UNC Charlotte
Radiation Safety Program

Male X-Ray Radiation Workers – New to the Radiation Safety Program

The following pages detail the requirements for you to become an X-Ray radiation worker on campus and have a radiation dosimetry issued to you.

1. You must complete the Environmental Health & Safety online training course entitled "Radiation Producing Devices" and score at least 80% on the quiz to pass the training session. Please log into the Learning and Development Portal and click "Assigned Training" to complete the training.

2. You must complete a laboratory specific discussion and overview of the specific X-ray usage manual pertaining to the laboratory with the Authorized User. This is to include a review of specific UNC Charlotte Radiation Safety documents including: Handbook for Radiation Safety, Emergency Procedures, and Material Security & Loss/Theft Procedure. The Authorized User is responsible for ensuring that his/her radiation workers have received adequate instruction in safety principles applicable to the X-ray unit.

3. You must complete the forms detailing any previous known radiation exposure that you have had and provide all associated radiation exposure records.

Please forward all of the completed paperwork to the EHS Office. Please contact the Radiation Safety Officer at (704) 687-1111 if you have any questions with this process.

RADIATION WORKER – RADIATION AWARENESS ORIENTATION
ONLINE TRAINING PACKAGE INFORMATION

Online Radiation Safety Training – please complete the online radiation safety course entitled: Radiation Producing Devices that is assigned to you through the Learning and Development Portal. The training takes approximately 45 minutes and there is a 20 question quiz at the end of the session.

The online training covers the following areas:

Radiation Overview

- Radioisotopes / Half lives / Applications
- Four Primary Types of Ionizing Radiation

Personnel Protection and Monitoring

- ALARA – As Low as Reasonably Achievable
- Inverse Square Law
- Time,Distance, and Sheilding
- Non-Ionizing Radiation

Health Hazards Associated With Radiation

- DNA and Radiation
- Ionizing Radiation at the Cellular Level
- Radiosensitivity of cells, tissues and organs
- Damage of high doses of radiation
- Acute and Chronic Exposures
- Radiation – Units of Measurement
- Dose Limits & Typical Doses
- Natural and Manmade Sources

Radiation Usage

- Handbook for Radiation Safety and Nuclide Safety Data Sheets
- Authorized Users
- Radiation Workers
- Dosimetry Program – Dosimetry Do's & Don'ts
- Radioactive Material Recordkeeping
- Sealed Sources
- Security
- Surveys
- Emergency Response

Online Training Completion

Name: _____ Authorized User: _____Department: _____

To be completed by the EHS Office:

Quiz Score: _____ *Date of Completion:* _____

UNC CHARLOTTE

RADIATION WORKER – RADIATION AWARENESS ORIENTATION

Laboratory Specific X-Ray Equipment Usage Training

X-ray Machine Designation: _____

Building: _____ Room: _____

This program applies to all personnel (student, faculty and staff) wishing to operate X-ray machines.

I. Objective: To become acquainted and comfortable with the safe operation of the radiation producing equipment listed above through the following steps:

A. Familiarity with the safe operation of X-ray equipment.

B. Familiarity with the emergency shut-down procedures for X-ray machines.

II. Specific Training Steps:

A. Understanding of the x-ray diffraction, spectroscopic or radiographic techniques used by the machine designated above.

B. Overall operation of the x-ray machine (Reading Assignment - Operational Manual for the X-ray machine designated above)

C. X-ray warning lights

D. Emergency shut-off procedure

E. Use of whole body and ring badge dosimeter

F. Use of radiation shields and shutters, if applicable by unit

G. Use of radiation survey meters

H. Record keeping.

The Applicant has received the radiation awareness orientation as outlined above and agrees to comply with all UNC Charlotte procedures and regulatory requirements governing the use of this X-ray equipment.

Applicant: Print:_____ Signature:_____ Date:_____

Authorized User: _____ Print: _____ Signature:_____
Date:

RADIATION WORKER
PRIOR RADIATION DOSE DECLARATION

Please check applicable statement:

☐ 1) I have no prior occupational dose.

☐ 2) I may have received occupational dose during the course of prior employment..*

My lifetime cumulative exposure is: _____.

My current year annual exposure is: _____.

My current quarter exposure is: _____.

(If unknown, indicate unknown, do not leave blank)

*If you indicated No. 2, then you must complete a "Radiation Exposure History" form for each place of employment at which you received an occupational dose, indicating current cumulative exposure.

RADIATION WORKER
RADIATION EXPOSURE HISTORY

Name: _____ University ID Number: _____-_____-_____

Birth date: _____/_____/_____ Department: _____

PRIOR EMPLOYMENT:	ADDRESS	EMPLOYMENT DATES
1)		_____ Contact person for radiation history:
2)		_____ Contact person for radiation history:
3)		_____ Contact person for radiation history:
4)		_____ Contact person for radiation history:

I assert that this is a complete listing of my prior radiation employment and I request that the prior employer(s), listed above, release my radiation exposure history to the UNC Charlotte EHS Office.

Applicant: Print:_____ Signature:_____ Date:_____

RAS FORM 2

APPLICATION FOR DOSIMETRY SERVICES

1. Full name of applicant: _____
2. UNCC Affiliation (please check one): Faculty/Staff ___ UNCC Student ___ Volunteer/Visitor ___
3. University e-mail: _____
4. University ID number: _____
5. Date of birth: _____
6. Gender: _____
7. Department: _____
8. Authorized User: _____
9. Isotopes and/or Equipment used: _____
10. Location and description of use: _____

    _____
11. TLD Ring? (see section 2.5 B of the Handbook for Radiation Safety) yes ___ no ___ / Ring size (S/M/L) _____
12. List coverage by all dosimetry services at locations other than UNC Charlotte: _____

    _____

The applicant and Authorized User certify that all information contained herein is true and correct to the best of his or her knowledge.

Applicant: Print: _____ Signature: _____ Date: _____

Authorized User: Print: _____ Signature: _____ Date: _____

Radiation Safety Officer authorizes Applicant to utilize radioactive materials and certifies review of this RAS-2 Application:

Radiation Safety Officer: _____ Date: _____