

Erickson, Randy

From: David M HOWE [david.m.howe@state.or.us]
Sent: Monday, September 27, 2010 7:25 PM
To: Erickson, Randy
Cc: Daryl A LEON; Terry D LINDSEY; Todd S CARPENTER
Subject: Oregon RPS Sept 21 2010 IMPEP Periodic Meeting Documents
Attachments: Oregon RPS Sept 21 2010 IMPEP Periodic Meeting Documents
Oregon Periodic Meeting Notes 092110.doc; Oregon RPS Training Policy Statement
092110.doc; RPS Training Journal Inspector mc1246b01 JIS .doc; RPS Training Journal LIC
mc1246b01 SLM.doc; RPS Med RAM Inspection Protocol 092110.pdf; RPS Incident Log
Documentation Protocol 092110 .pdf

Importance: High

Mr. Erickson:

Per your request, please see the attached six documents relating to the recent September 21, 2010 IMPEP Periodic Meeting involving you, Chuck Cain, and our Oregon Radiation Protection Services (RPS) Radioactive Materials Licensing staff.

Documents include: September 21, 2010 "Oregon Periodic Meeting Notes" (created from RPS staff) reflecting topics and issues addressed; a newly developed Oregon RPS "Training Policy Statement"; two examples of individual staff "Training & Qualification Journals" (one for an Inspector and one for a License Reviewer); one example of an RPS Inspection Protocol (Medical RAM facilities) illustrating incorporation of our RPS inspection form (which includes NRC Focus Elements to insure inspection consistency); and our RPS "Incident Log Documentation" Protocol (including NMED events)

Thank you for your attention.

David

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State of Oregon

Periodic Meeting Notes

September 21, 2010

State Of Oregon
Radiation Protection Services
IMPEP Periodic Meeting
Notes
September 21, 2010

FINAL- 09/27/10

1. Status of State's actions to address all open previous IMPEP review findings and/or open recommendations:

Response: Oregon Radiation Protection Services section has two current recommendations open including:

- Incident reporting through NMED – *Oregon RPS program sponsored an NMED and SA-300 training in Portland, OR to update all RML staff on requirements for NMED Incident reporting – changes have been implemented to verify compliance on a routine basis*
- Develop and implement a training journal compatible with MC 1246 for licensing and inspection program staff – *Oregon RPS management team has reviewed MC 1246 guidance and California RHS training journal. Oregon RML program will use a phased training approach to monitor progress of licensing and inspection staff to conduct various types of license reviews in a progressive training and evaluation system.*

Phase 1 – Complete NRC CORE Licensing and Inspection courses and accompany field inspectors during portable and fixed gauge inspections to gain on the job experience and knowledge. Study and demonstrate knowledge of appropriate Oregon Administrative Rules (OAR) and NRC guidance for portable/fixed gauge licensing (NUREG 1556 series) and inspection protocols (IP 87xxx series) with comparable Oregon inspection protocol by license type. Document progress through completion of didactic training and OJT field experience with peer and supervisor accompaniments. Complete portable gauge (Troxler/CPN, or equivalent course) training and HazMat training for transport of RAM. Complete Basic Health Physics and NRC Transportation courses. Demonstrate knowledge and skills learned through field inspection program with signoffs by peers and supervisors to move to Phase 2 level training. (Target completion cycle: Within twelve months of assignment)

Phase 2 – Complete NRC Industrial Radiography and Inspecting for Performance courses. Conduct minimum of five peer accompanied Industrial Radiography inspections before supervisor accompaniment and field testing of knowledge of OAR Chapter 333 - Divisions 105, 111, 118, 120 and 124 requirements. (Target completion cycle: within eighteen months of assignment)

Phase 3 – Complete NRC Nuclear Medicine and Brachytherapy courses and Root Cause course. Conduct minimum of five peer accompanied Nuclear Medicine inspections before supervisor accompaniment and field testing of knowledge of OAR Chapter 333 - Divisions 111, 116, 120 and 124 requirements. Conduct minimum of five Medical therapy inspection accompaniments. (Target completion cycle: within three years of assignment)

2. Strengths and/or weaknesses of State program as identified by State or NRC, including identification of actions that could diminish weaknesses.

