

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

Laboratory and Radiation Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

June 13, 2002

Josie Piccone, Deputy Director
Office of State and Tribal Programs
United States Nuclear Regulatory Commission
Washington, D. C. 20555-0001

Dear Josie,

The revised regulations, Part 12 of Colorado's Rules and Regulations Pertaining to Radiation Control, are attached. These regulations relate to Colorado's fees for radiation services. They are being sent for information only, and are not a matter of compatibility.

The amended regulations were adopted May 15, 2002, with an effective date of June 30, 2002.

If you have questions or comments, you may call me at (303) 692-3036, or email me at jake.jacobi@state.co.us.

Sincerely,

W. Jacobi, Program Manager
Radiation Services

WJ:ae

Attachments: Amended Regulations, Part 12, Colorado Rules and Regulations Pertaining to Radiation Control, including Amendment A

02 JUN 24 AM 9:46

STP

STP-006 Template

RIDS DIST. SP08

STATE OF COLORADO
RULES AND REGULATIONS
PERTAINING TO RADIATION CONTROL

	<u>Effective Date</u>
Part 1 - General Provisions	December 30, 2001
Part 2 - Registration of Radiation Machines, Facilities and Services	August 30, 1999
Part 3 - Licensing of Radioactive Material	June 30, 1999
Part 4 - Standards for Protection Against Radiation	December 30, 2001
Part 5 - Radiation Safety Requirements for Industrial Radiographic Operations	May 30, 2000
Part 6 - Use of X-Rays in the Healing Arts	August 30, 1999
Part 7 - Use of Radionuclides in the Healing Arts	December 30, 2001
Part 8 - Radiation Safety Requirements for Analytical X-Ray Equipment	December 30, 1990
Part 9 - Radiation Safety Requirements for Particle Accelerators	August 30, 1999
Part 10 - Notices, Instructions, and Reports to Workers: Inspections	November 30, 1990
Part 11 - Special Land Ownership Requirements	March 30, 1998
Part 12 - Fees for Materials Licenses and Other Radiation Control Services	June 30, 2002
Part 13 - Penalties for Violations	June 30, 1984
Part 14 - Licensing Requirements for Land Disposal of Low Level Radioactive Waste	December 30, 1985
Part 15 - Colorado Low Level Radioactive Waste Rate Regulations	December 30, 1985
Part 16 - Radiation Safety Requirements for Wireline Service Operations and Subsurface Tracer Studies	December 30, 2001
Part 17 - Transportation of Radioactive Material	January 1, 1997
Part 18 - Milling of Uranium, Thorium and Related Radioactive Material	November 30, 2001
Part 19 - Licenses and Radiation Safety Requirements For Irradiators	December 30, 2001
Part 20 - Particle Accelerators and Therapeutic Radiation Machines in the Healing Arts	August 30, 1999

**STATE OF COLORADO
RULES AND REGULATIONS
PERTAINING TO RADIATION CONTROL**

TABLE OF CONTENTS

PART 1 - GENERAL PROVISIONS

		<u>Page</u>
RH	1.1 Authority	1-1
	1.2 Basis and Purposes	1-1
	1.3 Scope	1-1
	1.4 Definitions.....	1-1
	1.5 Exemptions	1-14
	1.6 Records.....	1-15
	1.7 Inspections	1-15
	1.8 Tests	1-15
	1.9 Additional Requirements	1-15
	1.10 Violations.....	1-16
	1.11 Impounding	1-16
	1.12 Prohibited Uses	1-16
	1.13 Communications	1-16
	1.14 The International System of Units (SI)	1-16
	1.15 Severability.....	1-20
	1.16 Referenced Material	1-20

**PART 2 - REGISTRATION OF RADIATION PRODUCING
MACHINES, FACILITIES AND SERVICES**

RH	2.1 Purpose and Scope.....	2-1
	2.2 Definitions.....	2-1
	2.3 Exemptions	2-3
	2.4 Application for Registration	2-4
	2.5 Certification Evaluations.....	2-9
	2.6 Facility Registrant Responsibilities	2-12
	2.7 Assembler and/or Transfer Obligation	2-14
	2.8 Out-of-State Radiation Machines	2-14
	Appendix A - Schedule of Fees.....	2-17
	Appendix B - Minimum Qualifications for Qualified Inspectors	2-19

PART 3 - LICENSING OF RADIOACTIVE MATERIAL

	<u>Page</u>
RH 3.1	Purpose and Scope..... 3-1
3.2	Source Material 3-1
3.3	Radioactive Material Other Than Source Material 3-4
3.4	Types of Licenses 3-9
3.5	General Licenses - Source Material 3-9
3.6	General Licenses* - Radioactive Material Other Than Source Material 3-11
3.7	Reserved 3-20
3.8	Filing Application for Specific Licenses 3-20
3.9	General Requirements for the Issuance of Specific Licenses 3-22
3.10	Additional Requirements for Issuance of Certain Specific Licenses for Radioactive Material 3-30
3.11	Special Requirements for Specific Licenses of Broad Scope 3-31
3.12	Special Requirements for a Specific License to Manufacture, Assemble, Repair, or Distribute Commodities, Products, or Devices which Contain Radioactive Material 3-34
3.13	Third Party Method 3-50
3.14	Issuance of Specific Licenses 3-51
3.15	Specific Terms and Conditions of License 3-51
3.16	Expiration, Decommissioning, and Termination of Licenses 3-52
3.17	Renewal of Licenses 3-60
3.18	Amendment of Licenses at Request of Licensee 3-60
3.19	Agency Action on Applications to Renew and Amend 3-60
3.20	Reserved 3-60
3.21	Reserved 3-61
3.22	Transfer of Material 3-61
3.23	Modification and Revocation of Licenses 3-62
3.24	Reciprocal Recognition of Licenses 3-63
3.25	Reserved 3-65
3.26	Reserved 3-65
3.27	Reserved 3-66
3.28	Reserved 3-66
3.29	Reserved 3-66
	Schedule A - Exempt Concentrations 3-67
	Schedule B - Exempt Quantities 3-72
	Schedule C - Reserved 3-77
	Schedule D - Limits for Broad Licenses 3-78
	Schedule E - Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release 3-83
	Appendix A - Criteria Relating to Use of Financial Tests and Parent Company Guarantees for Providing Reasonable Assurance of Funds for Decommissioning 3-86
	Appendix B - Criteria Relating to Use of Financial Tests and Self Guarantees for Providing Reasonable Assurance of Funds for Decommissioning 3-89

PART 4 - STANDARDS FOR PROTECTION AGAINST RADIATION

		<u>Page</u>
RH 4.1	Purpose.....	4-1
4.2	Scope.....	4-1
4.3	Definitions.....	4-1
4.4	Implementation.....	4-4
4.5	Radiation Protection Programs.....	4-5
4.6	Occupational Dose Limits for Adults.....	4-5
4.7	Compliance with Requirements for Summation of External and Internal Doses.....	4-7
4.8	Determination of External Dose from Airborne Radioactive Material.....	4-8
4.9	Determination of Internal Exposure.....	4-8
4.10	Determination of Prior Occupational Dose.....	4-10
4.11	Planned Special Exposures.....	4-12
4.12	Occupational Dose Limits for Minors.....	4-12
4.13	Dose to an Embryo/Fetus.....	4-12
4.14	Dose Limits for Individual Members of the Public.....	4-13
4.15	Compliance with Dose Limits for Individual Members of the Public.....	4-14
4.16	Testing for Leakage or Contamination of Sealed Sources.....	4-15
4.17	General.....	4-17
4.18	Conditions Requiring Individual Monitoring of External and Internal Occupational Dose.....	4-18
4.19	Control of Access to High Radiation Areas.....	4-18
4.20	Control of Access to Very High Radiation Areas.....	4-19
4.21	Control of Access to Very High Radiation Areas --Irradiators.....	4-20
4.22	Use of Process or Other Engineering Controls.....	4-22
4.23	Use of Other Controls.....	4-22
4.24	Use of Individual Respiratory Protection Equipment.....	4-22
4.25	Security of Stored Sources of Radiation.....	4-24
4.26	Control of Sources of Radiation not in Storage.....	4-25
4.27	Caution Signs.....	4-25
4.28	Posting Requirements.....	4-26
4.29	Exceptions to Posting Requirements.....	4-26
4.30	Labeling Containers and Radiation Machines.....	4-27
4.31	Exemptions to Labeling Requirements.....	4-28
4.32	Procedures for Receiving and Opening Packages.....	4-28
4.33	General Requirements.....	4-29
4.34	Method for Obtaining Approval of Proposed Disposal Procedures.....	4-29
4.35	Disposal by Release into Sanitary Sewerage.....	4-30
4.36	Treatment or Disposal by Incineration.....	4-30
4.37	Disposal of Specific Wastes.....	4-30
4.38	Transfer for Disposal and Manifests.....	4-31
4.39	Compliance with Environmental and Health Protection Regulations.....	4-31
4.40	General Provisions.....	4-31
4.41	Records of Radiation Protection Programs.....	4-32

