

APPENDIX D2

TRAINING REQUIREMENTS AND QUALIFICATION JOURNAL FOR HIGH-LEVEL WASTE REPOSITORY INSPECTOR

I. TRAINING REQUIREMENTS

A. Applicability

The training described below is required for full-time inspectors and inspection team leaders assigned to perform High-Level Waste (HLW) Program inspections.

B. Training

1. Required Initial Training.

- a) Self-Study and On-The-Job Training:
 - (1) U.S. Nuclear Regulatory Commission (NRC) Orientation.
 - (2) Code of Federal Regulations.
 - (3) Office Instructions.
 - (4) Regulatory Guidance.
 - (5) Industry Codes and Standards.
 - (6) NRC Inspection Manual.
 - (7) NRC Management Directives.
 - (8) Yucca Mountain Information.
 - (9) Inspection Accompaniments.
- b) Core Training. These courses establish minimum formal classroom training requirements. Refer to Section 1246-09 for exceptions to these requirements.
 - (1) Fundamentals of Inspection Course (G-101)
 - (2) Inspecting for Performance Course - Materials Version (G-304)
 - (3) Effective Communications for NRC Inspectors Professional Development Center (PDC)
 - (4) Gathering Inspection Information Through Interviews (PDC)
 - (5) Occupational Safety and Health Act (OSHA) Indoctrination Course (G-111)
 - (6) Site Access Training (H-100)
 - (7) HLW Repository Health Physics Course (H-403)
 - (8) Licensing and Evaluation of HLW Geologic Repository (H415)
- c) Specialized Training. Depending on the employee's previous work experience and planned activities, additional courses may be required to gain knowledge necessary for specialized inspection or licensing activities. Management will make this determination on an individual basis.
 - (1) Leading NRC Work Teams
 - (2) Lead Auditor Training
 - (3) General Underground Training (GUT), including First Aid and CPR

- (4) General Employee Radiological Training (GERT)
- (5) General Employee Training (GET)
- (6) Root Cause/Incident Investigation Workshop (G-205)
- (7) Environmental Monitoring for Radioactivity (H-111)
- (8) Risk Assessment for Applications in Nuclear Materials and Waste (P400 or P401)
- (9) Quantitative Risk Analysis (P403)

NOTE: GUT, GERT, and GET Training are presently provided to NRC employees by DOE at the Yucca Mountain Site under mutual agreement between NRC and DOE. They are required for site visits.

2. Supplemental Training. Additional training beyond that identified as Core Training. This training will be determined by the 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 3 years after initial certification. Refresher training will include the following courses and other courses, as determined by management:
 - (1) Inspection Procedures Update Briefing for High-Level Waste Repository Inspectors
 - (2) Site Access Refresher Training (H-101)

II. QUALIFICATION JOURNAL

Applicability.

This NRC Inspector Qualification Journal implements NRC Manual Chapter 1246, by establishing the minimum training requirements for personnel assigned to perform inspection activities at the HLW Repository. The Qualification Journal provides traceable documentation to show that minimum requirements are met for each inspector.

The NRC Inspector Qualification Journal consists of a series of qualification cards and associated qualification guides. Each qualification card is used to document completion of a specific area. Each qualification card has a corresponding qualification guide that establishes the minimum knowledge levels and self-study areas that must be completed prior to signing the qualification card.

The purpose of NRC's Yucca Mountain inspection program is to ensure that the geologic repository is designed, constructed, and tested in accordance with the applicable regulations and the construction authorization. For the geologic repository, DOE is required to implement a quality assurance (QA) program set by Regulation 10 CFR Part 63, Subpart G, "Quality Assurance." The DOE QA program is described in the Office of Civilian Radioactive Waste Management Quality Assurance Requirements and Description (QARD), DOE/RW-0333P, and in DOE's application for a construction authorization.

As part of NRC's license review and inspection process, NRC's field reviews of the Yucca Mountain activities and inspection of DOE's QA program may begin when DOE submits a license application, during the review of the license application and continue through site construction pre-operational testing and repository operation.

INSPECTOR QUALIFICATION JOURNAL
High-Level Waste Inspector

(Name)	(Title)	(Division)	(Branch)
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To complete your qualification as a High-Level Waste (HLW) Inspector, you are to complete the following signature cards. All sign-offs 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.

