

U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION
Protecting People and the Environment



United States Nuclear Regulatory Commission Training Program

John L. Ricci, ScD, CHP
Chief, Specialized Technical Training Branch
Human Resources Training and Development

USNRC Technical Training Center
5746 Marlin Road, Suite 200
Chattanooga, Tennessee 37411 - United States
john.ricci@nrc.gov

Information about the USNRC NUREG-1350

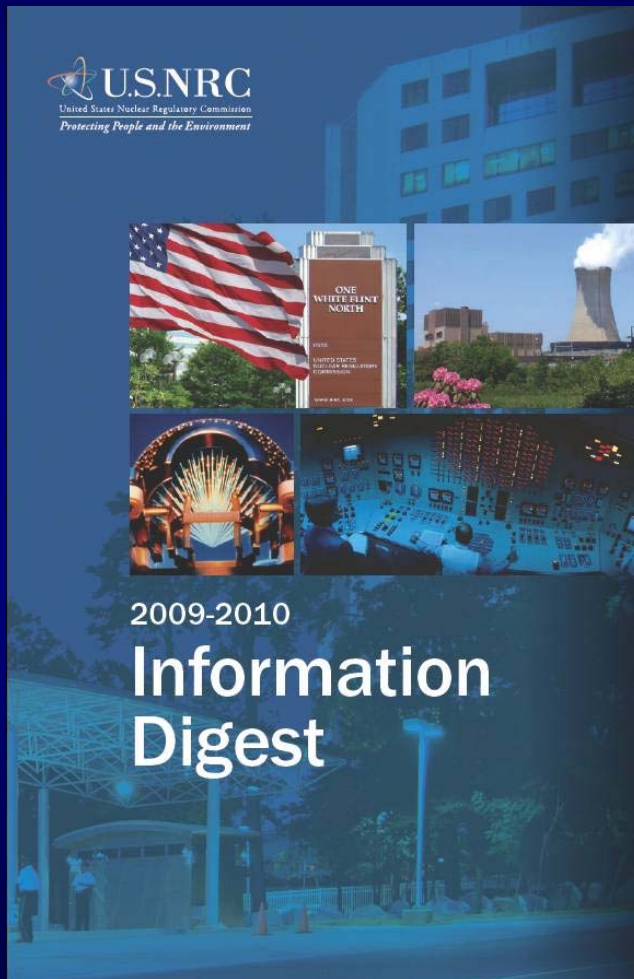


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**NRC: An Independent
Regulatory Agency**

U.S. and Worldwide Energy

Nuclear Reactors

Nuclear Materials

Radioactive Waste

**Security and Emergency
Preparedness**

Human Resources Training and Development

Technical Training Curriculum

- **Reactor Technology Branch (R)**
- **Specialized Technical Training Branch**
 - **Engineering Support (E)**
 - **Fuel Cycle (F)**
 - **Regulatory Skills (G)**
 - **Health Physics (H)**
 - **Probabilistic Risk Assessment (P)**
 - **Security (S)**

Which Presentation?

Competencies

or

Harmonization



Training Overview

The mission of Human Resources Training and Development is:

To provide effective learning programs, resources, and services to enable the NRC to acquire and maintain the competencies needed to accomplish the Agency's mission.

To accomplish this mission we must answer the following six questions.

Job Task Analysis

Do we know what knowledge and skills (competencies) the workforce needs in order to effectively execute its mission and strategic goals?

Job Task Analysis (JTA) needed if:

- **No training program currently exists for a job**
- **A training program exists but may not be based on current and valid job requirements**
- **There is a need to improve performance**

Strategic Workforce Planning

Do we know what the gap is between the level of knowledge and competencies our workforce currently possesses and what it needs?

Strategic Workforce Planning

Completed	Category	Date of Last Update	Status
<input checked="" type="checkbox"/>	Nuclear Reactors (SC)	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Nuclear Fuel Cycle	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Nuclear Materials	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Nuclear Safeguards/Security	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Nuclear Regulation	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Nuclear Waste	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Yucca Mountain / High Level Waste	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Emergency Preparedness/Response (SC)	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Radiation Protection	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Construction	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Electrical Power/Power Distribution	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Risk Assessment	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Human Factors	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Budget and Finance	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Acquisition	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Human Resources/Training & Development (SC)	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Information Technology (SC)	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Information Management	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Use of Office Productivity Software	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	International	Tuesday, June 2, 2009	Current
<input checked="" type="checkbox"/>	Other Skills and Knowledge Areas	Tuesday, June 2, 2009	Current

Strategic Workforce Planning

Knowledge Areas, Skills & Abilities	<u>Expert</u>	<u>Extensive</u>	<u>Applied</u>	<u>General</u>	<u>Limited</u>	<u>None</u>
<u>Code Use</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Contamination/Decontamination Analysis</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Dosimetry Assessment</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Geochemistry</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>HP Dispersion</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>HP Instrumentation</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Health Physics (HP)</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Hydrology (Ground Water)/Hydrogeology</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Internal Dosimetry</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Meteorology & Atmospheric Transport</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Occupational Radiation Safety</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Public Exposure to Radiation</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Public Radiation Safety</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Radiation Physics</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Radioactive Source Terms</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Radiochemistry</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Radiological Measurements</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Radionuclide Release and Environmental Transport</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Radiotoxicity</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<u>Shielding</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Needs Survey

Annual Training Needs Forecast Worksheet (June 2009)

COURSE NAME	Total Number of Staff Projected to Attend		
	10/09-03/10	04/10-9/10	10/10-03/11
Radiation Protection			
Environmental Monitoring for Radioactivity (H-111)			
Air Sampling for Radioactive Materials (H-119)			
Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (H-121)			
Basic Health Physics Technology Course (H-122)			
Health Physics Technology (H-201)			
Diagnostic and Therapeutic Nuclear Medicine (H-304)			
Safety Aspects of Industrial Radiography (H-305)			
Transportation of Radioactive Materials (H-308)			
Teletherapy and Brachytherapy (H-313)			
Safety Aspects of Well Logging (H-314)			
Irradiator Technology (H-315)			
Health Physics Topical Review (H-401)			
RESRAD (H-410)			
RESRAD OFFSITE (H-411)			
Regulatory Skills			
Inspection Procedures (G-108)			
Licensing Practices and Procedures (G-109)			
Root Cause/Incident Investigation Workshop (G-205)			

Enclosure 1

Qualification Program

Are our courses and other learning interventions directly aligned to the needed knowledge and competencies?