PART 4 - STANDARDS FOR PROTECTION AGAINST RADIATION (continued)

	<u>Page</u>
RH 4.42	Records of Surveys..... 4-32
4.43	Records of Tests for Leakage or Contamination of Sealed Sources..... 4-32
4.44	Records of Prior Occupational Dose..... 4-33
4.45	Records of Planned Special Exposures..... 4-33
4.46	Records of Individual Monitoring Results..... 4-33
4.47	Records of Dose to Individual Members of the Public..... 4-34
4.48	Records of Waste Disposal..... 4-34
4.49	Records of Testing Entry Control Devices for Very High Radiation Areas..... 4-35
4.50	Form of Records..... 4-35
4.51	Reports of Stolen, Lost, or Missing Licensed or Registered Sources of Radiation..... 4-35
4.52	Notification of Incidents..... 4-36
4.53	Preparation and Submission of Reports..... 4-38
4.54	Reports of Planned Special Exposures..... 4-40
4.55	Reserved..... 4-40
4.56	Reports of Individual Monitoring..... 4-40
4.57	Notifications and Reports to Individuals..... 4-41
4.58	Reports of Leaking or Contaminated Sealed Sources..... 4-42
4.59	Vacating Premises..... 4-42
4.60	Permissible Levels of Radioactive Material in Uncontrolled Areas..... 4-42
4.61	Radiological Criteria for License Termination..... 4-42
	Appendix A - Protection Factors for Respirators..... 4-45
	Appendix B - Annual Limits on Intake (ALI) and Derived Air Concentrations (DAC) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sanitary Sewerage..... 4-49
	Appendix C - Quantities of Licensed or Registered Material Requiring Labeling..... 4-128
	Appendix D -Reserved..... 4-136
	Appendix E - Classification and Characteristics of Low-Level Radioactive Waste..... 4-137
	Appendix F - Quantities for Use with Decommissioning..... 4-142
	Appendix G - Requirements for Transfer of Low-Level Radioactive Waste for Disposal at Land Disposal Facilities and Manifests..... 4-147

**PART 5 - RADIATION SAFETY REQUIREMENTS FOR
INDUSTRIAL RADIOGRAPHIC OPERATIONS**

		<u>Page</u>
RH	5.1 Purpose	5-1
	5.2 Scope	5-1
	5.3 Definitions.....	5-1
	5.4 Exemptions	5-5
	5.5 Licensing and Registration Requirements for Industrial Radiography Operations	5-6
	5.6 Performance Requirements for Industrial Radiography Equipment	5-8
	5.7 Limits on External Radiation Levels From Storage Containers and Source Changers	5-10
	5.8 Locking of Sources of Radiation, Storage Containers and Source Changers	5-10
	5.9 Radiation Survey Instruments	5-10
	5.10 Leak Testing and Replacement of Sealed Sources	5-11
	5.11 Quarterly Inventory	5-12
	5.12 Inspection and Maintenance of Radiation Machines, Radiographic Exposure Devices, Transport and Storage Containers, Associated Equipment, Source Changers, and Survey Instruments	5-13
	5.13 Permanent Radiographic Installations	5-13
	5.14 Labeling, Storage, and Transportation	5-14
	5.15 Conducting Industrial Radiographic Operations.....	5-15
	5.16 Radiation Safety Officer	5-15
	5.17 Training	5-16
	5.18 Operating and Emergency Procedures	5-19
	5.19 Supervision of Radiographer's Assistants.....	5-21
	5.20 Personnel Monitoring	5-21
	5.21 Radiation Surveys	5-22
	5.22 Surveillance.....	5-23
	5.23 Posting	5-23
	5.24 Records for Industrial Radiography.....	5-23
	5.25 Records of Receipt and Transfer of Sources of Radiation.....	5-23
	5.26 Records of Radiation Survey Instruments.....	5-23
	5.27 Records of Leak Testing of Sealed Sources and Devices Containing DU	5-24
	5.28 Records of Quarterly Inventory	5-24
	5.29 Utilization Logs	5-24
	5.30 Records of Inspection and Maintenance of Radiation Machines, Radiographic Exposure Devices, Transport and Storage Containers, Associated Equipment, Source Changers, and Survey Instruments	5-24
	5.31 Records of Alarm System and Entrance Control Checks at Permanent Radiographic Installations	5-25
	5.32 Records of Training and Certification.....	5-25
	5.33 Copies of Operating and Emergency Procedures.....	5-25
	5.34 Records of Personnel Monitoring.....	5-25

**PART 5 - RADIATION SAFETY REQUIREMENTS FOR
INDUSTRIAL RADIOGRAPHIC OPERATIONS (CONTINUED)**

		<u>Page</u>	
RH	5.35	Records of Radiation Surveys.....	5-25
	5.36	Form of Records	5-26
	5.37	Location of Documents and Records.....	5-26
	5.38	Notifications.....	5-27
	5.39	Reciprocity.....	5-28
	5.40	Specific Requirements for Radiographic Personnel	
		Performing Industrial Radiography.....	5-28
		Appendix A - Requirements	5-30

PART 6 - USE OF X-RAYS IN THE HEALING ARTS

RH	6.1	Purpose and Scope.....	6-1
	6.2	Definitions.....	6-1
	6.3	General Requirements	6-11
	6.4	General Requirements for All Diagnostic X-Ray Systems	6-18
	6.5	Fluoroscopic X-Ray Systems Except for Computed Tomography X-Ray Systems.....	6-21
	6.6	Radiographic Systems Other Than Fluoroscopic, Dental Intraoral, Veterinary, Computed Tomography, or Mammography X-Ray Systems	6-29
	6.7	Intraoral Dental Radiographic Systems.....	6-36
	6.8	Veterinary Medicine Radiographic Installations	6-38
	6.9	Computed Tomography X-Ray Systems.....	6-40
	6.10	Mammography	6-48
	6.11	Severability.....	6-59
		Appendix A - Information on Radiation Shielding Required for Plan Reviews	6-60
		Appendix B - Design Requirements for an Operator's Booth.....	6-61
		Appendix C - Information to be Submitted by Persons Proposing to Conduct Healing Arts Screening	6-63

PART 7 - USE OF RADIONUCLIDES IN THE HEALING ARTS

RH	7.1	Purpose and Scope.....	7-1
	7.2	Definitions.....	7-1
	7.3	License Required	7-3
	7.4	License Amendments.....	7-3
	7.5	Notifications.....	7-4
	7.6	ALARA Program.....	7-4
	7.7	Radiation Safety Officer	7-5
	7.8	Radiation Safety Committee	7-6
	7.9	Statement of Authorities and Responsibilities	7-7
	7.10	Supervision.....	7-8
	7.11	Visiting Authorized User	7-9
	7.12	Mobile Nuclear Medicine Service Administrative Requirements	7-9

PART 7 - USE OF RADIONUCLIDES IN THE HEALING ARTS (CONTINUED)

		<u>Page</u>
RH	7.13	Records and Reports of Misadministrations 7-9
	7.14	Suppliers 7-10
	7.15	Quality Control of Nuclear Medicine Imaging and Uptake Quantifying Equipment 7-11
	7.16	Possession, Use, Calibration, and Check of Dose Calibrators 7-11
	7.17	Calibration and Check of Survey Instruments 7-13
	7.18	Assay of Dosage of Unsealed Radioactive Material 7-14
	7.19	Authorization for Calibration and Reference Sources 7-14
	7.20	Requirements for Possession of Sealed Sources and Brachytherapy Sources 7-15
	7.21	Syringe Shields 7-16
	7.22	Syringe Labels 7-16
	7.23	Vial Shields 7-16
	7.24	Vial Shield Labels 7-16
	7.25	Surveys for Contamination and Ambient Radiation Dose Rate 7-17
	7.26	Release of Patients Containing Radiopharmaceuticals or Permanent Implants 7-17
	7.27	Mobile Nuclear Medicine Service Technical Requirements 7-18
	7.28	Storage of Volatiles and Gases 7-19
	7.29	Decay-In-Storage 7-19
	7.30	Use of Unsealed Radioactive Material for Uptake, Dilution or Excretion Studies 7-20
	7.31	Possession of Survey Instruments 7-20
	7.32	Use of Unsealed Radioactive Material 7-21
	7.33	Permissible Molybdenum-99 Concentration 7-21
	7.34	Control of Aerosols and Gases 7-21
	7.35	Survey Meters 7-22
	7.36	Use of Unsealed Radioactive Material for Therapeutic Administration 7-22
	7.37	Safety Instruction 7-22
	7.38	Safety Precautions 7-23
	7.39	Survey Meters 7-23
	7.40	Use of Sealed Sources for Diagnosis 7-24
	7.41	Survey Meters 7-24
	7.42	Use of Sources for Brachytherapy 7-24
	7.43	Safety Instruction 7-25
	7.44	Safety Precautions 7-25
	7.45	Brachytherapy Sources Inventory 7-26
	7.46	Release of Patients Treated with Temporary Implants 7-26
	7.47	Survey Meters 7-27
	7.48	Use of a Sealed Source in a Teletherapy Unit 7-27
	7.49	Maintenance and Repair Restrictions 7-27
	7.50	Amendments 7-27
	7.51	Safety Instruction 7-27
	7.52	Doors, Interlock, and Warning Systems 7-28
	7.53	Survey Meters 7-28
	7.54	Radiation Monitoring Device 7-29
	7.55	Viewing System 7-29

