## 7.0 Personnel Exposure Monitoring

## 7.1 Occupational Exposure Limits

- 1. The annual limit for occupational workers is the more limiting of:
  - a. The total effective dose equivalent = 5,000 millirem (0.05 Sv); or
  - b. The sum of the deep dose equivalent and the committed dose equivalent to any individual organ or tissue (other than the lens of the eye) = 50,000 millirem (0.5 Sv).
- 2. The annual limits to the lens of the eye, to the skin, and to the extremities are:
  - a. Eye dose equivalent = 15,000 millirem (0.15 Sv)
  - b. A shallow dose equivalent = 50,000 millirem (0.5 Sv)

## 7.2 Non-Occupational Exposure Limits (Members of the Public)

Each user of radioactive material shall conduct operations so that:

- 1. The dose in any unrestricted area from external sources does not exceed 2 millirem (0.02 mSv) in an hour.
- 2. The total effective dose equivalent to individual members of the public from a licensed operation, exclusive of the dose contribution from a licensee's disposal of radioactive material into sanitary sewerage, does not exceed 100 millirem (1 mSv) in any year.

## 7.3 Declared Pregnant Workers Exposure Limits

The dose limit to an embryo/fetus during the entire pregnancy due to occupational exposure of a declared pregnant woman is 500 millirem (5 mSv). Care shall be taken so that no more than 50 millirem (0.5 mSv) be received during any one month during a declared pregnancy. Efforts shall be made to avoid substantial variation above the uniform monthly exposure rate to a declared pregnant woman (see Appendix B for additional information).

If the pregnant woman has not notified DRS of her estimated date of conception, the dose to the fetus shall not exceed 50 millirem (0.5 mSv) per month during the remainder of the pregnancy.

If, by the time the pregnant woman informs DRS of the estimated date of conception, the dose to the embryo/fetus has exceeded 450 millirem (4.5 mSv), the limit for the remainder of the pregnancy shall be 50 millirem (0.5 mSv).



Radiation Safety Manual