



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 1, 1996

REGULATORY GUIDE LIST

This complete list of the Regulatory Guide Series is being distributed to advise of the wide range of regulatory guides that are available and to list all published versions of each guide.

The Regulatory Guide Series has been developed to describe and make available to the public such information as methods acceptable to the NRC staff for implementing specific parts of the Commission's regulations, techniques used by the staff in evaluating specific problems or postulated accidents, and data needed by the staff in its review of applications for permits or licenses. The guides are issued in the following ten broad divisions:

- | | |
|-----------------------------------|-----------------------------------|
| 1. Power Reactors | 6. Products |
| 2. Research and Test Reactors | 7. Transportation |
| 3. Fuels and Materials Facilities | 8. Occupational Health |
| 4. Environmental and Siting | 9. Antitrust and Financial Review |
| 5. Materials and Plant Protection | 10. General |

Draft regulatory guides are issued for public comment in the early stages of the development of a regulatory position. They have not received complete staff review and do not present an official NRC staff position.

Regulatory guides may be withdrawn when they are superseded by the Commission's regulations, when equivalent recommendations have been incorporated in applicable approved codes and standards, or when changes in methods and techniques or in the need for specific guidance have made them obsolete. The withdrawal of a guide does not alter any prior or existing licensing commitments based on its use.

Single copies of regulatory guides, both active and draft, may be obtained free of charge by writing the Office of Administration, Attn: Distribution and Services Section, USNRC, Washington, DC 20555-0001, or by fax at (301) 415-2260. Active guides may also be purchased from the National Technical Information Service on a standing order basis. Details on this service may be obtained by writing NTIS, 5285 Port Royal Road, Springfield, VA 22161.

Requests for placement on an automatic distribution list for single copies of future draft guides in specific divisions should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Distribution and Mail Services Section. Requests for draft guides will be filled as long as supplies last.

If you have a question on specific guides in this list, please contact Ann Beranek, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 415-5890.

260010

9611260298 961101
PDR REGGD
GENERAL PDR

IEP-11 Guides &
Manual

DF03
0/1

U.S. NUCLEAR REGULATORY COMMISSION REGULATORY GUIDE SERIES

DIVISION 1 — POWER REACTORS

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
1.1	Net Positive Suction Head for Emergency Core Cooling and Containment Heat Removal System Pumps (Safety Guide 1)	—	11/70
1.2	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.3	Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss of Coolant Accident for Boiling Water Reactors	— 1 2	11/70 06/73 06/74
1.4	Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss of Coolant Accident for Pressurized Water Reactors	— 1 2	11/70 06/73 06/74
1.5	Assumptions Used for Evaluating the Potential Radiological Consequences of a Steam Line Break Accident for Boiling Water Reactors (Safety Guide 5)	—	03/71
1.6	Independence Between Redundant Standby (Onsite) Power Sources and Between Their Distribution Systems (Safety Guide 6)	—	03/71
1.7	Control of Combustible Gas Concentrations in Containment Following a Loss-of-Coolant Accident	— 1 2	03/71 09/76 11/78
1.8	Qualification and Training of Personnel for Nuclear Power Plants (Draft RS 807-5, Proposed Revision 2, published 2/79; Draft RS 807-5, Second Proposed Revision 2, published 9/80; Draft OL 403-5, Third Proposed Revision 2, published 1/85; Draft DG-1012, Proposed Revision 3, published 9/96)	— 1 1-R 2	03/71 09/75 05/77 04/87
1.9	Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants (Draft RS 802-5, Proposed Revision 3, published 11/88) (Draft DG-1021, Second Proposed Revision 3, published 4/92)	— 1 2 3	03/71 11/78 12/79 07/93
1.10	(Withdrawn—See 46 FR 37579, 7/21/81)	—	—
1.11	Instrument Lines Penetrating Primary Reactor Containment (Safety Guide 11) Supplement to Safety Guide 11, Backfitting Considerations	—	03/71 02/72
1.12	Instrumentation for Earthquakes (Draft MS 140-5, Proposed Revision 2, published 7/81) (DG-1016, the Second Proposed Revision 2, published 11/92)	— 1	03/71 04/74
1.13	Spent Fuel Storage Facility Design Basis (for Comment) (Draft CE 913-5, Proposed Revision 2, published 12/81)	— 1	03/71 12/75
1.14	Reactor Coolant Pump Flywheel Integrity (for Comment)	— 1	10/71 08/75

Guide Number	Title	Rev.	Published Month/Year
1.15	(Withdrawn—See 46 FR 37579, 7/21/81)	—	—
1.16	Reporting of Operating Information—Appendix A Technical Specifications (for Comment)	— 1 2 3 4	10/71 10/73 09/74 01/75 08/75
1.17	(Withdrawn—See 56 FR 30777, 7/5/91)	—	—
1.18	(Withdrawn—See 46 FR 37579, 7/21/81)	—	—
1.19	(Withdrawn—See 46 FR 37579, 7/21/81)	—	—
1.20	Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing	— 1 2	12/71 06/75 05/76
1.21	Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants	— 1	12/71 06/74
1.22	Periodic Testing of Protection System Actuation Functions (Safety Guide 22)	—	02/72
1.23	Onsite Meteorological Programs (Safety Guide 23) (Draft SS 926-4, Proposed Revision 1, published 9/80) (Draft ES 926-4, Second Proposed Revision 1, published 4/86)	—	02/72
1.24	Assumptions Used for Evaluating the Potential Radiological Consequences of a Pressurized Water Reactor Radioactive Gas Storage Tank Failure (Safety Guide 24)	—	03/72
1.25	Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors (Safety Guide 25)	—	03/72
1.26	Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants (for Comment)	— 1 2 3	03/72 09/74 06/75 02/76
1.27	Ultimate Heat Sink for Nuclear Power Plants (for Comment)	— 1 2	03/72 03/74 01/76
1.28	Quality Assurance Program Requirements (Design and Construction) (Draft RS 002-5, Proposed Revision 3, published 3/81) (Draft DG-1010, Proposed Revision 4, published 11/92)	— 1 2 3	06/72 03/78 02/79 08/85
1.29	Seismic Design Classification	— 1 2 3	06/72 08/73 02/76 09/78
1.30	Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment (Safety Guide 30)	—	08/72

Guide Number	Title	Rev.	Published Month/Year
1.31	Control of Ferrite Content in Stainless Steel Weld Metal	— 1 2 3	08/72 06/73 05/77 04/78
1.32	Criteria for Safety-Related Electric Power Systems for Nuclear Power Plants	— 1 2	08/72 03/76 02/77
1.33	Quality Assurance Program Requirements (Operation) (Draft RS 902-4, Proposed Revision 3, published 8/79) (Draft RS 902-4, Second Proposed Revision 3, published 11/80)	— 1 2	11/72 02/77 02/78
1.34	Control of Electroslag Weld Properties	—	12/72
1.35	Inservice Inspection of Ungrouted Tendons in Prestressed Concrete Containments (Draft SC 810-4, Proposed Revision 3, published 4/79)	— 1 2 3	02/73 06/74 01/76 07/90
1.35.1	Determining Prestressing Forces for Inspection of Prestressed Concrete Containments (Draft SC 807-4 published 4/79)	—	07/90
1.36	Nonmetallic Thermal Insulation for Austenitic Stainless Steel	—	02/73
1.37	Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants	—	03/73
1.38	Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants	— 1 2	03/73 10/76 05/77
1.39	Housekeeping Requirements for Water-Cooled Nuclear Power Plants	— 1 2	03/73 10/76 09/77
1.40	Qualification Tests of Continuous-Duty Motors Installed Inside the Containment of Water-Cooled Nuclear Power Plants	—	03/73
1.41	Preoperational Testing of Redundant On-Site Electric Power Systems To Verify Proper Load Group Assignments	—	03/73
1.42	(Withdrawn—See 41 FR 11891, 3/22/76)	—	—
1.43	Control of Stainless Steel Weld Cladding of Low-Alloy Steel Components	—	05/73
1.44	Control of the Use of Sensitized Stainless Steel	—	05/73
1.45	Reactor Coolant Pressure Boundary Leakage Detection Systems	—	05/73
1.46	(Withdrawn—See 50 FR 9732, 3/11/85)	—	—
1.47	Bypassed and Inoperable Status Indication for Nuclear Power Plant Safety Systems	—	05/73
1.48	(Withdrawn—See 50 FR 9732, 3/11/85)	—	—

