**APPENDIX E4**

**TRAINING REQUIREMENTS AND QUALIFICATION**

**JOURNAL FOR DECOMMISSIONING INSPECTORS**

Note: The Decommissioning Inspectors is a qualification in the Office of Federal and State Materials Environmental Management Programs. The contents of this Appendix were merged from Inspection Manual Chapter (IMC) 1246 Appendix A Section IX and Appendix B Section IX published on January 5, 2001. No changes were made to the training requirements or qualification journal since they were published on January 5, 2001.

APPENDIX E4

TRAINING REQUIREMENTS FOR

DECOMMISSIONING INSPECTORS

A. APPLICABILITY

The training described below is required for all decommissioning inspectors assigned to perform radiological safety inspection activities at material decommissioning facilities.

B. TRAINING

1. Required Initial Training

a. Self Study and On-the-Job Training

(1) NRC Orientation

(2) Code of Federal Regulations

(3) Office Instructions/Regional Procedures

(4) Regulatory Guidance

(5) NRC Inspection Manual

(6) Industry Codes and Standards

(7) Inspection Accompaniments

(8) NRC Management Directives

(9) Review of significant events at facilities being decommissioned

(10) Directed Review of Selected Inspection Case Work

b. Core Training. These courses establish minimum formal classroom training requirements. Refer to Section 1246-08 for exceptions to these requirements.

(1) Fundamentals of Inspection Course (G-101) or Inspection Procedures Course (G-108)

(2) Root Cause/Incident Investigation Workshop (G-205)

(3) Inspecting for Performance Course - Materials Version (G-304)

(4) Effective Communications for NRC Inspectors

(5) OSHA Indoctrination Course (G-111)

(6) Site Access Training (H-100)

(7) Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) Course (H-121)

(8) Health Physics Technology Course (H‑201)

(9) Transportation of Radioactive Materials Course (H‑308)

(10) Environmental Monitoring for Radioactivity Course (H-111)

c. Specialized Training. Depending on the inspector's previous work experience and planned inspection activities, additional courses may be required in order to gain knowledge necessary for specialized inspection activities. Management will make this determination on an individual basis.

1. Environmental Transport (including groundwater transport) (368 training, specific course to be determined by supervisor)
2. OSHA HAZWOPER Training (24 hour or 40 hour) (368)
3. Workshop on Financial Assurance for Decommissioning (DWM)

2. Supplemental Training. Additional training beyond that identified as Core Training. This training will be determined by the individual's supervisor and will depend on the individual's previous work experience and planned inspection activities in specific areas.

3. Refresher Training. Refresher training will be conducted every three years following initial certification. Refresher training will include the following:

(1) Fundamentals of Inspection Refresher Course (G-102)

(2) Health Physics Topical Review Course (H-401)

END

DECOMMISSIONING INSPECTOR

NRC INSPECTOR QUALIFICATION JOURNAL

Applicability

This NRC Inspector Qualification Journal implements NRC Manual Chapter 1246, by establishing the minimum training requirements for personnel assigned to perform safety inspection activities at materials decommissioning facilities.

The NRC Inspector Qualification Journal serves as a guideline for the development of a Qualification Journal, and establishes the minimum training requirements consistent with NRC Manual Chapter 1246. The Qualification Journal must provide traceable documentation to show that minimum requirements are met for each inspector.

The NRC Inspector Qualification Journal consists of a series of qualification guides and signature cards. Each signature card is used to document task completion, as indicated by the appropriate signature blocks. The corresponding qualification guide establishes the minimum knowledge levels or areas of study that must be completed for each signature card.

Most of the qualification guides are divided into sections. The review sections of the qualification guides identify references with general application to the inspector's qualification. The inspector is expected to have a general familiarity with these references. Other sections of the qualification guides identify specific references that have direct application to an inspection discipline. The inspector is expected to demonstrate detailed knowledge of the inspection discipline specific references.

In order to support the review of upper tier documents, programs, and policies, the inspector's first line supervisor will assign one or more specific decommissioning facilities as reference facilities. The selection of a reference facility is intended to provide the inspector's management with the ability to tailor the qualification process to the experience and training level of the inspector, and to meet the inspection needs of the NRC. The use of specific real world material will reinforce the qualification process.

