

GROUP 6 - CONTAMINATION/RADIATION CONTROL**Subgroup A Loss of Control of Radioactive Materials**

- | <u>#</u> | <u>SC</u> | <u>Criterion</u> |
|-----------------|------------------|--|
| (1) | 2 | Identification of radioactive material offsite due to DOE operations/activities that exceeds applicable DOE-approved authorized limits (see DOE O 5400.5). This applies to items/areas consisting of radioactive material. This does not apply to items with surface radioactive contamination. See Criterion 6B(1) below for criteria for identification of items with surface radioactive contamination. |
| (2) | 2 | Loss of radioactive material that exceeds 100 times the specified quantities [see specifications in 10 CFR Part 835, Appendix E] (excluding consumer products such as smoke detectors), or loss of accountability of such material for more than 24 hours. The 24-hour time period begins when the loss of accountability is discovered. |
| (3) | 3 | Loss of radioactive material which exceeds 1 times and no greater than 100 times the specified quantities [see specifications in 10 CFR Part 835, Appendix E] (excluding consumer products such as smoke detectors) or loss of accountability of such material for more than 24 hours. The 24-hour time period begins when the loss of accountability is discovered. |

Subgroup B Spread of Radioactive Contamination

- | <u>#</u> | <u>SC</u> | <u>Criterion</u> |
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| (1) | 2 | Identification of radioactive contamination offsite due to DOE operations/activities that exceeds applicable DOE-approved authorized limits. (See DOE 5400.5 or, if there are none, the values found in 10 CFR Part 835, Appendix D) |

[Note: All releases of property containing or potentially containing residual radioactivity are subject to requirements in DOE 5400.5. Compliance with 10 CFR Part 835, Appendix D values does not necessarily satisfy the requirements in DOE 5400.5.]

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| (2) | 2 | Identification of onsite radioactive contamination greater than 100 times the total contamination values (see 10 CFR 835 Appendix D) and that is found outside of the following locations: Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, Radiological Buffer Areas, and certain areas that are controlled [defined in 10 CFR 835.1102(c)]. For tritium, the reporting threshold is 100 times the removable contamination values. (See 10 CFR Part 835, Appendix D) |
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[Notes:

- (a) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits.
- (b) This also does not apply to legacy radioactive contamination, which will be reported under a separate criterion below.
- (c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established next to a Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-99.]

- (3) 3 Identification of onsite radioactive contamination greater than 10 times the total contamination values (see 10 CFR 835 Appendix D) and that is found outside of the following locations: Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, Radiological Buffer Areas, and certain areas that are controlled [defined in 10 CFR 835.1102(c)]. For tritium, the reporting threshold is 10 times the removable contamination values. (See 10 CFR Part 835, Appendix D.)

[Notes:

- (a) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits.
- (b) This also does not apply to legacy radioactive contamination, which will be reported under a separate criterion below.
- (c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established next to a Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-99.]

- (4) 4 Identification of onsite legacy radioactive contamination greater than 10 times the total contamination values (see 10 CFR 835 Appendix D) and that is found outside of the following locations: Contamination Areas, High Contamination Areas, Airborne Radioactivity Areas, Radiological Buffer Areas, and certain areas that are controlled [defined in 10 CFR 835.1102(c)]. For tritium, the reporting threshold is 10 times the removable contamination values. (See 10 CFR Part 835, Appendix D.)

[Notes:

- (a) Legacy radioactive contamination is radioactive contamination resulting from historical operations that are unrelated to current activities.
- (b) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits.
- (c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established next to a Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-99.

Subgroup C Radiation Exposure

- | <u>#</u> | <u>SC</u> | <u>Criterion</u> |
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| (1) | *1 | Determination of a dose that exceeds the specified limits. [See specifications in 10 CFR Part 835, Subpart C, Occupational Radiation Protection or DOE O 5400.5, Chapter II, Item 1 [i.e., 100 mrem Total Effective Dose Equivalent (TEDE) for offsite exposures to a member of the public]. |
| (2) | 2 | Any unmonitored exposure that exceeds the values for providing personnel dosimeters and bioassays. [See 10 CFR 835.402(a) or 10 CFR 835.402(c)] |
| (3) | 3 | Any single occupational exposure that exceeds an expected exposure or dosimetry result by: (1) 500 mrem Committed Effective Dose Equivalent (CEDE), or (2) the greater of 10 percent or 100-mrem effective dose equivalent due to external exposure. |

- (4) 3 Determination of an estimated annual dose that exceeds 10 mrem Total Effective Dose Equivalent (TEDE) for offsite exposures to a member of the public from air pathways only.

Subgroup D Personnel Contamination

SC Criterion

- (1) *2 Any occurrence requiring offsite medical assistance for contaminated personnel, including transporting a person to an offsite medical facility or bringing offsite medical personnel onsite to perform treatment or decontamination.
- (2) 2 Identification of personnel or clothing contamination offsite due to DOE operations that exceeds the values for total contamination. (See 10 CFR Part 835, Appendix D.) For tritium, use the values for removable contamination. (See 10 CFR Part 835, Appendix D.)
- (3) 4 Any onsite contamination of personnel or clothing (excluding site-provided protective clothing) that exceeds 10 times the values for total contamination (see 10 CFR Part 835, Appendix D). The contamination level must be based on direct measurement and not averaged over any area. This criterion does not apply to tritium contamination.