PART 7 - USE OF RADIONUCLIDES IN THE HEALING ARTS (CONTINUED)

		<u>Page</u>
RH	7.56	Dosimetry Equipment..... 7-29
	7.57	Full Calibration Measurements 7-30
	7.58	Periodic Spot Checks 7-32
	7.59	Radiation Surveys for Teletherapy Facilities 7-33
	7.60	Safety Spot Check for Teletherapy Facilities 7-34
	7.61	Modification of Teletherapy Unit or Room Before Beginning a Treatment Program 7-35
	7.62	Reports of Teletherapy Surveys, Checks, Tests and Measurements 7-35
	7.63	Five-Year Inspection 7-35
	7.64	Radiation Safety Officer 7-35
	7.65	Training for Experienced Radiation Safety Officer 7-36
	7.66	Training for Uptake, Dilution, or Excretion Studies 7-37
	7.67	Training for Imaging and Localization Studies 7-38
	7.68	Training for Therapeutic Use of Unsealed Radioactive Material 7-39
	7.69	Training for Therapeutic Use of Brachytherapy Sources 7-40
	7.70	Training for Ophthalmic Use of Strontium-90 7-41
	7.71	Training for Use of Sealed Sources for Diagnosis 7-42
	7.72	Training for Teletherapy 7-43
	7.73	Training for Teletherapy Physicist 7-44
	7.74	Training for Experienced Authorized Users 7-45
	7.75	Training for Experienced Authorized Users 7-46
	7.76	Training for Experienced Nuclear Pharmacist 7-46
	7.77	Physician Training in a Three-Month Program 7-46
	7.78	Recentness of Training 7-46

**PART 8 - RADIATION SAFETY REQUIREMENTS FOR
ANALYTICAL X-RAY EQUIPMENT**

RH	8.1	Purpose and Scope..... 8-1
	8.2	Definitions..... 8-1
	8.3	Equipment Requirements..... 8-1
	8.4	Area Requirements 8-3
	8.5	Operating Requirements 8-4
	8.6	Personnel Requirements..... 8-5

PART 9 - RADIATION SAFETY REQUIREMENTS FOR PARTICLE ACCELERATORS

RH	9.1	Purpose and Scope..... 9-1
	9.2	Registration Requirements..... 9-1
	9.3	General Requirements for the Issuance of a Registration for Particle Accelerators 9-1
	9.4	Radiation Safety Requirements for the Use of Particle Accelerators 9-2
	9.5	Limitations 9-2
	9.6	Shielding and Safety Design Requirements 9-2
	9.7	Particle Accelerator Controls and Interlock Systems 9-3
	9.8	Warning Devices 9-3
	9.9	Operating Procedures 9-3
	9.10	Radiation Monitoring Requirements 9-5
	9.11	Ventilation Systems..... 9-6

PART 10 - NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS: INSPECTIONS

		<u>Page</u>
RH	10.1	Purpose and Scope..... 10-1
	10.2	Posting of Notices to Workers..... 10-1
	10.3	Instructions to Workers 10-2
	10.4	Notification and Reports to Individuals 10-3
	10.5	Presence of Representatives of Licensees or Registrants and Workers During Inspection 10-5
	10.6	Consultation with Workers During Inspections 10-6
	10.7	Requests by Workers for Inspections 10-7
	10.8	Inspections Not Warranted; Informal Review..... 10-8

PART 11 - SPECIAL LAND OWNERSHIP REQUIREMENTS

RH	11.1	Purpose..... 11-1
	11.2	Scope 11-1
	11.3	Demonstration of Control 11-1

**PART 12 - FEES FOR MATERIALS LICENSES AND OTHER
RADIATION CONTROL SERVICES**

RH	12.1	Purpose and Scope..... 12-1
	12.2	Definitions..... 12-1
	12.3	Exemptions 12-2
	12.4	Specific Radioactive Materials Licensees 12-3
	12.5	General Licenses 12-6
	12.6	Special Project Fees 12-7
	12.7	Low-Level Radioactive Waste Access Approval Fees 12-7
	12.8	Search, Review, Duplication and Special Service Fees..... 12-7
	12.9	Partial Payment of Fees 12-10
	12.10	Method of Payment 12-10
	12.11	Schedule of Fees for Materials Licenses and Other Radiation Control Services..... 12-10
	12.12	Failure by Applicant or Licensee to Pay Prescribed Fee..... 12-11
	12.13	Penalties..... 12-11
	12.14	Severability 12-11
		Appendix A - Schedule for Fees for Radioactive Materials Licensees and Other Regulatory Services..... 12-12

PART 13 - PENALTIES FOR VIOLATIONS

RH	13.1	Purpose and Scope..... 13-1
	13.2	Definitions..... 13-1
	13.3	Penalties and Severity Levels 13-1
	13.4	Exemptions 13-1
	13.5	Notification and Imposition 13-2
		Appendix A - Severity Levels 13-5

**PART 14 - LICENSING REQUIREMENTS FOR LAND DISPOSAL
OF LOW LEVEL RADIOACTIVE WASTE**

		<u>Page</u>
RH	14.1	Purpose and Scope..... 14-1
	14.2	Definitions..... 14-1
	14.3	License Required..... 14-4
	14.4	Reserved..... 14-4
	14.5	Content of Application..... 14-4
	14.6	General Information..... 14-5
	14.7	Specific Technical Information..... 14-5
	14.8	Technical Analyses..... 14-7
	14.9	Institutional Information..... 14-8
	14.10	Financial Information..... 14-8
	14.11	Requirements for Issuance of a License..... 14-8
	14.12	Conditions of Licensure..... 14-9
	14.13	Application for Renewal or Closure..... 14-10
	14.14	Contents of Application for Site Closure and Stabilization..... 14-10
	14.15	Post-Closure Observation and Maintenance..... 14-11
	14.16	Transfer of License..... 14-11
	14.17	Termination of License..... 14-12
	14.18	General Requirement..... 14-12
	14.19	Protection of the General Population from Releases of Radioactivity..... 14-12
	14.20	Protection of Individuals from Inadvertent Intrusions..... 14-12
	14.21	Protection of Individuals During Operations..... 14-13
	14.22	Stability of the Disposal Site After Closure..... 14-13
	14.23	Disposal Site Suitability Requirements for Land Disposal..... 14-13
	14.24	Disposal Site Design for Land Disposal..... 14-14
	14.25	Land Disposal Facility Operation and Disposal Site Closure..... 14-15
	14.26	Environmental Monitoring..... 14-16
	14.27	Alternative Requirements for Design and Operations..... 14-17
	14.28	Institutional Requirements..... 14-17
	14.29	Alternative Requirements for Waste Classification and Characteristics..... 14-17
	14.30	Applicant Qualifications and Assurance..... 14-17
	14.31	Funding for Disposal Site Closure and Stabilization..... 14-18
	14.32	Financial Assurances for Institutional Controls..... 14-19
	14.33	Maintenance of Records, Reports, and Transfers..... 14-19
	14-34	Tests on Land Disposal Facilities..... 14-21
	14-35	Agency Inspections of Land Disposal Facilities..... 14-21

