



ENVIRONMENTAL HEALTH & SAFETY

The University of Alabama at Birmingham

RADIATION EXPOSURE AND PREGNANCY

Introduction

The management, exposure and handling of ionizing radiation in the state of Alabama is governed by the Alabama Department of Public Health (ADPH) Office of Radiation Control (ORC), who is, in turn, governed by the U.S. Nuclear Regulatory Commission (NRC). The governing rules and regulations enforce limits on radiation exposure for all radiation workers as well as members of the general public. These regulations form the basis upon which the declaration of pregnancy is developed. The regulations require that the licensee ensure that the dose equivalent to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 5 mSv (0.5 rem). If no declaration is submitted, then the dose limits for the worker remain unchanged (whole body dose limit of 5 rem/yr (50 mSv/yr)).

If you are pregnant and work with or near ionizing radiation/radioactive materials such as ^{99m}Tc , ^{18}F , ^{131}I , ^{90}Y , etc., or machines that produce ionizing radiation, such as x-ray or fluoroscopic machines, CT or DXA units, etc., this document may prove helpful in your endeavor to gather information pertaining to the health and safety of you and your baby.

Declaration of Pregnancy

The Declaration of Pregnancy is a voluntary declaration notifying a pregnant worker's supervisor and the Office of Radiation Safety of her pregnancy. If declaring a pregnancy, the declaration must be completed and submitted to the Office of Radiation Safety. The declaration is completed by a woman who works with or near radioactive materials or machines that produce ionizing radiation. Upon receipt and review of the declaration, the RSO or Assistant RSO will schedule a discussion with the worker and see to the assignment of a fetal monitor, if one has not already been assigned. A fetal monitor is a personal dosimeter to be worn during pregnancy. It must be worn underneath the lead apron, if the wearing of a lead apron is required or has been recommended. The Office of Radiation Safety will evaluate recent and potential radiation exposure and advise accordingly. Instructions will be provided on how to access personal dosimetry records, and additional information relating to radiation safety. If you have already been issued a dosimeter, then both must be worn.

You are not required to complete and submit a Declaration of Pregnancy. However, if you complete and submit one, you may withdraw it at any time.

DECLARED PREGNANT WORKER – Regulatory Definitions

Nuclear Regulatory Commission (NRC)

“Declared Pregnant Worker” is a woman who is an occupational radiation worker and has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception

<https://www.nrc.gov/about-nrc.html>

Alabama Department of Public Health Office of Radiation Control

"Declared pregnant woman" means a woman who has voluntarily informed the licensee, in writing, of her pregnancy and the estimated date of conception. The declaration remains in effect until the declared pregnant woman withdraws the declaration in writing or is no longer pregnant.

[Chapter Rules of the Alabama Department of Public Health Office of Radiation Control](#)

As a declared pregnant worker, the dose to the embryo/fetus must not exceed 0.5 rem (5 millisievert or 500 millirem) for the entire pregnancy, and the radiation exposure to the embryo/fetus should not exceed the ALARA action level of 50 mrem per month.

Additional Information Regarding Radiation Dose

[U.S. Environmental Protection Agency – Radiation Sources and Doses](#)

[Radiation Protection of Pregnant Women in Radiology](#)

[Radiation and Pregnancy: A Fact Sheet for Clinicians](#)

Contacts

The UAB Office of Radiation Safety	radsafe@uab.edu	(205) 934-2487
Radiation Safety Officer (Robert Heath, Jr.)	rheath@uab.edu	(205) 934-7471
Assistant Radiation Safety Officer (Domenica Pringle)	dpringle@uab.edu	(205) 934-7418
Personal Dosimetry/Radiation Badges, contact (Itella Smith-Sepenu)	irs@uab.edu	(205) 934-7489
Radiation Emergencies (Rotating Health Physicist On-Call – 24 hours)	Pager number 7746	(205) 934-3411
UAB Department of Environmental Health & Safety (EH&S)	www.uab.edu/ehs	(205) 934-2487
UAB Department of Radiology – Medical Physicist Team		(205) 934-0071



ENVIRONMENTAL HEALTH & SAFETY

The University of Alabama at Birmingham

Declared Pregnant Worker Questionnaire

In accordance with the Alabama Department of Public Health Office of Radiation Control regulations, as found in 420-3-26-.03, "Dose Equivalent to an Embryo/Fetus", I am voluntarily declaring that I am pregnant *(Please initial here)*

I authorize the Radiation Safety Officer (RSO) or Assistant RSO to discuss my radiation dose with me and my supervisor, and possible approaches to limit my dose to 0.5 rem after this declaration has been submitted. I also understand that meeting the lower dose limit may require some modification to my job responsibilities during my pregnancy. *(Please initial here)*

Have you been issued a fetal monitor/dosimeter? If not, contact Ms. Itella Smih-Sepenu at irs@uab.edu

Estimated date of conception: Estimated due date:

My email address: My BlazerID:

Best phone number: Department Sub-account

In the space below, indicate the radioisotopes that you have or may encounter. If none, enter "None"

Ex: P-32, Tc-99m, F-18, I-131, etc.

In the space below, indicate the radiation producing machines that you have or may encounter

X-Ray Fluoroscopy CT DXA Irradiator Neither

Other:

Please contact the Assistant RSO at (205) 934-7418 or dpringle@uab.edu to schedule your exposure review.

Print Name *(Pregnant worker)* Signature Date

COMMENTS

Please email a copy of the completed Declared Pregnant Worker Questionnaire to the Office of Radiation Safety at EHSDosimetry@uab.edu and copy irs@uab.edu