- | | | |
|---|---|------|
| 1. NRC Orientation | First Line Supervisor | Date |
| 2. Code of Federal Regulations | First Line Supervisor | Date |
| 3. Office Instructions | First Line Supervisor | Date |
| 4. Regulatory Guidance | First Line Supervisor | Date |
| 5. Industry Codes and Standards | First Line Supervisor | Date |
| 6. NRC Inspection Manual | First Line Supervisor | Date |
| 7. NRC Management Directives | First Line Supervisor | Date |
| 8. Yucca Mountain Information | First Line Supervisor | Date |
| 9. Inspection Accompaniments | First Line Supervisor | Date |
| 10. Formal Training | First Line Supervisor | Date |
| Qualification Board Requirement Met | Secondary Level Supervisor
or Board Chairman | Date |
| Recommendation as a Qualified Inspector | Second Level Supervisor | Date |
| Certification Memo Issued | Second Level Supervisor | Date |

Qualification Card 1
NRC Orientation

A. Site Orientation

- | | | |
|---|------------|-------|
| 1. Facility tour and introduction completed | _____ | _____ |
| | Employee | Date |
| 2. New employee initial orientation completed | _____ | _____ |
| | Supervisor | Date |

B. NRC Organization

- | | | |
|---|------------|-------|
| 1. Review of NRC organization and NRC web page completed | _____ | _____ |
| | Employee | Date |
| 2. Review of NRC regulatory authority completed | _____ | _____ |
| | Employee | Date |
| 3. Discussion of NRC organization and authority completed | _____ | _____ |
| | Supervisor | Date |

Qualification Card 2
Code of Federal Regulations (CFR)

A. Review of selected federal regulations completed	_____	_____
	Employee	Date
 B. Discussion of federal regulations completed	_____	_____
	Supervisor	Date

Qualification Card 3
Office Instructions

A. Review of office policies
and procedures completed

Employee

Date

B. Discussion of office policies
and procedures completed

Supervisor

Date

Qualification Card 4
Regulatory Guidance

A. Review of selected regulatory
guidance completed

Employee

Date

B. Discussion of regulatory guidance
completed

Supervisor

Date

Qualification Card 5
Industry Codes and Standards

A. Review of selected codes and standards completed

Employee

Date

B. Discussion of application codes and standards completed

Supervisor

Date

Qualification Card 6
NRC Inspection Manual Chapters

A. Review of manual chapters
completed

Employee

Date

B. Discussion of manual chapters
completed

Supervisor

Date

Qualification Card 7
NRC Management Directives

A. Review of management directives completed _____
Employee Date

B. Discussion of management directives completed _____
Supervisor Date

Qualification Card 8
Yucca Mountain Information

A. Review of background information
on Yucca Mountain completed _____
Employee Date

B. Discussion of current issues
related to Yucca Mountain completed _____
Supervisor Date

Qualification Card 9
Inspection Accompaniments

A. Required inspection accompaniments completed _____
Employee Date

B. Discussion of inspection results completed _____
Supervisor Date

Qualification Card 10
Formal Training

A. Core training courses completed	_____	_____
	Training Coordinator	Date
B. Additional specialized courses completed	_____	_____
	Training Coordinator	Date
C. Course completion reviewed and adequate documentation established	_____	_____
	Supervisor	Date

Qualification Guide 1 NRC Orientation

A. Site Orientation

1. The qualifying individual's Supervisor should provide for an orientation of the facility and work areas including:
 - a. Tour of work area and introduction to co-workers and management
 - b. Location of reference material, supplies, meeting rooms, office equipment, administrative staff, etc.
2. The qualifying individual's Supervisor should provide for a discussion of the following topics:
 - a. New employee forms to be provided to Human Resources
 - b. Work hours, office hours and building access during off-hours
 - c. Human Resources Management System (HRMS) to record daily time
 - d. Employee Express System to obtain Earning & Leave Statements and information related to employee benefits
 - e. NRC Fitness for Duty requirements and physical examination
 - f. Availability of standard forms through "Informs"
 - g. The NRC's Agency Wide Documents Access and Management System (ADAMS) to obtain agency documents