PART 15 - COLORADO LOW LEVEL RADIOACTIVE WASTE RATE REGULATIONS

RH	15.1	Authority..... 15-1
	15.2	Basis and Purpose..... 15-1
	15.3	Amendment of Rules..... 15-1
	15.4	Definitions..... 15-1
	15.5	..... 15-2
	15.6	..... 15-3
	15.7	..... 15-3
	15.8	..... 15-3
	15.9	..... 15-3
	15.10	..... 15-4
	15.11	Calculation of the Rates..... 15-4
	15.12	Allowable Expenses..... 15-4
	15.13	Costs Not Allowed..... 15-4
	15.14	Return on Invested Capital..... 15-5
	15.15	Rate of Return..... 15-6
	15.16	..... 15-6
	15.17	..... 15-6
	15.18	..... 15-6
	15.19	..... 15-7

**PART 16 - RADIATION SAFETY REQUIREMENTS FOR WIRELINE
SERVICE OPERATIONS AND SUBSURFACE TRACER STUDIES**

		<u>Page</u>
RH	16.1 Purpose	16-1
	16.2 Scope	16-1
	16.3 Definitions.....	16-1
	16.4 Prohibition	16-2
	16.5 Limits on Levels of Radiation	16-2
	16.6 Storage Precautions.....	16-3
	16.7 Transport Precautions.....	16-3
	16.8 Radiation Survey Instruments	16-3
	16.9 Leak Testing of Sealed Sources	16-3
	16.10 Quarterly Inventory.....	16-4
	16.11 Utilization Records	16-5
	16.12 Design, Performance, and Certification Criteria for Sealed Sources Used in Downhole Operations.....	16-5
	16.13 Labeling.....	16-6
	16.14 Inspection and Maintenance	16-6
	16.15 Training Requirements.....	16-7
	16.16 Operating and Emergency Procedures.....	16-7
	16.17 Personnel Monitoring	16-8
	16.18 Security	16-8
	16.19 Handling Tools	16-9
	16.20 Subsurface Tracer Studies.....	16-9
	16.21 Particle Accelerators	16-9
	16.22 Radiation Surveys	16-9
	16.23 Documents and Records Required at Field Stations	16-9
	16.24 Documents and Records Required at Temporary Jobsites	16-10
	16.25 Notification of Incidents, Abandonment and Lost Sources	16-10
	Appendix A - Subjects to Be Included in Training Courses for Logging Supervisors	16-13
	Appendix B - Example of Plaque for Identifying Wells Containing Sealed Sources Containing Radioactive Material Abandoned Downhole.....	16-14

PART 17 - TRANSPORTATION OF RADIOACTIVE MATERIAL

RH	17.1 Purpose and Scope.....	17-1
	17.2 Definitions.....	17-1
	17.3 Requirement for License.....	17-5
	17.4 Exemptions	17-5
	17.5 Transportation of Licensed Material.....	17-6
	17.6 General Licenses for Carriers	17-7
	17.7 General License: Approved Packages.....	17-7
	17.8 General License: Previously Approved Type B Packages	17-8
	17.9 General License: Specification Container	17-9
	17.10 General License: Use of Foreign Approved Package.....	17-9
	17.11 General License: Type A, Fissile Class II Package	17-10
	17.12 General License: Restricted, Fissile Class II Package	17-11
	17.13 Fissile Material: Assumptions as to Unknown Properties	17-13
	17.14 Preliminary Determinations	17-13
	17.15 Routine Determinations.....	17-13

PART 17 - TRANSPORTATION OF RADIOACTIVE MATERIAL (CONTINUED)

		<u>Page</u>
RH	17.16	Air Transport of Plutonium 17-16
	17.17	Shipment Records..... 17-16
	17.18	Reports..... 17-16
	17.19	Advance Notification of Transport of Nuclear Waste 17-17
	17.20	Quality Assurance Requirements..... 17-18
	17.21	Referenced Materials 17-19
		Appendix A - Determination of A ₁ and A ₂ 17-20

PART 18 - MILLING OF URANIUM, THORIUM AND RELATED RADIOACTIVE MATERIALS

RH	18.1	Purpose and Scope..... 18-1
	18.2	Definitions..... 18-1
	18.3	Special Requirements for Issuance of Specific Licenses For Source Material Milling..... 18-4
	18.4	Environmental Impact Analysis 18-6
	18.5	Reserved..... 18-7
	18.6	License Hearings 18-7
	18.7	Operational Requirements 18-11
	18.8	Decommissioning Requirements 18-12
		Appendix A - Criteria Relating to the Operation of Mills and the Disposition of Radioactive Tailings or Wastes 18-14

PART 19 - LICENSES AND RADIATION SAFETY REQUIREMENTS FOR IRRADIATORS

RH	19.1	Purpose and Scope..... 19-1
	19.2	Definitions..... 19-1
	19.3	Application For a Specific License 19-2
	19.4	Specific Licenses for Irradiators 19-2
	19.5	Start of Construction 19-4
	19.6	Applications for Exemptions..... 19-4
	19.7	Performance Criteria for Sealed Sources 19-4
	19.8	Access Control..... 19-5
	19.9	Shielding..... 19-6
	19.10	Fire Protection 19-7
	19.11	Radiation Monitors 19-7
	19.12	Control of Source Movement 19-7
	19.13	Irradiator Pools 19-8
	19.14	Source of Rack Protection 19-8
	19.15	Power Failures 19-8
	19.16	Design Requirements..... 19-9
	19.17	Construction Monitoring and Acceptance Testing..... 19-10
	19.18	Training 19-11
	19.19	Operating and Emergency Procedures..... 19-13
	19.20	Personnel Monitoring 19-14
	19.21	Radiation Surveys 19-14
	19.22	Detection of Leaking Sources 19-15
	19.23	Inspection and Maintenance 19-16

**PART 19 - LICENSES AND RADIATION SAFETY REQUIREMENTS
FOR IRRADIATORS (CONTINUED)**

		<u>Page</u>
RH	19.24	Pool Water Purity 19-17
	19.25	Attendance During Operations 19-17
	19.26	Entering and Leaving the Irradiation Room 19-17
	19.27	Irradiation of Explosive or Flammable Materials 19-18
	19.28	Records and Retention Periods 19-18
	19.29	Reports 19-19

**PART 20 - PARTICLE ACCELERATORS AND THERAPEUTIC
RADIATION MACHINES IN THE HEALING ARTS**

RH	20.1	Purpose and Scope 20-1
	20.2	Definitions 20-1
	20.3	General Administrative Requirements for Facilities Using Therapeutic Radiation Machines 20-4
	20.4	General Technical Requirements for Facilities Using Therapeutic Radiation Machines 20-8
	20.5	Reserved 20-10
	20.6	Radiation Therapy Physicist Support 20-10
	20.7	Therapeutic Radiation Machines of Less Than 500 kV 20-11
	20.8	Therapeutic Radiation Machines - Photon Therapy Systems (500 kV and Above) and Electron Therapy Systems (500 keV and Above) 20-18
	20.9	Calibration of Survey Instruments 20-30
	20.10	Shielding and Safety Design Requirements 20-31
		Appendix A - Information on Radiation Shielding Required for Plan Reviews 20-32
		Appendix B - Reserved 20-35
		Appendix C - Reserved 20-36

PART 12

FEES FOR MATERIALS LICENSES AND OTHER RADIATION CONTROL SERVICES

[This part was revised in its entirety and was effective June 30, 2002, unless otherwise noted in the left-hand margin.]

RH 12.1 Purpose and Scope

12.1.1 The Regulations in this Part establish fees for radiation control services rendered by the Department as authorized by the Act.

12.1.2 Except for persons who apply for, or hold specific licenses exempted in RH 12.3, the Regulations in this Part apply to radiation control services for a person who is an applicant for, or holder of, a specific radioactive material license or a general radioactive material license, issued pursuant to Part 3 of these Regulations. This Part also applies to a specific request for evaluation of sealed sources and devices containing radioactive material, for a special project review, which the Department completes or makes whether or not in conjunction with a license application on file or which may be filed, and for other services as specified in this Part.

RH 12.2 Definitions

12.2.1 As used in this Part:

"Abandoned application" means any application filed with the Department for which the Department has in writing requested additional information needed to process the application and the Department does not receive a written reply from the applicant within forty-five (45) days to its most recent written request for additional information.

"Anniversary Date" means that date upon which annual fees shall be due and payable. Anniversary Date is determined as the last day of the month corresponding to the month listed as the licensee's expiration date.

"Application" means any request filed with the Department for a permit, license, approval, exemption, certificate, other permission, or for any other service.

"Full cost fees" mean fees based on reasonable and actual professional staff time and appropriate contractual support services expended for certain radiation control activities as specified in this Part, Appendix A.