Materials Qualification Program

IMC	1246	Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area	01/05/01	01-002	
IMC	1246A	Training Activities	01/05/01	01-002	
IMC	1246A01	Training Requirements for Materials License Reviewer	01/05/01	01-002	
IMC	1246A02	Training Requirements for Materials Health Physics Inspector	01/05/01	01-002	
IMC	1246A03	Training Requirements for Fuel Cycle Safety Inspector	04/21/06	06-009	.doc
IMC	1246A04	Training Requirements for Fuel Cycle Safeguards Inspector Physical Security	01/05/01	01-002	
IMC	1246A05	Training Requirements for NMSS Headquarters Fuel Cycle Safeguards Inspector Material Control and Accounting	01/05/01	01-002	
IMC	1246A06 Att1	Spent Fuel Storage and Transportation Training Requirements for Project Manager and Technical Reviewer	09/24/08	08-027	.doc
IMC	1246A06 Att 2	Training Requirements For Spent Fuel Storage And Transportation Inspector	09/24/08	08-027	.doc
IMC	1246A07	Training Requirements for Fuel Cycle License Reviewer	01/05/01	01-002	
IMC	1246A08	Training Requirements for Division of Waste Management Inspectors and License Reviewers	01/05/01	01-002	
IMC	1246A09	Training Requirements for Decommissioning Inspectors	01/5/01	01-002	
IMC	1246A10	Training Requirements for Decommissioning Project Managers/Technical Reviewers	04/14/03	03-012	.doc
IMC	1246A11	Training Requirements for Materials Exempt Distribution License Reviewer	01/05/01	01-002	
IMC	1246A12	Training Requirements for Uranium Recovery Inspector	01/05/01	01-002	
IMC	1246A13	Training Requirements for Uranium Recovery License Reviewer	01/05/01	01-002	
IMC	1246A14	Training Activities for High-Level Waste Repository Inspector	05/09/06	06-011	.doc
IMC	1246A15	High-Level Waste Repository License Technical Reviewers	04/14/03	03-012	.doc
IMC	1246A16	Training Requirements for Sealed Source and Device Reviewers	02/11/04	04-006	.doc

Reactor Qualification Program

IMC	1245	Qualification Program for Operating Reactor Programs	07/08/09	09-017	.doc
IMC	1245 Att 1	General Overview of the Inspector Training and Qualification Program	07/08/09	09-017	.doc
IMC	1245 Att 2	Inspector Competencies	10/31/06	06-032	.doc
IMC	1245 Att 3	General Orientation Topics	10/31/06	06-032	.doc
IMC	1245 App A	Basic-Level Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App B	General Proficiency-Level Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C1	Reactor Operations Inspector Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C2	Reactor Engineering Inspector Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C3	Health Physics Inspector Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C5	Research and Test Reactor Inspector Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C6	Emergency Preparedness Inspector Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C7	Fire Protection Inspector Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App C8	Vendor Inspector Technical Proficiency Training and Qualification Journal	01/10/08	08-001	.doc
IMC	1245 App C9	Senior Reactor Analyst Training and Qualification Program	07/08/09	09-017	.doc
IMC	1245 App C10	Operator Licensing (OL) Examiner Technical Proficiency Training and Qualification Journal	07/08/09	09-017	.doc
IMC	1245 App D1	Maintaining Qualifications	07/08/09	09-017	.doc
IMC	1245 App D2	Inservice Inspection Advanced-Level Training	07/08/09	09-017	.doc
IMC	1245 App D3	Fire Protection Advanced-Level Training	07/08/09	09-017	.doc

Training Methods

Are we using the right (efficient and effective) modes of learning intervention delivery and are we capitalizing on the potential that technology offers?

On-Site Lecture

← **Effective ?**

VS

On-Line Training

← **Efficient ?**

Training Evaluation

Are our learning interventions of known effectiveness in closing competency gaps and in improving accomplishment of mission and strategic goals?

- **reaction to the training (course evaluations)**
- **learning achieved (test results)**
- **impact on behaviour (application of the learning during work assignments)**
- **results (such as a measured increase in productivity or efficiency)**

Training Evaluation



COURSE RATING AND FEEDBACK FORM

Course Title:		Dates:	
Location:			
Educational Background: <input type="checkbox"/> High School/GED <input type="checkbox"/> Associate's <input type="checkbox"/> Bachelor's <input type="checkbox"/> Master's <input type="checkbox"/> Doctorate	Specialty: <input type="checkbox"/> Engineering/Science <input type="checkbox"/> Health Physics <input type="checkbox"/> Admin <input type="checkbox"/> I.T. <input type="checkbox"/> _____	Work Experience: Years Total _____ Years Nuclear _____ Years NRC _____	Type of Experience: <input type="checkbox"/> Commercial Nuclear <input type="checkbox"/> Military <input type="checkbox"/> Test Reactor <input type="checkbox"/> Medical <input type="checkbox"/> Government <input type="checkbox"/> _____

Instructions: To maintain and improve the quality and applicability of HRTD courses, we need you to provide some feedback. Your comments are important to us. Please rate the following. Please print your name at the bottom of the reverse side of this form to allow for follow-up discussion of significant issues or suggestions.