Guide Number	Title	Rev.	Published Month/Year
1.49	Power Levels of Nuclear Power Plants	— 1	05/73 12/73
1.50	Control of Preheat Temperature for Welding of Low-Alloy Steel	—	05/73
1.51	(Withdrawn—See 40 FR 30510, 7/21/75)	—	—
1.52	Design, Testing, and Maintenance Criteria for Postaccident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants	— 1 2	06/73 07/76 03/78
1.53	Application of the Single-Failure Criterion to Nuclear Power Plant Protection Systems	—	06/73
1.54	Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants	—	06/73
1.55	(Withdrawn—See 46 FR 37579, 7/21/81)	—	—
1.56	Maintenance of Water Purity in Boiling Water Reactors (for Comment)	— 1	06/73 07/78
1.57	Design Limits and Loading Combinations for Metal Primary Reactor Containment System Components	—	06/73
1.58	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.59	Design Basis Floods for Nuclear Power Plants (Errata published 7/30/80)	— 1 2	08/73 04/76 08/77
1.60	Design Response Spectra for Seismic Design of Nuclear Power Plants	— 1	10/73 12/73
1.61	Damping Values for Seismic Design of Nuclear Power Plants	—	10/73
1.62	Manual Initiation of Protective Actions	—	10/73
1.63	Electric Penetration Assemblies in Containment Structures for Nuclear Power Plants (Draft EE 405-4, Proposed Revision 3, published 6/86)	— 1 2 3	10/73 05/77 07/78 02/87
1.64	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.65	Materials and Inspections for Reactor Vessel Closure Studs	—	10/73
1.66	(Withdrawn—See 42 FR 54478, 10/6/77)	—	—
1.67	(Withdrawn—See 48 FR 19101, 4/27/83)	—	—
1.68	Initial Test Programs for Water-Cooled Nuclear Power Plants	— 1 2	11/73 01/77 08/78
1.68.1	Preoperational and Initial Startup Testing of Feedwater and Condensate Systems for Boiling Water Reactor Power Plants	— 1	12/75 01/77

Guide Number	Title	Rev.	Published Month/Year
1.68.2	Initial Startup Test Program To Demonstrate Remote Shutdown Capability for Water-Cooled Nuclear Power Plants	— 1	01/77 07/78
1.68.3	Preoperational Testing of Instrument and Control Air Systems (Draft RS 709-4, a proposed revision to Regulatory Guide 1.80, published 10/80)	—	04/82
1.69	Concrete Radiation Shields for Nuclear Power Plants	—	12/73
1.70	Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)	— 1 2 3	02/72 10/72 09/75 11/78
1.71	Welder Qualification for Areas of Limited Accessibility	—	12/73
1.72	Spray Pond Piping Made from Fiberglass-Reinforced Thermosetting Resin	— 1 2	12/73 01/78 11/78
1.73	Qualification Tests of Electric Valve Operators Installed Inside the Containment of Nuclear Power Plants	—	01/74
1.74	(Withdrawn—See 54 FR 38919, 9/21/89)	—	—
1.75	Physical Independence of Electric Systems	— 1 2	02/74 01/75 09/78
1.76	Design Basis Tornado for Nuclear Power Plants	—	04/74
1.77	Assumptions Used for Evaluating a Control Rod Ejection Accident for Pressurized Water Reactors	—	05/74
1.78	Assumptions for Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release	—	06/74
1.79	Preoperational Testing of Emergency Core Cooling Systems for Pressurized Water Reactors	— 1	06/74 09/75
1.80	(Withdrawn—See 47 FR 19258, 5/4/82) Reissued as Regulatory Guide 1.68.3, a renumbered revision to this guide with an expanded scope that addresses control air systems.	—	—
1.81	Shared Emergency and Shutdown Electric Systems for Multi-Unit Nuclear Power Plants	— 1	06/74 01/75
1.82	Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident (Draft MS 203-4, Proposed Revision 1, published 5/83) (Draft DG-1038, Proposed Revision 2, published 7/95)	— 1 2	06/74 11/85 05/96
1.83	Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes	— 1	06/74 07/75
1.84	Design and Fabrication Code Case Acceptability—ASME Section III, Division 1 Because this guide is frequently revised, only the current revision and date are listed in the appropriate columns. Previous revisions and their publication dates follow: 0, 6/74; 1, 4/75; 2, 6/75; 3, 9/75; 4, 11/75; 5, 2/76; 6, 5/76; 7, 8/76; 8, 11/76; 9, 3/77; 10, 8/77; 11, 11/77; 12, 3/78; 13, 7/78; 14, 11/78; 15, 5/79; 16, 5/80; 17, 12/80; 18, 8/81; 19, 4/82; 20, 11/82; 21, 9/83; 22, 7/84; 23, 9/85; 24, 6/86; 25, 5/88; 26, 7/89; 27, 11/90; 28, 4/92; 29, 7/93.	30	10/94

Guide Number	Title	Rev.	Published Month/Year
1.85	Materials Code Case Acceptability—ASME Section III, Division 1 Because this guide is frequently revised, only the current revision and date are listed in the appropriate columns. Previous revisions and their publication dates follow: 0, 6/74; 1, 4/75; 2, 6/75; 3, 9/75; 4, 11/75; 5, 2/76; 6, 5/76; 7, 8/76; 8, 11/76; 9, 3/77; 10, 8/77; 11, 11/77; 12, 3/78; 13, 7/78; 14, 11/78; 15, 5/79; 16, 5/80; 17, 12/80; 18, 8/81; 19, 4/82; 20, 11/82; 21, 9/83; 22, 7/84; 23, 9/85; 24, 6/86; 25, 5/88; 26, 7/89; 27, 11/90; 28, 4/92; 29, 7/93.	30	10/94
1.86	Termination of Operating Licenses for Nuclear Reactors	--	06/74
1.87	Guidance for Construction of Class 1 Components in Elevated-Temperature Reactors (Supplement to ASME Section III Code Cases 1592, 1593, 1594, 1595, and 1596)	— 1	06/74 06/75
1.88	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.89	Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants (Draft EE 042-2, Proposed Revision 1, published 2/82)	-- 1	11/74 06/84
1.90	Inservice Inspection of Prestressed Concrete Containment Structures with Grouted Tendons	— 1	11/74 08/77
1.91	Evaluations of Explosions Postulated To Occur on Transportation Routes Near Nuclear Power Plants	— 1	01/75 02/78
1.92	Combining Modal Responses and Spatial Components in Seismic Response Analysis	— 1	12/74 02/76
1.93	Availability of Electric Power Sources	—	12/74
1.94	Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants (Draft RS 908-5, Proposed Revision 2, published 9/79)	— 1	04/75 04/76
1.95	Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release	— 1	02/75 01/77
1.96	Design of Main Steam Isolation Valve Leakage Control Systems for Boiling Water Reactor Nuclear Power Plants	— 1	05/75 06/76
1.97	Instrumentation for Light-Water-Cooled Nuclear Power Plants To Assess Plant and Environs Conditions During and Following an Accident (Errata published 7/81) (Draft RS 917-4, Proposed Revision 2, published 12/79)	— 1 2 3	12/75 08/77 12/80 05/83
1.98	Assumptions Used for Evaluating the Potential Radiological Consequences of a Radioactive Offgas System Failure in a Boiling Water Reactor (for Comment)	—	03/76
1.99	Radiation Embrittlement of Reactor Vessel Materials (Draft ME 305-4, Proposed Revision 2, published 2/86)	— 1 2	07/75 04/77 05/88
1.100	Seismic Qualification of Electric and Mechanical Equipment for Nuclear Power Plants (Draft EE 108-5, Proposed Revision 2, published 8/87)	— 1 2	03/76 08/77 06/88
1.101	Emergency Planning and Preparedness for Nuclear Power Reactors (Revision 1 to this guide entitled "Emergency Planning for Nuclear Power Plants" was withdrawn—see 45 FR 69610, 10/21/80.) (Draft DG-1022, Proposed Revision 3, published 2/92)	— 1 2 3	11/75 03/77 10/81 08/92