Response: The depth of technical knowledge and experience in Oregon is improving over time with key licensing and inspection staff able to handle complex licensee issues and inspection concerns.

Loss of key staff with historical licensing and inspection knowledge from more than 45 years of Agreement State status with the U.S. Nuclear Regulatory Commission will challenge future RPS management team and staff members to continue handling complex regulatory issues related to rapidly developing emerging technologies. RPS has addressed this issue with a current request to increase licensing fees to reflect regional license costs and help retain and develop staff to improve depth of knowledge and experience.

Multiple challenges related to unfunded federal impacts on RML licensing programs will continue to challenge the RML program. Recent requirements for increased controls of radioactive materials, a national source tracking system, security inspections, FBI background checks and fingerprinting of licensee employees, development of web-based licensing systems have all impacted a very lean staffing level to support additional tasking.

Continued direct access to Information Technology programming staff is vital to maintain critical RML licensing and inspection database systems to maintain compliance with U.S. Nuclear Regulatory Commission Agreement state status. NRC IMPEP and periodic related reporting requirements require capacity to generate accurate reports on a daily basis for nationwide inquiries.

Additional technical staffing is also needed in the RML program to research complex public, legislative and other government inquiries into multiple facets of public radiation exposure concerns.

Cross training of technical and administrative staff has helped the RML program handle multiple priorities and assignments in the last few years. Continued support of these efforts will continue to allow the Oregon RML program to be flexible in a rapidly changing regulatory environment.

3. Feedback on NRC's program as identified by State, including identification of any action that should be considered by NRC.

Response: Oregon RPS values the on-going NRC-sponsored courses which provide knowledge of core competencies required to ensure a high-quality RML inspection/licensing program. As a whole, the courses are essential to develop RPS RML staff. Due to severe economic times and a resulting nominal training budget, continuation of this sponsored training is vital.

4. Status of State Program including:

- a. Staffing and training:

- Number of staff in program and status of their training and qualifications

Name	RML programs	CORE Training	Optional Trng	Date(s)
Lindsey, Terry	Mgr Lic & Insp	All completed	ICS, WL,Eng,Air	1988 - 2001
Howe, David	Mgr Field Ops	HP,Insp, Gauges, Lic,	ICS, (IC),RSO	2007 - 2010
Carpenter, Todd	Mgr Licensing	HP, Lic, Trans, Gauges	ICS, IC, RSO	2007 - 2010
Martin, Sylvia	Lic, Lab	HP, Lic, Insp, Trans, Gauges	ICS, IC	1975 - 2010
Leon, Daryl	Lic/Insp/Lab	Complete	ICS, IC, ERT	2001 - 2010
Spence, Justin	RML Insp/Lab	Complete	ICS, IC, ERT,Eng, Air,	2001 - 2010
Siebert, Kevin	RML Insp/Lab	Complete	ICS, IC, ERT,Eng, Air,	2001 - 2010
Wright, Bonny	Med Therapy	Lic, Insp, Med Therapy, NM	ICS, ERT, AAPM Shielding	2006 - 2010
Oberoi, Sudhir	Insp/Lab	HP,Trans,Gauges	ICS, ERT,RSO	2008 - 2010
Wahab, Emal	Insp/Lab	HP,Trans,Gauges	ICS, ERT,RSO	2008 - 2010
Grater, Connie	Lic/Fiscal/Rules	Licensing, DOJ Administrative Rules training	ICS, SPOTS (Fiscal),	2007 - 2010
Curry, Nancy	Lic, Reciprocity	RPS OJT	MS Word, Excel	2005 - 2010
*Cain, Daniel	Emer Resp/Lab	HP, ERT,	ICS, ERT,RSO	2009 - 2010
**Holcomb, Michael	Emer Resp/Lab	PhD Toxicologist	ICS, ERT,	2001 - 2010

* Research & Educational Services Section Industrial Hygienist, Safety Coordinator for Emergency Response Teams

** Research & Educational Services Section Toxicologist, Alternate Safety Coordinator for Emergency Response Teams

- Program Vacancies: RPS Section Manager position is currently open for national recruiting with David Howe serving as Interim Section Manager and Terry Lindsey handling special projects for leadership team transition. One additional EHS 3 inspector position recently filled with veteran Portland State University RSO with experience in providing radiation safety oversight for a Broad Scope license.