	Excellent (5) 😊	Good (4)	Satisfactory (3)	Marginal (2)	Unsatisfactory (1) 😞
Overall Course Rating	720	642	134	22	3

Your knowledge/skill level of the subject matter (0 = none → 10 = expert) (insert numbers in boxes below)

Prior to the Course After Completion of the Course

What did you like best or find most helpful about this course?

1,716 students - 1,521 evaluations

What did you like least or find not so helpful about this course?

(Continued on Back)

COURSE RATING AND FEEDBACK FORM (continued)

What subjects might be added or expanded?

What subjects might be deleted or discussed in less detail?

Will this course aid you in your assigned duties? YES NO N/A Briefly explain your response.

If your response to the previous question was NO, what could be done to make this course more useful to you in your assigned duties?

Additional comments related to Course Content, Administration, Facilities etc (comments concerning the instructors should be noted on the separate Instructor Feedback form):

Your Name (please print): _____

Instructor Evaluation

Instructor Evaluation Form

Course Title:	
Location:	Dates:

Instructions: To maintain and improve the quality and applicability of HRTD courses, we need you to provide some feedback. Your comments are important to us. Please rate the following. Please print your name at the bottom of this form to allow for follow-up discussion of significant issues or suggestions.

Instructors Name: _____

	Excellent (5) 😊	Good (4)	Satisfactory (3)	Marginal (2)	Unsatisfactory (1) ☹️
Demonstrated knowledge of the material					
Clearly stated course objectives					
Presented material in a manner that was easily understood					
Asked questions to clarify and reinforce concepts					
Created an atmosphere that promoted interaction					
Helped participants relate material to their jobs					
Overall Presentation Skills					

Additional Comments or Suggestions:

Your Name (please print): _____

Student Information

STUDENT INFORMATION SHEET



PLEASE PRINT THE FOLLOWING INFORMATION:

Course Title:	
Location:	Dates:

Your Name: _____
(Please print clearly)

Prefix: Mr. Ms. Mrs. Dr. Other (_____)

Job Title: _____

Office Phone No: _____ E-Mail Address: _____

Office Mailing Address: _____
(Only for Non-NRC)

(No P.O. Boxes please)

Motel (where you are staying): _____

Organization - **Check only ONE Box within the Rectangle Below:**

NRC Headquarters:	<input type="checkbox"/> NRR	<input type="checkbox"/> NRO	<input type="checkbox"/> FSME	<input type="checkbox"/> NMSS	<input type="checkbox"/> RES	<input type="checkbox"/> NSIR	<input type="checkbox"/> Other (_____)
NRC Regions:	<input type="checkbox"/> I	<input type="checkbox"/> II	<input type="checkbox"/> III	<input type="checkbox"/> IV			
<input type="checkbox"/> Agreement State (_____)	<input type="checkbox"/> Non-Agreement State (_____)						
<input type="checkbox"/> Federal Agency (please specify which agency _____)							
<input type="checkbox"/> International Visitor (please specify which nation _____)							
<input type="checkbox"/> Other (please specify _____)							

Name of Immediate Supervisor: _____

Name of Division Director: _____

Name of Division (e.g., DNMS): _____

***** (Continued on Back or Next Page) *****

STUDENT INFORMATION SHEET (continued)

NRC training completed (**check all that apply**):

ENGINEERING

- | | | |
|--|--|---|
| <input type="checkbox"/> E-110 Power Plant Engineering | <input type="checkbox"/> E-111 Emergency Diesel Generators | <input type="checkbox"/> E-112 Motor Operated Valves |
| <input type="checkbox"/> E-113 Fire protection | <input type="checkbox"/> E-114 Digital I&C | <input type="checkbox"/> E-115 Med Voltage Circuit Breakers |
| <input type="checkbox"/> E-116 Corrosion Control | <input type="checkbox"/> E-117 Concrete Tech & Codes | <input type="checkbox"/> E-118 Welding Tech & Codes |
| <input type="checkbox"/> E-301 QA Programs | <input type="checkbox"/> E-306 NDE Tech & Codes | <input type="checkbox"/> E-901 Welding & NDE Overview |

FUEL CYCLE

- | | | |
|---|--|--|
| <input type="checkbox"/> F-101S Criticality Safety | <input type="checkbox"/> F-102S General HP Practices | <input type="checkbox"/> F-201S Fuel Cycle Processes |
| <input type="checkbox"/> F-201 Fuel Cycle Processes | <input type="checkbox"/> F-204S Uranium Enrichment | <input type="checkbox"/> F-206S Fire Protection |
| | | <input type="checkbox"/> F-210 MOX |

HEALTH PHYSICS

- | | | |
|--|--|--|
| <input type="checkbox"/> H-100 Site Access Training | <input type="checkbox"/> H-109 Applied Health Physics | <input type="checkbox"/> H-111 Environmental Monitoring |
| <input type="checkbox"/> H-117 Introductory Health Physics | <input type="checkbox"/> H-119 Air Sampling | <input type="checkbox"/> H-121 MARSSIM |
| <input type="checkbox"/> H-122 Basic Health Physics | <input type="checkbox"/> H-201 Health Physics Technology | <input type="checkbox"/> H-202 Radwaste Management |
| <input type="checkbox"/> H-304 Nuclear Medicine | <input type="checkbox"/> H-305 Industrial Radiography | <input type="checkbox"/> H-308 Transportation of Rad Materials |
| <input type="checkbox"/> H-313 Brachytherapy | <input type="checkbox"/> H-314 Well Logging | <input type="checkbox"/> H-315 Irradiator |
| <input type="checkbox"/> H-401 Health Physics Topical Review | <input type="checkbox"/> H-403 HLW HP | <input type="checkbox"/> H-410 RESRAD |