Guide Number	Title	Rev.	Published Month/Year
1.102	Flood Protection for Nuclear Power Plants	— 1	10/75 09/76
1.103	(Withdrawn—See 46 FR 37579, 7/21/81)	—	—
1.104	(Withdrawn—See 44 FR 49321, 8/22/79) See NUREG-0554, "Single-Failure-Proof Cranes for Nuclear Power Plants."	—	—
1.105	Instrument Setpoints for Safety-Related Systems (Draft IC 010-5, Proposed Revision 2, published 12/81) (Draft DG-1045, Proposed Revision 3, published 10/96)	— 1 2	11/75 11/76 02/86
1.106	Thermal Overload Protection for Electric Motors on Motor-Operated Valves	— 1	11/75 03/77
1.107	Qualifications for Cement Grouting for Prestressing Tendons in Containment Structures	— 1	11/75 02/77
1.108	(Withdrawn—See 58 FR 41813, 8/5/93) (Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants)	—	—
1.109	Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I	— 1	03/76 10/77
1.110	Cost-Benefit Analysis for Radwaste Systems for Light-Water-Cooled Nuclear Power Reactors (for Comment)	—	03/76
1.111	Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors	— 1	03/76 07/77
1.112	Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Power Reactors	— O-R	04/76 05/77
1.113	Estimating Aquatic Dispersion of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I	— 1	05/76 04/77
1.114	Guidance to Operators at the Controls and to Senior Operators in the Control Room of a Nuclear Power Unit (Draft HF 601-4, Proposed Revision 2, published 12/86)	— 1 2	02/76 11/76 05/89
1.115	Protection Against Low-Trajectory Turbine Missiles	— 1	03/76 07/77
1.116	Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems	— O-R	06/76 05/77
1.117	Tornado Design Classification	— 1	06/76 04/78
1.118	Periodic Testing of Electric Power and Protection Systems (DG-1028, Proposed Revision 3, published 9/94)	— 1 2 3	06/76 11/77 06/78 04/95
1.119	(Withdrawn—See 42 FR 33387, 6/30/77)	—	—
1.120	Fire Protection Guidelines for Nuclear Power Plants (for Comment)	— 1	06/76 11/77

Guide Number	Title	Rev.	Published Month/Year
1.121	Bases for Plugging Degraded PWR Steam Generator Tubes (for Comment)	—	08/76
1.122	Development of Floor Design Response Spectra for Seismic Design of Floor-Supported Equipment or Components	— 1	09/76 02/78
1.123	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.124	Service Limits and Loading Combinations for Class 1 Linear-Type Component Supports	— 1	11/76 01/78
1.125	Physical Models for Design and Operation of Hydraulic Structures and Systems for Nuclear Power Plants	— 1	03/77 10/78
1.126	An Acceptable Model and Related Statistical Methods for the Analysis of Fuel Densification	— 1	03/77 03/78
1.127	Inspection of Water-Control Structures Associated with Nuclear Power Plants	— 1	04/77 03/78
1.128	Installation Design and Installation of Large Lead Storage Batteries for Nuclear Power Plants	— 1	04/77 10/78
1.129	Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants	— 1	04/77 02/78
1.130	Service Limits and Loading Combinations for Class 1 Plate-and-Shell-Type Component Supports	— 1	07/77 10/78
1.131	Qualification Tests of Electric Cables, Field Splices, and Connections for Light-Water-Cooled Nuclear Power Plants (for Comment) (Draft RS 050-2, Proposed Revision 1, published 8/79)	—	08/77
1.132	Site Investigations for Foundations of Nuclear Power Plants	— 1	09/77 03/79
1.133	Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors	— 1	09/77 05/81
1.134	Medical Evaluation of Licensed Personnel for Nuclear Power Plants (Draft OL 401-5, Proposed Revision 2, published 11/84)	— 1 2	09/77 03/79 04/87
1.135	Normal Water Level and Discharge at Nuclear Power Plants (for Comment)	—	09/77
1.136	Materials, Construction, and Testing of Concrete Containments (Articles CC-1000, -2000, and -4000 through -6000 of the "Code for Concrete Reactor Vessels and Containments") (Draft SC 814-5, Proposed Revision 2, published 11/79)	— 1 2	11/77 10/78 06/81
1.137	Fuel-Oil Systems for Standby Diesel Generators	— 1	01/78 10/79
1.138	Laboratory Investigations of Soils for Engineering Analysis and Design of Nuclear Power Plants (for Comment)	—	04/78
1.139	Guidance for Residual Heat Removal (for Comment)	—	05/78
1.140	Design, Testing, and Maintenance Criteria for Normal Ventilation Exhaust System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants	— 1	03/78 10/79

Guide Number	Title	Rev.	Published Month/Year
1.141	Containment Isolation Provisions for Fluid Systems (for Comment)	—	04/78
1.142	Safety-Related Concrete Structures for Nuclear Power Plants (Other than Reactor Vessels and Containments)	— 1	04/78 10/81
1.143	Design Guidance for Radioactive Waste Management Systems, Structures, and Components Installed in Light-Water-Cooled Nuclear Power Plants	— 1	07/78 10/79
1.144	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.145	Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants (Reissued 2/83 to correct page 1.145-7)	— 1	08/79 11/82
1.146	(Withdrawn—See 56 FR 36175, 7/31/91)	—	—
1.147	Inservice Inspection Code Case Acceptability—ASME Section XI, Division 1 (Draft SC 721-4 published 8/79) Previous revisions and their publication dates follow: 0, 2/81; 1, 2/82; 2, 6/83; 3, 7/84; 4, 9/85; 5, 8/86; 6, 5/88; 7, 7/89; 8, 11/90; 9, 4/92; 10, 7/93.	11	10/94
1.148	Functional Specification for Active Valve Assemblies in Systems Important to Safety in Nuclear Power Plants (Draft SC 704-5 published 2/79)	—	03/81
1.149	Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations (Draft RS 110-5 published 7/80) (Draft OL 402-5, Proposed Revision 1, published 11/84) (Draft DG-1043, Proposed Revision 2 to Regulatory Guide 1.149, published 6/95)	— 1 2	04/81 04/87 04/96
1.150	Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations (Draft SC 705-4 published 5/79)	— 1	06/81 02/83
1.151	Instrument Sensing Lines (Draft IC 126-5 published 3/82)	—	07/83
1.152	Criteria for Digital Computers in Safety Systems of Nuclear Power Plants (Draft IC 127-5 published 3/83) (Draft DG-1039, Proposed Revision 1, published 5/95)	— 1	11/85 01/96
1.153	Criteria for Safety Systems (Draft IC 609-5 published 12/82) (Draft DG-1042, Proposed Revision 1, published 11/95)	— 1	12/85 06/96
1.154	Format and Content of Plant-Specific Pressurized Thermal Shock Safety Analysis Reports for Pressurized Water Reactors (Draft SI 502-4 published 1/86)	—	01/87
1.155	Station Blackout (Draft SI 501-4 published 3/86) (Issued June 1988, reissued August 1988 with corrected tables)	—	08/88
1.156	Environmental Qualification of Connection Assemblies for Nuclear Power Plants (Draft EE 404-4 published 5/87)	—	11/87
1.157	Best-Estimate Calculations of Emergency Core Cooling System Performance (Draft RS 701-4 published 3/87)	—	05/89
1.158	Qualification of Safety-Related Lead Storage Batteries for Nuclear Power Plants (Draft EE 006-5 published 8/87)	—	02/89
1.159	Assuring the Availability of Funds for Decommissioning Nuclear Reactors (Draft DG-1003 published 5/89)	—	08/90
1.160	Monitoring the Effectiveness of Maintenance at Nuclear Power Plants (Draft DG-1020 published 11/92) (Draft DG-1031, Proposed Revision 1, published 6/94) (Draft DG-1051, Proposed Revision 2, published 8/96)	— 1	06/93 01/95

Guide Number	Title	Rev.	Published Month/Year
1.161	Evaluation of Reactor Pressure Vessels with Charpy Upper-Shelf Energy Less Than 50 Ft-Lb (Draft DG-1023 published 9/93)	—	06/95
1.162	Format and Content of Report for Thermal Annealing of Reactor Pressure Vessels (Draft DG-1027 published 10/94)	—	02/96
1.163	Performance-Based Containment Leak-Test Program (Draft DG-1037 published 2/95) (Errata to NEI 94-01 published 3/96)	—	09/95

DIVISION 1

DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
CE 913-5	(Proposed Revision 2 to Regulatory Guide 1.13) Spent Fuel Storage Facility Design Basis	12/81
DG-1001	Maintenance Programs for Nuclear Power Plants	08/89
DG-1005	Standard Format and Content for Decommissioning Plans for Nuclear Reactors	09/89
DG-1006	Records Important for Decommissioning of Nuclear Reactors	09/89
DC-1008	Reactor Coolant Pump Seals	04/91
DG-1010	(Proposed Revision 4 to Regulatory Guide 1.28) Quality Assurance Program Requirements	11/92
DG-1012	(Proposed Revision 3 to Regulatory Guide 1.8) Qualification and Training of Personnel for Nuclear Power Plants	09/96
DG-1025	Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence	09/93
DG-1032	Identification and Characterization of Seismic Sources, Deterministic Source Earthquakes, and Ground Motion (DG-1015 issued 11/92)	02/95
DG-1033	(Second Proposed Revision 2 to Regulatory Guide 1.12, previously issued as MS 140-5 and DG-1016) Nuclear Power Plant Instrumentation for Earthquakes	02/95
DG-1034	Pre-Earthquake Planning and Immediate Nuclear Power Plant Operator Postearthquake Actions (Previously issued as DG-1017)	02/95
DG-1035	Restart of a Nuclear Power Plant Shut Down by a Seismic Event (Previously issued as DG-1018)	02/95
DG-1040	Time Response Design Criteria for Safety-Related Operator Actions	06/95
DG-1045	(Proposed Revision 3 to Regulatory Guide 1.105) Setpoints for Safety-Related Instrumentation	10/96
DG-1046	Guidelines for Reporting Reliability and Availability Information for Risk-Significant Systems and Equipment in Nuclear Power Plants	04/96
DG-1047	Standard Format and Content for Applications To Renew Nuclear Power Plant Operating Licenses (Supersedes DG-1009)	08/96
DG-1051	(Proposed Revision 2 to Regulatory Guide 1.160) Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	08/96
DG-1054	Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants	08/96
DG-1055	Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants	08/96
DG-1056	Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants	08/96

