

Badge#

Series#

5/95

RADIATION WORKERS REGISTRATION FORM

Please follow instruction on back. Incomplete forms will be returned.

LAST NAME,		FIRST	MI	EDUCATION	SEX	SOCIAL SECURITY	DOB
WORK PHONE	EMPLOYER MCG MCGHI VA		STATUS	START DATE	DEPARTMENT		
CAMPUS MAILING ADDRESS			PREVIOUS AUTHORIZED USER		RIGHT LEFT	SMALL MEDIUM LARGE	
YOUR JOB TITLE					RADIATION SOURCES		
ROUTINE FUNCTIONS OF YOUR POSITION					NUCLIDES OR MACHINE	HR/WK	mCi/exp
TRAINING							
EXPERIENCE							
<input type="checkbox"/> NEW <input type="checkbox"/> TRANSFER <input type="checkbox"/> REACTIVATE <input type="checkbox"/> DELETE					ADD: <input type="checkbox"/> RING BADGE <input type="checkbox"/> FETAL DOSIMETER		
<input type="checkbox"/> I HAVE HAD NO PREVIOUS OCCUPATION EXPOSURE			<input type="checkbox"/> I HAVE HAD PREVIOUS OCCUPATIONAL EXPOSURE: (COMPLETE EXPOSURE HISTORY ON THE BACK OF THIS FORM)				
AUTHORIZED USER (PRINT)			AUTHORIZED USER (SIGNATURE)			DATE	

SIGNATURE _____ DATE: _____

RADIATION SAFETY OFFICE USE ONLY		TRAINING:	ADEQUATE	REQUIRED	VIDEO			
DOSIMETRY:	NR	MWB	MRL	MRR	QWB	QRL	QRR	BIO
COMMENTS:								
SPARE BADGE# _____			SPARE RING BADGE# _____			DATE _____		
_____						_____		
RADIATION SAFETY OFFICE						DATE		

RADIATION WORKER REGISTRATION FORM PLEASE FOLLOW INSTRUCTIONS

Fill in all blanks as indicated on the front. Refer to instructions below for entries requiring more information.

- BADGE# - Number assigned by the Radiation Safety Office for identification purposes.
- SERIES# - A grouping for each Department, Section, or Lab that is using radiation sources (eg. T01,V01, etc).
- EDUCATION –List the highest degree you have achieved to date (BS, MS, PhD, MD, etc.)
- DOB – Date of Birth
- EMPLOYER – (MCG/MCGHI/VAMC) – Circle one.
- STATUS – (EMPLOYEE, STUDENT, VISITOR, etc.)
- START DATE – List the date you began work in this lab.
- DEPARTMENT – Name of Department.
- PREVIOUS AUTHORIZED USER – List only if you were previously registered as a radiation worker at MCG/VAMC.
- RIGHT/LEFT – Circle the hand with which you will most likely handle radiation sources.
- LARGE/MEDIUM/SMALL – Circle your ring size for radiation monitoring purposes.
- ROUTINE FUNCTIONS OF YOUR POSITION – Explain job duties as related to work done with radiation sources.
- RADIATION SOURCES – List all nuclides you will be handling including the number of millicuries you will handle per experiment and the frequency per week you will be handling these quantities. Also list all radiation-producing machines you will be using and the number of hours per week you will be using them.
- TRAINING – List all formal training or radiation safety course-work you have had. Note the title, date, durations, and location.
- EXPERIENCE – List all previous experience working with radiation devices and radionuclides.
- NEW/TRANSFER/REACTIVATE/DELETE – ADD: RING BADGE OR FETAL DOSIMETER – Check applicable box as to purpose for completion of form.
- AUTHORIZED USER – This is the person under whose license you will be working. If not applicable list your supervisor's name.

MAKE A COPY OF THIS FORM TO BE KEPT IN YOUR AUTHORIZED USER'S RADIATION FILES.
 MAIL THE ORIGINAL TO RADIATION SAFETY OFFICE.
 A COPY OF YOUR COMPLETED FORM WILL BE RETURNED TO BE FILED IN YOUR AUTHORIZED USER'S RADIATION FILES.

IF YOU HAVE BEEN PREVIOUSLY OCCUPATIONALLY EXPOSED TO RADIATION, COMPLETE THE FOLLOWING PORTION OF THIS FORM AND SIGN. IF YOU HAVE HAD NO PREVIOUS EXPOSURE PLEASE INDICATE.

NAME & ADDRESS OF EMPLOYER	DATES FROM - TO	EXTERNAL DOSE (REM)

I declare this information to be true to the best of my knowledge and authorize the MCG Radiation Safety Office to use copies of this information for purposes of acquiring exposure history records.

Signature: _____ Date: _____

**PREGNANT WORKER'S GUIDE
POSSIBLE HEALTH RISKS TO CHILDREN OF WOMEN WHO ARE
EXPOSED TO RADIATION DURING PREGNANCY**

During pregnancy, you should be aware of things in your surroundings or in your style of life that could affect your unborn child. For those of you who work in or visit areas designated as Restricted Areas (where access is controlled to protect individuals from being exposed to radiation and radioactive materials), it is desirable that you understand the biological risks of radiation to your unborn child.