INSPECTOR QUALIFICATION JOURNAL

Decommissioning Inspector

Name Title Branch Section

To complete your qualification as a Decommissioning Inspector you are to complete the following signature cards. All signoffs shall include the signature of the responsible reviewer and the date. Maintain these cards in a notebook along with any background or written material required by the program. This notebook will comprise your NRC Inspector Qualification Journal.

Signature When Complete Date

1. NRC Orientation \_\_\_\_\_\_\_

First Line Supervisor

2. Code of Federal Regulations \_\_\_\_\_\_\_

First Line Supervisor

3. Office Instructions/Regional

Procedures \_\_\_\_\_\_\_

First Line Supervisor

4. Regulatory Guidance \_\_\_\_\_\_\_

First Line Supervisor

5. NRC Inspection Manual \_\_\_\_\_\_\_

Chapters (MC) First Line Supervisor

6. Industry Codes and Standards \_\_\_\_\_\_\_

First Line Supervisor

7. Inspection Accompaniments \_\_\_\_\_\_\_

First Line Supervisor

8. NRC Management Directives \_\_\_\_\_\_\_

First Line Supervisor

9. Review of significant events

at facilities being decom-

missioned \_\_\_\_\_\_\_

First Line Supervisor

10. Directed review of selected

inspection casework \_\_\_\_\_\_\_

First Line Supervisor

11. Formal Training \_\_\_\_\_\_\_

First Line Supervisor

Qualification Board Requirement Met \_\_\_\_\_\_\_

Second Level Supervisor

or Board Chairman

Recommended as a qualified inspector \_\_\_\_\_\_\_

Second Level Supervisor

Certification Memo Issued \_\_\_\_\_\_\_

Second Level Supervisor

Qualification Card 1

NRC Orientation

A. Site Orientation Initials Date

1. New employee processing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

package completed Employee

2. Facility tour and introduction \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

B. NRC Organization

1. Review of NRC headquarters

and regional organization \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

2. Discussion of NRC organization

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 2

Code of Federal Regulations (CFR)

Initials Date

A. Familiarization with selected

CFR parts completed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

B. Discussion completed on CFR

parts related to the decommissioning

inspection program \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 3

Office Instructions/Regional Procedures

Initials Date

A. Familiarization with office/

regional policies and procedures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

B. Discussion completed on office/

regional policies and procedures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

First Line Supervisor

Qualification Card 4

Regulatory Guidance

Initials Date

A. Review of regulatory guidance

1. Regulatory Guides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

2. Information Notices

/Bulletins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

3. NUREGs \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

4. Generic Letters \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

5. Federal Register Notices

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Employee

6. NRC Branch Technical

Positions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Employee

7. Policy and Guidance Directives

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Employee

8. Technical Assistance Requests

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Employee

B. Discussion of regulatory guidance

with application to the decommissioning

inspection program \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 5

NRC Inspection Manual Chapters (MC)

Initials Date

A. Review of appropriate NRC

MCs completed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

B. Discussion of NRC MCs and their

relation to the decommissioning

inspection program \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 6

Industry Codes and Standards

Initials Date

A. Review of selected codes

and standards completed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

B. Discussion of the application

of codes and standards in the

decommissioning inspection

program \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 7

Inspection Accompaniments

Initials Date

A. Inspections completed

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Facility Employee

2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Facility Employee

3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Facility Employee

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Facility Employee

B. Discussion of inspection and

employee's role

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Facility First Line Supervisor

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Facility First Line Supervisor

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Facility First Line Supervisor

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Facility First Line Supervisor