B. NRC Organization, Responsibilities and Regulatory Role

1. The qualifying individual should become familiar with the following information through the use of the NRC web page:
 - a. NRC organization including role and responsibilities of the key organizational components of the NRC including:
 - (1) NRC Commissioners
 - (2) Office of Executive Director of Operations
 - (3) Office of Nuclear Material Safety and Safeguards
 - (4) Office of Nuclear Reactor Regulations
 - (5) Office of Nuclear Regulatory Research

- (6) Advisory Committee on Nuclear Waste
 - (7) Office of General Counsel
 - (8) Office of Inspector General (NUREG/BR 0146 The IG at the NRC)
 - (9) Office of Investigations
 - (10) Office of Enforcement
 - (11) Office of Chief Information Officer
 - (12) Office of Nuclear Security and Incident Response
 - (13) Division of High Level Waste Repository Safety
 - (14) NRC's Yucca Mountain On-site Representative's Office
 - (15) Center for Nuclear Waste Regulatory Analysis (CNWRA)
- b. General information concerning the NRC as a regulatory agency including the following: (NRC Public Web Page/Electronic Reading Room/Basic References):
- (1) NRC FORM 3, "Notice to Employees"
 - (2) NUREG-1100 "Performance Budget" (Executive Summary)
 - (3) NUREG-1350 "NRC Information Digest"
 - (4) NUREG-1542 "NRC's Performance and Accountability Report"
 - (5) NUREG 1614 "Strategic Plan"
 - (6) NUREG/BR-0010 "Citizen's Guide"
 - (7) NUREG/BR-0099 "NRC Fact Sheet"
 - (8) NUREG/BR-0137 "NRC Fact Sheet: Nuclear Material and Safeguards"
 - (9) NUREG/BR-0164 "NRC: Regulator of Nuclear Safety"
 - (10) NUREG/BR-0215 "Public Involvement in the Nuclear Regulatory Process"
 - (11) NUREG/BR-0216 "Radioactive Waste: Production, Storage, and Disposal"
 - (12) NUREG/BR-0240 "Reporting Safety Concerns"
 - (13) NUREG/BR-0256 "The NRC and How It Works"

- (14) NUREG/BR-0292 "Safety of Spent Fuel Transportation"
 - c. Physical location of NRC's regional offices, NRC's Yucca Mountain On-site Representative's Office, DOE's Yucca Mountain Offices in Las Vegas and the CNWRA offices in San Antonio, TX
 - d. Access to the DOE website for Yucca Mountain related information
 - e. Access to the EPA website for Yucca Mountain related information
 - f. Access to the Licensing Support Network
2. The qualifying individual should become familiar with the key legal documents that created the NRC and establish the NRC's regulatory authority to include:
- a. 10 CFR Part 1 (Organization)
 - b. NUREG -0980 "Nuclear Regulatory Legislation" (Note: this document includes the following "Acts")
 - (1) Atomic Energy Act of 1954, as amended
 - (2) Energy Reorganization Act of 1974, as amended
 - (3) Nuclear Waste Policy Act 1982, as amended
 - (4) Energy Policy Act of 1992
 - c. NRC Enforcement Policy (NUREG 1600)
 - d. NRC Enforcement Manual
 - e. NUREG/BR-0175 "A Short History of Nuclear Regulations 1946-1999"
3. The qualifying individual's Supervisor should discuss 1) the principal NRC and DOE organizations and the key personnel that the qualifying individual may be interfacing with, 2) the regulatory authority of the NRC over the high-level waste repository and the proper protocol for interfacing with DOE, and 3) the potential for the qualifying individual to receive allegations from the DOE staff and contractors, how the NRC is currently handling allegations received related to the high level waste repository and the proper process for maintaining confidentiality of allegations received.