- Staff Turnover: RML technical staffing has not had any turnover since 2001. However, the RPS Section Manager will retire January 31, 2011. Three long time Emergency Response, RML program and X-ray program managers also retired in 2007 and one Administrative assistant for licensing left in 2007. One manager position was cut and two have been replaced. Administrative support was absorbed into workload of existing administrative staff.
- Adequacy of FTEs for the materials program: Need to fund ~2.0 FTE:
 - Fund one full time Radiochemist staffing for analytical laboratory and improved west coast radioanalysis capacity
 - Fund one CHP/Medical Physicist level expertise for medical therapy inspections, emerging technologies and shielding evaluation program

b. Materials Inspection Program:

- Status of inspection program (backlog and actions to correct deficiencies)
Response: RML inspection program currently conduct 12-18 inspections per month with backlog cleared. Timely completion of inspection reports and actions to closeout of inspections continues to be challenging with current assignments for RML staff members. Actions to clear backlog of inspections has addressed this concern and will allow RML program to maintain capability to conduct timely inspections and respond to incidents.

c. Regulations and Legislative changes:

- Status of regulations and actions to keep regulations up to date, including legally binding requirements (i.e. legislative action)
Response: Licensing manager serves as RPS Rules Coordinator to monitor regulatory requirements and maintain compatibility with NRC regulations. Current administrative rules package is awaiting Department of Administrative Services (DAS) approval to file final rules with Secretary of State and Legislative Counsel. This will bring Oregon into full compliance with current RATS ID items through September 2010.

Upon completion of this filing, the RPS rules coordinator will draft another revision for Radiation Advisory Committee approval and public hearings for RATS ID #2007-1 (due 10/29/10), 2008-1 (due 2/15/11), 2009-1 (due 9/28/12) as well as other non-NRC compatibility rule updates and minor administrative corrections. RPS plans to complete this process by end of CY2010, unless delayed by rule filing process changes.

d. Program reorganizations:

- Discuss any changes in program organization, including program/staff relocations and new appointments
Response: The 2009 Oregon Legislative Session passed House Bill 2009 which will result in the Public Health Division coming under a new

agency (Oregon Health Authority) with administrative and information technology services shared with former Department of Human Services. This major change will be completed by June 30, 2011 over a two year transition. This is viewed as a positive change with increased ability to advance legislation through an agency of ~1,000+ employees vs 10,000+.

Organizational changes are also likely to occur upon development of a new leadership team following retiring of Oregon RPS section manager in order to streamline programs and “lean” the organization to more efficiently handle the challenges ahead. The current management team is well trained on transformation initiatives and lean daily management tools to accomplish these changes in the future.

e. Changes in Program budget/funding:

Over the past three years, RPS section has been cut by 1.0 FTE in federal CDC grant funding for emergency preparedness programs. This lack of federal support to prepare for radiological emergencies is viewed as a critical loss of federally mandated program funding. The current federal preparedness model has diluted emphasis on chemical and radiological concerns in favor of all hazard preparedness. This change has resulted in a total loss of emergency preparedness funding for Oregon Radiation Protection Services section. The U.S. NRC, FDA, EPA, DOE federal agencies all need to work with CDC and the Department of Homeland Security to fix this critical gap in preparedness funding nationwide.

Without a direct DHS requirement to develop emergency plans that include planning support, training support and exercise support for chemical and radiological incidents, radiation programs will continue to lose federal funding support in these critical areas.