Qualification Card 8

NRC Management Directives

Initials Date

A. Review of selected portions of

the NRC Management Directives

completed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

B. Discussion of the application

of the NRC Management Directives

to the decommissioning inspection

program

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 9

Review of Significant Events at Facilities Being Decommissioned

Initials Date

A. Review of selected significant

historical decommissioning

events \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Employee

B. Discussion of the importance

of these events and lessons

learned \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

First Line Supervisor

Qualification Card 10

Directed Review of Selected Inspection Casework

Initials Date

A. Review of selected Inspection

casework \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Employee

B. Discussion by first line super-

visor of directed review of the

selected casework and its rela-

tion to the decommissioning

inspection program \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_

First Line Supervisor

Qualification Card 11

Formal Training

1. CORE TRAINING: Initials Date

1. Fundamentals of Inspection

Course (G-101) or Inspection

Procedures Course (G-108) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

2. Root Cause/Incident Investigation

Workshop (G-205) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

3. Inspecting for Performance

Course - Materials Version (G-304) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

4. Effective Communications for NRC

Inspectors \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

5. OSHA Indoctrination Course (G-111) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

6. Site Access Training (H-100) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

7. Multi-Agency Radiation Survey and Site

Investigation Manual (MARSSIM) Course

(H-121) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

8. Health Physics Technology

Course (H-201) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

9. Transportation of Radioactive

Materials Course (H-308) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

10. Environmental Monitoring for

Radioactivity Course (H-111) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_

Training Coordinator

1. SPECIALIZED TRAINING

Other specialized training courses required for inspectors performing inspection activities in specific areas:

Course Title Course # Initials Initials Date

\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Supervisor Training Coordinator

\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Supervisor Training Coordinator

\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Supervisor Training Coordinator

\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_

Supervisor Training Coordinator

Qualification Guide 1

NRC Orientation

A. Site Orientation

1. The qualifying individual should read and complete, as appropriate, the following forms for processing into the NRC:

a. Personnel information

b. Health insurance elections

c. Retirement plan elections

d. Savings elections (e.g. U.S. Savings Bonds, TSP, etc.)

e. Fitness for Duty requirements and physical examination

f. Any other forms which may be required by NRC Office of

Human Resources

g. Forms for issuance of tagged, controlled NRC equipment

h. Payroll forms and time cards

i. Regulatory Information Tracking System (RITS)

2. The First Line Supervisor should orient the qualifying individual to the facility as follows:

a. Tour the facility and introduce the qualifying individual to the staff

b. Indicate to the qualifying individual the location of controlled documents, reference material, supplies, office equipment, etc.

B. NRC Organization

1. The qualifying individual should review and become familiar with:

a. Organizational charts of region, NMSS, and headquarters and overall NRC organization (NUREG-0325)

b. Role of Headquarters in policy and interpretation of regulations

c. Role of NRC General Counsel

d. Role of NRC Inspector General

e. Role of NRC Public Affairs

f. Role of NRC Office of Investigations

g. Role of NRC Office of Enforcement

h. Physical location of NRC offices and regions

i. Role of NRC as a regulatory agency

(1) 10 CFR Part 1 (Organization)

(2) Atomic Energy Act of 1954, as amended

(3) Energy Reorganization Act of 1954, as amended

(4) NRC Enforcement Policy (NUREG-1600)

(5) Incident Response Plan (NUREGs 0728 and 0845)

(6) Energy Policy Act of 1992

2. The First Line Supervisor should discuss NRC organization and role with the qualifying individual to ensure the qualifying individual has a full understanding of NRC's organization and mission and the role of the inspector in that mission.

Qualification Guide 2

Code of Federal Regulations (CFR)

A. A selection of currently applicable CFR Parts should be made by the First Line Supervisor. The selection should include the references listed below and be documented. The qualifying individual should be expected to have a general knowledge of the topics addressed in the references. This review may be accomplished by self-study, study-quizzes, briefings, or discussions.

1. 10 CFR Part 1 Statement of organization and general information

2. 10 CFR Part 2 Rules of practice for domestic licensing proceedings and issuance of orders

3. 10 CFR Part 9 Public Records

4. 10 CFR Part 19 Notices, instructions and reports to workers; inspections

5. 10 CFR Part 20 Standards for protection against radiation (includes selected Questions and Answers, Q & As)

6. 10 CFR Part 25 Access authorization for licensee personnel

7. 10 CFR Part 30 Rules of general applicability to domestic licensing of byproduct material

8. 10 CFR Part 40 Domestic licensing of source material

9. 10 CFR Part 50 Domestic licensing of production and utilization facilities

10. 10 CFR Part 51 Environmental protection regulations domestic for licensing and related regulatory functions