Task Number	Title	Published Month/Year
DG-1057	Software Unit Testing for Digital Computer Software Used in Safety Systems of Nuclear Power Plants	08/96
DG-1058	Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants	08/96
DG-1059	Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants	08/96
EM 805-5	Nuclear Analysis and Design of Concrete Radiation Shielding for Nuclear Power Plants	02/79
ES 926-4	(Second Proposed Revision 1 to Regulatory Guide 1.23) Meteorological Measurement Program for Nuclear Power Plants	04/86
FP 811-4	Safety-Related Permanent Dewatering Systems for Nuclear Power Plants	09/79
IC 121-5	Response-Time Testing of Protection System Instrument Channels	01/82
IC 131-5	Installation of Transducers	03/82
MS 021-5	Containment System Leakage Testing	10/86
MS 901-4	Identification of Valves for Inclusion in Inservice Testing Programs	11/81
RS 050-2	(Proposed Revision 1 to Regulatory Guide 1.131) Qualification Tests of Electric Cables and Field Splices for Light-Water-Cooled Nuclear Power Plants	08/79
RS 705-4	Lightning Protection for Nuclear Power Plants	08/79
RS 809-5	Qualification Test for Cable Penetration Fire Stops for Use in Nuclear Power Plants	07/79
RS 902-4	(Second Proposed Revision 3 to Regulatory Guide 1.33) Quality Assurance Program Requirements (Operation)	11/80
RS 908-5	(Proposed Revision 2 to Regulatory Guide 1.94) Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete, Structural Steel, Soils, and Foundations During the Construction Phase of Nuclear Power Plants	09/79
SC 521-4	LWR Core Reloads; Guidance on Applications for Amendments to Operating Licenses and on Refueling and Startup Tests	09/79
SC 708-4	(Withdrawn—See 54 FR 16030, 4/20/89)	—

U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES

DIVISION 2 -- RESEARCH AND TEST REACTORS

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
2.1	Shield Test Program for Evaluation of Installed Biological Shielding in Research and Training Reactors	—	05/73
2.2	Development of Technical Specifications for Experiments in Research Reactors	—	11/73
2.3	Quality Verification for Plate-Type Uranium-Aluminum Fuel Elements for Use in Research Reactors	— 1	09/75 07/76
2.4	Review of Experiments for Research Reactors	— O-R	07/76 05/77
2.5	Quality Assurance Program Requirements for Research Reactors	— O-R	05/77 10/77
2.6	Emergency Planning for Research and Test Reactors (Draft HF 201-4, Proposed Revision 1, published 3/82)	— 1	01/79 03/83

**U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES**

DIVISION 3 — FUELS AND MATERIALS FACILITIES

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
3.1	Use of Borosilicate-Glass Raschig Rings as a Neutron Absorber in Solutions of Fissile Material (Draft FP 027-5, Proposed Revision 1, published 5/81) (Draft CE 602-4, Proposed Revision 2, published 3/87)	— 1 2	01/73 01/82 09/87
3.2	Efficiency Testing of Air-Cleaning Systems Containing Devices for Removal of Particles	—	01/73
3.3	Quality Assurance Program Requirements for Fuel Reprocessing Plants and for Plutonium Processing and Fuel Fabrication Plants	— 1	01/73 03/74
3.4	Nuclear Criticality Safety in Operations with Fissionable Materials at Fuels and Materials Facilities (Draft CE 404-4, Proposed Revision 2, published 4/85)	— 1 1-R 2	01/73 08/77 02/78 03/86
3.5	Standard Format and Content of License Applications for Uranium Mills (for Comment) (Draft WM 039-4, Proposed Revision 2, published 8/81)	— 1	02/73 11/77
3.6	Content of Technical Specifications for Fuel Reprocessing Plants	—	04/73
3.7	Monitoring of Combustible Gases and Vapors in Plutonium Processing and Fuel Fabrication Plants	—	03/73
3.8	Preparation of Environmental Reports for Uranium Mills	— 1 2	04/73 09/78 10/82
3.9	Concrete Radiation Shields	—	06/73
3.10	Liquid Waste Treatment System Design Guide for Plutonium Processing and Fuel Fabrication Plants	—	06/73
3.11	Design, Construction, and Inspection of Embankment Retention Systems for Uranium Mills	— 1 2	06/73 03/77 12/77
3.11.1	Operational Inspection and Surveillance of Embankment Retention Systems for Uranium Mill Tailings	— 1	04/79 10/80
3.12	General Design Guide for Ventilation Systems of Plutonium Processing and Fuel Fabrication Plants	—	08/73
3.13	Guide for Acceptable Waste Storage Methods at UF ₆ Production Plants	—	10/73
3.14	Seismic Design Classification for Plutonium Processing and Fuel Fabrication Plants	—	10/73
3.15	Standard Format and Content of License Applications for Storage Only of Unirradiated Power Reactor Fuel and Associated Radioactive Material (Draft CE 219-4, Proposed Revision 1, published 8/82)	— 1	10/73 04/83

Guide Number	Title	Rev.	Published Month/Year
3.16	General Fire Protection Guide for Plutonium Processing and Fuel Fabrication Plants	—	01/74
3.17	Earthquake Instrumentation for Fuel Reprocessing Plants	—	02/74
3.18	Confinement Barriers and Systems for Fuel Reprocessing Plants	—	02/74
3.19	Reporting of Operating Information for Fuel Reprocessing Plants	—	02/74
3.20	Process Offgas Systems for Fuel Reprocessing Plants	—	02/74
3.21	Quality Assurance Requirements for Protective Coatings Applied to Fuel Reprocessing and to Plutonium Processing and Fuel Fabrication Plants	—	03/74
3.22	Periodic Testing of Fuel Reprocessing Plant Protection System Actuation Functions	—	06/74
3.23	(Withdrawn—See 45 FR 71876, 10/30/80)	—	—
3.24	(Withdrawn—See 46 FR 14507, 2/27/81)	—	—
3.25	Standard Format and Content of Safety Analysis Reports for Uranium Enrichment Facilities	—	12/74
3.26	Standard Format and Content of Safety Analysis Reports for Fuel Reprocessing Plants	—	02/75
3.27	Nondestructive Examination of Welds in the Liners of Concrete Barriers in Fuel Reprocessing Plants	— 1	05/75 05/77
3.28	Welder Qualification for Welding in Areas of Limited Accessibility in Fuel Reprocessing Plants and in Plutonium Processing and Fuel Fabrication Plants	—	05/75
3.29	Preheat and Interpass Temperature Control for the Welding of Low-Alloy Steel for Use in Fuel Reprocessing Plants and in Plutonium Processing and Fuel Fabrication Plants	—	05/75
3.30	Selection, Application, and Inspection of Protective Coatings (Paints) for Fuel Reprocessing Plants	— O-R	06/75 05/77
3.31	Emergency Water Supply Systems for Fuel Reprocessing Plants	— O-R	09/75 05/77
3.32	General Design Guide for Ventilation Systems for Fuel Reprocessing Plants (for Comment)	—	09/75
3.33	Assumptions Used for Evaluating the Potential Radiological Consequences of Accidental Nuclear Criticality in a Fuel Reprocessing Plant (for Comment)	—	04/77
3.34	Assumptions Used for Evaluating the Potential Radiological Consequences of Accidental Nuclear Criticality in a Uranium Fuel Fabrication Plant	— 1	04/77 07/79
3.35	Assumptions Used for Evaluating the Potential Radiological Consequences of Accidental Nuclear Criticality in a Plutonium Processing and Fuel Fabrication Plant	— 1	05/77 07/79
3.36	(Withdrawn—See 44 FR 6535, 2/1/79)	—	—