"Inspections" (routine or non-routine) means:

(1) "Routine inspections" designed to evaluate the licensee's activities within the context of the licensee having primary responsibility for protection of the public and environment.

(2) "Non-routine inspections" in response or reaction to an incident, allegation, follow-up to inspection deficiencies, inspections to determine implementation of safety issues including radioactive waste control services pursuant to Colo. Rev. Stat., Sections 25-11-101--305, and Sections 24-60-2201--2212 and these Regulations. A non-routine or reactive inspection has the same purpose as the routine inspection.

"Low-Level Radioactive Waste Access Approval" means those reviews and on-site evaluations necessary to assure waste generator compliance with low-level radioactive waste site access criteria as established by the Rocky Mountain Low-Level Radioactive Waste Board (the Board) or by a compact with which the Board has an agreement to accept low-level radioactive waste from Colorado or by a state with which the Board has an agreement to accept low-level radioactive waste from Colorado or by any state or site to which a Colorado generator ships low-level radioactive waste.

"Open Records Act" means the Colorado Open Records Act, Colo. Rev. Stat., Section 24-72-201 et. seq.

"Special Projects" means those requests submitted to the Department for review for which fees are not otherwise specified in this chapter. Examples of special projects include, but are not limited to, early site reviews, consultation, emergency response plan reviews, assessment of responses to Department orders, contamination surveys in response to license termination or relocation, and financial surety reviews.

RH 12.3 Exemptions

12.3.1 No fees pursuant to RH 12.4.1 through 12.4.5 shall be required for:

12.3.1.1 A radioactive materials license authorizing the use of source material as shielding only in devices and containers, provided that all other licensed radioactive material in the device or container will be subject to the fees described in this Part, Appendix A.

12.3.1.2 An application for possession and use of radioactive material applied for by, or issued to, an agency of Colorado or any political subdivision thereof, except for licenses which authorize distribution of radioactive material or products containing radioactive material or licenses authorizing services to any person other than an agency or political subdivision of the State. This exemption does not apply to fees for inspection or annual fees for such licensees.

12.3.1.3 A general license for reciprocity pursuant to RH 3.24. This exemption does not apply to fees for inspection of, or annual fees for such licensees.

12.3.2 Application for Exemptions

12.3.2.1 The Department may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of this Part for good cause as it determines are authorized by law and are otherwise in the public interest.

12.3.2.2 Applications for exemption under this section may include activities such as, but not limited to, the use of licensed materials for educational or noncommercial public displays or scientific collections.

RH 12.4 Specific Radioactive Materials Licensees

12.4.1 Application Fees

12.4.1.1 Application fees for new radioactive materials licenses not subject to full cost fees must accompany the application when it is filed. Except for licenses subject to full cost, no application for a new license, for the reinstatement of an expired license, or for an application for amendment to a materials license that would place the licensee in a higher fee category will be accepted for filing or processed prior to payment of the full amount specified in this Part, Appendix A¹. Applications for which no remittance is received may be returned to the applicant.

12.4.1.2 An application for renewal of a license not subject to full cost fees which has expired and for which a renewal was not timely filed pursuant to RH 3.17.2 shall be accompanied by a reinstatement fee of \$400.

12.4.1.3 Application fees for new radioactive materials licenses, renewals, amendments, other required approvals and requests for dismantling, decommissioning and termination of licensed activities, that are subject to the full cost fees are payable upon notification by the Department.

12.4.1.4 All licensing fees will be charged irrespective of the Department's disposition of the application or a withdrawal of the application.

12.4.1.5 Abandoned Applications

12.4.1.5.1 In the case of an abandoned amendment application, if the licensee desires to submit a new amendment application for the same or similar authorization, the reapplication shall be accompanied by a \$100 reapplication fee.

12.4.1.5.2 In the case of an abandoned new license application, if the applicant desires to submit a new application, then the applicant is subject to the application fee specified in this Part, Appendix A.

12.4.1.6 Expedited License Review: An hourly rate for direct staff time associated with the review of an application will be assessed for an expedited review. This fee only applies when, by consent of the applicant, a licensing request is taken out of the date order in which it was received.

¹ Licensing fees are not charged for routine amendments or renewals for licensees not subject to full cost fees.

12.4.2 Termination Fees

12.4.2.1 Applications for license termination for licensees not subject to full cost fees will not be subject to fees provided that the licensee notifies the Department and requests termination pursuant to RH 3.16, as appropriate, and provided that there is no decommissioning or decontamination involved subsequent to the request for termination. Licensees subject to full cost fees shall be billed for the full cost of the review of the application for termination.

12.4.2.2 Staff time spent in obtaining information which is not provided by the licensee as required by RH 3.16.6 and 3.16.7 when decontamination is necessary, or in supervising the licensee's decommissioning or decontamination of the site, will be billed at the Department's hourly rate.

12.4.2.3 The charges for staff time billed under RH 12.4.2 are payable upon notification by the Department.

12.4.3 Inspection Fees. Inspection costs include reasonable and actual preparation time, time on site, documentation time, any associated contractual service costs, and time involved in the processing and issuance of a notice of violation or civil penalty.

12.4.3.1 Fees for inspection of licensees not subject to full cost fees.

12.4.3.1.1 Routine inspections. Fees for routine inspections are included in the annual fee and will not be charged separately.

12.4.3.1.2 Non-Routine Inspections. Fees for all non-routine inspections will be assessed on a per inspection basis, and are payable upon notification by the Department.

12.4.3.2 Fees for Inspections of Licensees Subject to Full Costs Fees. Inspection fees will be assessed to recover the full cost for each specific inspection as specified in this Part, Appendix A, including licensee-specific performance reviews and assessments, evaluations, and incident investigations. Inspection fees for licensees subject to full cost fees, and for inspections other than routine, are due upon notification by the Department.

12.4.4 Annual fees

12.4.4.1 Persons who hold specific radioactive materials licenses shall pay an annual fee.

12.4.4.1.1 The licensee shall pay the fee in Appendix A of this Part for each license the person holds on the date the annual fee is due.

12.4.4.1.2 If a person holds more than one license, the fee will be the cumulative total of the annual fee for all licenses held by that person.

12.4.4.1.3 For those licenses that authorize more than one activity (e.g., human use and irradiator activities), annual fees will be assessed for each category applicable to the license.

12.4.4.1.4 Persons with licenses authorizing permanent, multiple locations of use and/or storage that are separated by more than one mile shall increase the annual fee by 75 percent for the second location; 50 percent for the third location; and 25 percent if more than three locations of use are authorized. For purpose of this regulation, a permanent location is defined as one where radioactive materials are used and/or stored for more than 180 days in any calendar year.

12.4.4.2 **Small Entities.** A licensee who is required to pay an annual fee under this section may qualify as a small entity. If a licensee qualifies as a small entity and provides the Department with the proper certification, the licensee may pay reduced annual fees as shown below.

	Maximum Annual Fee Per Licensed Category
Small businesses not engaged in manufacturing and small not-for-profit organizations (gross annual receipts):	
\$350,000 - \$5,000,000	\$2,300
Less than \$350,000	\$ 500
Manufacturing entities that have an average of 500 employees or less	
35 to 500 employees	\$2,300
Less than 35 employees	\$ 500
Small governmental jurisdictions (including cities, counties, towns, townships, villages, school districts, special districts or publicly supported educational institutions): (population):	
20,000 - 50,000	\$2,300
Less than 20,000	\$ 500
Educational institutions that are not state or Publicly supported, and have 500 employees or less	
35 to 500 employees	\$2,300
Less than 35 employees	\$ 500

12.4.4.2.1 A licensee who is a subsidiary of a large entity does not qualify as a small entity for purposes of this section.

12.4.4.2.3 A licensee who seeks to establish status as a small entity for purpose of paying the annual fees required under this section shall file a certification statement with the Department. The licensee shall file the required Certification of Department RCD Form 62 for each license under which it is billed.

12.4.4.2.4 A completed RCD Form 62 must be received between May 1 and June 15 each year for a licensee to be billed under a small entity status for the period beginning July of the year in which the RCD Form 62 is due, and ending June 30 of the following year. Failure to file a small entity certification by June 15 could result in the denial of the fee reduction that might otherwise be granted.

12.4.4.3 Reciprocal Recognition Fee. An annual management fee shall be charged for persons operating in the state under reciprocity as follows:

12.4.4.3.1 Any radioactive material brought into the state for use under reciprocity shall pay a fee equal to 75 percent of the appropriate annual fee in this Part, Appendix A.

12.4.4.3.2 Reciprocal fees shall be due and payable prior to entry into the state.

12.4.4.3.3 An acknowledgement of fee payment will be provided by the Department. The acknowledgement of fee payment shall be retained by the licensee and maintained with the pertinent documents prescribed in RH 3.24.1.1.6.