REGULATORY SKILLS

- | | |
|--|---|
| <input type="checkbox"/> G-103 Field Techniques & Regulatory Processes | <input type="checkbox"/> G-104 Expectations for Inspectors |
| <input type="checkbox"/> G-105 Conducting Inspections | <input type="checkbox"/> G-106 Research and Test Reactor |
| <input type="checkbox"/> G-107 Examination Techniques | <input type="checkbox"/> G-108 Inspection Procedures |
| <input type="checkbox"/> G-109 Licensing Practices and Procedures | <input type="checkbox"/> G-204 Root Cause Report Evaluation |
| <input type="checkbox"/> G-205 Root Cause/Incident Investigation | <input type="checkbox"/> G-304 Inspecting for Performance |

PRA

- | | |
|--|--|
| <input type="checkbox"/> P-101 Risk Informed Reg for Tech Staff | <input type="checkbox"/> P-102 Probability & Statistics |
| <input type="checkbox"/> P-105 PRA Basics for Reg Applications | <input type="checkbox"/> P-107 PRA for Technical Managers |
| <input type="checkbox"/> P-108 Fire Safety SDP | <input type="checkbox"/> P-111 PRA Technology and Reg Perspectives |
| <input type="checkbox"/> P-200 System Modeling Techniques | <input type="checkbox"/> P-201 SAPHIRE Basics |
| <input type="checkbox"/> P-202 Advanced SAPHIRE | <input type="checkbox"/> P-203 Human Reliability Assessments |
| <input type="checkbox"/> P-204 External Events | <input type="checkbox"/> P-300 Accident progression Analysis |
| <input type="checkbox"/> P-301 Accident Consequences Analysis | <input type="checkbox"/> P-302 Risk Assessment in Event Evaluation |
| <input type="checkbox"/> P-400 Intro to Risk Assessment in NMSS | <input type="checkbox"/> P-401 Intro to Risk Assessment in NMSS Overview |
| <input type="checkbox"/> P-406 Human Reliability Assessment for NMSS | <input type="checkbox"/> P-501 Advanced Risk Assessment Topics |

SECURITY

- | | |
|--|---|
| <input type="checkbox"/> S-101 Intro to Security Fundamentals | <input type="checkbox"/> S-118S Intro to Physical Security Systems |
| <input type="checkbox"/> S-201 NRC Materials Control & Security Systems & Principles | <input type="checkbox"/> S-301 Security Fundamentals |
| <input type="checkbox"/> S-501 Weapons & Tactics Fundamentals | <input type="checkbox"/> S-402 Safeguards Technology Refresher |
| <input type="checkbox"/> S-502 Explosives & Breaching Field Course | <input type="checkbox"/> S-503 Advanced Intrusion Detection Systems |
| <input type="checkbox"/> R-105 Reactor Technology for Security | |

Evaluation of Students (Examinations)

Most NRC technical training courses have final examinations

70% is required for successful completion

Regulatory Skills courses do not have examinations, however, many have team activities followed by submission of an oral or written report



Knowledge Management

- Are we identifying, capturing, and making accessible the high-value and high-risk knowledge that already exists within our workforce?



KNOWLEDGE MANAGEMENT

Collaborate, Capture, and Share Knowledge to Build Organizational Memory

1 Organization Employee Resources Services News Information Resources Policy Security
Training Travel SharePoint

Knowledge Management (KM) Home

KM Resources

KM Documents

KM Calendar

Knowledge Center Resources

Enter the Knowledge Center

Dashboard

KM Office Contacts

Internal Sites

External Sites

Supervisor's Toolbox

Strategic Workforce Planning

KM Glossary

NRC Glossary of Nuclear Terms

The NRC Rulemaker

2009 Tuesday, 11/17/2009

GSA KM Portal

Federal Highway's Community of Practice

Federal Govt's KM Site

DHS KnowNet Site

DOL KM Software

OPM's KM Site

World Bank

IAEA.org

Knowledge Management At The NRC

procedures, desk portals.

Knowledge management is a part of the strategic management of human capital, along with strategic workforce planning, recruitment, and training and development. HR is coordinating the NRC's efforts to implement knowledge management strategies. In this role, HR developed this website.

formation and making the
t the right time.
nited to, databases,
raining, interviews,
actice, websites and



NRC KNOWLEDGE CENTER

Collaborate, Capture, and Share Knowledge to Build Organizational Memory

[NRC's Knowledge Center](#)

[Request an Account](#)



NRC's Knowledge Center

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- [PROFESSIONAL DEVELOPMENT](#)
- [CROSS-CUTTING TOPICS](#)
- [MATERIALS](#)
 - [Academic and Research Material Uses](#)
 - [Decommissioning](#)
 - [Enforcement \(Materials\)](#)
 - [Events and Operational Experience...](#)
 - [Exempt Consumer Product Uses](#)
- [GENERAL LICENSE TRACKING SYSTEM \(GLTS\)](#)
- [Guidance Documents](#)
- [Industrial](#)
- [Materials Incident Response](#)
- [Medical Uses of Radioactive Materials](#)
- [National Materials Program](#)
- [Nuclear Materials Management and...](#)
- [Packaging & Storing Radioactive Material](#)
- [Part 70 Overview](#)
- [Sealed Sources and Devices \(SSD\)](#)

Welcome

People

Welcome

Welcome to the NRC Knowledge Center. To see the variety of communities and topics that are available, please enter the NRC Knowledge Center by clicking on the "NRC Knowledge Center" Community icon in the Explorer box to the left... Welcome! Information Security and Records Reminder - This page is for internal use only. All contributors to the contents on this site must be aware of the record value of the Web content and that it must be managed as record material in accordance with agency policy and NARA records management regulations. In addition, the content is subject to search under the Freedom of Information Act (FOIA) as well as litigation discovery requests. Posting of sensitive unclassified non-safeguards information (SUNSI) is prohibited unless appropriate access controls are applied, since access to SUNSI is on a need-to-know basis. Posting of personally identifiable information (PII) is always prohibited. SUNSI guidance can be found at <http://www.internal.nrc.gov/sunsi/>.