Guide Number	Title	Rev.	Published Month/Year
3.37	Guidance for Avoiding Intergranular Corrosion and Stress Corrosion in Austenitic Stainless Steel Components of Fuel Reprocessing Plants (for Comment)	—	09/75
3.38	General Fire Protection Guide for Fuel Reprocessing Plants (for Comment)	—	06/76
3.39	Standard Format and Content of License Applications for Plutonium Processing and Fuel Fabrication Plants	—	01/76
3.40	Design Basis Floods for Fuel Reprocessing Plants and for Plutonium Processing and Fuel Fabrication Plants	— 1	11/76 12/77
3.41	(Withdrawn—See 51 FR 11660, 4/4/86)	—	—
3.42	Emergency Planning for Fuel Cycle Facilities and Plants Licensed Under 10 CFR Parts 50 and 70	— 1	08/77 09/79
3.43	Nuclear Criticality Safety in the Storage of Fissile Materials	— 1	08/78 04/79
3.44	Standard Format and Content for the Safety Analysis Report for an Independent Spent Fuel Storage Installation (Water-Basin Type) (Draft CE 403-4, Proposed Revision 2, published 11/86)	— 1 2	12/78 11/80 01/89
3.45	Nuclear Criticality Safety for Steel-Pipe Intersections Containing Aqueous Solutions of Fissile Materials (Draft FP 925-5 published 1/80) (Draft CE 802-5, Proposed Revision 1, published 5/88)	— 1	11/80 04/89
3.46	Standard Format and Content of License Applications, Including Environmental Reports, for In Situ Uranium Solution Mining (Draft FP 818-4 published 7/80)	—	06/82
3.47	Nuclear Criticality Control and Safety of Homogeneous Plutonium-Uranium Fuel Mixtures Outside Reactors (Draft FP 026-5 published 12/80)	—	07/81
3.48	Standard Format and Content for the Safety Analysis Report for an Independent Spent Fuel Storage Installation or Monitored Retrievable Storage Installation (Dry Storage) (Draft FP 029-4 published 12/80) (Draft CE 406-4, Proposed Revision 1, published 10/86)	— 1	10/81 08/89
3.49	Design of an Independent Spent Fuel Storage Installation (Water-Basin Type) (Draft FP 806-6 published 1/81)	—	12/81
3.50	Standard Format and Content for a License Application To Store Spent Fuel and High-Level Radioactive Waste (Draft FP 907-4 published 3/81) (Draft CE 402-4, Proposed Revision 1, published 9/86)	— 1	01/82 09/89
3.51	Calculational Models for Estimating Radiation Doses to Man from Airborne Radioactive Materials Resulting from Uranium Milling Operations (Draft RH 802-4 published 5/79) (Errata published August 1982)	—	03/82
3.52	Standard Format and Content for the Health and Safety Sections of License Renewal Applications for Uranium Processing and Fuel Fabrication (Draft FP 716-4 published 10/80) (Draft CE 308-4, Proposed Revision 1, published 7/85)	— 1	07/82 11/86
3.53	Applicability of Existing Regulatory Guides to the Design and Operation of an Independent Spent Fuel Storage Installation (Draft CE 037-4 published 11/81)	—	07/82
3.54	Spent Fuel Heat Generation in an Independent Spent Fuel Storage Installation (Draft FP 034-4 published 12/80) (Second Draft CE 034-4 published 1/83)	—	09/84

Guide Number	Title	Rev.	Published Month/Year
3.55	Standard Format and Content for the Health and Safety Sections of License Renewal Applications for Uranium Hexafluoride Production (Draft CE 227-4 published 1/84)	—	04/85
3.56	General Guidance for Designing, Testing, Operating, and Maintaining Emission Control Devices at Uranium Mills (Draft CE 309-4 published 5/85)	—	05/86
3.57	Administrative Practices for Nuclear Criticality Safety at Fuels and Materials Facilities (Draft CE 501-4 published 2/86)	—	10/86
3.58	Criticality Safety for Handling, Storing, and Transporting LWR Fuel at Fuels and Materials Facilities (Draft CE 407-4 published 7/85) (Draft DG-3004, Proposed Revision 1, published 5/90)	—	10/86
3.59	Methods for Estimating Radioactive and Toxic Airborne Source Terms for Uranium Milling Operations (Draft WM 407-4 published 4/86)	—	03/87
3.60	Design of an Independent Spent Fuel Storage Installation (Dry Storage) (Draft CE 410-4 published 11/85)	—	03/87
3.61	Standard Format and Content for a Topical Safety Analysis Report for a Spent Fuel Dry Storage Cask (Draft CE 306-4 published 4/86)	—	02/89
3.62	Standard Format and Content for the Safety Analysis Report for Onsite Storage of Spent Fuel Storage Casks (Draft CE 301-4 published 4/86)	—	02/89
3.63	Onsite Meteorological Measurement Program for Uranium Recovery Facilities—Data Acquisition and Reporting (Draft ES 401-4 published 9/85)	—	03/88
3.64	Calculation of Radon Flux Attenuation by Earthen Uranium Mill Tailings Covers (Draft WM 503-4 published 5/87)	—	06/89
3.65	Standard Format and Content of Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70 (Draft CE 304-4 published 12/85)	—	08/89
3.66	Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72 (Draft DG-3002 published 1/90)	—	06/90
3.67	Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities (Draft DG-3005 published 9/90)	—	01/92
3.68	Nuclear Criticality Safety Training (Draft DG-3008 published 1/93)	—	04/94
3.69	Topical Guidelines for the Licensing Support System (Draft DG-3009 published 7/93)	—	09/96

DIVISION 3

DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
DG-3001	Records Important for Decommissioning for Licensees Under 10 CFR Parts 30, 40, 70, and 72	07/89
DG-3003	Format and Content for the License Application for the High-Level Waste Repository	11/90
DG-3004	(Proposed Revision 1 to Regulatory Guide 3.58) Criticality Safety for Handling, Storing, and Transporting LWR Fuel at Fuels and Materials Facilities	05/90
DG-3006	Standard Format and Content for Fire Protection Sections of License Applications for Fuel Cycle Facilities	04/93
ES 114-4	Guidelines for Ground-Water Monitoring at In Situ Uranium Solution Mines	06/83
ES 115-4	Guidelines for Modeling Ground-Water Transport of Radioactive and Nonradioactive Contaminants at Tailings Disposal Sites	05/83
HF 608-4	Training and Certification of Independent Spent Fuel Storage Installation Operators	03/82
MS 146-4	Design, Installation, and Inspection of Seepage Control Liners at Uranium Recovery Facilities	11/82
WM 039-4	(Proposed Revision 2 to Regulatory Guide 3.5) Standard Format and Content of License Applications for Uranium Mills	08/81

**U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES**

DIVISION 4 — ENVIRONMENTAL AND SITING

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
4.1	Programs for Monitoring Radioactivity in the Environs of Nuclear Power Plants	— 1	01/73 04/75
4.2	Preparation of Environmental Reports for Nuclear Power Stations (Proposed Supplement 1 to Regulatory Guide 4.2, DG-4002, published 8/91)	— 1 2	03/73 01/75 07/76
4.3	(Withdrawn—See 41 FR 53870, 12/9/76)	—	—
4.4	Reporting Procedure for Mathematical Models Selected To Predict Heated Effluent Dispersion in Natural Water Bodies	—	05/74
4.5	Measurements of Radionuclides in the Environment—Sampling and Analysis of Plutonium in Soil	—	05/74
4.6	Measurements of Radionuclides in the Environment—Strontium-89 and Strontium-90 Analyses	—	05/74
4.7	General Site Suitability Criteria for Nuclear Power Stations (DG-4003, Proposed Revision 2, published 11/92)	— 1	09/74 11/75
4.8	Environmental Technical Specifications for Nuclear Power Plants (for Comment)	—	12/75
4.9	Preparation of Environmental Reports for Commercial Uranium Enrichment Facilities	— 1	12/74 10/75
4.10	(Withdrawn—See 42 FR 59436, 11/17/77)	—	—
4.11	Terrestrial Environmental Studies for Nuclear Power Stations	— 1	07/76 08/77
4.12	(Not published)	—	—
4.13	Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications	— 1	11/76 07/77
4.14	Radiological Effluent and Environmental Monitoring at Uranium Mills	— 1	06/77 04/80
4.15	Quality Assurance for Radiological Monitoring Programs (Normal Operations)—Effluent Streams and the Environment	— 1	12/77 02/79
4.16	Monitoring and Reporting Radioactivity in Releases of Radioactive Materials in Liquid and Gaseous Effluents from Nuclear Fuel Processing and Fabrication Plants and Uranium Hexafluoride Production Plants (Draft CE 401-4, Proposed Revision 1, published 9/84) (Errata published 8/86)	— 1	03/78 12/85
4.17	Standard Format and Content of Site Characterization Plans for High-Level-Waste Geologic Repositories (Draft GS 027-4 published 4/81) (Draft WM 404-4, Proposed Revision 1, published 2/85)	— 1	07/82 03/87