11. 10 CFR Part 61 Licensing requirements for land disposal of radioactive waste

12. 10 CFR Part 70 Domestic licensing of special nuclear material

13. 10 CFR Part 71 Packaging and transportation of radioactive material

14. 10 CFR Part 150 Exemptions and continued regulatory authority in agreement states and in offshore waters under section 274

15. 10 CFR Part 170 Fees for facilities, materials, import and export licenses and other regulatory services under the Atomic Energy Act of 1954, as amended

16. 10 CFR Part 171 Annual fees for reactor operating licenses, and fuel cycle licenses and materials licenses, including holders of certificates of compliance, registrations, and quality assurance program approvals and government agencies licensed by NRC

17. 29 CFR Part 1910 Occupational Safety and Health Standards

18. 40 CFR Part 141 National Primary Drinking Water Regulations

19. 49 CFR Parts 171 Transportation

through 180

B. Following completion of the qualifying individual's self study of the listed 10 CFR Parts, a discussion will be held with the qualifying inspector by the First Line Supervisor to test the qualifying inspector's knowledge of these Parts. To the extent possible, recent application of various sections, new regulatory initiatives, and current industry issues should be emphasized.

Qualification Guide 3

Office Instructions/Regional Procedures

A. Office/Region Policies and Procedures

* 1. Read the Office/Region Policy and Procedures Manual

2. The qualifying individual should review the region/NRC policies and practices on:

a. Travel, including Management Directive 14.1 Official Temporary Duty Travel

b. Telephone use

c. Policies on use of annual leave and sick leave and excused leave, including Bulletin 4135, Leave Administration.

d. Work schedule, including NRC Appendix 4136, Hours of Work and

Premium Pay

e. Use of government equipment, including computers (NUDOCS & ADAMS) and Management Directive 13.1, Property Management

f. Union activities, including Management Directive 10.102, Labor-Management Relations Program for Federal Employees

g. Communications outside NRC

h. Policies on outside employment and acceptance of gifts

i. Participation in political activities

j. Routing of mail and procedures for sending mail and materials (via U.S. Mail, Federal Express, etc.), including Management Directive 3.23, Mail Management

k. Ordering of documents (e.g NUREGs)

l. Region emergency and evacuation procedures

m. Employee appraisal system and Individual Development Plan (IDP)

* + - 1. Employee trial period (Management Directive 10.14 Employment and Staffing))

(2) Employee appraisals (Management Directive 10.67, Non-SES Performance Appraisal System)

1. Differing Professional Views or Opinions (Management Directive 10.159, General Personnel Management Provisions)

B. The First Line Supervisor should discuss these policies and practices with the qualifying individual to ensure that the qualifying individual has a full and complete understanding.

Qualification Guide 4

Regulatory Guidance

A. A selection of currently applicable regulatory guidance should be identified by the First Line Supervisor. These references should include those listed below and should be documented. The qualifying individual should be expected to have a general knowledge of the topics addressed in the references. The review may be accomplished by self-study, study-quizzes, briefings, or discussions. Note that many Regulatory Guides reference or endorse industry codes and standards listed in Qualification Guide 6. Study of corresponding and subtier codes and standards is recommended.

