



NRC Non-Power Reactor Oversight Activities

Gregory T. Bowman
Research and Test Reactors Oversight Branch
U.S. Nuclear Regulatory Commission

2013 TRTR Annual Meeting
September 24, 2013

RTR Oversight Branch

- Branch responsibilities
 - Inspection program implementation and maintenance
 - Operator licensing program maintenance and implementation
 - Security oversight
- Material categorization rulemaking



Inspection Program Updates

Overview

- NRC-licensed RTRs continued to be operated safely
- No new trends identified since last year
- Continued focus on implementation of change control requirements

Inspection Priorities

- New staff and inspector assignments
- Importance of consistent implementation of the inspection program
- Knowledge management activities
- Importance of communicating early and often when issues are identified

10 CFR 50.59

- Inspections continue identify issues of non-compliance with 10 CFR 50.59
- All examples to date have been either minor or Severity Level IV
- Ongoing outreach and training initiatives

FY14 Inspection Schedule

Week of	Facility			Week of	Facility		
10/7/13	Idaho	Texas	New Mexico*	3/31/14	MURR		
10/14/13	UC Davis			4/21/14	Rhode Island*		
10/28/13	MURR			5/5/14	USGS	MIT	
11/4/13	TAMU TRIGA			5/19/14	Wisconsin		
11/18/13	NIST	MIT	Ohio State	5/26/14	Maryland*		
12/2/13	Reed	RPI		6/2/14	GE		
12/16/13	Oregon State#	Maryland		6/9/14	UC Irvine	Purdue	
1/13/14	Texas	Florida		6/23/14	NIST*	Kansas State	
1/20/14	NC State			7/14/14	Utah	New Mexico	Lowell*
1/27/14	Oregon State			7/28/14	WSU		
2/10/14	UC Davis			8/4/14	PSU		
2/24/14	AFFRI			8/18/14	Dow	Rolla	
3/3/14	Rhode Island			8/25/14	RPI		
3/17/14	TAMU AGN			9/8/14	UC Davis		
3/24/14	NIST			9/15/14	UC Irvine*		



Operator Licensing Updates

Overview

- Exam performance has been consistent with past years and strong overall
- Importance of preparation for exams
- General improvement in submittal of medical information

Operator Licensing Priorities

- Newly qualified/qualifying examiners
- Knowledge management activities
- Update to NUREG-1478
 - Clarification on topics for operating exams
 - Internal peer reviews prior to exams
 - Additional guidance and clarification

Operator Licensing

- Timely/complete submittal of applications, requests, and supporting information
 - Requests at least 2 months in advance
 - Documentation at least 60 days prior
 - Applications at least 14 days prior
- Timely submittal of termination requests
 - Required within 30 days

Operator Licensing (cont'd)

- Evaluating SRO-U failures
 - Case-by-case assessment of weaknesses
 - Determination of deficiencies are associated with RO knowledge and abilities
 - Corrective actions
- Two step denial process
 - Result of power reactor licensing hearing
 - Informal review before hearing

FY14 Examination Schedule

Week of	Facility	Candidates	Week of	Facility	Candidates
10/21/13	Washington State	5 RO / 1 SRO	2/xx/14	MIT	4 RO / 2 SRO
10/21/13	MURR	3 RO / 3 SRO	3/3/14	Rolla	3 RO / 4 SRO
11/4/13	Utah	6 SRO	4/21/14	NC State	3 RO
11/11/13	Rolla	1 RO / 1 SRO	5/4-17/14	Reed	15 RO / 10 SRO
11/18/13	TAMU	4 RO / 1 SRO	05/12/14	Wisconsin	4 RO
12/2/13	Kansas State	4 RO	6/xx/14	MURR	3 RO / 1 SRO
12/xx/13	RPI	1 SRO	08/xx/14	PSU	3 RO / 1 SRO
01/xx/14	Reed	2 SRO	09/xx/14	Rhode Island	1 RO / 1 SRO



Security Initiatives and Developments

Security Priorities

- Infrastructure development
 - Guidance for security plan reviews/changes
 - Inspection procedure updates
- Security plan reviews
- International Physical Protection Advisory Service mission
- Cyber security for RTRs

Cyber Security Status

- Site assessments completed
- Final report being developed
- Overall impressions from site visits
- Recommendations

Classification Requirements

- SGI (10 CFR 73.21 and 22)
 - Sensitive unclassified
 - Applies to power reactors, formula quantities of SNM
 - Locked in security storage cabinet
- SGI-M (10 CFR 73.21 and 23)
 - Sensitive unclassified
 - Applies to RTRs and panoramic/underwater irradiators
 - Stored in locked file drawer of cabinet
- 10 CFR 2.390
 - Proprietary
 - General description of security



Material Categorization Rulemaking

Existing Security Requirements

- Current requirements based on:
 - Quantity of special nuclear material
 - Isotopic composition
 - Enrichment
- Categorized based on security risk
- Self-protecting material (100 R/hr at 1 m) can be subtracted

Material Categorization Rulemaking

- Material attractiveness
 - Not all material is equally attractive to an adversary
 - Consideration of other factors (e.g., dilution)
- Possible increase in self-protection threshold by a factor of ten
- Allow for alternative security measures for dilute materials

Next Steps

- Continued communication as rulemaking progresses
- Assessment of HEU RTRs to ensure impacts are fully considered
- Rulemaking regulatory basis complete by end of CY14

Summary

- Continued positive performance
- Consistency
 - Infrastructure improvements
 - Knowledge management
- Importance of communication, feedback, and involvement

Questions