Qualification Guide 2
Code of Federal Regulations (CFR)

A. The qualifying individual should become familiar with the following sections of the Code of Federal Regulations:

1. 10 CFR Part 2 Rules of practice for domestic licensing proceedings and issuance of orders
2. 10 CFR Part 9 Public records
3. 10 CFR Part 19 Notices, instructions and reports to workers: inspections and investigations
4. 10 CFR Part 20 Standards for protection against radiation (including NUREG 1736 "Consolidated Guidance: 10 CFR Part 20 Standards for Protection Against Radiation)
5. 10 CFR Part 21 Reporting of defects and noncompliance
6. 10 CFR Part 51 Environmental protection regulations for domestic licensing and related regulatory functions
7. 10 CFR Part 63 Disposal of High-Level radioactive wastes in a proposed geologic repository at Yucca Mountain, Nevada
8. 10 CFR Part 70 Domestic licensing of special nuclear material
9. 10 CFR Part 71 Packaging and transportation of radioactive material
10. 10 CFR Part 72 Licensing requirements for the independent storage of spent nuclear fuel and high-level radioactive waste
11. 10 CFR Part 73 Physical protection of plants and material
12. 10 CFR Part 170 Fees for facilities and materials, import and export licenses and other regulatory services under the Atomic Energy Act of 1954, as amended
13. 10 CFR Part 960 General guidelines for the preliminary screening of potential sites for a nuclear waste repository
14. 10 CFR Part 961 Standard contract for disposal of spent nuclear fuel and/or high-level radioactive waste
15. 40 CFR Part 141 National primary drinking water regulations (specifically 40CFR141.15 and 141.16)
16. 40 CFR Part 191 Environmental radiation protection standards for management and disposal of spent nuclear fuel, high level and transuranic radioactive wastes

17. 40 CFR Part 197 Environmental radiation protection standards for Yucca Mountain, Nevada
18. 49 CFR Part 173 Shippers - general requirements for shipping and packaging: (Subpart I: Class 7: Radioactive Material)
19. 49 CFR Part 174 Carriage by rail (Subpart K: Detailed Requirements for Class 7 Radioactive Material)
20. 49 CFR 177.842 Carriage by public highway (Class 7 Radioactive Material)

B. The qualifying individual's Supervisor should review selected federal regulations with the qualifying individual to ensure an understanding of the information and its application to the HLW inspection program.

Qualification Guide 3 Office Instructions

A. Office Policies and Procedures

1. Qualifying individuals located at NRC headquarters should become familiar with the following NMSS Policy and Procedure (P&P) Letters:

- 1-3 Handling Request for 10 CFR 2.206 Action
- 1-8 Differing Professional Views and Opinions (MD 10.159)
- 1-11 Communications with Licensees
- 1-13 Signature Level on NMSS Correspondence
- 1-19 Notification of Regional Administrators
- 1-22 Quality Assurance
- 1-23 Open Meetings
- 1-24 Procedures for: (a) Handling Reports Received from Office of Investigations (OI); (b) Release of NRC Reports and Other Documents and Disclosures of Safety and Security Information to Licensees during Inspection/Investigation Process; (c) Material False Statements and Referral of Other Matters to OI; (d) Reporting the Status of Pending Investigations; (e) Notification of OI of Potential Wrongdoing; (f) Policy for Requesting OI Investigation
- 1-27 Management of Allegations
- 1-33 Procedures for Responding to Requests from the Commission/OGC for Technical Assistance
- 1-37 NMSS Participation in ACNW Reviews
- 1-38 Interface with Commissioners' Offices
- 1-39 Review of Speeches, Papers, and Journal Articles
- 1-40 Legislative and Regulatory Review Requirements for the Office of the Inspector General
- 1-48 Procedures for Preparing Environmental Assessments
- 1-50 Environmental Justice in NEPA Documents
- 1-52 Guidance on Making NRC Electronic Information Available to the Public
- 1-85 Risk Informed Regulations in the HLW Repository Safety Program

2. Qualifying individuals located at Region IV or the NRC's On-site Representative's Office in Las Vegas should become familiar with the following regional policy guides (ROPG):

- | | |
|-------------|---|
| 0100 Series | Administrative Services and Programs |
| 0200 Series | Assessments and Audits |
| 0250 Series | Data Processing and Information Systems |
| 0350 Series | Division Guidance |
| 0450 Series | Emergencies, Incidents and Accidents |
| 0500 Series | Emergency Preparedness |
| 0550 Series | Enforcement |
| 0600 Series | External Affairs |
| 0650 Series | Files and Office Records |
| 0750 Series | Health, Safety and Security |
| 0800 Series | Inspection Activities |
| 0850 Series | Investigation/Allegation Activities |

1000 Series	Management Principles and General Practices
2000 Series	Meetings
2050 Series	Payroll
3000 Series	Personnel
4000 Series	Radiation Protection and Safeguards
4050 Series	Reports, Correspondence and Documents
7000 Series	Training and Employee Development
8000 Series	Travel
9000B Series	Division of Nuclear Material Safety

B. The qualifying individual's Supervisor should review selected office policies and procedures with the qualifying individual to ensure an understanding of the information and its application to the high-level waste inspection program.