Guide Number	Title	Rev.	Published Month/Year
4.18	Standard Format and Content of Environmental Reports for Near-Surface Disposal of Radioactive Waste (Draft WM 013-4 published 4/82)	—	06/83
4.19	Guidance for Selecting Sites for Near-Surface Disposal of Low-Level Radioactive Waste (Draft WM 408-4 published 3/87)	—	08/88

DIVISION 4

DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
DG-4002	(Proposed Supplement 1 to Regulatory Guide 4.2) Guidance for the Preparation of Supplemental Environmental Reports in Support of an Application To Renew a Nuclear Power Station Operating License	08/91
DG-4004	(Proposed Revision 2 to Regulatory Guide 4.7) General Site Suitability Criteria for Nuclear Power Stations (Issued as DG-4003, 11/92)	02/95

**U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES**

DIVISION 5 — MATERIALS AND PLANT PROTECTION

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
5.1	Serial Numbering of Fuel Assemblies for Light-Water-Cooled Nuclear Power Reactors	—	12/72
5.2	(Withdrawn—See 44 FR 57542, 10/5/79)	—	—
5.3	Statistical Terminology and Notation for Special Nuclear Materials Control and Accountability	—	02/73
5.4	Standard Analytical Methods for the Measurement of Uranium Tetrafluoride (UF ₄) and Uranium Hexafluoride (UF ₆)	—	02/73
5.5	Standard Methods for Chemical, Mass Spectrometric, and Spectrochemical Analysis of Nuclear-Grade Uranium Dioxide Powders and Pellets	—	02/73
5.6	(Withdrawn—See 50 FR 25364, 6/18/85)	—	—
5.7	Entry/Exit Control for Protected Areas, Vital Areas, and Material Access Areas (Draft SG 909-4, Proposed Revision 1, published 5/79)	— 1	06/73 05/80
5.8	Design Considerations for Minimizing Residual Holdup of Special Nuclear Material in Drying and Fluidized Bed Operations	— 1	06/73 05/74
5.9	Guidelines for Germanium Spectroscopy Systems for Measurement of Special Nuclear Material (Draft SG 042-2, Proposed Revision 2, published 7/82)	— 1 2	06/73 05/74 12/83
5.10	Selection and Use of Pressure-Sensitive Seals on Containers for Onsite Storage of Special Nuclear Material	—	07/73
5.11	Nondestructive Assay of Special Nuclear Material Contained in Scrap and Waste (Draft SG 043-4, Proposed Revision 1, published 11/82)	— 1	10/73 04/84
5.12	General Use of Locks in the Protection and Control of Facilities and Special Nuclear Materials	—	11/73
5.13	Conduct of Nuclear Material Physical Inventories	—	11/73
5.14	Use of Observation (Visual Surveillance) Techniques in Material Access Areas (Draft SG 910-4, Proposed Revision 1, published 5/79)	— 1	11/73 05/80
5.15	Security Seals for the Protection and Control of Special Nuclear Material (Draft DG-5005, Proposed Revision 1, published 1/96)	—	01/74
5.16	(Withdrawn—See 50 FR 25364, 6/18/85)	—	—
5.17	Truck Identification Markings	—	01/74
5.18	Limit of Error Concepts and Principles of Calculation in Nuclear Materials Control	—	01/74
5.19	(Withdrawn—See 50 FR 25364, 6/18/85)	—	—

Guide Number	Title	Rev.	Published Month/Year
5.20	Training, Equipping, and Qualifying of Guards and Watchmen	—	01/74
5.21	Nondestructive Uranium-235 Enrichment Assay by Gamma Ray Spectrometry (Draft SG 044-4, Proposed Revision 1, published 6/82)	— 1	04/74 12/83
5.22	Assessment of the Assumption of Normality (Employing Individual Observed Values)	—	04/74
5.23	In Situ Assay of Plutonium Residual Holdup (Draft SG 045-4, Proposed Revision 1, published 10/82)	— 1	05/74 02/84
5.24	Analysis and Use of Process Data for the Protection of Special Nuclear Material	—	06/74
5.25	Design Considerations for Minimizing Residual Holdup of Special Nuclear Material in Equipment for Wet Process Operations	—	06/74
5.26	Selection of Material Balance Areas and Item Control Areas	— 1	06/74 04/75
5.27	Special Nuclear Material Doorway Monitors	—	06/74
5.28	Evaluation of Shipper-Receiver Differences in the Transfer of Special Nuclear Materials	—	06/74
5.29	Nuclear Material Control Systems for Nuclear Power Plants	— 1	06/74 06/75
5.30	Materials Protection Contingency Measures for Uranium and Plutonium Fuel Manufacturing Plants	—	06/74
5.31	Specialty Designed Vehicle with Armed Guards for Road Shipment of Special Nuclear Material	— 1	06/74 04/75
5.32	Communication with Transport Vehicles	— 1	06/74 05/75
5.33	Statistical Evaluation of Material Unaccounted For	—	06/74
5.34	Nondestructive Assay for Plutonium in Scrap Material by Spontaneous Fission Detection (Draft SG 046-4, Proposed Revision 1, published 6/82)	— 1	06/74 05/84
5.35	(Withdrawn—See 42 FR 41677, 8/18/77)	—	—
5.36	Recommended Practice for Dealing with Outlying Observations	—	06/74
5.37	In Situ Assay of Enriched Uranium Residual Holdup (Draft SG 047-4, Proposed Revision 1, published 8/82)	— 1	08/74 10/83
5.38	Nondestructive Assay of High-Enrichment Uranium Fuel Plates by Gamma Ray Spectrometry (Draft SG 048-4, Proposed Revision 1, published 8/82)	— 1	09/74 10/83
5.39	General Methods for the Analysis of Uranyl Nitrate Solutions for Assay, Isotopic Distribution, and Impurity Determinations	—	12/74
5.40	(Withdrawn—See 50 FR 25364, 6/18/85)	—	—
5.41	(Not issued)	—	—

Guide Number	Title	Rev.	Published Month/Year
5.42	Design Considerations for Minimizing Residual Holdup of Special Nuclear Material in Equipment for Dry Process Operations	—	01/75
5.43	Plant Security Force Duties	—	01/75
5.44	Perimeter Intrusion Alarm Systems (Draft SG 479-4, Proposed Revision 2, published 5/79)(Draft DG-5007, Proposed Revision 3, published 4/96)	— 1 2	01/75 06/76 05/80
5.45	Standard Format and Content for the Special Nuclear Material Control and Accounting Section of a Special Nuclear Material License Application (Including That for a Uranium Enrichment Facility)	—	12/74
5.46	(Not issued)	—	—
5.47	(Withdrawn—See 50 FR 25364, 6/18/85)	—	—
5.48	Design Considerations—Systems for Measuring the Mass of Liquids	—	02/75
5.49	Internal Transfers of Special Nuclear Material (for Comment)	—	03/75
5.50	(Not issued)	—	—
5.51	Management Review of Nuclear Material Control and Accounting Systems (for Comment)	—	06/75
5.52	Standard Format and Content of a Licensee Physical Protection Plan for Strategic Special Nuclear Material at Fixed Sites (Other than Nuclear Power Plants) (DG-5004, Proposed Revision 3, published 4/94)	— 1 2 3	05/75 06/76 07/80 12/94
5.53	Qualification, Calibration, and Error Estimation Methods for Nondestructive Assay (Draft SG 049-4, Proposed Revision 1, published 6/82)	— 1	08/75 02/84
5.54	Standard Format and Content of Safeguards Contingency Plans for Nuclear Power Plants (for Comment)	—	03/78
5.55	Standard Format and Content of Safeguards Contingency Plans for Fuel Cycle Facilities (for Comment)	—	03/78
5.56	Standard Format and Content of Safeguards Contingency Plans for Transportation (for Comment)	—	03/78
5.57	Shipping and Receiving Control of Strategic Special Nuclear Material (Draft SG 908-4, Proposed Revision 1, published 5/79)	— 1	06/76 06/80
5.58	Considerations for Establishing Traceability of Special Nuclear Material Accounting Measurements	— 1	11/78 02/80
5.59	Standard Format and Content for a Licensee Physical Security Plan for the Protection of Special Nuclear Material of Moderate or Low Strategic Significance (Draft MP 711-4 published 7/79) (Draft SG 229-4, Proposed Revision 1, published 9/82)	— 1	01/80 02/83
5.60	Standard Format and Content of a Licensee Physical Protection Plan for Strategic Special Nuclear Material in Transit	—	04/80
5.61	Intent and Scope of the Physical Protection Upgrade Rule Requirements for Fixed Sites	—	06/80

