

Department of Energy

§ 835.604

(5) Continuous direct or electronic surveillance that is capable of preventing unauthorized entry;

(6) A control device that will automatically generate audible and visual alarm signals to alert personnel in the area before use or operation of the radiation source and in sufficient time to permit evacuation of the area or activation of a secondary control device that will prevent use or operation of the source.

(c) *Very high radiation areas.* In addition to the above requirements, additional measures shall be implemented to ensure individuals are not able to gain unauthorized or inadvertent access to very high radiation areas.

(d) No control(s) shall be established in a high or very high radiation area that would prevent rapid evacuation of personnel.

[58 FR 65485, Dec. 14, 1993, as amended at 63 FR 59684, Nov. 4, 1998]

Subpart G—Posting and Labeling

§ 835.601 General requirements.

(a) Except as otherwise provided in this subpart, postings and labels required by this subpart shall include the standard radiation warning trefoil in black or magenta imposed upon a yellow background.

(b) Signs required by this subpart shall be clearly and conspicuously posted and may include radiological protection instructions.

(c) The posting and labeling requirements in this subpart may be modified to reflect the special considerations of DOE activities conducted at private residences or businesses. Such modifications shall provide the same level of protection to individuals as the existing provisions in this subpart.

[63 FR 59684, Nov. 4, 1998]

§ 835.602 Controlled areas.

(a) Each access point to a controlled area (as defined at § 835.2) shall be posted whenever radiological areas or radioactive material areas exist in the area. Individuals who enter only controlled areas without entering radiological areas or radioactive material areas are not expected to receive a

total effective dose equivalent of more than 0.1 rem (0.001 sievert) in a year.

(b) Signs used for this purpose may be selected by the contractor to avoid conflict with local security requirements.

[58 FR 65485, Dec. 14, 1993, as amended at 63 FR 59684, Nov. 4, 1998]

§ 835.603 Radiological areas and radioactive material areas.

Each access point to radiological areas and radioactive material areas (as defined at § 835.2) shall be posted with conspicuous signs bearing the wording provided in this section.

(a) *Radiation area.* The words “Caution, Radiation Area” shall be posted at each radiation area.

(b) *High radiation area.* The words “Caution, High Radiation Area” or “Danger, High Radiation Area” shall be posted at each high radiation area.

(c) *Very high radiation area.* The words “Grave Danger, Very High Radiation Area” shall be posted at each very high radiation area.

(d) *Airborne radioactivity area.* The words “Caution, Airborne Radioactivity Area” or “Danger, Airborne Radioactivity Area” shall be posted at each airborne radioactivity area.

(e) *Contamination area.* The words “Caution, Contamination Area” shall be posted at each contamination area.

(f) *High contamination area.* The words “Caution, High Contamination Area” or “Danger, High Contamination Area” shall be posted at each high contamination area.

(g) *Radioactive material area.* The words “Caution, Radioactive Material(s)” shall be posted at each radioactive material area.

[63 FR 59684, Nov. 4, 1998]

§ 835.604 Exceptions to posting requirements.

(a) Areas may be excepted from the posting requirements of § 835.603 for periods of less than 8 continuous hours when placed under continuous observation and control of an individual knowledgeable of, and empowered to implement, required access and exposure control measures.

(b) Areas may be excepted from the radioactive material area posting requirements of § 835.603(g) when:

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(1) Posted in accordance with §§ 835.603(a) through (f); or

(2) Each item or container of radioactive material is labeled in accordance with this subpart such that individuals entering the area are made aware of the hazard; or

(3) The radioactive material of concern consists solely of structures or installed components which have been activated (i.e., such as by being exposed to neutron radiation or particles produced by an accelerator).

(c) Areas containing only packages received from radioactive material transportation labeled and in non-degraded condition need not be posted in accordance with § 835.603 until the packages are monitored in accordance with § 835.405.

[63 FR 59684, Nov. 4, 1998]

§ 835.605 Labeling items and containers.

Except as provided at § 835.606, each item or container of radioactive material shall bear a durable, clearly visible label bearing the standard radiation warning trefoil and the words "Caution, Radioactive Material" or "Danger, Radioactive Material." The label shall also provide sufficient information to permit individuals handling, using, or working in the vicinity of the items or containers to take precautions to avoid or control exposures.

[63 FR 59684, Nov. 4, 1998]

§ 835.606 Exceptions to labeling requirements.

(a) Items and containers may be accepted from the radioactive material labeling requirements of § 835.605 when:

(1) Used, handled, or stored in areas posted and controlled in accordance with this subpart and sufficient information is provided to permit individuals to take precautions to avoid or control exposures; or

(2) The quantity of radioactive material is less than one tenth of the values specified in appendix E of this part; or

(3) Packaged, labeled, and marked in accordance with the regulations of the Department of Transportation or DOE Orders governing radioactive material transportation; or

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(4) Inaccessible, or accessible only to individuals authorized to handle or use them, or to work in the vicinity; or

(5) Installed in manufacturing, process, or other equipment, such as reactor components, piping, and tanks; or

(6) The radioactive material consists solely of nuclear weapons or their components.

(b) Radioactive material labels applied to sealed radioactive sources may be excepted from the color specifications of § 835.601(a).

[63 FR 59684, Nov. 4, 1998]

Subpart H—Records

§ 835.701 General provisions.

(a) Records shall be maintained to document compliance with this part and with radiation protection programs required by § 835.101.

(b) Unless otherwise specified in this subpart, records shall be retained until final disposition is authorized by DOE.

§ 835.702 Individual monitoring records.

(a) Records shall be maintained to document doses received by all individuals for whom monitoring was required pursuant to § 835.402 and to document doses received during planned special exposures, unplanned doses exceeding the monitoring thresholds of § 835.402, and authorized emergency exposures.

(b) The results of individual external and internal dose monitoring that is performed, but not required by § 835.402, shall be recorded. Recording of non-uniform shallow dose equivalent to the skin is not required if the dose is less than 2 percent of the limit specified for the skin at § 835.202(a)(4).

(c) The records required by this section shall:

(1) Be sufficient to evaluate compliance with subpart C of this part;

(2) Be sufficient to provide dose information necessary to complete reports required by subpart I of this part;

(3) Include the following quantities for external dose received during the year:

(i) The effective dose equivalent from external sources of radiation (deep dose equivalent may be used as effective dose equivalent for external exposure);