Qualification Guide 4 Regulatory Guidance

A. The qualifying individual should become familiar with the following regulatory guidance documents and federal register notices:

1. Regulatory Guides (RG).

- 1.174 An Approach for Using Probabilistic Risk Assessment in Risk-informed Decisions on Plant-specific Changes to the Licensing Basis
- 1.28 Quality Assurance Program Requirements (Design and Construction)
- 3.69 Topical Guidelines for Licensing Support Network
- 3.71 Nuclear Criticality Safety Standards for Fuels and Material Facilities
- 7.3 Procedures for Picking Up and Receiving Packages of Radioactive Material
- 8.13 Instruction Concerning Prenatal Radiation Exposure
- 8.29 Instruction Concerning Risks from Occupational Radiation Exposure

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

- IN 85-12 Recent Fuel Handling Events
- IN 87-33 Applicability of 10 CFR Part 21 to Non-Licensees
- IN 91-39 Compliance with 10 CFR Part 21 "Reporting of Defects and Noncompliances"
- IN 97-39 Inadequate 10 CFR72.48 Safety Evaluations of Independent Spent Fuel Storage Installations (ISFSIs)
- IN 99-29 Authorized Contents of Spent Fuel Casks
- IN 00-11 Licensee Responsibility for Quality Assurance Oversight of Contractor Activities Regarding Fabrication and Use of Spent Fuel Storage Cask Systems
- BL 96-04 Chemical, Galvanic, or Other Reactions in Spent Fuel Storage or Transportation Casks

3. NUREGs (latest revision, where applicable).

- NUREG 0856 Final Technical Position on Documentation of Computer Codes for High-Level Waste Management (June 1983)

NUREG 1298	Qualification of Existing Data for HLW Repositories (1988)
NUREG 1563	Branch Technical Position on the Use of Expert Elicitation in the High-Level Radioactive Program (November 1996)
NUREG 1636	Regulatory Perspectives on Model Validation in High-Level Radioactive Waste Management Programs: A Joint NRC/SKI White Paper
NUREG 1518	Differing Professional Views and Opinions
NUREG 1762	Integrated Issue Resolution Status Report
NUREG 1804	Yucca Mountain Review Plan
NUREG/BR-0308	Effective Risk communication, The Nuclear Regulatory Commission's Guidelines for External Risk Communication
NUREG/BR-0318	Effective Risk Communication Guidelines for Internal Risk Communication
NUREG/BR-0167	Software QA Program and Guidelines (February 1993)
NUREG/CR-4369	QA Plan for Computer Software Supporting the U.S. NRC's HLW Management Program (January 1986)
NUREG/CR-4640	Handbook of Software QA Techniques Applicable to the Nuclear Industry (August 1987)
NUREG/CR-5398	Technical Basis for Review of High-Level Waste Repository Modeling
NUREG/CR-6407	Classification of Transportation Packaging and Dry Spent Fuel Storage Components According to Important to Safety

4. SECY Papers.

89-319	Implementation of the U.S. Environmental Protection Agency's High-Level Waste Disposal Standards
93-013	Analysis of Energy Policy Act of 1992 Issues Related to HLW Disposal Standards
97-300	Proposed Strategy for Development of Regulations Governing Disposal of High-Level Rad Waste at Yucca Mt
98-144	Risk-Informed White Paper (and Yellow Announcement 1999-19)

