type="checkbox"/> no	In Current Laboratory? <input type="checkbox"/> yes <input type="checkbox"/> no
Has an extremity dosimeter (i.e. ring badge) been previously provided:	By Previous Employer? <input type="checkbox"/> yes <input type="checkbox"/> no	By Previous SLU/HSC Department? <input type="checkbox"/> yes <input type="checkbox"/> no	In Current Laboratory? <input type="checkbox"/> yes <input type="checkbox"/> no

SECTION 3: RADIONUCLIDE USE				RADIATION SAFETY OFFICE USE ONLY			
Specify the radionuclides and activities that the above named individual will be handling.				Evaluated By: _____ Reviewed By: _____			
Check	Radionuclide	Maximum Activity Handled At Any One Time (mCi)	Maximum Activity Handled Per Year (mCi)	EVALUATION OF PERSONNEL MONITORING (R = Required; N = Not Required; V = Voluntary)			
				Baseline Urine	Baseline Thyroid	Whole Body Dosimeter	Extremity Dosimeter
	H-3 (H ₂ O)						
	H-3 (NaBH ₄)						
	H-3 (other)						
	C-14						
	S-35						
	Ca-45						
	P-32						
	P-33						
	Cr-51						
	I-125 (except NaI)						
	I-125 (NaI only)						
	I-131 (except NaI)						
	I-131 (NaI only)						
	Sc-46						
	Nb-95						
	Ru-103						
	Ce-141						
	Other; Specify: _____ _____ _____	_____ _____ _____	_____ _____ _____				