If you are a new user and would like information on requesting an account, see the " [New Account and Membership on the NKC](#)" guidance in ADAMS at ML090930410.

Our Communities

- [Advanced Reactors](#) ▾
- [Ground-Water & Performance Monitoring](#) ▾
- [HUMAN FACTORS](#) ▾
- [NSPDP \(RES\)](#) ▾
- [Part 70 Overview](#) ▾
- [Electrical Systems](#) ▾
- [HTGRs](#) ▾
- [Material Engineering](#) ▾
- [Nuclear Fuels](#) ▾
- [Thermal-Hydraulics](#) ▾

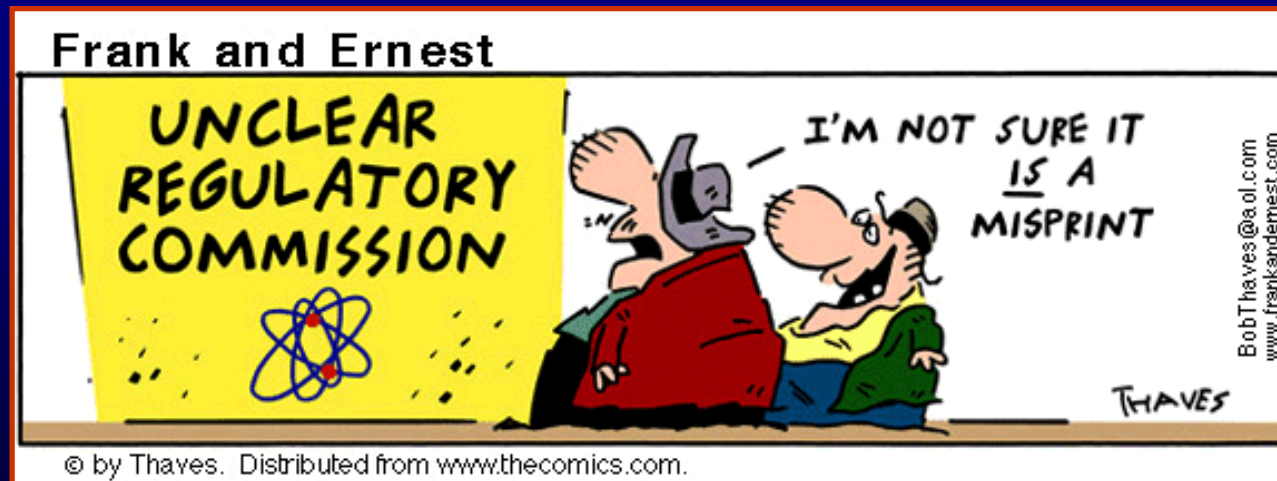
[Show All ...](#)

Conclusion

We are struggling to make our training effective and efficient. We have much to learn and much to do.

We would like to learn from the experiences of others and we are also willing to share our experiences.

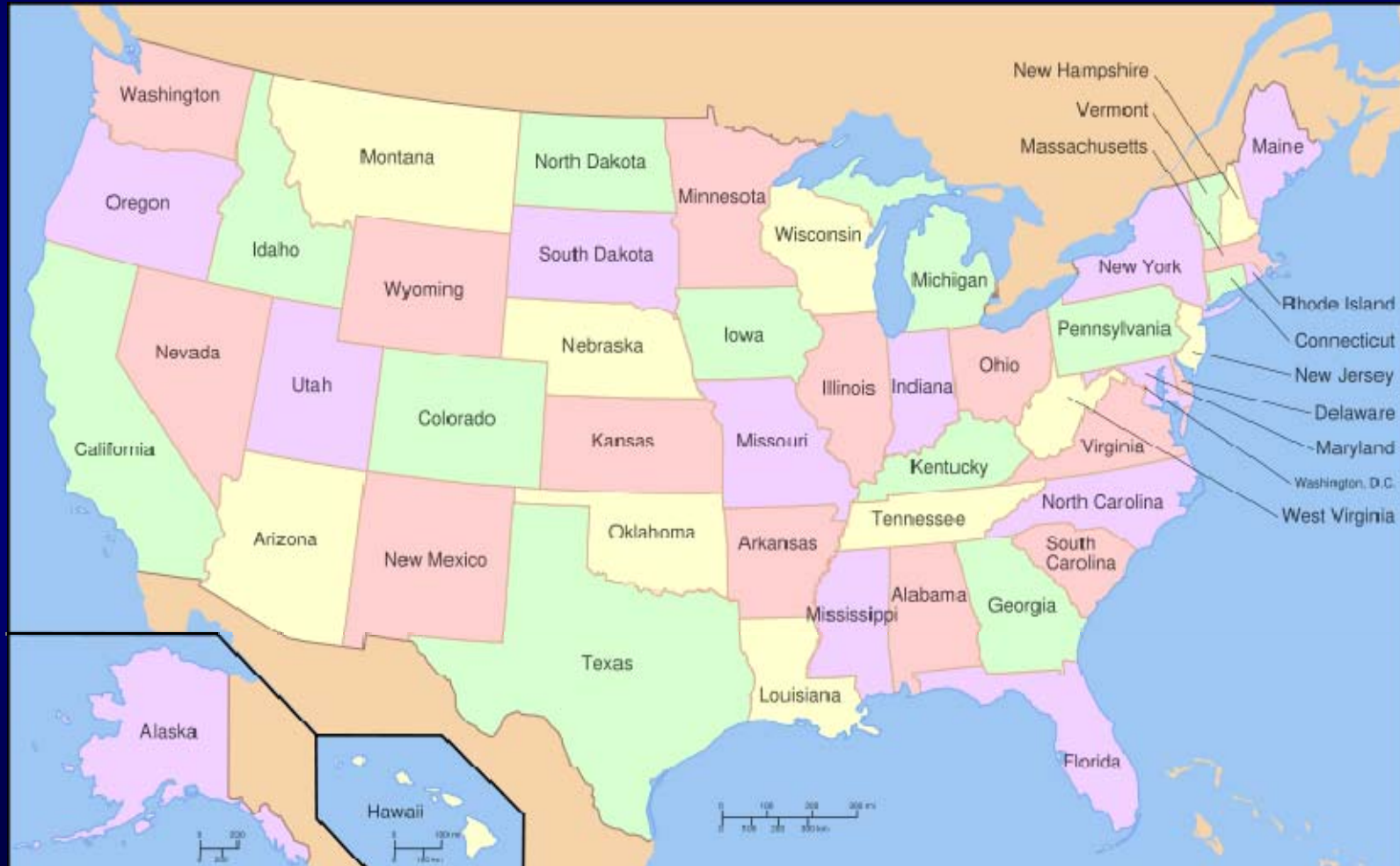
An effective training program can help us to avoid this