12.4.4.3.4 Reciprocal fees shall not be transferred or refunded.

12.4.4.3.5 Reciprocal fees shall expire 12 months from the issue² date.

12.4.4.4 Payment of Annual Fees.

12.4.4.4.1 The annual fees shall be due and payable each year on the anniversary date. The annual fees are not refundable except in those cases where the Department has determined that the fee is not required.

12.4.4.4.2 Annual fees shall be charged and payment required for any license that has not been terminated on or before the anniversary date or for which a request for termination has not been submitted to the Department pursuant to RH.3.16.7.

RH 12.5 General Licenses.

12.5.1 Persons who hold general licenses under the following categories shall pay an annual fee:

12.5.1.1 Depleted uranium in industrial products and devices authorized under RH 3.5.5;

12.5.1.2 Possession of more than 1 kilogram of source material other than depleted uranium for shielding under RH 3.5;

12.5.1.3 Measuring, gauging and controlling devices under RH 3.6.4; and,

12.5.1.4 *In vitro* licenses under RH 3.6.9.

² Pursuant to RH 3.24, an out-of-state licensee may operate in Colorado under reciprocity for no more than 180 days in any calendar year.

- 12.5.2 The basis for the annual fee is to cover the Department's cost associated with the regulation and control of these sources, and to cover the Department's administrative costs for those generic activities directly related to the regulation of materials licensees.
- 12.5.3 Fees for general licenses are listed in Appendix A of this Part and shall be payable every July 1, for as long as the license remains in effect.
- 12.5.4 Fees for inspection of licenses, authorized under RH 3.5.5 and 3.6, that are based on the full cost of the inspection are payable upon notification by the Department.
- RH 12.6 **Special Project Fees:** Fees for special projects are assessed for the full cost of the review, as specified in this Part, Appendix A. They will be based on reasonable and actual professional staff time. Appropriate contractual support services expanded for certain radiation control activities will also be included. Fees for special projects are payable upon notification by the Department.
- RH 12.7 **Low-Level Radioactive Waste Access Approval Fees:** Fees for services required for low-level radioactive waste access approval are payable upon notification by the Department.

SEARCH, REVIEW, DUPLICATION AND SPECIAL SERVICE FEES

- RH 12.8 **Search, Review, Duplication and Special Service Fees**
- 12.8.1 **Search, Review, and Special Service Fees**
- 12.8.1.1 **The Department charges fees for search, duplication and review.**
 - 12.8.1.1.1 **The Direct Costs of Searching for Department Records.** The Department may assess fees even when no Department records are located as a result of the search or when Department records that are located as a result of the search are not disclosed; and, records may be located.
 - 12.8.1.1.2 **If the public record is a result of a computer output, other than word processing, the fee for a copy, printout, or other photograph thereof may be based on recovery of the actual incremental costs of providing the electronic services and products together with a reasonable portion of the costs associated with building and maintaining the information system.**
 - 12.8.1.1.2.1 **The Department shall charge a reasonable fee, if, in response to a specific request, it has performed a manipulation of data so as to generate a record in a form not used by the State. Such fees shall not exceed the actual cost of manipulating the said data and generating the said record in accordance with the request. Persons making subsequent requests for the same or similar records may be charged a fee not in excess of the original fee.**

12.8.1.2 The Department shall charge requesters who request the following services for the direct costs of the service:

12.8.1.2.1 Certifying that records are true copies; or

12.8.1.2.2 Sending records by special methods, such as Express Mail, package delivery service, etc.

12.8.2 Duplication Fees

12.8.2.1 The charge for duplicating records shall be computed on the basis of Department's direct costs, including both the cost of staff and the cost of the actual copy.

12.8.2.2 Copyrighted material shall not be reproduced in violation of the copyright laws.

12.8.3 Fees for Search and Review of Department Records by Department Personnel. The Department shall charge the following hourly rates for search and review of Department records by Department personnel:

12.8.3.1 Clerical search, review, and duplication at a rate that is equivalent to the actual cost of an Administrative Assistant III at the five year rate;

12.8.3.2 Professional search, review, and duplication at a rate that is equivalent to the actual cost of an Environmental Protection Specialist II at the five year rate; and

12.8.3.3 Senior management search, review, and duplication at a rate that is equivalent to the actual cost of an Environmental Protection Specialist V at the five year rate.

12.8.4 Search and Duplication Provided Without Charge

12.8.4.1 The Department may not bill any requester for fees if the cost of collecting the fee would be equal to or greater than the fee itself.

12.8.4.2 The Department may aggregate requests in determining search and duplication to be provided without charge as provided in RH 12.8.4.1, if the Department finds a requester, or multiple requestors acting in concert, has filed multiple requests for only portions of a Department record or similar Department records for the purpose of avoiding charges.

12.8.5 Assessment of Fees

12.8.5.1 If the request is expected to require the Department to assess fees in excess of \$25 for search and/or duplication, the Department shall notify the requester that fees will be assessed unless the requester has indicated in advance his or her willingness to pay fees as high as estimated.

12.8.5.2 In the notification, the Department shall include the estimated cost of search fees and the nature of the search required and estimated cost of duplicating fees.

- 12.8.5.3 The Department will encourage requesters to discuss with the Department the possibility of narrowing the scope of the request with the goal of reducing the cost while retaining the requester's original objective.
- 12.8.5.4 If the fee is determined to be in excess of \$250, the Department may require payment at the time the information is provided.
- 12.8.6 **Requests for Waiver or Reduction of Fees**
- 12.8.6.1 The Department shall collect fees for searching for, reviewing, and duplicating Department records, except as provided in RH 12.8.4, unless a requester submits a request in writing for a waiver or reduction of fees and the Department approves such request. To assure that there will be no delay in the processing of open records act requests, the request for a waiver or reduction of fees should be included in the initial open records act request letter.
- 12.8.6.2 Each request for a waiver or reduction of fees must be addressed to the Director, Laboratory and Radiation Services Division, Colorado Department of Public Health and Environment.
- 12.8.6.3 A person requesting the Department to waive or reduce search, review, or duplication fees shall:
- 12.8.6.3.1 Describe the purpose for which the requester intends to use the requested information;
- 12.8.6.3.2 Explain the extent to which the requester will extract and analyze the substantive content of the Department record;
- 12.8.6.3.3 Describe the nature of the specific activity or research in which the Department records will be used and the specific qualifications the requester possesses to utilize information for the intended use in such a way that it will contribute to public understanding;
- 12.8.6.3.4 Describe the likely impact on the public's understanding of the subject as compared to the level of understanding of the subject existing prior to disclosure;
- 12.8.6.3.5 Describe the size and nature of the public to whose understanding a contribution will be made;
- 12.8.6.3.6 Describe the intended means of dissemination to the general public;
- 12.8.6.3.7 Indicate if public access to information will be provided free of charge or provided for an access fee or publication fee; and

- 12.8.6.3.8 Describe any commercial or private interest the requester or any other party has in the Department records sought.
- 12.8.6.4 The Department may waive or reduce the fee if, from information provided with the request for Department records made under RH 12.8.6.3, the Department determines that disclosure of the information in the Department records is for a public purpose, including public agency program support, nonprofit activities, journalism, and academic research, and is not primarily in the commercial interest of the requester.
- 12.8.6.5 In making a determination regarding a request for a waiver or reduction of fees, the Department may consider the following factors:
- 12.8.6.5.1 If disclosure is likely to contribute significantly to public understanding of government operations or activities;
- 12.8.6.5.2 If, and the extent to which, the requester has a commercial interest that would be furthered by the disclosure of the requested Department records; and
- 12.8.6.5.3 If the magnitude of the identified commercial interests of the requester is sufficiently large, in comparison with the public interest in disclosure, that disclosure is primarily in the commercial interest of the requester.
- RH 12.9 Partial Payment of Fees. In the case of services, which are subject to full cost fees, the Department may bill monthly for any service rendered.
- RH 12.10 Method of Payment. Approved credit cards, checks, drafts or money orders for payment of fees shall be payable to the Colorado Department of Public Health and Environment.
- RH 12.11 Schedule of Fees for Materials Licenses and Other Radiation Control Services
- 12.11.1 Applicants for radioactive materials licenses, other regulatory services and holders of materials licenses shall pay fees for the categories of services listed in this Part, Appendix A. License applications received prior to the effective date of this rule shall be billed in accordance with the fee schedule, as updated by the hourly rate in effect at that time the service is performed.
- 12.11.2 For each service provided subject to full cost fees, records will be maintained of time spent, using reasonable accounting procedures by at least 15 minute intervals. A summary of time spent on any activity will be provided upon request.
- 12.11.3 The Department will adjust all fees and the cost per man-hour every six (6) months from the effective date of these regulations based on the Denver Consumer Price Index for All Urban Consumers. An updated version of the fee schedule will be available upon request. Every two (2) years from the effective date of these regulations, the Department will review the fees and the Department's costs. If the adjusted fees and costs for any categories differ by more than ten percent (10%), the Department will propose a revised fee to the Board of Health for those categories.