- 98-198 Status of the Issue Resolution Process in the High-Level Radioactive Waste Program at Yucca Mountain, Nevada
- 98-237 Final Rule, Part 2, Subpart J, Procedures Applicable to Proceedings for the Issuance of Licenses for the Receipt of High-Level Radioactive Waste at a Geologic Repository
- 99-31 Agreement Between the U.S. Department of Energy/ Office of Civilian Radioactive Waste Management and U.S. Nuclear Regulatory Commission/Office of Nuclear Material Safeguards Regarding Pre-licensing Interactions
- 99-074 Staff Review of U.S. Department of Energy Viability Assessment for a High-Level Radioactive Waste Repository at Yucca Mountain, Nevada
- 99-100 Framework for Risk-Informed Regulation in NMSS
- 99-186 Staff Plan for Clarifying How Defense-in-Depth Applies to the Regulation of a Possible Geologic Repository at Yucca Mountain, Nevada
- 00-084 Draft Final Rule 10 CFR Part 63
- 02-135 Specifications of a Probability for Unlikely Features, Events, & Processes
- 05-0009 Identification of Adjudicatory Employees to Support the Commission and the Office of Commission Appellate Adjudication in the Adjudication of a Yucca Mountain Application
- 05-0068 Update of the Risk-Informed Regulation Implementation Plan
- 05-144 Proposed Rule: 10 CFR Part 63 "Implementation of a Dose Standard After 10,000 Years"

5. Federal Register Notices.

- 64FR8640 Disposal of High-Level Radioactive Wastes in a Proposed Geological Repository at Yucca Mountain, NV
- 66FR32074 Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV - 40 CFR Part 197
- 66FR54303 Final Decision Related to the US DOE General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories and it's Yucca Mountain Site Suitability Guidelines
- 66FR55732 Disposal of High Level Radioactive Waste in a Proposed Geological Repository at Yucca Mountain, NV - 10 CFR Part 63

66FR57298	Office of Civilian Radioactive Waste Management; General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories; Yucca Mountain Site Suitability Guidelines - 10 CFR Part 960 and 963
67FR20884	Disposal of High-Level Rad Waste at Yucca Mountain - Correction
67FR62628	Specification of a Probability for Unlikely Features, Events, and Processes
69FR18557	Record of Decision on Mode of Transportation and Nevada Rail Corridor for the Disposal of Spent Nuclear Fuel at Yucca Mountain
70FR49014	Radiation Protection Standard for Yucca Mountain
70FR53313	Implementation of Dose Standards After 10,000 Years

6. Commission Correspondence.

NRC's Preliminary Sufficiency Comments Regarding a Possible Geologic Repository at Yucca Mountain Nevada, November 13, 2001

B. The qualifying individual's Supervisor should review selected regulatory guidance with the qualifying individual to ensure an understanding of the information and it's application to the high level waste inspection program.

Qualification Guide 5
Industry Codes and Standards

A. The qualifying individual should become familiar with the following industry codes and standards:

1. American National Standard Institute (ANSI).

ANSI/ASME	NQA-1-1989 Quality Assurance Program Requirements for Nuclear Power Plants
ANSI N14.6	American National Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs or More for Nuclear Material
ANSI B30.2	Overhead and Gantry Cranes

2. American Concrete Institute (ACI).

ACI 311.4	Guide for Concrete Inspection
ACI 318	Building Code Requirements for Standard Concrete
ACI 349	Code Requirements for Nuclear Safety Related Concrete Structures

3. American Society for Testing and Materials (ASTM).

ASTM C-31	Standard Practices for Making and Curing Concrete Test Specimens in the Field
ASTM C-33	Standard Specification for Concrete Aggregates
ASTM C-39	Standard Test method for Compressive Strength
ASTM C-94	Standard Specification for Ready Mixed Concrete
ASTM C-143	Standard Test Method for Slump of Hydraulic Cement Concrete
ASTM C-150	Standard Specification for Portland Cement
ASTM C-494	Standard Specification for Chemical Admixtures for Concrete
ASTM C-685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C-1077	Standard Practice for Laboratory Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for laboratory Evaluation

4. Electric Power Research Institute (EPRI).

EPRI NP-4830	The Effects of Target Hardness on the Structural Design of Concrete Storage Pads for Spent Fuel Casks
EPRI NP-7551	Structural Design of Concrete Storage Pads for Spent Fuel Casks

B. The qualifying individual's Supervisor should review selected industry codes and standards with the qualifying individual to ensure an understanding of the information and it's application to the high level waste inspection program.