The federal U.S. EPA Radon grant and related staffing has also been recently assigned to another section (Research & Education Services) in a new “Healthy Homes” program. This historic RPS program will continue to be supported as needed during absence of Radon coordinator or staffing of Public Health Division information booths at community events.

The Office of Environmental Public Health has also drafted legislative proposals to advance state and local environmental public health concerns over the next 6-10 years through moderate increases in general fund support with long term benefits in reducing exposure to environmental pollutants in Oregon. This bold initiative has been developed in a phased approach to add \$10-15 million in general fund support for these critically under funded programs that primarily impact underserved Oregonians.

5. Event Reporting, including follow-up closure information in NMED

Response: Oregon RPS hosted a NMED and SA-300 training in Portland, Oregon for RPS RML and ERT staff and managers. The Lead RML program physicist also verifies monthly status of all open incidents and works with staff and managers to report and close out incidents in a timely manner.

6. Response to incidents and Allegations:

a. Status of allegations and concerns referred by the NRC for action

Response: Currently no outstanding actions

b. Significant events and generic implications

Response: Source rod failure of gauge shutter at Jeld-Wen and prior similar issues with other fixed gauge licensees may be related to compliance issue with not testing shutter mechanisms on required frequency. Follow up program for all fixed gauge facilities for 1-2 years may help to address issues of improper installations or maintenance of these gauging systems at Oregon industrial plants.

Some example past gauge failures include: failure due to vibration causing gauge to fall apart; gauges with lead shielding at fiberglass plant causing melting and shifting of shielding; gauges improperly selected with non-stainless steel shutter mechanism in wet environment caused rusting of gauge mechanism and multiple failures, etc.

Recent loss and improper disposal of ECD device due to disposal of gas chromatograph without removal of ECD prior to sale or unrecorded transfer is also of concern for generally licensed device.

7. Information exchange and discussion:

a. Current State initiatives

Response: OEPH Legislative proposal (POP) for 2011 session provides general funding support for part of RPS unfunded mandates with additional proposals drafted for the next two biennia to build a comprehensive environmental health program within the Public Health Division of the Oregon Health Authority. Oregon RPS is currently in final phase of CRCPD SCATR program source disposal with possible glitch of licensee permits for the Hanford disposal site.

b. Emerging technologies:

Response: Oregon RPS has recently updated Division 116 administrative rules to be compatible with 10 CFR Part 35.1000 rule on emerging technologies. Additional emphasis on this area for licensing and inspections has also been included in these program areas to assure compatibility with federal standards.

c. Large, complicated, or unusual authorizations for use of radioactive materials (e.g. , major decommissioning and license termination actions)

Response: Recent licensee records review for FOIA request from ORAU (Dade Moeller & Associates, Inc. – contractor) related to NIOSH Dose Reconstruction Project involved approximately 40+ hours of staffing related to review of 20,000+ pages of records for License No. ORE-90001 (Wah Chang). A related query from this licensee for potential licensing for source material from mining operations along southern Oregon coast may involve new licensing assistance needs in the near future with a potential technical consult needed with Dennis Sollenberger.

d. State's mechanisms to evaluate performance (as applicable):

- Self-audits – Response: Ongoing program
- Computer tracking – Response: Ongoing program
- Inspector Accompaniments – Response: Ongoing program
- Other management tools – Response: Monthly program meetings to review status of RML licensing and inspection programs; federal rules compatibility; protocol development and updates; emergency response and reporting for incidents; training needs and related matters.

8. NRC current initiatives

Response: Need more information regarding process of moving towards web-based licensing and Increased Control changes with new Part 37 draft rules.

9. Other topics

Response: Emergency Preparedness funding for radiation programs nationally has been greatly diluted by current funding through CDC versus FEMA, EPA, NRC, DOE or other radiation related federal agency. Oregon has received minor funding since funding inception in FFY2002 (starting in FFY2005 through FFY2009) with current potential zero to 0.1 FTE funding. This represents a unfunded federal mandate and needs to be corrected at the federal level.