Guide Number	Title	Rev.	Published Month/Year
5.62	Reporting of Safeguards Events (Draft SG 901-4 published 10/79) (Draft SG 901-4, Proposed Revision 1, published 10/85)	— 1	02/81 11/87
5.63	Physical Protection for Transient Shipments (Draft SG 126-4 published 9/81)	—	07/82
5.64	(Not issued)	—	—
5.65	Vital Area Access Controls, Protection of Physical Security Equipment, and Key and Lock Controls (Draft SG 302-4 published 1/85)	—	09/86
5.66	Access Authorization Program for Nuclear Power Plants	—	06/91
5.67	Material Control and Accounting for Uranium Enrichment Facilities Authorized To Produce Special Nuclear Material of Low Strategic Significance (Draft DG-5002 published 2/91)	—	12/93
5.68	Protection Against Malevolent Use of Vehicles at Nuclear Power Plants (Draft DG-5006 issued 11/93)	—	08/94

DIVISION 5

DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
SG 301-4	(Withdrawn—See 56 FR 36175, 7/31/91)	—
DG-5005	(Proposed Revision 1 to Regulatory Guide 5.15) Tamper-Indicating Seals for the Protection and Control of Special Nuclear Material	01/96
DG-5007	(Proposed Revision 3 to Regulatory Guide 5.44) Perimeter Intrusion Alarm Systems	04/96

U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES

DIVISION 6 — PRODUCTS

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
6.1	Leak Testing Radioactive Brachytherapy Sources	— 1	02/74 07/74
6.2	Integrity and Test Specifications for Selected Brachytherapy Sources	— 1	02/74 07/74
6.3	Design, Construction, and Use of Radioisotopic Power Generators for Certain Land and Sea Applications	—	03/74
6.4	Classification of Containment Properties of Sealed Radioactive Sources	— 1 2	03/74 05/75 08/80
6.5	General Safety Standard for Installations Using Nonmedical Sealed Gamma-Ray Sources	—	06/74
6.6	Acceptance Sampling Procedures for Exempted and Generally Licensed Items Containing Byproduct Material	—	06/74
6.7	Preparation of an Environmental Report To Support a Rule Making Petition Seeking an Exemption for a Radionuclide-Containing Product	— 1	10/75 06/76
6.8	Identification Plaque for Irretrievable Well-Logging Sources (for Comment)	—	10/78
6.9	Establishing Quality Assurance Programs for the Manufacture and Distribution of Sealed Sources and Devices Containing Byproduct Material (Draft DG-6002 published 5/94)	—	02/95

DIVISION 6
DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
TP 102-5	Safety Features of Gauges Containing Radioactive Material	11/80

**U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES**

DIVISION 7 — TRANSPORTATION

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
7.1	Administrative Guide for Packaging and Transporting Radioactive Material	—	06/74
7.2	Packaging and Transportation of Radioactively Contaminated Biological Materials	—	06/74
7.3	Procedures for Picking Up and Receiving Packages of Radioactive Material	—	05/75
7.4	Leakage Tests on Packages for Shipment of Radioactive Materials	—	06/75
7.5	Administrative Guide for Obtaining Exemptions from Certain NRC Requirements over Radioactive Material Shipments	— O-R	06/75 05/77
7.6	Design Criteria for the Structural Analysis of Shipping Cask Containment Vessels	— 1	02/77 03/78
7.7	Administrative Guide for Verifying Compliance with Packaging Requirements for Shipments of Radioactive Materials (for Comment)	—	08/77
7.8	Load Combinations for the Structural Analysis of Shipping Casks for Radioactive Material (Draft MS 527-4, Proposed Revision 1, published 7/87) (Draft MS 804-4, Second Proposed Revision 1, published 9/88)	— 1	05/77 03/89
7.9	Standard Format and Content of Part 71 Applications for Approval of Packaging of Type B, Large Quantity, and Fissile Radioactive Material (Draft FC 416-4, Proposed Revision 2, published 5/86)	— 1	03/79 01/80
7.10	Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material (Combined Draft TP 019-4, published 6/81, and Draft TP 020-4, published 3/81)	— 1	01/83 06/86
7.11	Fracture Toughness Criteria of Base Material for Ferritic Steel Shipping Cask Containment Vessels with a Maximum Wall Thickness of 4 Inches (0.1 m) (Draft MS 144-4 published 6/83) (Draft DG-7001 published 7/89)	—	06/91
7.12	Fracture Toughness Criteria of Base Material for Ferritic Steel Shipping Cask Containment Vessels with a Wall Thickness Greater than 4 Inches (0.1 m) But Not Exceeding 12 Inches (0.3 m) (Draft MS 501-4 published 6/86) (Draft DG-7002 published 7/89)	—	06/91

DIVISION 7

DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
FC 416-4	(Proposed Revision 2 to Regulatory Guide 7.9) Standard Format and Content of Part 71 Applications for Approval of Packaging for Radioactive Material	05/86
TP 914-4	Measurement of Radiation Levels on Surfaces of Packages of Radioactive Materials	12/79

REGULATORY GUIDE SERIES
DIVISION 8 — OCCUPATIONAL HEALTH

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
8.1	Radiation Symbol	—	02/73
8.2	Guide for Administrative Practices in Radiation Monitoring	—	02/73
8.3	Film Badge Performance Criteria	—	02/73
8.4	Direct-Reading and Indirect-Reading Pocket Dosimeters	—	02/73
8.5	Criticality and Other Interior Evacuation Signals	—	02/73
		1	03/81
8.6	Standard Test Procedure for Geiger-Muller Counters	—	05/73
8.7	Instructions for Recording and Reporting Occupational Radiation Exposure Data (Draft DG-8007, Proposed Revision 1, published 11/91)	1	05/73 06/92
8.8	Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable (Draft OH 507-4, Proposed Revision 4, published 3/79) (Draft OP 618-4, Second Proposed Revision 4, published 5/82)	— 1 2 3	07/73 09/75 03/77 06/78
8.9	Acceptable Concepts, Models, Equations, and Assumptions for a Bioassay Program (Draft DG-8009, Proposed Revision 1, published 12/91)	— 1	09/73 07/93
8.10	Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable	— 1 1-R	04/74 09/75 05/77
8.11	Applications of Bioassay for Uranium	—	06/74
8.12	Criticality Accident Alarm Systems (Draft OH 015-4, Proposed Revision 1, published 5/80) (Draft CE 801-5, Proposed Revision 2, published 5/88)	— 1 2	12/74 01/81 10/88
8.13	Instruction Concerning Prenatal Radiation Exposure (Draft OP 031-4 Proposed Revision 2, published 8/81) (Draft DG-8014, Proposed Revision 3, published 10/94)	— 1 2	03/75 11/75 12/87
8.14	Personnel Neutron Dosimeters (Draft OH 940-4, Proposed Revision 2, published 2/80)	— 1	06/76 08/77
8.15	Acceptable Programs for Respiratory Protection	—	10/76
8.16	(Not issued)	—	—
8.17	(Not issued)	—	—
8.18	Information Relevant to Ensuring that Occupational Radiation Exposures at Medical Institutions Will Be As Low As Reasonably Achievable	— 1	12/77 10/82
8.19	Occupational Radiation Dose Assessment in Light-Water Reactor Power Plants—Design Stage Man-Rem Estimates	— 1	05/78 06/79