Qualification Guide 6
NRC Inspection Manual Chapters

A. The qualifying individual should become familiar with the following NRC manual chapters. Several of the manual chapters listed below were written to provide guidance for NRC inspectors at reactor facilities and material licensees. These manual chapters can also be applicable to the HLW inspection program. The qualifying individual should become familiar with the manual chapters and discuss their applicability to the HLW program with their supervisor.

MC 0102 Oversight and Objectivity of Inspectors and Examiners at Reactor Facilities

MC 0300 Announced and Unannounced Inspections

MC 0330 Guidance for NRC Review of Licensee Draft Documents

MC 0610 Inspection Reports

MC 0620 Inspection Documents and Records

MC 0730 Generic Communications

MC 0970 Potential Generic Items Identified by Regional Offices

MC 1007 Interfacing Activities between Regional Offices of NRC and OSHA

MC 1120 Preliminary Notifications

MC 1201 Conduct of Employees

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

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

MC 1360 Use of Medical Consultant

MC 2300 Yucca Mountain Pre-Operation Inspection Program

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

MC 2410 Conduct of Observation Audits

MC 2690 Inspection Programs for Dry Cask Storage of Spent Nuclear Fuel at ISFSIs

MC 2700 Vendor Inspection Program

MC 2901 Team Inspections

MC 2920 Construction Appraisal Team Inspection Program

B. The qualifying individual's Supervisor should review selected manual chapters with the qualifying individual to ensure an understanding of the information and its application to the high level waste inspection program.

Qualification Guide 7
NRC Management Directives

A. The qualifying individual should become familiar with the following Management Directives

MD 2.3	Telecommunications
MD 2.7	Personal Use of Information Technology
MD 3.1	Freedom of Information Act
MD 3.2	Privacy Act
MD 3.4	Release of Information to the Public
MD 3.5	Attendance at NRC Staff Sponsored Meetings
MD 3.23	Mail Management
MD 5.1	Inter-government Consultation
MD 5.2	Memorandum of Understanding with States
MD 5.5	Public Affairs Programs
MD 6.3	The Rule-making Process
MD 7.3	Participation in Professional Organizations
MD 7.4	Reporting Suspected Wrongdoing and Processing OIG Referrals
MD 7.5	Ethics Counseling and Training
MD 7.6	Public and Confidential Financial Disclosure Reports
MD 7.7	Security Ownership
MD 7.8	Outside Employment
MD 7.9	Ethics Approvals and Waivers
MD 7.10	Political Activities
MD 8.2	NRC Incident Response Program
MD 8.3	NRC Incident Investigation Program
MD 8.8	Management of Allegations
MD 8.9	Accident Investigation

MD 8.11	Review Process for 10 CFR 2.206 Petitions
MD 9.1	Organization Management
MD 9.29	Organization and Function of Regional Offices
MD 10.14	Employee Trial Period
MD 10.42	Hours of Work and Premium Pay
MD 10.43	Time and Labor Reporting
MD 10.62	Leave Administration
MD 10.67	Non-SES Performance Appraisal System
MD 10.77	Employee Development and Training
MD 10.99	Discipline, Adverse Action and Separation
MD 10.100	Appeals from Adverse Action
MD 10.101	Employee Grievances
MD 10.102	Labor-Management Relations Program
MD 10.122	Employee Assistance and Wellness Services Program
MD 10.130	Safety and Health Program Under OSHA
MD 10.131	Protection of NRC Employees Against Ionizing Radiation
MD 10.159	The NRC Differing Professional Opinions Program
MD 10.160	Open Door Policy
MD 12.1	NRC Facility Security Program
MD 13.1	Property Management
MD 14.1	Official Temporary Duty Travel

B. The qualifying individual's Supervisor should review selected management directives with the qualifying individual to ensure an understanding of the information and its application to the high level waste inspection program.

Qualification Guide 8 Yucca Mountain Information

A. The qualifying individual should become familiar with information specific to Yucca Mountain to include:

1. Yucca Mountain Site Description (DOE website)
2. Organizational charts of U.S. DOE Yucca Mountain Office (available from NRC's Yucca Mountain Office)
3. Yucca Mountain site access requirements, including safety equipment and training requirements (available from NRC's Yucca Mountain Office)
4. Key Technical Issues for HLW (NRC Public Web Page/HLW Disposal/Resolution of Key Technical Issues)
5. High Level Waste Document Capture Plan (ML04054277)
6. HLW Communication Plan (available from HLW organization)
7. Risk Insights Baseline Report (NRC Public Web Page/HLW Disposal/Resolution of Key Technical Issues/Risk Insight Baseline Report)
8. Yucca Mountain Environmental Impact Statement
9. Yucca Mountain Science and Engineering Report
10. Yucca Mountain Safety Analysis Report
11. DOE/OCRWM Quality Assurance Requirements and Description (QARD), DOE/RW-0333P

B. The qualifying individual's Supervisor should review selected Yucca Mountain related information with the qualifying individual to ensure an understanding of the information and its application to the high level waste inspection program.