10. Schedule for the next IMPEP review: tentatively August 2012

State of Oregon

Radioactive Materials Licensing & Inspection Program

Training Policy Statement

Oregon Radiation Protection Services
Radioactive Materials Licensing & Inspection Program
Training Policy Statement

Oregon Radiation Protection Services will ensure that staff who perform licensing and inspection functions for all types of radioactive materials licenses issued by the State of Oregon are properly trained and qualified to perform these activities.

An individual will not serve as lead inspector or senior license reviewer for a licensed facility unless the individual has demonstrated competency in the program training areas applicable to that type of license, within the constraints of NRC sponsored training course availability and Oregon travel authorization approval.

The program training areas and essential elements addressed in each program training area are described in training journals for licensing and inspection personnel, based upon NRC Manual Chapter 1246 standards. The current draft version of these training journals will be incorporated into standard Radiation Protection Services procedures currently under development through the standing Oregon RPS Procedure Review Committee.

An individual can be qualified to perform licensing and inspection functions for certain types of licenses while working towards full qualification for all types of licenses issued by the state. When an individual has demonstrated competency in a particular training area to RPS management, their training record will be updated to document their competency as part of an ongoing staff training program.

Refresher training will also be provided, as needed, based upon RPS management decisions to continuously improve licensing and inspection program capability and staff development. The provision of refresher training recognizes that inspector and reviewer training continues after initial qualification and will be based upon needs of the program, available resources and changes in technology in the future.

Related References:

1. NRC document SA-103 - *Reviewing the Common Performance Indicator, Technical Staffing and Training*
2. Manual Chapter 1246 –

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	1246B	NRC Inspector Training and Qualification Journal	01/05/01	01-002
IMC	1246B01	Materials License Reviewer	01/05/01	01-002
IMC	1246B02	Materials Radiation Specialist Inspector	01/05/01	01-002

3. Manual Chapter 2800

4. Manual Chapter 1556 (Series for Licensing Guidance) – See listing and links below:

Consolidated Guidance About Materials Licenses (NUREG-1556)

File	Title
Info Note	<i>Please Read this Informational Note Regarding NUREG-1556</i>
Volume 1	Program-Specific Guidance About Portable Gauge Licenses (Revision 1)
Volume 2	Program-Specific Guidance About Industrial Radiography Licenses
Volume 3	Applications for Sealed Source and Device Evaluation and Registration (Revision 1)
Volume 4	Program-Specific Guidance About Fixed Gauge Licenses
Volume 5	Program-Specific Guidance About Self-Shielded Irradiator Licenses
Volume 6	Program-Specific Guidance About 10 CFR Part 36 Irradiator Licenses
Volume 7	Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope Including Gas Chromatographs and X-Ray Fluorescence Analyzers
Volume 8	Program-Specific Guidance About Exempt Distribution Licenses
Volume 9	Program-Specific Guidance About Medical Use Licenses (Revision 2)
Volume 10	Program-Specific Guidance About Master Materials Licenses
Volume 11	Program-Specific Guidance About Licenses of Broad Scope
Volume 12	Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution
Volume 13	Program-Specific Guidance About Commercial Radiopharmacy Licenses (Revision 1)
Volume 14	Program-Specific Guidance About Well Logging, Tracer, and Field Flood Study Licenses
Volume 15	Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Materials Licenses
Volume 16	Program-Specific Guidance About Licenses Authorizing Distribution to General Licensees
Volume 17	Program-Specific Guidance About Licenses for Special Nuclear Material of Less than Critical Mass
Volume 18	Program-Specific Guidance About Service Provider Licenses
Volume 19	Guidance for Agreement State Licensees About NRC Form 241 Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction, or Offshore Waters and Guidance for NRC Licensees Proposing To Work in Agreement State Jurisdiction (Reciprocity)
Volume 20	Guidance About Administrative Licensing Procedures
Volume 21	Program-Specific Guidance About Possession Licenses for Production of Radioactive Material Using an Accelerator

State of Oregon

Materials Inspector

Qualification Journal

MATERIALS HEALTH PHYSICS INSPECTOR
Oregon RPS INSPECTOR QUALIFICATION JOURNAL

This Oregon Radiation Protection Services Inspector Qualification Journal implements NRC Manual Chapter 1246, Appendix A, Section II, by establishing the minimum training requirements for personnel assigned to independently perform safety inspections at materials facilities. The Oregon RPS Qualification Journal provides documentation to show that minimum requirements are met for each inspector.