Interlude



Map of USA



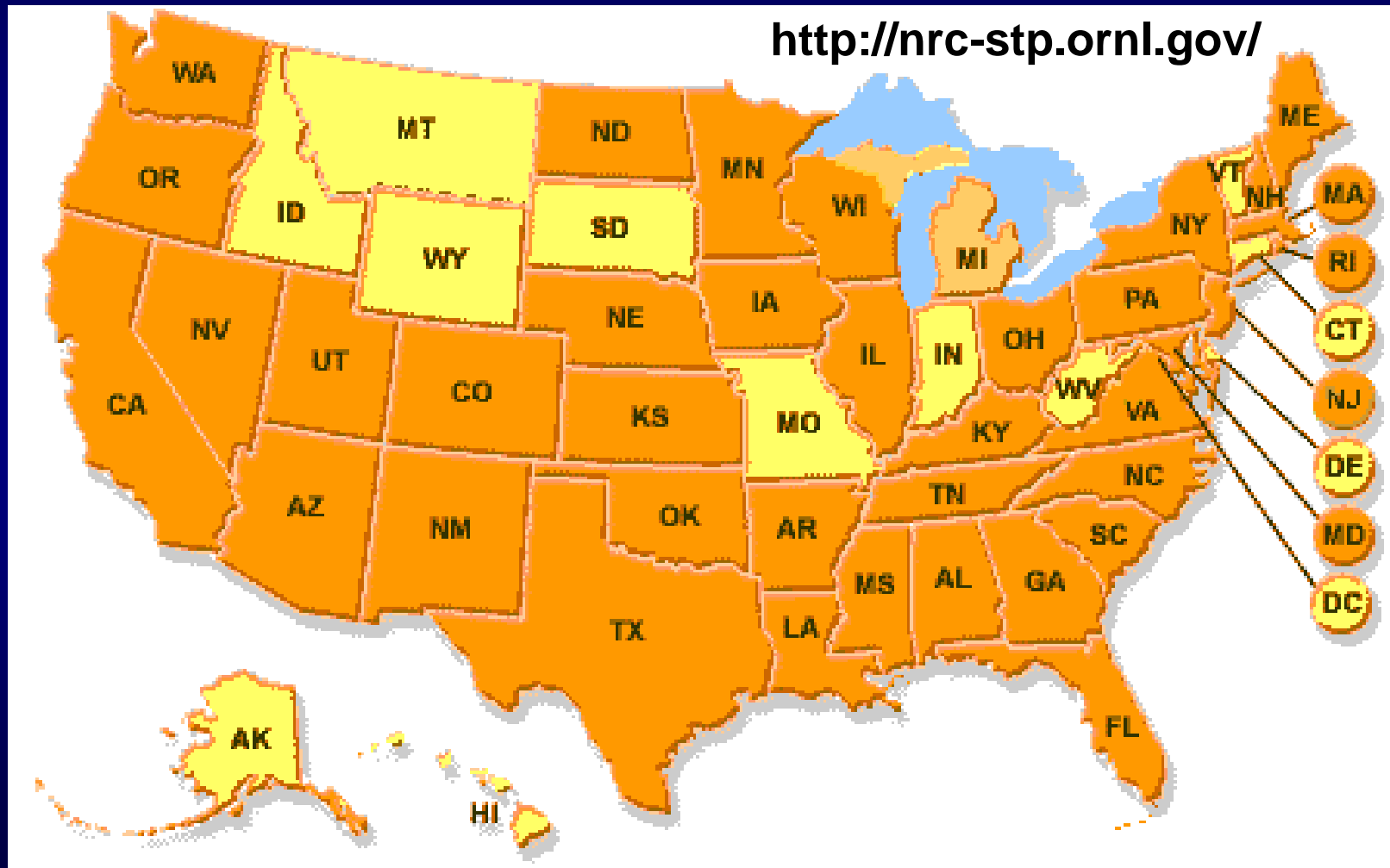
Atomic Energy Act of 1954

NRC Regulates Radioactive Material *

NRC may enter into agreements with the States to transfer authority to them for regulating radioactive material