RH 12.12 Failure by Applicant or Licensee to Pay Prescribed Fee

12.12.1 In any case where the Department finds that an applicant or a licensee has failed to pay a prescribed fee for any licensing or inspection activities required in this Part, the Department will not process any application, may suspend or revoke any license involved pursuant to RH 3.23 and may request action pursuant to Colo. Rev. Stat., Section 25-11-107 (4) Staff time expended in collection of any fee not paid within sixty (60) days of the date due will be billed at the Department's hourly rate.

12.13 Penalties

12.13.1 A \$15.00 penalty will be assessed for checks returned to the Department due to insufficient funds.

12.13.2 Late Payments

12.13.2.1 A penalty shall be assessed to any person whose fee is collected by a collection agency.

12.13.2.2 The penalty shall be equal to the fee charged by the collection agency.

RH 12.14 Severability. The provisions of this Regulation are severable, and if any provisions or the application of the provisions to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this regulation shall not be affected thereby.

PART 12
APPENDIX A

**SCHEDULE OF FEES FOR RADIOACTIVE MATERIALS
LICENSEES AND OTHER SERVICES^{1,2,3,4}**

CATEGORY 1 - SPECIAL NUCLEAR MATERIAL^{5,6}

- 1.A** Licenses for possession and use of 200 grams or more of plutonium in unsealed form or 350 grams or more of U-235 in unsealed form or 200 grams or more of U-233 in unsealed form. This includes applications to terminate licenses as well as licenses authorizing possession only.

NOTE: Colorado does not license this Category of license.

Application	NA
Annual Fee	NA
Inspection	NA

- 1.B** Licenses for receipt and storage of spent fuel at an independent spent fuel storage installation (ISFSI).

NOTE: Colorado does not license this Category of license.

Application	NA
Annual Fee	NA
Inspection	NA

- 1.C** Licenses for possession and use of special nuclear material in sealed sources contained in devices used in industrial measuring systems including x-ray fluorescence analyzers.

Application	\$660
Annual Fee	\$1,070
Inspection	\$830

- 1.D** All other special nuclear material licenses, except licenses authorizing special nuclear material in unsealed form in combinations that would constitute a critical quantity.

Application	\$1,300
Annual Fee	\$2,540
Inspection	\$1,880

**PART 12
APPENDIX A**

CATEGORY 2 - SOURCE MATERIAL

2.A1 Licenses for possession and use of source material for refining uranium mill concentrates to uranium hexafluoride.

NOTE: Colorado does not license this Category of license.

Annual Fee **NA**
Licensing and Inspection **NA**

2.A2 Licenses for possession and use of source material in recovery operations such as milling, in situ leaching, heap-leaching, ore buying stations, ion exchange facilities and in processing of ores containing source material for extraction of metals other than uranium or thorium, including licenses authorizing the possession of byproduct waste material (tailings) from source material recovery operations, and licenses authorizing decommissioning, reclamation or restoration activities as well as licenses authorizing the possession and maintenance of a facility in a standby mode.

2.A2 Class I License includes mill licenses issued for the extraction of uranium from uranium ore.

Annual Fee **\$72,610**
Licensing and Inspection **Full Cost**

2.A2 Class II License includes solution mining licenses (in-situ and heap leach) issued for the extraction of uranium from uranium ores including research and development licenses.

Annual Fee **\$60,830**
Licensing and Inspection **Full Cost**

2.A2 Class III "Other" license includes licenses for extraction of metals, heavy metals, and rare earths.

Annual Fee **\$23,020**
Licensing and Inspection **Full Cost**

PART 12
APPENDIX A

- 2.A3** Licenses that authorize the receipt of uranium waste tailings generated by milling operations from other persons for possession and disposal, except those licenses subject to the fees in Category 2.A2 or Category 2.A4.

Annual Fee	\$44,810
Licensing and inspection	Full Cost

- 2.A4** Licenses that authorize the receipt of uranium waste tailings generated by milling operations from other persons for possession and disposal incidental to the disposal of the uranium waste tailings generated by the licensee's milling operations, except those licenses subject to the fees in Category 2.A2.

Annual Fee	\$7,080
Licensing and Inspection	Full Cost

- 2.B** Licenses for possession and use of a source material for shielding.

Application	\$160
Annual Fee	\$530
Inspection	\$940

- 2.C** All other source material licenses.

Application	\$5,700
Annual Fee	\$8,470
Inspection	\$3,480

**CATEGORY 3 - BYPRODUCT MATERIAL, NATURALLY OCCURRING AND ACCELERATOR
PRODUCED RADIOACTIVE MATERIAL**

- 3.A** Licenses of broad scope for possession and use of radioactive material issued pursuant to RH 3.11 for processing or manufacturing of items containing radioactive material for commercial distribution.

Application	\$6,700
Annual Fee	\$15,780
Inspection	\$6,660

- 3.B** Other licenses for possession and use of radioactive material for processing or manufacturing of items containing radioactive material for commercial distribution.

Application	\$2,200
Annual Fee	\$4,080
Inspection	\$1,940

PART 12
APPENDIX A

- 3.C Licenses authorizing the processing or manufacture and distribution or redistribution of radiopharmaceuticals, generators, reagent kits, and/or sources and devices containing radioactive material.**

Application	\$8,700
Annual Fee	\$9,470
Inspection	\$1,940

- 3.D Licenses authorizing distribution of radiopharmaceuticals, generators, reagent kits, and/or sources or devices not involving processing of radioactive material.**

Application	\$2,400
Annual Fee	\$3,000
Inspection	\$1,000

- 3.E Licenses for possession and use of radioactive material in sealed sources for irradiation of materials where the source is not removed from its shield (self-shielded units).**

Application	\$1,700
Annual Fee	\$2,460
Inspection	\$1,060

- 3.F Licenses for possession and use of less than 10,000 curies of radioactive material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes.**

Application	\$3,400
Annual Fee	\$4,460
Inspection	\$1,650

- 3.G Licenses for possession and use of 10,000 curies or more of radioactive material in sealed sources for irradiation of materials where the source is exposed for irradiation purposes. This category includes under water irradiators for irradiation of materials where the source is not exposed.**

Application	\$8,000
Annual Fee	\$16,090
Inspection	\$3,180

- 3.H Licenses issued to distribute items containing radioactive material which requires device review to persons exempt from the licensing requirements of Part 3.**

Application	\$2,300
Annual Fee	\$2,460
Inspection	1,000

**PART 12
APPENDIX A**

- 3.I** Licenses issued to distribute items containing radioactive material or quantities of radioactive material which do not require device evaluation to persons exempt from the licensing requirements of Part 3, except specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed by the Nuclear Regulatory Commission or an Agreement State.

Application	\$3,400
Annual Fee	\$3,540
Inspection	\$1,180

- 3.J** Licenses issued to distribute items containing radioactive material which require sealed source and/or device review to persons generally licensed. This Category does not include specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under Part 3.

Application	\$1,000
Annual Fee	\$1,610
Inspection	\$1,100

- 3.K** Licenses issued to distribute items containing radioactive material or quantities of radioactive material that do not require sealed and/or device review to persons generally licensed. This Category does not include specific licenses authorizing redistribution of items that have been authorized for distribution to persons generally licensed under Part 3.

Application	\$590
Annual Fee	\$1,070
Inspection	\$590

- 3.L** Licenses of a broad scope for possession and use of radioactive material for research and development which do not authorize commercial distribution.

Application	\$5,700
Annual Fee	\$7,700
Inspection	\$2,710

- 3.M** Other licenses for possession and use of radioactive material for research and development which do not authorized commercial distribution.

Application	\$2,500
Annual Fee	\$3,390
Inspection	\$1,350

**PART 12
APPENDIX A**

3.N Licenses that authorize services for other licensees, except (1) licenses that authorize calibration and/or leak testing services only are subject to the fees specified in fee Category 3.P., and (2) licensees that authorize waste disposal services are subject to the fees specified in fee Categories 4.A., 4.B., or 4.C.