Guide Number	Title	Rev.	Published Month/Year
8.20	Applications of Bioassay for I-125 and I-131	— 1	04/78 09/79
8.21	Health Physics Surveys for Byproduct Material at NRC-Licensed Processing and Manufacturing Plants	— 1	05/78 10/79
8.22	Bioassay at Uranium Mills (Draft OP 013-4, Proposed Revision 1, published 1/87)	— 1	07/78 08/88
8.23	Radiation Safety Surveys at Medical Institutions	— 1	02/79 01/81
8.24	Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication	— 1	11/78 10/79
8.25	Air Sampling in the Workplace (Draft OH 905-4 published 10/79) (Draft DG-8003, Proposed Revision 1, published 9/91)	— 1	08/80 06/92
8.26	Applications of Bioassay for Fission and Activation Products (Draft OH 714-4 published 8/79)	—	09/80
8.27	Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants (Draft OH 717-4 published 8/79)	—	03/81
8.28	Audible-Alarm Dosimeters (Draft OH 804-4 published 8/79)	—	08/81
8.29	Instruction Concerning Risks from Occupational Radiation Exposure (Draft OH 902-4 published 5/80) (Draft DG-8012, Proposed Revision 1, published 12/94)	— 1	07/81 02/96
8.30	Health Physics Surveys in Uranium Mills (Draft OH 710-4 published 8/80)	—	06/83
8.31	Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills Will Be As Low As Is Reasonably Achievable (Draft OH 941-4 published 8/80)	—	05/83
8.32	Criteria for Establishing a Tritium Bioassay Program (Draft OP 713-4 published 6/83)	—	07/88
8.33	Quality Management Program (Draft DG-8001 published 1/90)	—	10/91
8.34	Monitoring Criteria and Methods To Calculate Occupational Radiation Doses (Draft DG-8010 published 2/92)	—	07/92
8.35	Planned Special Exposures (Draft DG-8008 published 12/91)	—	06/92
8.36	Radiation Dose to the Embryo/Fetus (Draft DG-8011 published 2/92)	—	07/92
8.37	ALARA Levels for Effluents from Materials Facilities (Draft DG-8013 published 10/92) (Draft DG-8016, Proposed Revision 1, published 12/95)	—	07/93
8.38	Control of Access to High and Very High Radiation Areas of Nuclear Plants (Draft DG-8006 published 10/91)	—	06/93

DIVISION 8

DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
DG-8004	Radiation Protection Programs for Nuclear Power Plants	10/91
DG-8005	Withdrawn—See 58 FR 17628, 4/5/93 (Assessing External Radiation Doses from Airborne Radioactive Materials)	—
DG-8014	(Proposed Revision 3 to Regulatory Guide 8.13) Instruction Concerning Prenatal Radiation Exposure	10/94
DG-8015	Release of Patients Administered Radioactive Materials	06/94
DG-8016	(Proposed Revision 1 to Regulatory Guide 8.37) Constraints for Air Effluents for Licensees Other Than Power Reactors	12/95
OH 940-4	(Proposed Revision 2 to Regulatory Guide 8.14) Personnel Neutron Dosimeters	02/80
OP 032-5	Test and Calibration of Radiation Protection Instrumentation	09/84
OP 212-4	Radiation Protection Training for Personnel Employed in Medical Facilities	01/84
OP 618-4	(Second Proposed Revision 4 to Regulatory Guide 8.8) Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable (ALARA)	05/82
OP 722-4	Qualifications for the Radiation Safety Officer in a Large-Scale Non-Fuel-Cycle Radionuclide Program	04/82

U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES

DIVISION 9 — ANTITRUST AND FINANCIAL REVIEW

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
9.1	Regulatory Staff Position Statement on Antitrust Matters	—	12/73
9.2	Information Needed by the NRC Staff in Connection with Its Antitrust Review of Construction Permit Applications for Nuclear Power Plants	— 1	10/74 06/76
9.3	Information Needed by the AEC Regulatory Staff in Connection with Its Antitrust Review of Operating License Applications for Nuclear Power Plants	—	10/74
9.4	Suggested Format for Cash Flow Statements Submitted as Guarantees of Payment of Retrospective Premiums (for Comment)	—	09/78

**U.S. NUCLEAR REGULATORY COMMISSION
REGULATORY GUIDE SERIES**

DIVISION 10 — GENERAL

ACTIVE REGULATORY GUIDES

Guide Number	Title	Rev.	Published Month/Year
10.1	Compilation of Reporting Requirements for Persons Subject to NRC Regulations	—	01/75
		1	07/75
		2	08/75
		3	05/77
		4	10/81
10.2	Guidance to Academic Institutions Applying for Specific Byproduct Material Licenses of Limited Scope (Errata published 7/84)	—	03/76
		1	12/76
10.3	Guide for the Preparation of Applications for Special Nuclear Material Licenses of Less than Critical Mass Quantities	—	07/76
		1	04/77
10.4	Guide for the Preparation of Applications for Licenses To Process Source Material (Errata published 7/84) (Draft FC 409-4, Proposed Revision 2, published 4/85)	—	07/76
		1	03/77
		2	12/87
10.5	Applications for Type A Licenses of Broad Scope (Errata published 7/84) (Draft FC 408-4, Proposed Revision 2, published 2/85) (Draft DG-0005, Second Proposed Revision 2, published 10/94)	—	09/76
		1	12/80
10.6	Guide for the Preparation of Applications for Use of Sealed Sources and Devices for Performing Industrial Radiography (Draft TP 602-4, Proposed Revision 1, published 6/80) (Errata published 7/84) (Draft FC 401-4, Proposed Revision 2, published 10/84)	—	09/76
		1	12/81
10.7	Guide for the Preparation of Applications for Licenses for Laboratory and Industrial Use of Small Quantities of Byproduct Material (Errata published 7/84)	—	02/77
		1	08/79
10.8	Guide for the Preparation of Applications for Medical Use Programs (Draft FC 415-4, Proposed Revision 2, published 8/85) (Draft DG-0002, Proposed Appendix X to Regulatory Guide 10.8, published 12/91) (Appendix X published June 1992)	—	01/79
		1	10/80
		2	08/87
10.9	Guide for the Preparation of Applications for Licenses for the Use of Self-Contained Dry Source-Storage Gamma Irradiators (Draft OH 706-4 published 2/79) (Draft OP 706-4, Proposed Revision 1, published 4/82) (Errata published 7/84) (Draft FC 402-4, Second Proposed Revision 1, published 10/84)	—	04/80
		1	12/88
10.10	Guide for the Preparation of Applications for Radiation Safety Evaluation and Registration of Devices Containing Byproduct Material (Draft FC 601-4 published 8/86)	—	03/87
10.11	Guide for the Preparation of Applications for Radiation Safety Evaluation and Registration of Sealed Sources Containing Byproduct Material (Draft FC 603-4 published 12/86)	—	06/87

DIVISION 10
DRAFT REGULATORY GUIDES

Task Number	Title	Published Month/Year
DG-0003	Guide for the Preparation of Applications for Licenses for Non-Self-Contained Irradiators	01/94
DG-0005	(Second Proposed Revision 2 to Regulatory Guide 10.5) Applications for Licenses of Broad Scope	10/94
DG-0008	Applications for the Use of Sealed Sources in Portable Gauging Devices (Previous draft was FC 407-4)	05/95
DG-0010	Preparation of Petitions for Rulemaking Under 10 CFR 2.802 and Preparation and Submission of Proposals for Regulatory Guidance Documents	08/96
FC 40'-4	(Proposed Revision 2 to Regulatory Guide 10.6) Guide for the Preparation of Applications for the Use of Sealed Sources and Devices for Performing Industrial Radiography	10/84
FC 403-4	Guide for the Preparation of Applications for Licenses for the Use of Panoramic Dry Source-Storage Irradiators, Self-Contained Wet Source-Storage Irradiators, and Panoramic Wet Source-Storage Irradiators	01/85
FC 404-4	Guide for the Preparation of Applications for Licenses for the Use of Sealed Sources in Nonportable Gauging Devices	01/85
FC 405-4	Guide for the Preparation of Applications for Licenses for the Use of Sealed Sources in Gas Chromatography Devices and X-Ray Fluorescence Analyzers	02/85
FC 406-4	Guide for the Preparation of Applications for Licenses and Approvals To Authorize Distribution of Various Items to Group Medical Licensees	02/85
FC 408-4	(Proposed Revision 2 to Regulatory Guide 10.5) Guide for the Preparation of Applications for Type A Licenses of Broad Scope (See DG-0005)	02/85
FC 410-4	Guide for the Preparation of Applications for Nuclear Pharmacy Licenses	08/85
FC 411-4	Guide for the Preparation of Applications for Licenses for the Use of Radioactive Materials in Servicing Preregistered Gauges, Measuring Devices, and Sealed Sources Used in Such Devices	06/85
FC 412-4	Guide for the Preparation of Applications for Licenses for the Use of Radioactive Materials in Leak-Testing Services	06/85
FC 413-4	Guide for the Preparation of Applications for Licenses for the Use of Radioactive Materials in Calibrating Radiation Survey and Monitoring Instruments	06/85
FC 414-4	Guide for the Preparation of Applications for Licenses for Medical Teletherapy Programs (Second draft, previously issued as TM 608-4, 3/82; Errata published 7/84)	12/85



Federal Recycling Program

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

120555064215 2 1SA1SB1S11S21
US NRC-OIRM
INFORMATION & RECORDS MGMT
DOCUMENT CONTROL DESK
1WFN-5G24
WASHINGTON DC 20555

FIRST CLASS MAIL
POSTAGE AND FEES PAID
USNRC
PERMIT NO. G-67