1. Regulatory Guides (use latest revision)

1.86 Termination of Operating Licenses for Nuclear Reactors

3.65 Standard Format and Content of Decommissioning Plans for Licenses Under 10 CFR Parts 30, 40, and 70

3.66 Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72

4.15 Quality Assurance for Radiological Monitoring Programs

7.1 Administrative Guide for Packaging and Transporting Radioactive Material

8.1 Radiation Symbol

8.2 Guide for Administrative Practices in Radiation Monitoring

8.4 Direct Reading and Indirect Reading Pocket Dosimeters

8.6 Standard Test Procedure for Geiger Muller Counters

8.7 Instructions for Recording and Reporting Occupational

Radiation Exposure Data

8.9 Acceptable Concepts, Models, Equations and Assumptions for a Bioassay Program

8.10 Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable

8.11 Applications of Bioassay for Uranium

8.13 Instruction Concerning Prenatal Radiation Exposure

8.15 Acceptable Programs for Respiratory Protection

8.20 Applications of Bioassay for I-125 and I-131

8.21 Health Physics Surveys for Byproduct Material at NRC Licensed Processing and Manufacturing Plants

8.24 Health Physics Surveys During Enriched Uranium 235 Processing and Fuel Fabrication

8.25 Air Sampling in the Workplace

8.28 Audible Alarm Dosimeters

8.29 Instruction Concerning Risks from Occupational Radiation Exposure

8.34 Monitoring Criteria and Methods to Calculate Occupational Radiation Doses

8.35 Planned Special Exposures

8.36 Radiation Doses to the Embryo/Fetus

10.1 Compilation of Reporting Requirements for Persons Subject to NRC Regulations

DG-1006 Records Important for Decommissioning of Nuclear Reactors (Draft for Comment)

2. Information Notices (IN) and Bulletins (BL)

IN 85-092 Surveys of Wastes Before Disposal From Nuclear Reactor Facilities

IN 91-060 False Alarms of Alarm Ratemeters Because of Radiofrequency Interference

IN 91-065 Emergency Access to Low-Level Radioactive Waste Disposal Facilities

IN 92-034 New Exposures Limits for Airborne Uranium and Thorium

IN 92-072 Employee Training and Shipper Registration Requirements for Transporting Radioactive Materials

IN 93-030 NRC Requirements for Evaluation of Wipe Test Results; Calibration of Count Rate Survey Instruments

IN 94-007 Solubility Criteria For Liquid Effluent Releases to Sanitary Sewerage Under the Revised 10 CFR Part 20

IN 94-081 Accuracy of Bioassay and Environmental Sampling Results

BL 79-019 Packaging of Low-Level Radioactive Waste for Transport and Burial

BL 79-020 Packaging, Transport and Burial of Low-Level Radioactive Waste

Others as selected by the First Line Supervisor

3. NUREGs (latest revision, where applicable)

NUREG-0041 Manual of Respiratory Protection Against Airborne Radioactive Materials

NUREG-1101 On-site Disposal of Radioactive Waste: Vol. 1 - Guidance for Disposal by Subsurface Burial; Vol. 2 - Methodology for the Radiological Assessment of Disposal by Subsurface Burial; Vol. 3 - Estimating Potential Groundwater Contamination

NUREG-1444 Site Decommissioning Management Plan

Supplement 1

NUREG 1460 Guide to NRC Reporting and Recordkeeping Requirements

Rev 1

NUREG-1500 Working Draft Regulatory Guide on the Release Criteria for Decommissioning: NRC Staff's Draft for Comment

NUREG-1501 Background as a Residual Radioactivity Criterion for Decommissioning

NUREG-1507 Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions

NUREG 1575 Multi-Agency Radiation Site Survey and Investigation Manual(MARSSIM)

NUREG 1600 General Statements of Policy and Procedures for NRC

Enforcement Actions

NUREG/BR 0195 NRC Enforcement Manual

NUREG/BR-0241 NMSS Handbook for Decommissioning Fuel Cycle and Materials Licenses

NUREG/CR-1496 Generic Environmental Impact Statement in Support of

Rulemaking on Radiological Criteria for Decommissioning of NRC - Licensed Nuclear Facilities

NUREG/CR-4884 Interpretation of Bioassay Measurements

NUREG/CR-5512 Residual Radioactive Contamination from Decommissioning

NUREG/CR-5569 Health Physics Positions Data Base

NUREG/CR-5849 Manual for Conducting Radiological Surveys in Support of License Termination

NUREG/CR-6204 Questions and Answers Based on Revised 10 CFR Part 20

Others as selected by the First Line Supervisor.

4. Generic Letters (GL)

GL 80-009 Low Level Radioactive Waste Disposal

GL 80-051 On-Site Storage Of Low-Level Waste

GL 81-038 Storage of Low Level Radioactive Wastes at Power Reactor Sites

GL 83-007 The Nuclear Waste Policy Act of 1982

GL 85-014 Commercial Storage At Power Reactor Sites Of Low Level Radioactive Waste Not Generated By The Utility

Others as selected by the First Line Supervisor.