*** EPA, DOT, FDA, OSHA, DOE etc**

37 Agreement States



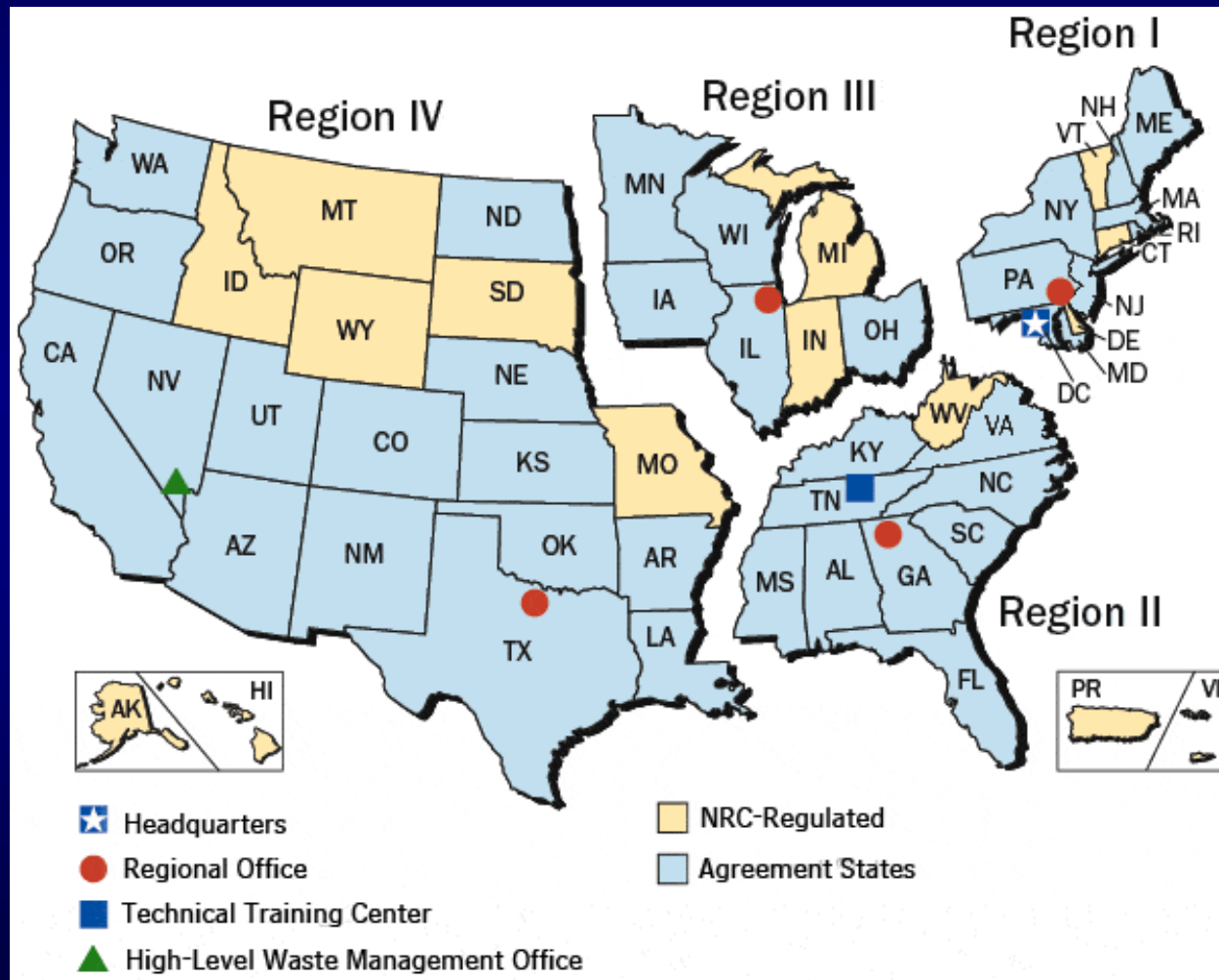
Office of Federal and State Materials and Environmental Management Programs (FSME)

Responsible for establishing and maintaining effective communications and working relationship between the NRC and States, local government, other Federal agencies and Native American Tribal Governments.

Serves as the primary contact for policy matters between NRC and these external groups. Keeps the external groups informed on NRC activities.

Keeps the Agency appraised of these groups' activities as they may affect NRC and conveys to NRC management these groups' views toward NRC policies, plans, and activities.

The NRC Regions



In Each Region

State
Agreements
Officer

State
Liaison
Officer

Harmonization

The NRC will determine which of its regulations and program elements should be adopted by an Agreement State to maintain a compatible program.

In addition, an Agreement State should have legally binding requirements to maintain adequate protection of public health and safety.

MD 5.9 describes the criteria and process NRC staff should follow to determine which NRC regulations and program elements should be adopted by an Agreement State for compatibility as well as for health and safety.

Compatibility Categories and Health and Safety Identification

A - Basic radiation protection standard or related definitions, signs, labels or terms necessary for a common understanding of radiation protection principles. The State program element should be essentially identical to that of NRC;

B - Program element with significant direct trans-boundary implications. The State program element should be essentially identical to that of NRC;

Compatibility Categories and Health and Safety Identification

C - Program element, the essential objectives of which should be adopted by the State to avoid conflicts, duplications or gaps. The manner in which the essential objectives are addressed need not be the same as NRC, provided the essential objectives are met;

D - Not required for purposes of compatibility;

NRC - These are NRC program elements that address areas of regulation that cannot be relinquished to Agreement States pursuant to the Atomic Energy Act or provisions of 10 CFR regulations.

Compatibility Categories and Health and Safety Identification

H&S - Program elements identified as H&S are not required for purposes of compatibility; however, they do have particular health and safety significance. The State should adopt the essential objectives of such program elements in order to maintain an adequate program.

