§ 835.205 Determination of compliance for non-uniform exposure of the skin.

(a) Non-uniform exposures of the skin from X-rays, beta radiation, and/or radioactive material on the skin are to be assessed as specified in this section.

(b) For purposes of demonstrating compliance with §835.202(a)(4), assessments shall be conducted as follows:

(1) Area of skin irradiated is 100 cm² or more. The non-uniform equivalent dose received during the year shall be averaged over the 100 cm² of the skin receiving the maximum dose, added to any uniform equivalent dose also received by the skin, and recorded as the equivalent dose to any extremity or skin for the year.

(2) Area of skin irradiated is 10 cm² or more, but is less than 100 cm². The non-uniform equivalent dose (H) to the irradiated area received during the year shall be added to any uniform equivalent dose also received by the skin and recorded as the equivalent dose to any extremity or skin for the year. H is the equivalent dose averaged over the 1 cm² of skin receiving the maximum absorbed dose, D, reduced by the fraction f, which is the irradiated area in cm² divided by 100 cm² (i.e., H = fD). In no case shall a value of f less than 0.1 be used.

(3) Area of skin irradiated is less than 10 cm². The non-uniform equivalent dose shall be averaged over the 1 cm² of skin receiving the maximum dose. This equivalent dose shall:

(i) Be recorded in the individual’s occupational exposure history as a special entry; and

(ii) Not be added to any other equivalent dose to any extremity or skin for the year.

§ 835.206 Limits for the embryo/fetus.

(a) The equivalent dose limit for the embryo/fetus from the period of conception to birth, as a result of occupational exposure of a declared pregnant worker, is 0.5 rem (0.005 Sv).

(b) Substantial variation above a uniform exposure rate that would satisfy the limits provided in §835.206(a) shall be avoided.

(c) If the equivalent dose to the embryo/fetus is determined to have already exceeded 0.5 rem (0.005 Sv) by the time a worker declares her pregnancy, the declared pregnant worker shall not be assigned to tasks where additional occupational exposure is likely during the remaining gestation period.

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