The Oregon RPS Inspector Qualification Journal consists of a series of qualification guides and supervisory signed verifications. Each verification 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 inspection type.

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 license types 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 standards of the NRC. The use of specific real world material will reinforce the qualification process.

Reference MC1246, APPENDIX B II-2 Issue Date: 01/05/01

INSPECTOR QUALIFICATION JOURNAL

| OHA/PHD/OEPH Materials Health Physics Inspector Qualification Summary

Name	Title	Spvr	Cert Date	License Types
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		DMH	Pre-2006	PG/FG/GL
		DMH	Pre-2006	IR (Fixed/Field)
		DMH	Pre-2006	Medical Imaging
		DMH	03/22/10	Medical Therapy
		DMH	Pre-2006	Well Logging
		DMH	Pre-2006	Broad Scope A,B,C
		DMH	04/2003	Nuclear Pharmacy
		DMH	Pre-2006	Veterinary Therapy
		DMH		Source Material
		DMH		RAM NOS
		DMH	06/12/09	Environmental Monitoring
		DMH	SEP 2007	Incident Response

To complete your qualification as a Materials Health Physics Inspector you are to complete the following training verifications. All signoffs shall include the signature of the responsible reviewer and the date. These records will be maintained in training journal along with any background or written material required by the program.

Signature When Complete Date

1. NRC/Oregon RPS Orientation _____
Signature Date

First Line Supervisor

2. Code of Federal Regulations (CFR) /Oregon Administrative Rules (OAR)_
_10 CFR (Appropriate Parts related to OAR Divisions)
_49 CFR (Appropriate Parts related to OAR Division 118)
_OAR Chapter 333 Divisions 100-124 (See appropriate OAR Divisions below)

- Portable Gauge/Fixed Gauge and General Licensees
(Divisions 100,101,102,103,111,118,120,124)
- Industrial Radiography Licensees
(Divisions 100,101,102,103,105,111,118,120,124)
- Medical Imaging/Nuclear Medicine Licensees (with Radioisotope Therapy)
(Divisions 100,101,102,103,111,116,118,120,124)
- Medical Brachytherapy/HDR/Teletherapy Licensees
(Divisions 100,101,102,103,111,116,118,120,124)
- Research & Education/Broad Scope A, B, and C Licensees
(Divisions 100,101,102,103,111,118,120,124)
- Naturally Occurring or Accelerator Produced Material (NORM) Licensees
(Divisions 100,101,102,103,111,117,118,120,124)
- Nuclear Pharmacy/Cyclotron Isotope Production Licensees
(Divisions 100,101,102,103,111,116,118,120,124)
- Veterinary Medicine Radioisotope Therapy Licensees
(Divisions 100,101,102,103,111,116,118,120,124)
- Source Material Licensees
(Divisions 100,101,102,103,111,117,118,120,124)
- Radioactive Material (RAM) Not Otherwise Specified (NOS) Licensees
(Divisions 100,101,102,103,111,117,118,120,121,124)
- Well Logging Licensees
(Divisions 100,101,102,103,111,113,118,120,124)

First Line Supervisor

3. Office Instructions/RPS Inspection Procedures

- Portable Gauge/Fixed Gauge Licensee Inspection Protocol
- General Licensee Inspection Protocol
- Industrial Radiography (Fixed/Field) Inspection Protocol
- Medical Imaging/Nuclear Medicine Licensee Inspection Protocol
- Medical Brachytherapy/HDR/Teletherapy Licensee Inspection Protocol
- R&E/Broad Scope A, B and C Licensee Inspection Protocol
- NORM Licensee Inspection Protocol
- Nuclear Pharmacy/Cyclotron Isotope Production Licensee Inspection Protocol
- Veterinary Medicine Radioisotope Therapy Licensee Inspection Protocol
- Source Material Licensee Inspection Protocol
- RAM/NOS Licensee Inspection Protocol
- Well Logging Licensee Inspection Protocol