Qualification Guide 9
Inspection Accompaniments

A. Each qualifying individual should accompany a certified inspector on at least four inspections. The information listed in Section C below, as a minimum, should be reviewed by the qualifying individual prior to each inspection.

- | | | | |
|----|----------|----------|-------|
| 1. | _____ | _____ | _____ |
| | Facility | Employee | Date |
| 2. | _____ | _____ | _____ |
| | Facility | Employee | Date |
| 3. | _____ | _____ | _____ |
| | Facility | Employee | Date |
| 4. | _____ | _____ | _____ |
| | Facility | Employee | Date |

B. The qualifying individual's Supervisor should discuss the inspection results after each accompaniment with the qualifying individual to review any issues or questions concerning such topics as how to conduct an inspection, how to interface with the licensee, how to recognize issues and how to properly characterize the issues with the licensee.

- | | | | |
|----|----------|------------|-------|
| 1. | _____ | _____ | _____ |
| | Facility | Supervisor | Date |
| 2. | _____ | _____ | _____ |
| | Facility | Supervisor | Date |
| 3. | _____ | _____ | _____ |
| | Facility | Supervisor | Date |
| 4. | _____ | _____ | _____ |
| | Facility | Supervisor | Date |

C. The qualifying individual should review and discuss the following material with the certified inspector prior to each inspection accompaniments.

1. The inspection plan for the inspection
2. The license, technical specifications and FSAR for the site to be visited
3. The last two inspection reports issued for the site
4. The history of any Inspection Follow-up Items currently open at the site
5. The inspection procedures to be used for the inspection

6. Reports required by the NRC (i.e. Annual Environmental Reports) and correspondence from the licensee to the NRC since the last inspection
7. Any regulatory guides, information notices, etc. related to the inspection areas planned for the site that would be applicable

Qualification Guide 10
Formal Training

A. The qualifying individual should complete the following training courses:

1. Fundamentals of Inspection Course (G-101)	_____ Training Coordinator	_____ Date
2. Inspecting for Performance - Materials Version (G-304)	_____ Training Coordinator	_____ Date
3. Effective Communications for NRC Inspectors (PDC)	_____ Training Coordinator	_____ Date
4. Gathering Inspection Information Through Interviews (PDC)	_____ Training Coordinator	_____ Date
5. OSHA Indoctrination Course (G-111)	_____ Training Coordinator	_____ Date
6. Site Access Training (H-100)	_____ Training Coordinator	_____ Date
7. HLW Repository Health Physics Course (H-403)	_____ Training Coordinator	_____ Date
8. Licensing and Evaluation of HLW Repository (H-415)	_____ Training Coordinator	_____ Date

B. Other specialized training and/or courses as suggested in Appendix A and identified by the qualifying individual's supervisor:

_____ Course # and Title	_____ Supervisor Initials	_____ Training Coordinator	_____ Date
_____ Course # and Title	_____ Supervisor Initials	_____ Training Coordinator	_____ Date
_____ Course # and Title	_____ Supervisor Initials	_____ Training Coordinator	_____ Date
_____ Course # and Title	_____ Supervisor Initials	_____ Training Coordinator	_____ Date

C. The qualifying individual's Supervisor and the Training Coordinator should ensure adequate documentation has been obtained to provide confirmation of successful completion of the required training courses.

Attachment 1
Revision History for IMC 1246, Appendix D2

Commitment Tracking Number	Document Accession Number and Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	ML11230B349 10/26/2011 CN 11-022	Revision history sheet added. Combined Appendix A14 with Appendix B14 and renamed as Appendix D2. Added "training requirements" section from Appendix A14.	None	N/A	ML112350568