Everyone is exposed daily to various kinds of radiation: heat, light, ultraviolet, microwave, ionizing, and so on. For the purposes of this guide, only ionizing radiation (such as x-rays, neutrons, and other high-speed atomic particles) is considered. Actually, everything is radioactive and all human activities involve exposure to radiation. People are exposed to different amounts of natural "background" ionizing radiation depending on where they live. Radon gas in homes is a problem of growing concern. Background radiation comes from three sources:

	Average Annual Dose
Terrestrial-radiation from soil and rocks	50 millirem
Cosmic - radiation from outer space	50 millirem
Radioactivity normally found within the human body	25 millirem
	125 millirem*
Dose range (geographic and other factors)	75 to 5,000 millirem

The first two of these sources expose the body from the outside, and the last one exposes it from the inside. The average person is thus exposed to a total dose of about 125 millirems per year from natural background radiation.

In addition to exposure from normal background radiation medical procedure may contribute to the

**Radiation doses are described in two different units. The rad is a measure of the amount of energy absorbed in a certain amount of material (100 ergs per gram) equal amounts of energy absorbed from different types of radiation may lead to different biological effects. The rem is a unit that reflects the biological damage done to the body. The millirad and millirem refer to 1/1000 of a rad and a rem, respectively.*

dose people receive.

The following table lists the average doses received by the bone marrow (the

blood-forming cells) from different medical applications.

X-ray Procedure	Average Bone Marrow Dose
Normal chest examination	10 millirem
Normal dental examination	10 millirem
Rib cage examination	140 millirem
Gall bladder examination	500 millirem
Barium enema examination	500 millirem
Pelvic examination	600 millirem

NRC POSITION

NRC regulations and guidance are based on the conservative assumption that any amount of radiation, no matter how small, can have a harmful effect on an adult, child, or unborn child. This assumption is said to be conservative because there are no data showing ill effects from small doses; the National Academy of Sciences recently expressed "uncertainty as to whether a dose of, say, 1 rad would have any effect at all". Although it is known that the unborn child is more sensitive to radiation than adults, particularly during certain stages of development, the NRC has not established a special dose limit for protection of the unborn child. Such a limit could result in job discrimination for women of child-bearing age, and perhaps in the invasion of privacy (if pregnancy tests were required) if a separate regulatory dose limit were specified for the unborn child.

Therefore, the NRC has taken the position that special protection of the unborn child should be voluntary and should be based on decisions made by workers and employers who are well informed about the risks involved.

For the NRC position to be effective, it is important that both the employee and the employer understand the risk to the unborn child from radiation received as a result of the occupational exposure of the mother. This document tries to explain the risk as clearly as possible and to compare it with other risks to the unborn child during pregnancy. It is hoped this will help pregnant employees balance the risk to the unborn child against the benefits of employment to decide if the risk is worth taking. This document also discusses methods of keeping the dose, and therefore the risk, to the unborn child as low as is reasonably achievable.

RADIATION DOSE LIMITS

The NRC's present limit on the radiation dose that can be received on the job is 1,250 millirems per quarter (3 months).* Working minors (those under 18) are limited to a dose equal to one-tenth that of adults, 125 millirems per quarter.

ADVICE FOR EMPLOYEE AND EMPLOYER

Although the risks to the unborn child are small under normal working conditions, it is still advisable to limit the radiation dose from occupational exposure to no more than 500 millirems for the total pregnancy. Employee and employer should work together to decide the best method for accomplishing this goal. Some methods that might be used include reducing the time spent in radiation area, wearing some shielding over the abdominal area, and keeping an extra distance from radiation sources when possible. The employer or health physicist will be able to estimate the probable dose to the unborn child during the normal nine-month pregnancy period and to inform the employee of the amount. If the predicted dose exceeds 500 millirems, the employee and employer should work out schedules or procedures to limit the dose to the 500 millirem recommended limit.

It is important that the employee inform the employer of her condition as soon as she realizes she is pregnant if the dose to the unborn child is to be minimized.

INTERNAL HAZARDS

This document has been directed primarily toward a discussion of radiation doses received from sources outside the body. Workers should also be aware that there is a risk of radioactive material entering the body in workplaces where unsealed radioactive material is used. Nuclear medicine clinics, laboratories, and certain manufacturers use radioactive material in bulk form, often as a liquid or a gas. A list of the commonly used materials and safety precautions for each is beyond the scope of this document, but certain general precautions might include the following:

1. Do not smoke, eat, drink, or apply cosmetics around radioactive material.
2. Do not pipette solutions by mouth.
3. Use disposable gloves while handling radioactive material when feasible.
4. Wash hands after working around radioactive material.
5. Wear lab coats or other protective clothing whenever there is a possibility of spills.

Remember that the employer is required to have demonstrated that it will have safe procedures and practices before the NRC issues it a license to use radioactive material. Workers are urged to follow established procedures and consult the employer's radiation safety officer or health physicist whenever problems or questions arise.

**MEDICAL COLLEGE OF GEORGIA
RADIATION SAFETY OFFICE**

I have received a copy of "Pregnant Worker's Guide" and understand that I can contact the Radiation Safety Office if I have questions regarding this material or if I desire more information.

Name (please print)

Signature

Date:

MEMORANDUM

TO: James S. Davis, Ph.D., CHP
Radiation Safety Office
CI-1002

FROM: _____

DATE: _____

SUBJECT: Notification of Pregnancy

This is to inform you that I am currently pregnant or am trying to get pregnant and would like to schedule a radiation safety consultation.

I am _____ weeks pregnant. My expected delivery date is _____.

My date of birth is: _____.

I am currently working in the following area: _____.

Supervisor or Authorized User: _____.

Campus Address/Extension: _____.

Signature: _____.

JSD:pm