First Line Supervisor

4. Regulatory Guidance (As appropriate from NRC Regulatory Guides) _____

First Line Supervisor

5. NRC Inspection Manual (Orientation related to Oregon RPS Inspection Protocols and data forms)

| Chapters (MC) First Line Supervisor

6. Industry Codes and Standards _____

- MC 1246
- MC 2800
- ISO Standards
- ANSI Standards
- OR-OSHA Requirements

First Line Supervisor

7. Inspection Accompaniments

Signature

Date

Initial Training period Peer/Supervisor accompaniments:

Inspector	Peer/Supervisor	License Type	License No.	Date(s)

Annual/Periodic Supervisor accompaniment Record:

Inspector	Supervisor	License Type	License No.	Date(s)

First Line Supervisor

Code of Federal Regulations (CFR)

A. Familiarization with selected CFR parts completed _____
Signature _____ Date _____

B. Discussion completed on CFR parts related to the materials inspection program _____

First Line Supervisor

Office Instructions/Procedures

A. Familiarization with office/OHA policies and procedures _____

B. Discussion completed on office policies and procedures _____

First Line Supervisor

Regulatory Guidance

A. Review of regulatory guidance

1. Regulatory Guides _____
2. Information Notices /Bulletins _____
3. NUREGs 1556 Series (licensing guides) _____
1757 Volumes (Decommissioning) _____
4. Generic Letters N/A _____
5. Federal Register Notices N/A _____
6. NRC Branch Technical Positions N/A _____
7. Policy and Guidance Directives N/A _____
8. Sealed Source and Device Registry _____
9. Technical Assistance Requests N/A _____

B. Discussion of regulatory guidance with application to the materials inspection program _____

First Line Supervisor

NRC Inspection Manual Chapters (MC)

A. Review of appropriate NRC MCs completed _____

B. Discussion of NRC MCs and their relation to the materials inspection program _____

First Line Supervisor

Industry Codes and Standards

A. Review of selected codes and standards completed _____

B. Discussion of the application of codes and standards in the materials inspection program _____

First Line Supervisor - Inspection Accompaniments

A. Inspections completed

Supervisor accompaniment Record

Inspector	Supervisor	License Type	License No.	Date(s)

B. Discussion of inspection and employee's role

NRC Management Directives

A. Review of selected portions of the NRC Management Directives completed

B. Discussion of the application of the NRC Management Directives to the materials inspection program _____

First line supervisor

Review of Significant Events at Materials Licensees

A. Review of selected significant historical materials events

B. Discussion of the importance of these events and lessons learned

First Line Supervisor

Directed Review of Selected Inspection Casework

A. Review of selected inspection casework _____

B. Discussion by first line supervisor of directed review of the selected casework and its relation to the materials inspection program

First Line Supervisor

A. CORE TRAINING:

1. Fundamentals of Inspection

Course (G-101) or Inspection Procedures Course (G-108)

09/13/99

Training Coordinator

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

03/30/01

Training Coordinator

3. Inspecting for Performance

Course - Materials Version (G-304)

11/05/05

Training Coordinator

4. Health Physics Technology Course (H-201)

04/30/01

Training Coordinator

5. Diagnostic and Therapeutic Nuclear Medicine Course (H-304)

04/11/03

Training Coordinator

6. Safety Aspects of Industrial Radiography Course (H-305)

08/09/99

Training Coordinator

7. Teletherapy and Brachytherapy Course (H-313)

10/16/06

Training Coordinator

8. Transportation of Radioactive Materials Course (H-308)

06/16/08

Training Coordinator

B. SPECIALIZED TRAINING

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

Course Title Course # Initials Date

Supervisor Training Coordinator

Supervisor Training Coordinator

Supervisor Training Coordinator

Supervisor Training Coordinator

Attachment 1 - RPS Inspector Training Guidance/NRC References

NRC/RPS Orientation

A. Site Orientation

1. The qualifying individual should read and complete, as appropriate, the forms for processing into the Oregon Radiation Protection Services:
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/RPS Organization

