

Nuclear Regulatory Commission

Pt. 72

TABLE A-4—ACTIVITY-MASS RELATIONSHIPS FOR URANIUM

Uranium Enrichment ¹ wt % U-235 present	Specific Activity	
	TBq/g	Ci/g
0.45	1.8×10^{-8}	5.0×10^{-7}
0.72	2.6×10^{-8}	7.1×10^{-7}
1	2.8×10^{-8}	7.6×10^{-7}
1.5	3.7×10^{-8}	1.0×10^{-6}
5	1.0×10^{-7}	2.7×10^{-6}
10	1.8×10^{-7}	4.8×10^{-6}
20	3.7×10^{-7}	1.0×10^{-5}
35	7.4×10^{-7}	2.0×10^{-5}
50	9.3×10^{-7}	2.5×10^{-5}
90	2.2×10^{-6}	5.8×10^{-5}
93	2.6×10^{-6}	7.0×10^{-5}
95	3.4×10^{-6}	9.1×10^{-5}

¹The figures for uranium include representative values for the activity of the uranium-234 that is concentrated during the enrichment process.

[69 FR 3800, Jan. 26, 2004; 69 FR 58039, Sept. 29, 2004]

PART 72—LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND REACTOR-RELATED GREATER THAN CLASS C WASTE

Subpart A—General Provisions

- Sec.
- 72.1 Purpose.
- 72.2 Scope.
- 72.3 Definitions.
- 72.4 Communications.
- 72.5 Interpretations.
- 72.6 License required; types of licenses.
- 72.7 Specific exemptions.
- 72.8 Denial of licensing by Agreement States.
- 72.9 Information collection requirements: OMB approval.
- 72.10 Employee protection.
- 72.11 Completeness and accuracy of information.
- 72.12 Deliberate misconduct.
- 72.13 Applicability.

Subpart B—License Application, Form, and Contents

- 72.16 Filing of application for specific license.
- 72.18 Elimination of repetition.
- 72.20 Public inspection of application.
- 72.22 Contents of application: General and financial information.
- 72.24 Contents of application: Technical information.
- 72.26 Contents of application: Technical specifications.
- 72.28 Contents of application: Applicant's technical qualifications.

- 72.30 Financial assurance and recordkeeping for decommissioning.
- 72.32 Emergency Plan.
- 72.34 Environmental report.

Subpart C—Issuance and Conditions of License

- 72.40 Issuance of license.
- 72.42 Duration of license; renewal.
- 72.44 License conditions.
- 72.46 Public hearings.
- 72.48 Changes, tests, and experiments.
- 72.50 Transfer of license.
- 72.52 Creditor regulations.
- 72.54 Expiration and termination of licenses and decommissioning of sites and separate buildings or outdoor areas.
- 72.56 Application for amendment of license.
- 72.58 Issuance of amendment.
- 72.60 Modification, revocation, and suspension of license.
- 72.62 Backfitting.

Subpart D—Records, Reports, Inspections, and Enforcement

- 72.70 Safety analysis report updating.
- 72.72 Material balance, inventory, and records requirements for stored materials.
- 72.74 Reports of accidental criticality or loss of special nuclear material.
- 72.75 Reporting requirements for specific events and conditions.
- 72.76 Material status reports.
- 72.78 Nuclear material transfer reports.
- 72.80 Other records and reports.
- 72.82 Inspections and tests.
- 72.84 Violations.
- 72.86 Criminal penalties.

Subpart E—Siting Evaluation Factors

- 72.90 General considerations.
- 72.92 Design basis external natural events.
- 72.94 Design basis external man-induced events.
- 72.96 Siting limitations.
- 72.98 Identifying regions around an ISFSI or MRS site.
- 72.100 Defining potential effects of the ISFSI or MRS on the region.
- 72.102 Geological and seismological characteristics for applications before October 16, 2003 and applications for other than dry cask modes of storage.
- 72.103 Geological and seismological characteristics for applications for dry cask modes of storage on or after October 16, 2003.
- 72.104 Criteria for radioactive materials in effluents and direct radiation from an ISFSI or MRS.
- 72.106 Controlled area of an ISFSI or MRS.
- 72.108 Spent fuel, high-level radioactive waste, or reactor-related greater than Class C waste transportation.

Subpart F—General Design Criteria

- 72.120 General considerations.
- 72.122 Overall requirements.
- 72.124 Criteria for nuclear criticality safety.
- 72.126 Criteria for radiological protection.
- 72.128 Criteria for spent fuel, high-level radioactive waste, reactor-related greater than Class C waste, and other radioactive waste storage and handling.
- 72.130 Criteria for decommissioning.

Subpart G—Quality Assurance

- 72.140 Quality assurance requirements.
- 72.142 Quality assurance organization.
- 72.144 Quality assurance program.
- 72.146 Design control.
- 72.148 Procurement document control.
- 72.150 Instructions, procedures, and drawings.
- 72.152 Document control.
- 72.154 Control of purchased material, equipment, and services.
- 72.156 Identification and control of materials, parts, and components.
- 72.158 Control of special processes.
- 72.160 Licensee and certificate holder inspection.
- 72.162 Test control.
- 72.164 Control of measuring and test equipment.
- 72.166 Handling, storage, and shipping control.
- 72.168 Inspection, test, and operating status.
- 72.170 Nonconforming materials, parts, or components.
- 72.172 Corrective action.
- 72.174 Quality assurance records.
- 72.176 Audits.

