

## Nuclear Regulatory Commission

§ 63.1

### PRECLOSURE PERFORMANCE OBJECTIVES

- 63.111 Performance objectives for the geologic repository operations area through permanent closure.

### PRECLOSURE SAFETY ANALYSIS

- 63.112 Requirements for preclosure safety analysis of the geologic repository operations area.

### POSTCLOSURE PERFORMANCE OBJECTIVES

- 63.113 Performance objectives for the geologic repository after permanent closure.

### POSTCLOSURE PERFORMANCE ASSESSMENT

- 63.114 Requirements for performance assessment.  
63.115 Requirements for multiple barriers.

### LAND OWNERSHIP AND CONTROL

- 63.121 Requirements for ownership and control of interests in land.

### Subpart F—Performance Confirmation Program

- 63.131 General requirements.  
63.132 Confirmation of geotechnical and design parameters.  
63.133 Design testing.  
63.134 Monitoring and testing waste packages.

### Subpart G—Quality Assurance

- 63.141 Scope.  
63.142 Quality assurance criteria.  
63.143 Implementation.  
63.144 Quality assurance program change.

### Subpart H—Training and Certification of Personnel

- 63.151 General requirements.  
63.152 Training and certification program.  
63.153 Physical requirements.

### Subpart I—Emergency Planning Criteria

- 63.161 Emergency plan for the geologic repository operations area through permanent closure.

### Subpart J—Violations

- 63.171 Violations.  
63.172 Criminal penalties.

### Subpart K—Preclosure Public Health and Environmental Standards

- 63.201 Purpose and scope.  
63.202 Definitions for Subpart K.  
63.203 Implementation of Subpart K.  
63.204 Preclosure standard.

### Subpart L—Postclosure Public Health and Environmental Standards

- 63.301 Purpose and scope.  
63.302 Definitions for Subpart L.  
63.303 Implementation of Subpart L.  
63.304 Reasonable expectation.  
63.305 Required characteristics of the reference biosphere.

### POSTCLOSURE INDIVIDUAL PROTECTION STANDARD

- 63.311 Individual protection standard after permanent closure.  
63.312 Required characteristics of the reasonably maximally exposed individual.

### HUMAN INTRUSION STANDARD

- 63.321 Individual protection standard for human intrusion.  
63.322 Human intrusion scenario.

### GROUND-WATER PROTECTION STANDARDS

- 63.331 Separate standards for protection of ground water.  
63.332 Representative volume.

### ADDITIONAL PROVISIONS

- 63.342 Limits on performance assessments.  
63.343 Severability of individual protection and ground-water protection standards.

AUTHORITY: Secs. 51, 53, 62, 63, 65, 81, 161, 182, 183, 68 Stat. 929, 930, 932, 933, 935, 948, 953, 954, as amended (42 U.S.C. 2071, 2073, 2092, 2093, 2095, 2111, 2201, 2232, 2233); secs. 202, 206, 88 Stat. 1244, 1246 (42 U.S.C. 5842, 5846); secs. 10 and 14, Pub. L. 95-601, 92 Stat. 2951 (42 U.S.C. 2021a and 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 114, 121, Pub. L. 97-425, 96 Stat. 2213g, 2238, as amended (42 U.S.C. 10134, 10141), and Pub. L. 102-486, sec. 2902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594 (2005).

SOURCE: 66 FR 55792, Nov. 2, 2001, unless otherwise noted.

### Subpart A—General Provisions

#### § 63.1 Purpose and scope.

This part prescribes rules governing the licensing (including issuance of a construction authorization) of the U.S. Department of Energy to receive and possess source, special nuclear, and by-product material at a geologic repository operations area sited, constructed, or operated at Yucca Mountain, Nevada, in accordance with the Nuclear Waste Policy Act of 1982, as amended, and the Energy Policy Act of 1992. As

provided in 10 CFR 60.1, the regulations in part 60 of this chapter do not apply to any activity licensed under another part of this chapter. This part also gives notice to all persons who knowingly provide to any licensee, applicant, contractor, or subcontractor, components, equipment, materials, or other goods or services, that relate to a licensee's or applicant's activities subject to this part, that they may be individually subject to NRC enforcement action for violation of § 63.11.

[69 FR 2280, Jan. 14, 2004]

### § 63.2 Definitions.

As used in this part:

*Affected Indian Tribe* means any Indian Tribe within whose reservation boundaries a repository for high-level radioactive waste or spent fuel is proposed to be located; or whose Federally-defined possessory or usage rights to other lands outside of the reservation's boundaries arising out of Congressionally-ratified treaties or other Federal law may be substantially and adversely affected by the location of the facility if the Secretary of the Interior finds, on the petition of the appropriate governmental officials of the Tribe, that the effects are both substantial and adverse to the Tribe.

*Barrier* means any material, structure, or feature that, for a period to be determined by NRC, prevents or substantially reduces the rate of movement of water or radionuclides from the Yucca Mountain repository to the accessible environment, or prevents the release or substantially reduces the release rate of radionuclides from the waste. For example, a barrier may be a geologic feature, an engineered structure, a canister, a waste form with physical and chemical characteristics that significantly decrease the mobility of radionuclides, or a material placed over and around the waste, provided that the material substantially delays movement of water or radionuclides.

*Commencement of construction* means clearing of land, surface or subsurface excavation, or other substantial action that would adversely affect the environment of a site. It does not include changes desirable for the temporary use of the land for public recreational

uses, site characterization activities, other preconstruction monitoring and investigation necessary to establish background information related to the suitability of the Yucca Mountain site or to the protection of environmental values, or procurement or manufacture of components of the geologic repository operations area.

*Commission* means the Nuclear Regulatory Commission or its duly authorized representatives.

*Containment* means the confinement of radioactive waste within a designated boundary.

*Design bases* means that information that identifies the specific functions to be performed by a structure, system, or component of a facility and the specific values or ranges of values chosen for controlling parameters as reference bounds for design. These values may be constraints derived from generally accepted "state-of-the-art" practices for achieving functional goals or requirements derived from analysis (based on calculation or experiments) of the effects of a postulated event under which a structure, system, or component must meet its functional goals. The values for controlling parameters for external events include:

(1) Estimates of severe natural events to be used for deriving design bases that will be based on consideration of historical data on the associated parameters, physical data, or analysis of upper limits of the physical processes involved; and

(2) Estimates of severe external human-induced events to be used for deriving design bases, that will be based on analysis of human activity in the region, taking into account the site characteristics and the risks associated with the event.

*Director* means the Director of the Nuclear Regulatory Commission's Office of Nuclear Material Safety and Safeguards.

*Disposal* means the emplacement of radioactive waste in a geologic repository with the intent of leaving it there permanently.

*DOE* means the U.S. Department of Energy or its duly authorized representatives.

*Engineered barrier system* means the waste packages, including engineered