

## Appendix 11

# DECLARATION OF PREGNANCY EMBRYO/FETAL PROTECTION

OAC 3701:1-38-12 (H), "Occupational Dose Limits" requires that each licensee ensure that the dose to an embryo/fetus during the entire pregnancy, from occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv). To prevent discrimination and the invasion of privacy to women, a woman must declare her pregnancy to decrease her dose limit from 5 rem/year to 0.5 rem/gestation period for the protection of the unborn child. A declared pregnant woman means a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception. Therefore a woman who chooses not to declare her pregnancy will still have a dose limit of 5 rem/yr. In accordance with OAC 3701:1-38-10, instructions on radiation risks shall be provided to workers, including supervisors, before the workers are allowed to work in a restricted area. Therefore all radiation workers will receive basic information concerning fetal protection in the initial Radiation Safety Orientation.

Environmental Health and Safety would like women to be aware that a Pregnancy Orientation is available and is required to be given to woman who has chosen to declare her pregnancy. The orientations are provided on an individual, completely confidential basis, if desired. Licensees/supervisors, please provide your staff members the above information concerning pregnancy. To make an appointment for a Pregnancy Orientation, please call Alan Watts at 593-4176.

This information is primarily for women and supervisors, but men may also receive the Pregnancy Orientation.

Please post a copy of this portion of the Pregnant Notice near the "Notice to Employees" for all staff members to read.

## **RADIATION SAFETY ORIENTATION FOR PREGNANCY**

Licensee/Supervisor \_\_\_\_\_

Isotopes/radiation used \_\_\_\_\_

Date of orientation \_\_\_\_\_

Please print and sign your name below to acknowledge the receipt and understanding of the information provided in the orientation.

\_\_\_\_\_  
Name (Print or Type)

\_\_\_\_\_  
Signature

### **The following topics were presented at the Radiation Safety Orientation for Pregnancy:**

Comparison of Risks, External Hazard Analysis, Internal Hazard Analysis, Maximum Permissible Exposures and Pregnancy Guidelines, Personal Monitoring Systems, Laboratory Rules, Cell Damage, Sensitivity of Embryo/Fetus, Penetration Ability of Alpha/Beta/Gamma/X-Ray/Neutron Radiations, ALARA Principles

### **The following written information was received:**

Appendices A & B USNRC Reg. Guide 8.13 (Appendix)  
Rad Protection for the Pregnant Worker, NEXUS, a Landauer Publication  
Risk Factors-Chart of Loss of Life Expectancy B. Cohen HPS Journal  
Personal Radiation Dose Chart, American Nuclear Society 2000  
Understanding Radiation  
Effects of Radiation on the Embryo and Fetus

### **The following video tape was viewed (Implications of Prenatal Radiation Exposure)**

Pregnant Workers Guide to Possible Health Risks Associated with Prenatal Radiation Exposure  
(This information in the video correlates with the Appendix handout)

It has been recommended that during the entire gestation period, the maximum permissible dose equivalent to the fetus from occupational exposure of the expectant mother should not exceed 500 mrem.

**DECLARATION OF PREGNANCY**

**RADIATION SAFETY OFFICE  
ENVIRONMENTAL HEALTH & SAFETY  
HUDSON HEALTH CENTER  
OHIO UNIVERSITY  
TELEPHONE 593-1666 FAX 593-0808**

**OAC 3701:1-38-01 Definitions - Defines a Declared Pregnant Woman as Follows:**

A “Declared pregnant woman means a woman who has voluntarily informed the licensee or registrant, in writing, of her pregnancy and the estimated date of conception.”

**OSC 3701:1-38-12 Dose to an Embryo/Fetus States:**

- a) The licensee shall ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv).
- b) The licensee shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in paragraph (a) of this section.
- c) The dose to an embryo/fetus shall be taken as the sum of:
  - 1) The deep-dose equivalent to the declared pregnant woman and
  - 2) The dose equivalent to the embryo/fetus from radionuclides in the embryo/fetus and radionuclides in the declared pregnant woman.
- d) If the dose to the embryo/fetus is found to have exceeded 0.5 rem (5 mSv), or is within 0.05 rem (0.5 mSv) of this dose, by the time the woman declares the pregnancy to the licensee, the licensee shall be deemed to be in compliance with paragraph (a) of this section if the additional dose to the embryo/fetus does not exceed 0.05 rem (0.5 mSv) during the remainder of the pregnancy.

I \_\_\_\_\_, have read the above Ohio Administrative  
*(Print Last Name, First, MI)*

**Code definition of a “DECLARED PREGNANT WOMAN” and section OAC 3701:1-38-12 on the dose to an embryo/fetus and understand them and that by declaring my pregnancy in writing my maximum permissible total effective dose equivalent exposure will be reduced to 0.5 rem (5 mSv) during the entire gestation period from that of a non-pregnant woman. With this understanding I am voluntarily informing Ohio University that I meet the OAC definition of a “DECLARED PREGNANT WOMAN.” I estimate that the date of conception to be on or about \_\_\_\_\_.**

**I would like the Radiation Safety Orientation for Pregnancy.**

\_\_\_\_\_  
Signature of the Applicant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Radiation Safety Officer or designee

\_\_\_\_\_  
Date