Application	\$2,600
Annual Fee	\$3,690
Inspection	\$1,590

3.O Licenses for possession and use of radioactive material for industrial radiography operations.

Application	\$4,200
Annual Fee	\$9,630
Inspection	\$2,060

3.P All other specific radioactive material licensees, except those in fee categories 4.a. through 9.d.

Application	\$1,300
Annual Fee	\$1,850
Inspection	\$1,290

CATEGORY 4 - WASTE HANDLERS

4.A Licenses specifically authorizing the receipt of waste byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material from other persons for the purpose of commercial disposal by land burial by the licensee; or licenses authorizing contingency storage of low-level radioactive waste at the site of nuclear power reactors; or licenses for treatment or disposal by incineration and transfer of packages to another person authorized to receive or dispose of waste material.

Annual Fee	NA⁷
Licensing and Inspection	Full Cost

4.B Licenses specifically authorizing the receipt of waste byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material from other persons for the purpose of packaging or repackaging the material. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.

Application	\$1,700
Annual Fee	\$7,540
Inspection	\$1,940

PART 12
APPENDIX A

- 4.C** Licenses specifically authorizing the receipt of prepackaged waste byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material from other persons. The licensee will dispose of the material by transfer to another person authorized to receive or dispose of the material.

Application	\$2,600
Annual Fee	\$5,690
Inspection	\$2,180

CATEGORY 5 - WELL LOGGING

- 5.A** Licenses for possession and use of byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material for well logging, well surveys, and tracer studies other than field.

Application	\$5,600
Annual Fee	\$6,770
Inspection	\$2,180

- 5.B** Licenses for possession and use of byproduct material for field flooding tracer studies.

Annual Fee	\$8,000
Licensing and Inspection	Full Cost

CATEGORY 6 - NUCLEAR LAUNDRIES

- 6.A** Licenses for commercial collection and laundry of items contaminated with radioactive material, source material, special nuclear material, or naturally occurring and accelerator produced material.

Application	\$11,500
Annual Fee	\$13,010
Inspection	\$3,180

CATEGORY 7 - HUMAN AND VETERINARY USE OF RADIOACTIVE MATERIAL

- 7.A** Licenses issued for human or veterinary use of radioactive material, source material, special nuclear material, or naturally occurring and accelerator produced material in sealed sources contained in teletherapy devices.

Application	\$6,300
Annual Fee	\$10,700
Inspection	\$1,820

**PART 12
APPENDIX A**

- 7.B Licenses of broad scope issued to medical institutions, or two or more physicians or veterinarian authorizing research and development including human and/or veterinary use of radioactive material, source material, special nuclear material, or naturally occurring and accelerator produced material except material in sealed sources.**

Application	\$4,500
Annual Fee	\$18,630
Inspection	\$4,890

- 7.C Other licenses issued for human or veterinary use of radioactive material, source material, and/or naturally occurring and accelerator produced material except material in sealed sources contained in teletherapy devices.**

Application	\$2,200
Annual Fee	\$3,540
Inspection	\$1,710

CATEGORY 8 - CIVIL DEFENSE

- 8.A Licenses for possession and use of radioactive material for civil defense activities.**

Application	\$330
Annual Fee	\$840
Inspection	\$1,410

CATEGORY 9 - DEVICE, PRODUCT, OR SEALED SOURCE SAFETY EVALUATION

- 9.A Safety evaluation of devices or products containing byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material except reactor fuel devices, for commercial distribution.**

Annual Fee	\$4,460
Evaluations	Full Cost

- 9.B Safety evaluation of devices or products containing radioactive material, source material, special nuclear material, or naturally occurring and accelerator produced material manufactured in accordance with the unique specifications of, and for use by a single applicant, except reactor fuel devices.**

Annual Fee	\$4,460
Evaluations	Full Cost

PART 12
APPENDIX A

- 9.C Safety evaluation of sealed sources containing byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material, except reactor fuel, for commercial distribution.

Annual Fee	\$1,300
Evaluations	Full Cost

- 9.D Safety evaluation of sealed sources containing byproduct material, source material, special nuclear material, or naturally occurring and accelerator produced material, manufactured in accordance with the unique specifications of, and for use by a single applicant, except reactor fuel.

Annual Fee	\$450
Evaluations	Full Cost

CATEGORY 10 - TRANSPORTATION OF RADIOACTIVE MATERIAL

Note: Colorado does not license this Category of License.

CATEGORY 11 - REVIEW OF STANDARDIZED SPENT FUEL FACILITIES

Note: Colorado does not license this Category of License.

CATEGORY 12 - SPECIAL PROJECTS

- 12.A Special Projects and all uses of radioactive material which are not included in any other category.

Application	Full Cost
Annual Fee	Full Cost
Inspection	Full Cost

CATEGORY 13 - SPENT FUEL STORAGE COSTS

Note: Colorado does not license this Category of License.

CATEGORY 14

- 14.A Byproduct material, source material special nuclear material, naturally occurring or accelerator produced radioactive material licenses and other approvals authorizing decommissioning, decontamination, reclamation or site restoration activities.

Annual Fee	NA ⁸
Licensing and Inspection	Full Cost

**PART 12
APPENDIX A**

CATEGORY 15 - EMERGENCY RESPONSE

15.A Emergency response requiring over 10 man-hours in any 12 consecutive months.

Full Cost

15.B Emergency response planning and exercises.

Full Cost⁹

CATEGORY 16 - ANALYTICAL PROCEDURES

Full Cost

CATEGORY 17 - GENERAL LICENSES¹⁰

17.A Source Material, gauges and other similar devices pursuant to RH 12.5.11 through 12.5.1.1.3.

Annual Fee
Inspection

\$100
Full Cost

17.B In-Vitro

Annual Fee
Inspection

\$50
Full Cost

CATEGORY 18- LOW-LEVEL RADIOACTIVE WASTE ACCESS APPROVAL

Full Cost

CATEGORY 19 - HOURLY RATE

\$85

CATEGORY 20 - TRANSFER OF RECORDS TO DEPARTMENT PURSUANT TO RH 4.40 THROUGH RH 4.50

Per box for indexed paper records submitted in state storage boxes.

\$35

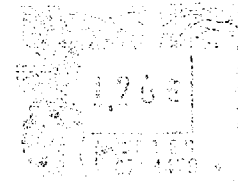
Full Cost for records not indexed and/or requiring repackaging in the standard storage boxes.

PART 12
APPENDIX A

-
- ¹ Applications for new licenses, applications to reinstate expired or terminated licenses, except those subject to fees assessed at full costs, must be accompanied by the prescribed application fee for each category.
- ² Application for amendments to licenses that would place the license in a higher fee category or add a new fee category must be accompanied by the prescribed application fee for each category.
- ³ Renewal fees – Fees for applications for renewal of materials licenses will not be charged, except that fees for applications for renewal of licensees subject to full cost fees are due upon notification by the Department.
- ⁴ Inspection Fees:
- (a) Fees for routine inspections at locations authorized by the license or reciprocity permit will not be charged, except that routine inspections subject to full cost fees are due upon notification by the Department.
 - (b) Separate charges will be assessed for each non-routine inspection which is performed.
- The frequency of routine inspections are those established in the Laboratory and Radiation Services Division Inspection and Enforcement Manual, and will be in accord with the frequencies established by the U.S. Nuclear Regulatory Commission for similar types of licenses.
- ⁵ Applications for licenses covering more than one fee category of special nuclear material or source material must be accompanied by the prescribed application fee for the highest fee category.
- ⁶ Applications for new licenses that cover both special nuclear material and radioactive material and/or naturally occurring and accelerator produced material in sealed sources for use of gauging devices will pay the appropriate processing fee for category 1.C only.
- ⁷ There are no existing Colorado licenses in these fee categories. Once Colorado issues a license for these categories, the Department will consider establishing an annual fee for that type of license.
- ⁸ Licensees in this category are not assessed an annual fee because they are charged an annual fee in other categories while they are licensed to operate.
- ⁹ Fees will be charged only service is requested or required by an authorized person outside of the department who has legal authority to make such requests.
- ¹⁰ Fees are for each license at each facility. Fees for general licenses are annual fees, and are due July 1 each year. Non-routine inspections of general licensees related to 1) exposures to individuals; or 2) release of radioactive materials in excess of limits established in Part 4 of these regulations.

STATE OF COLORADO

Colorado Department of Public Health and Environment
Laboratory and Radiation Services Division
8100 Lowry Blvd.
Denver, CO 80230-6928



FIRST CLASS

Josie Piccone, Deputy Director
Office of State & Tribal Programs
United States Nuclear Regulatory
Commission
Washington, D. C. 20555-0001