5. Federal Register Notices

U. S. Nuclear Regulatory Commission, "Radiological Criteria for Decommissioning", *Federal Register*, Vol. 59, No. 161, 43200-43232, August 22, 1994.

U. S. Nuclear Regulatory Commission, "Decommissioning, Recordkeeping and License Termination: Documentation Additions - Final Rule", *Federal Register*, Vol. 58, No. 141, 39628-39635, July 26, 1993.

U. S. Nuclear Regulatory Commission, "Order Establishing Criteria and Schedule for Decommissioning the Bloomsburg Site", *Federal Register*, Vol. 57, No. 34, 6136-6141, February 20, 1992.

U. S. Nuclear Regulatory Commission, "Action Plan to Ensure Timely Cleanup of Site Decommissioning Management Plan Sites", *Federal Register*, Vol. 57, No. 74, 13389-13392, April 16, 1992.

U. S. Nuclear Regulatory Commission, "General Requirements for Decommissioning Nuclear Facilities - Final Rule", *Federal Register*, Vol. 53, No. 123, 24018-24056, June 27, 1988.

U. S. Nuclear Regulatory Commission, "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations", *Federal Register*, Vol. 53, No. 205, 52061-52063, October 23, 1981.

U. S. Nuclear Regulatory Commission, "Clarification of Decommissioning Funding Requirements," *Federal Register* Vol. 60, 38235, July 26, 1995

Others as selected by the First Line Supervisor.

6. NRC Branch Technical Positions

When to Remediate Inadvertent Contamination of the Terrestrial Environment, October 1994.

Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material, August 1987.

Disposal or Onsite Storage of Thorium and Uranium (Either as Natural Ores or Without Daughters present) from Past Operations (SECY 81-576), dated October 5, 1981

Branch Technical Position on Site Characterization for Decommissioning, November 1994

Others as selected by the First Line Supervisor.

7. Policy and Guidance Directives

PG-8-08 "Scenarios for Assessing Potential Doses Associated with Residual Radioactivity", May 1994.

PG 8-01 Termination of Byproduct, Source and Special Nuclear Material Licenses, November 4, 1983.

Others as selected by the First Line Supervisor.

8. Technical Assistance Requests

As selected by the First Line Supervisor

* 1. Other Documents

National Environmental Policy Act of 1969

Qualification Guide 5

NRC Inspection Manual Chapters (MC)

A. A selection of currently applicable NRC MC and Inspection Procedure (IP) references with direct application to the materials decommissioning inspection program should be identified by the First Line Supervisor. The application of the specific references to the materials decommissioning inspection program should be studied in detail by the qualifying individual.

1. REPORTS/COMMUNICATIONS/FOLLOW-UP

MC 0230 Morning Report

MC 0610 Inspection Reports

MC 0620 Inspection Documents and Records

MC 0720 NRC Bulletins and Information Notices

MC 0801 Inspector Feedback

MC 1120 Preliminary Notifications

IP 92701 Follow-up

IP 92703 Follow-up of Confirmatory Action Letters

1. INSPECTIONS

MC 0300 Announced and Unannounced Inspections

MC 0312 Technical Assistance for Radiation Safety Inspections at Nuclear Fuel Cycle Facilities and Materials Licensees Sites

MC 1246 Formal Qualification Programs in Nuclear Material Safety and Safeguards Program Area

MC 2602 Decommissioning Inspection Program for Fuel Cycle Facilities and Material Licensees

1. INTERACTIONS WITH OTHER FEDERAL AGENCIES

MC 1007 Interfacing Activities between Regional Offices of

NRC and OSHA"

1. INCIDENT RESPONSE

MC 1300 Incident Response Actions - Responsibility and Authority

MC 1301 Response to Radioactive Material Incidents that Do Not Require Activation of the NRC Incident Response Plan

MC 1302 Action Levels for Radiation Exposures and Contamination Associated with Materials Events Involving Members of the Public

MC 1330 Response to Transportation Accidents Involving Radioactive Materials

IP 87103 Inspection of Material Licensees Involved in an Incident or Bankruptcy Filing

