§ 840.3 Determination of extraordinary nuclear occurrence.

If the DOE determines that both of the criteria set forth in §840.4 and §840.5 have been met, it will make the determination that there has been an extraordinary nuclear occurrence. If the DOE publishes a notice in the FEDERAL REGISTER in accordance with §840.2(a) and does not make a determination within 90 days thereafter that there has been an extraordinary nuclear occurrence, the alleged event will be deemed not to be an extraordinary nuclear occurrence. The time for the making of a determination may be extended by DOE by notice published in the FEDERAL REGISTER.

§ 840.4 Criterion I—Substantial discharge of radioactive material or substantial radiation levels offsite.

DOE will determine that there has been a substantial discharge or dispersal of radioactive material offsite, or that there have been substantial levels of radiation offsite, when as a result of an event comprised of one or more related happenings, radioactive material is released from its intended place of confinement or radiation levels occur offsite and either of the following findings are also made:

(a) DOE finds that one or more persons offsite were, could have been, or might be exposed to radiation or to radioactive material, resulting in a dose or in a projected dose in excess of one of the levels in the following table:

<table>
<thead>
<tr>
<th>Critical organ</th>
<th>Dose (rems)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thyroid</td>
<td>30</td>
</tr>
<tr>
<td>Whole Body</td>
<td>20</td>
</tr>
<tr>
<td>Bone Marrow</td>
<td>20</td>
</tr>
<tr>
<td>Skin</td>
<td>60</td>
</tr>
<tr>
<td>Other organs or tissues</td>
<td>30</td>
</tr>
</tbody>
</table>

Exposures from the following types of sources of radiation shall be included:

(1) Radiation from sources external to the body;

(2) Radioactive material that may be taken into the body from its occurrence in air or water; and

(3) Radioactive material that may be taken into the body from its occurrence in food or on terrestrial surfaces.

(b) DOE finds that—

(1) Surface contamination of at least a total of any 100 square meters of offsite property has occurred as the result of a release of radioactive material from a production or utilization facility or device and such contamination is characterized by levels of radiation in excess of one of the values listed in column 1 or column 2 of the following table, or

(2) Surface contamination of any offsite property has occurred as the result of a release of radioactive material in the course of transportation and such contamination is characterized by levels of radiation in excess of one of the values listed in column 2 of the following table:

<table>
<thead>
<tr>
<th>Type of emitter</th>
<th>Column 1—Offsite property</th>
<th>Column 2—Other offsite property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha emission from transuranic isotopes.</td>
<td>3.5 microcuries per square meter.</td>
<td>0.35 microcuries per square meter.</td>
</tr>
<tr>
<td>Alpha emission from isotopes other than transuranic isotopes.</td>
<td>35 microcuries per square meter.</td>
<td>3.5 microcuries per square meter.</td>
</tr>
<tr>
<td>Beta or gamma emission.</td>
<td>40 millirads/hour 1 cm (measured through not more than 7 milligrams per square centimeter of total absorber).</td>
<td>4 millirads/hour 1 cm (measured through not more than 7 milligrams per square centimeter of total absorber).</td>
</tr>
</tbody>
</table>

1 The maximum levels (above background), observed or projected, 8 or more hours after initial deposition.

§ 840.5 Criterion II—Substantial damages to persons offsite or property offsite.

(a) After DOE has determined that an event has satisfied Criterion I, DOE will determine that the event has resulted or will probably result in substantial damages to persons offsite or property offsite if any of the following findings are made: [Text continues with further details on the criteria for determining substantial damages.]
(1) DOE finds that such event has resulted in the death or hospitalization, within 30 days of the event, of five or more people located offsite showing objective clinical evidence of physical injury from exposure to the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material; or

(2) DOE finds that $2,500,000 or more of damage offsite has been or will probably be sustained by any one person, or $5 million or more of such damage in the aggregate has been or will probably be sustained, as the result of such event; or

(3) DOE finds that $5,000 or more of damage offsite has been or will probably be sustained by each of 50 or more persons, provided that $1 million or more of such damage in the aggregate has been or will probably be sustained, as the result of such event.

(b) As used in paragraphs (a)(2) and (3) of this section "damage" shall be that arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material, and shall be based upon estimates of one or more of the following:

(1) Total cost necessary to put affected property back into use.
(2) Loss of use of affected property.
(3) Value of affected property where not practical to restore to use.
(4) Financial loss resulting from protective actions appropriate to reduce or avoid exposure to radiation or to radioactive materials.

PART 850—CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM

Subpart A—General Provisions

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850.2 Applicability.
850.3 Definitions.
850.4 Enforcement.
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Subpart B—Administrative Requirements

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850.28 Respiratory protection.
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850.31 Release criteria.
850.32 Waste disposal.
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850.37 Training and counseling.
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850.40 Performance feedback.

APPENDIX A TO PART 850—CHRONIC BERYLLIUM DISEASE PREVENTION PROGRAM INFORMED CONSENT FORM.


SOURCE: 64 FR 68905, Dec. 8, 1999, unless otherwise noted.

Subpart A—General Provisions

§ 850.1 Scope.

This part provides for establishment of a chronic beryllium disease prevention program (CBDPP) that supplements and is deemed an integral part of the worker safety and health program under part 851 of this chapter.

[71 FR 6931, Feb. 9, 2006]

§ 850.2 Applicability.

(a) This part applies to:
(1) DOE offices responsible for operations or activities that involve present or past exposure, or the potential for exposure, to beryllium at DOE facilities;
(2) DOE contractors with operations or activities that involve present or past exposure, or the potential for exposure, to beryllium at DOE facilities; and
(3) Any current DOE employee, DOE contractor employee, or other worker