

**Department of Energy**

**§ 835.101**

multiplied by the appropriate weighting factor to obtain the effective dose equivalent contribution from that tissue. The weighting factors are as follows:

**WEIGHTING FACTORS FOR VARIOUS ORGANS AND TISSUES**

| Organs or tissues, T          | Weighting factor, w <sub>T</sub> |
|-------------------------------|----------------------------------|
| Gonads .....                  | 0.25                             |
| Breasts .....                 | 0.15                             |
| Red bone marrow .....         | 0.12                             |
| Lungs .....                   | 0.12                             |
| Thyroid .....                 | 0.03                             |
| Bone surfaces .....           | 0.03                             |
| Remainder <sup>1</sup> .....  | 0.30                             |
| Whole body <sup>2</sup> ..... | 1.00                             |

<sup>1</sup>“Remainder” means the five other organs or tissues, excluding the skin and lens of the eye, with the highest dose (e.g., liver, kidney, spleen, thymus, adrenal, pancreas, stomach, small intestine, and upper large intestine). The weighting factor for each remaining organ or tissue is 0.06.

<sup>2</sup>For the case of uniform external irradiation of the whole body, a weighting factor (w<sub>T</sub>) equal to 1 may be used in determination of the effective dose equivalent.

*Whole body* means, for the purposes of external exposure, head, trunk (including male gonads), arms above and including the elbow, or legs above and including the knee.

(c) Terms defined in the Atomic Energy Act and not defined in this part are used consistent with the meanings given in the Act.

[58 FR 65485, Dec. 14, 1993, as amended at 63 FR 59680, Nov. 4, 1998]

**§ 835.3 General rule.**

(a) No person or DOE personnel shall take or cause to be taken any action inconsistent with the requirements of:

- (1) This part; or
- (2) Any program, plan, schedule, or other process established by this part.

(b) With respect to a particular DOE activity, contractor management shall be responsible for compliance with the requirements of this part.

(c) Where there is no contractor for a DOE activity, DOE shall ensure implementation of and compliance with the requirements of this part.

(d) Nothing in this part shall be construed as limiting actions that may be necessary to protect health and safety.

(e) For those activities that are required by §§ 835.102, 835.901(e), 835.1202(a), and 835.1202(b), the time interval to conduct these activities may be ex-

tended by a period not to exceed 30 days to accommodate scheduling needs.

[58 FR 65485, Dec. 14, 1993, as amended at 63 FR 59682, Nov. 4, 1998]

**§ 835.4 Radiological units.**

Unless otherwise specified, the quantities used in the records required by this part shall be clearly indicated in special units of curie, rad, roentgen, or rem, including multiples and subdivisions of these units. The SI units, becquerel (Bq), gray (Gy), and sievert (Sv), are only provided parenthetically in this part for reference with scientific standards.

[58 FR 65485, Dec. 14, 1993, as amended at 63 FR 59682, Nov. 4, 1998]

**Subpart B—Management and Administrative Requirements**

**§ 835.101 Radiation protection programs.**

(a) A DOE activity shall be conducted in compliance with a documented radiation protection program (RPP) as approved by the DOE.

(b) The DOE may direct or make modifications to a RPP.

(c) The content of each RPP shall be commensurate with the nature of the activities performed and shall include formal plans and measures for applying the as low as reasonably achievable (ALARA) process to occupational exposure.

(d) The RPP shall specify the existing and/or anticipated operational tasks that are intended to be within the scope of the RPP. Except as provided in § 835.101(h), any task outside the scope of a RPP shall not be initiated until an update of the RPP is approved by DOE.

(e) The content of the RPP shall address, but shall not necessarily be limited to, each requirement in this part.

(f) The RPP shall include plans, schedules, and other measures for achieving compliance with regulations of this part. Unless otherwise specified in this part, compliance with amendments to this part shall be achieved no later than 180 days following approval of the revised RPP by DOE. Compliance with the requirements of § 835.402(d) for radiobioassay program