1. LOW-LEVEL WASTE/WASTE MANAGEMENT

MC 2401 Near-Surface Low-Level Radioactive Waste Disposal Facility Inspection Program

IP 84750 Radioactive Waste Treatment, and Effluent and

Environmental Monitoring

IP 84900 Low-Level Radioactive Waste Storage

1. MATERIALS SAFETY PROGRAM

MC 1220 Processing of NRC Form 241, Inspection of Agreement State Licensees Operating under the Reciprocity Provisions of 10 CFR 150.20

MC 2800 Materials Inspection Program

IP 87101 Performance Evaluation Factors

IP 87102 Maintaining Effluents from Materials Facilities As Low As Is Reasonably Achievable (ALARA)

IP 87103 Inspection of Materials Licensees Involved in an Incident

or bankruptcy Filing

1. RADIATION PROTECTION

MC 8300 Radiation Protection

IP 83726 Control of Radioactive Materials and Contamination, Surveys, and Monitoring

IP 83728 Maintaining Occupational Exposures ALARA

IP 83750 Occupational Radiation Exposure

IP 83822 Radiation Protection

IP 83890 Closeout Inspection and Survey

1. TRANSPORTATION

MC 1330 Response to Transportation Accidents Involving Radioactive Materials

IP 86721 Transportation (Basic)

IP 86740 Inspection of Transportation Activities

IP 86750 Solid Radioactive Waste Management and Transportation of Radioactive Materials

OTHER

TI 2800.026 Followup Inspection of Formerly-Licensed Sites Identified as Potentially Contaminated"

MC 1010 Independent Assessment and Analysis

MC 1100 Notification of Significant Meetings

MC 1201 Conduct of Employees

MC 2900 Performance Appraisal Program

B. The First Line Supervisor will hold discussions, interviews, or oral quizzes to test the qualifying individual's knowledge and understanding of the application of the selected references to the materials decommissioning inspection program.

Qualification Guide 6

Industry Codes and Standards

A. A selection of currently applicable industry codes and standards should be identified by the First Line Supervisor. These references should include those listed below and be documented. The qualifying individual should be expected to have a general knowledge of the topics addressed in the references. This review may be accomplished by self study, study quizzes, briefings, or discussions.

1. American National Standards Institute (ANSI)

ANSI N13.1 Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities

ANSI N13.2 Guide for Administrative Practices in Radiation Monitoring

ANSI N13.7 Criteria for Photographic Film Dosimeter Performance

ANSI N13.27 Performance Requirements for Pocket Sized Alarm Dosimeters and Alarm Ratemeters

ANSI N42.12 Calibration and Usage of Sodium Iodide

Detection Systems

ANSI N42.14 Calibration and Use of Germanium Spectrometers for the Measurement of Gamma Ray Emission Rates of Radionuclides

ANSI N42.15 Performance Verification of Liquid Scintillation Counting Systems

ANSI N323 Radiation Protection Instrumentation Test

and Calibration

ANSI Z88.2 Practices for Respiratory Protection

ANSI Standards as selected and documented by the First Line Supervisor

2. NRC Accepted HP Computer Codes

RESRAD

PC-DOSE

RASCAL

D&D

3. National Council on Radiation Protection and Measurements (NCRP)

NCRP Reports No. 30, 46, 57, 58, 59, 65, 76, 77, 87, 93, 94, 106

4. Committee on the Biological Effects of Ionizing Radiation (BEIR)

BEIR Reports (As selected by Supervisor)

B. The First Line Supervisor should test the qualifying individual's knowledge of application of these codes and standards to the materials inspection program by discussions, interviews, or oral quizzes.

Qualification Guide 7

Inspection Accompaniments

A. Each inspector should accompany certified inspectors on at least four inspections.

B. The following is a guide for material that should be studied and discussed with the inspector in charge during these inspection accompaniments. The First Line Supervisor will discuss these items, as appropriate, following each inspection accompaniment.