Subpart H—Physical Protection

- 72.180 Physical protection plan.
- 72.182 Design for physical protection.
- 72.184 Safeguards contingency plan.
- 72.186 Change to physical security and safeguards contingency plans.

Subpart I—Training and Certification of Personnel

- 72.190 Operator requirements.
- 72.192 Operator training and certification program.
- 72.194 Physical requirements.

Subpart J—Provision of MRS Information to State Governments and Indian Tribes

- 72.200 Provision of MRS information.
- 72.202 Participation in license reviews.
- 72.204 Notice to States.
- 72.206 Representation.

Subpart K—General License for Storage of Spent Fuel at Power Reactor Sites

- 72.210 General license issued.
- 72.212 Conditions of general license issued under §72.210.
- 72.214 List of approved spent fuel storage casks.
- 72.216 [Reserved]
- 72.218 Termination of licenses.
- 72.220 Violations.

Subpart L—Approval of Spent Fuel Storage Casks

- 72.230 Procedures for spent fuel storage cask submittals.
- 72.232 Inspection and tests.
- 72.234 Conditions of approval.
- 72.236 Specific requirements for spent fuel storage cask approval and fabrication.
- 72.238 Issuance of an NRC Certificate of Compliance.
- 72.240 Conditions for spent fuel storage cask reapproval.
- 72.242 Recordkeeping and reports.
- 72.244 Application for amendment of a certificate of compliance.
- 72.246 Issuance of amendment to a certificate of compliance.
- 72.248 Safety analysis report updating.

AUTHORITY: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended; sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended; 202, 206, 88 Stat. 1242, as amended; 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95-601, sec. 10, 92 Stat. 2951, as amended by Pub. L. 102-486, sec. 7902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241; sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-236 (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2224 (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

SOURCE: 53 FR 31658, Aug. 19, 1988, unless otherwise noted.

Subpart A—General Provisions**§ 72.1 Purpose.**

The regulations in this part establish requirements, procedures, and criteria for the issuance of licenses to receive, transfer, and possess power reactor spent fuel, power reactor-related Greater than Class C (GTCC) waste, and other radioactive materials associated with spent fuel storage in an independent spent fuel storage installation (ISFSI) and the terms and conditions under which the Commission will issue these licenses. The regulations in this part also establish requirements, procedures, and criteria for the issuance of licenses to the Department of Energy (DOE) to receive, transfer, package, and possess power reactor spent fuel, high-level radioactive waste, power reactor-related GTCC waste, and other radioactive materials associated with the storage of these materials in a monitored retrievable storage installation (MRS). The term Monitored Retrievable Storage Installation or MRS, as defined in § 72.3, is derived from the Nuclear Waste Policy Act (NWPA) and includes any installation that meets this definition. The regulations in this part also establish requirements, procedures, and criteria for the issuance of Certificates of Compliance approving spent fuel storage cask designs.

[66 FR 51838, Oct. 11, 2001]

§ 72.2 Scope.

(a) Except as provided in § 72.6(b), licenses issued under this part are limited to the receipt, transfer, packaging, and possession of:

(1) Power reactor spent fuel to be stored in a complex that is designed and constructed specifically for storage of power reactor spent fuel aged for at least one year, other radioactive materials associated with spent fuel storage, and power reactor-related GTCC waste in a solid form in an independent spent fuel storage installation (ISFSI); or

(2) Power reactor spent fuel to be stored in a monitored retrievable storage installation (MRS) owned by DOE that is designed and constructed specifically for the storage of spent fuel aged for at least one year, high-level

radioactive waste that is in a solid form, other radioactive materials associated with storage of these materials, and power reactor-related GTCC waste that is in a solid form.

(b) The regulations in this part pertaining to an independent spent fuel storage installation (ISFSI) and a spent fuel storage cask apply to all persons in the United States, including persons in Agreement States. The regulations in this part pertaining to a monitored retrievable storage installation (MRS) apply only to DOE.

(c) The requirements of this regulation are applicable, as appropriate, to both wet and dry modes of storage of—

(1) Spent fuel and solid reactor-related GTCC waste in an independent spent fuel storage installation (ISFSI); and

(2) Spent fuel, solid high-level radioactive waste, and solid reactor-related GTCC waste in a monitored retrievable storage installation (MRS).

(d) Licenses covering the storage of spent fuel in an existing spent fuel storage installation shall be issued in accordance with the requirements of this part as stated in § 72.40, as applicable.

(e) This part also gives notice to all persons who knowingly provide to any licensee, certificate holder, applicant for a license or certificate, contractor, or subcontractor, components, equipment, materials, or other goods or services, that relate to a licensee's, certificate holder's, or applicant's activities subject to this part, that they may be individually subject to NRC enforcement action for violation of § 72.12.

(f) Certificates of Compliance approving spent fuel storage cask designs shall be issued in accordance with the requirements of subpart L of this part.

[53 FR 31658, Aug. 19, 1988, as amended at 56 FR 40692, Aug. 15, 1991; 63 FR 1900, Jan. 13, 1998; 64 FR 33183, June 22, 1999; 64 FR 56121, Oct. 15, 1999; 66 FR 51838, Oct. 11, 2001]

§ 72.3 Definitions.

As used in this part:

Act means the Atomic Energy Act of 1954 (68 Stat. 919) including any amendments thereto.

Affected Indian tribe means any Indian tribe—