PROGRAM ELEMENT	REQUIRED FOR	COMMENTS
Legislation and Legal Authority	Adequacy	See discussion in Adequacy Section of Policy Statement
<ul style="list-style-type: none"> Regulations 	Compatibility or Health and Safety	See Regulation Tables for 10 CFR Parts on the FSME website at: http://nrc-stp.ornl.gov/regsumsheets_newregs.html .
<ul style="list-style-type: none"> Guidance documents and interpretations 	D	
Licensing	Adequacy	See discussion in Adequacy Section of Policy Statement
<ul style="list-style-type: none"> Reciprocal recognition of licenses 	C	This program element has significant effects on the regulation of agreement materials on a national basis. However, States should be provided flexibility for the type of license and time period recognized under reciprocity. Although there are transboundary implications, there is not a necessity for all States to be identical, such as would be required by a classification of "B."
<ul style="list-style-type: none"> Written procedures 	C	
<ul style="list-style-type: none"> Maintenance of records, especially for decommissioning 	C	
<ul style="list-style-type: none"> Inspection and licensing files 	C	
Inspection and Enforcement	Adequacy	See discussion in Adequacy Section of Policy Statement
<ul style="list-style-type: none"> Written procedures 	C	

PROGRAM ELEMENT	REQUIRED FOR	COMMENTS
<ul style="list-style-type: none"> Radiological laboratory support 	D	
<ul style="list-style-type: none"> Instrumentation 	D	
Personnel	Adequacy	See discussion in Adequacy Section of Policy Statement
<ul style="list-style-type: none"> Qualification procedures 	C	There should be minimum education and experience requirements for all technical personnel in RCPs nationwide. Flexibility is provided to allow for different State administrative requirements.
Response to Events and Allegations	Adequacy	See discussion in Adequacy Section of Policy Statement
<ul style="list-style-type: none"> Written procedures 	C	
<ul style="list-style-type: none"> Major incident investigation procedures 	C	Need to prevent gaps in reporting effectiveness of national program
<ul style="list-style-type: none"> Procedures for investigation of "wrongdoing" 	C	
Sealed source and device program	Adequacy	Non-common performance indicator
<ul style="list-style-type: none"> Standard review plan 	C	
<ul style="list-style-type: none"> Format and content of registration certificates 	B	Need to have national consistency so that all RCPs can rely on the specific information included in these documents.
<ul style="list-style-type: none"> Inclusion of Information in the National SS&D registry 	B	Need to have national consistency so that all RCPs can rely on the specific information included in these documents
<ul style="list-style-type: none"> Written procedures 	C	

PROGRAM ELEMENT	REQUIRED FOR	COMMENTS
Low level waste	Adequacy	Non-common performance indicator
<ul style="list-style-type: none"> Written procedures 	C	
Uranium recovery	Adequacy	Non-common performance indicator
<ul style="list-style-type: none"> Written procedures 	C	
<ul style="list-style-type: none"> Exchange of information 	C	Necessary for effective regulation of agreement materials on a national basis; necessary for effective review of NRC and Agreement State programs for agreement material with respect to protection of public health and safety.
<ul style="list-style-type: none"> Event reporting 	C	See previous comment. In addition, Agreement State event reporting to NRC is mandatory as directed by the Commission in a Staff Requirements Memorandum dated June 30, 1997. Failure to comply with this provision can serve as a basis alone for a finding of "not compatible."
<ul style="list-style-type: none"> Legal assistance 	D	
<ul style="list-style-type: none"> Technical advisory committees 	D	
<ul style="list-style-type: none"> Technical assistance and support 	D	
<ul style="list-style-type: none"> Program funding, including program support services 	D	
<ul style="list-style-type: none"> Organization, management & location of radiation control program 	D	

Performance Indicators

Technical staffing and training

Status of materials inspection program

Technical quality of inspections

Technical quality of licensing actions

Technical quality of incident and allegation activities

Non-Common Performance Indicators

Compatibility Requirements

Objective - to ensure that an Agreement State program does not create conflicts, duplications, gaps, or other conditions that jeopardize an orderly pattern in the regulation of radioactive materials under the Atomic Energy Act

Sealed Source and Device (SS&D) Evaluation Program

Low-Level Radioactive Waste (LLRW) Disposal Program

Uranium Recovery Program

Integrated Materials Performance Evaluation Program (IMPEP)

Audits of the Agreement States and the NRC Regions

**Teams are composed of both Agreement State and
NRC Region Staff**

IMPEP reviews conducted every 4 years

Findings:

- **Adequate**
- **Adequate, but Needs Improvement**
- **Inadequate**
- **Compatible or Not Compatible**

Reciprocity

Some licensees may cross jurisdictions (NRC - State)

A reciprocity agreement permits this (form 241 required)

Prior notification = opportunity to inspect

If more than 180 days, need a separate license

OAS

OAS – Organization of Agreement States

The OAS is a progressive professional society whose members and activities constitute an invaluable resource to the regulation of radioactive materials and radiation safety across the nation.

Together, through committed, collaborative partnerships with state and federal agencies and other professional organizations, we will:

- Improve regulation of radioactive material;
- create a unified culture that values its members' participation and opinions; and
- ensure that the OAS stands strong in representing its members who regulate the majority of radioactive material facilities within the United States.

CRCPD

CRCPD – Conference of Radiation Control Program Directors

Mission is "to promote consistency in addressing and resolving radiation protection issues, to encourage high standards of quality in radiation protection programs, and to provide leadership in radiation safety and education."

Encourage and promote cooperative enforcement programs with Federal agencies and between each State;

Encourage the interchange of experience among radiation control programs;

Promote uniformity of radiation control laws and



The End