1. The Inspection Program

MC 2602 Decommissioning Inspection Program For Fuel Cycle Facilities and Materials Licensees

2. Scheduling and Preparation for Inspections

MC 0300 Announced and Unannounced Inspections

3. Scope of Inspection

4. Entrance/Exit Interviews

5. Conduct of Inspection, Accumulation of Data

6. Post-inspection Activities of Inspectors

MC 0610 Inspection Reports

MC 1100 Notification of Significant Meetings

7. Morning Reports

MC 0230 Morning Report

8. Non-routine Licensee Events

MC 1110 Potential Abnormal Occurrences

Management Directive 8.3 NRC Incident Investigation Program

Management Directive 8.9 Accident Investigation

9. Preliminary Notification

MC 1120 Preliminary Notifications

10. Bulletins/Information Notices

MC 0720 NRC Bulletins and Information Notices

11. Allegations and Investigations

Management Directive 8.8 Management of Allegations

12. Communication outside NRC

NRC Management Directive 5.5 Public Affairs Program

NRC Management Directive 3.6 Distribution of Unclassified NRC Staff/Contractor-Generated Reports

Qualification Guide 8

NRC Management Directives

A. A selection of currently applicable NRC Management Directive (MD) references should be identified by the First Line Supervisor. These references should include those listed below and be documented. The qualifying inspector should be expected to have a general knowledge of the topics addressed in the references. This review may be accomplished by self-study, study-quizzes, briefings, or discussions. The selection should include:

1. NRC MD 9.1 Organization Management

2. NRC MD 9.29 Organization and Function of Regional Offices

3. NUREG 0325 USNRC Functional Organization Chart

4. NRC MD 3.2 Privacy Act

5. NRC MD 3.1 Freedom of Information Act

6. NRC MD 10.130 Safety and Health Program Under the Occupational Safety

and Health Act

7. NRC MD 10.131 Protection of NRC Employees Against Ionizing Radiation

8. NRC MD 14.1 Official Temporary Duty Travel

9. NRC MD 10.159 Differing Professional Views or Opinions

10. NRC MD 10.42 Hours of Work and Premium Pay

11. NRC MD 10.43 Time and Attendance Reporting

12. NRC MD 10.67 Non-SES Performance Appraisal System

13. NRC MD 10.101 Employee Grievances

14. NRC MD 8.3 NRC Incident Investigation Procedures

15. NRC MD 8.8 Management of Allegations

16. NRC MD 8.10 NRC Medical Event Assessment Program

17. NRC MD 4.6 License Fee Program

B. Application of the selected NRC Management Directives to the decommissioning inspection program will be discussed with the qualifying individual by the First Line Supervisor to test the qualifying individual's knowledge.

Qualification Guide 9

Review of Significant Events at Facilities Being Decommissioned

A. A selection of significant historical materials related events should be identified by the First Line Supervisor. These events should be documented and studied in detail by the qualifying individual.

B. The First Line Supervisor should discuss the selected events in detail with the qualifying inspector and go over recommendations made, lessons learned, and changes identified to prevent recurrence. The relevance of the event to the overall decommissioning inspection program should be stressed.

Qualification Guide 10

Directed Review of Selected Inspection Case Work

A. The First Line Supervisor will select documents from the file of a licensed facility and direct their review by the qualifying individual. The qualifying individual will study in detail the selected documents. The selection should be documented. Such documents would include:

1. Initial license application and facility description

2. Associated licensing correspondence (NRC staff comments and licensee responses)

3. License renewal applications and associated NRC correspondence

4. Copy of the license

5. Inspection reports related to that licensee's activities

B. The First Line Supervisor will discuss in detail with the qualifying individual the selected documents and their relation to the overall decommissioning inspection program.

Qualification Guide 11

Formal Training

The standards for each Training Course are provided in the NRC Technical Training Division Course Catalog and will not be duplicated in the Qualification Guide.

Attachment 1

Revision History for IMC 1246, Appendix E4

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| --- | --- | --- | --- | --- | --- |
| Commitment Tracking Number | Document Accession Number and Issue Date | Description of Change | Training Needed | Training Completion Date | Comment Resolution Accession Number |
| N/A | ML112351143  10/26/11  CN 11-022 | Revision history sheet added. Combined Appendix A9 with Appendix B9 and renamed as Appendix E4. Added “training requirements” section from Appendix A9. | None | N/A | ML112351154 |
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