I. Description

To describe to procedures for providing additional protection of the embryo/fetus for pregnant radiation workers at UNC Health Care.

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II. Rationale

NC Regulations for the Protection Against Radiation issued by the NC Radiation Protection Section has implemented the following standard for protection against radiation: Section .1610(a) - The licensee or registrant shall ensure that the dose to an embryo/fetus during the pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv).

III. Policy

A. General Guidelines and Requirements
   1. It is the responsibility of the Radiation Safety Officer (RSO) or his/her designee to provide a copy of this policy to all declared pregnant occupationally exposed employees and other interested individuals.

   2. Assuring an additional level of radiation protection for the conceptus of radiation employees requires close cooperation with the RSO. A radiation employee should contact the RSO as early as possible for associated radiation safety information. Early contact will maximize the benefits provided by the safety information.

   3. A preconception planning stage can also be included. The Department of Obstetrics and Gynecology, UNC School of Medicine, offers a Preconception Clinic to aid in planning. Information regarding a preconception planning stage may be obtained from the RSO.

   4. Conceptus dose safety conferences will be scheduled with each radiation employee who declares her actual, suspected or planned pregnancy. Such safety conferences are also available to any other employee upon request. The conferences will be with the RSO representative and the employee’s supervisor.
5. The employee will be provided a copy of this policy and the “Special Considerations for the Pregnant Radiation Employee” information pamphlet (see Appendix A). Safety aspects of the employee's work will be discussed and an opportunity for questions provided. Her radiation monitoring program, including any past dose records and the current occupational potential for radiation exposure will be reviewed.

B. Confidentiality Regarding Pregnancy

1. It is realized that individual radiation employees may choose to maintain their pregnancy status as confidential for a time. Any employee may still obtain radiation safety information at any time through the RSO without declaring her pregnancy status.

2. When a radiation employee does declare her pregnancy status to the RSO, the employee’s supervisor must also be informed. The involvement of supervisors is an essential part of the Hospital's safety management.

3. Every potentially-pregnant radiation employee is urged to consider her supervisor’s safety responsibilities and freely involve the supervisor in all work-related situations.

C. Pregnancy Declaration

1. When an employee wishes the Hospital to be involved in protecting her fetus under the 500 millirem dose guideline, she must make a declaration of her actual, suspected, or planned pregnancy to her supervisor and the RSO.

2. A safety conference will be scheduled with the employee, her supervisor and the RSO.

3. During the conference, the employee and her supervisor will be asked to sign a pregnancy declaration form (see Appendix B) confirming that the conceptus dose information booklet has been received, personnel monitoring has been established and that supervision is involved.

4. UNC Health Care has no responsibility for providing conceptus radiation dose precautions until a radiation employee declares her actual, suspected, or planned pregnancy status in writing.

5. Employees who have declared their pregnancy should promptly inform the RSO if they have a miscarriage or otherwise are no longer pregnant.

6. An employee may also withdraw her pregnancy declaration, in writing to the RSO, at any time during the pregnancy.

D. Procedures for Controlling Conceptus Dose

1. The radiation employee will be assigned a monthly radiation monitoring badge and placed on a monthly bioassay program when use of radioactive materials is involved.

2. The personnel radiation monitoring is provided by the UNC-CH Department of Environment, Health and Safety through the RSO.

3. The institutions responsibility to protect the conceptus under the 500 millirem dose guideline begins only when the employee declares her actual, suspected, or planned pregnancy to her supervisor and the RSO.

4. Control of the fetal dose will be carried out with full cooperation of the employee and without economic penalty or loss of job opportunity. Work assignment changes, consistent with institutional personnel policy, will be initiated if necessary.
5. When the occupational radiation dose of a radiation employee who has declared pregnancy or intent to become pregnant exceeds 50 millirem in a month since declaration:
   a. The employee may request:
      (1) Maternity leave (for those employees actually pregnant),
      (2) Other paid leave,
      (3) Leave without pay,
      (4) Reassignment within their work unit, or
      (5) Transfer.
   b. The supervisor should respond to requests within the personnel system.

6. In conjunction with the 500 millirem fetal dose limit, the As Low As Reasonably Achievable (ALARA) radiation protection philosophy will be applied to maintain any dose to as low as practicable levels.

7. All radiation employees have the individual responsibility of adhering to institutional radiation safety procedures.

E. Action Levels

1. Current radiation dose guidelines for declared pregnant or planned pregnancy employees (Level I: greater than 30 millirem in a month; Level II: greater than 40 millirem in a month); (Radiation Safety Manual Policy VII.1.) will direct the RSO in evaluating reported doses.

2. Personnel monitoring badge doses reported will normally be accepted as an uncorrected guide to any fetal dose.

3. If personnel monitoring results indicate the possibility of a fetal dose in excess of the 50 or 500 millirem limits, a special investigation will be conducted.

4. The investigation will take into full consideration the type and energy of radiation involved, protective shielding that might have mitigated fetal dose and shielding afforded by the mother’s body.

5. The investigation results will be discussed with the employee and a written report provided to the employee and supervisor.

IV. Original Policy Date and Revisions


V. Comments

   For comments or questions about the contents of this policy, contact the Radiation Safety Officer at 919-962-5507.

Appendix A – Special Considerations for the Pregnant Radiation Employee

Appendix B – Pregnancy Declaration Form