1. The qualifying individual should review and become familiar with the following, as appropriate:
 - a. Organizational charts of NRC and Oregon RPS section
 - b. Role of NRC and Oregon OHA as regulatory agencies
 - (1) 10 CFR Part 1 (Organization)
 - (2) Atomic Energy Act of 1954, as amended
 - (3) Energy Reorganization Act of 1974, as amended
 - (4) NRC Enforcement Policy (NUREG 1600)
 - (5) Incident Response Plan (NUREGs 0728 and 0845)
 - (6) Energy Policy Act of 1992
2. The Supervisor should discuss NRC/RPS organizations and role with the qualifying individual to ensure the individual has a full understanding of RPS's organization and mission as an Oregon OHA/RPS inspector.

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**
 - | 6. 10 CFR Part 21 Reporting of defects and noncompliance
 - | 7. 10 CFR Part 25 Access authorization for licensee personnel
 - | 8. 10 CFR Part 26 Fitness for duty programs
 - | 9. 10 CFR Part 30 Rules of general applicability to domestic licensing of byproduct material
 - | 10. 10 CFR Part 31 General domestic licenses for byproduct material
 - | 11. 10 CFR Part 32 Specific domestic licenses to manufacture or transfer certain items containing byproduct material
 - | **12. 10 CFR Part 33 Specific domestic licenses of broad scope for byproduct material**
 - | 13. 10 CFR Part 34 Licenses for radiography and radiation safety requirements for radiographic operations
 - | **14. 10 CFR Part 35 Medical use of byproduct material**
 - | **15. 10 CFR Part 36 Licenses and radiation safety requirements for irradiators**
 - | **16. 10 CFR Part 39 Licenses and radiation safety requirements for well logging**
 - | **17. 10 CFR Part 40 Domestic licensing of source material**
 - | 18. 10 CFR Part 61 Licensing requirements for land disposal of radioactive waste
 - | 19. 10 CFR Part 70 Domestic licensing of special nuclear material
 - | **20. 10 CFR Part 71 Packaging and transportation of radioactive material**
 - | 21. 10 CFR Part 110 Export and import of nuclear equipment and material |
 - | 22. 10 CFR Part 150 Exemptions and continued regulatory authority in agreement states and in offshore waters under section 274
 - | 23. 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 |
 - | 24. 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 |
 - | **25. 29 CFR Part 1910 Occupational safety and health standards |**
 - | 26. 40 CFR Part 61 National emission standards for hazardous air pollutants (emphasis on Subpart I)
 - | 27. 40 CFR Part 190 Environmental radiation protection for nuclear power operations (uranium fuel cycle standards)
 - | 28. 40 CFR Part 141 National primary drinking water regulations |
 - | **29. 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.

Office Instructions/Procedures

A. OHA/Office Policies and Procedures

1. Read appropriate OHA/PHD/OEPH/RPS Policy and Procedures
2. The qualifying individual should review the Office policies and procedures contained in employee orientation manual

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.

Regulatory Guidance

A. An appropriate selection of currently applicable regulatory guidance should be identified by the First Line Supervisor. These references should include those listed below (documents marked by an asterisk must be included as a minimum) and should be documented. The qualifying individual should be expected to have a general knowledge of the topics addressed in the references.

1. Regulatory Guides (use latest revision)

4.6 Measurements of Radionuclides in the Environment - Strontium-89 and Strontium-90 Analyses

4.13 Performance, Testing and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications

4.15 Quality Assurance for Radiological Monitoring Programs

|4.20 Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees other than Power Reactors.

*6.1 Leak Testing Radioactive Brachytherapy Sources

6.2 Integrity and Test Specifications

6.3 Design, Construction, and Use of Radioisotopic Power Generators for Certain Land and Sea Applications

6.4 Classifications of Containment Properties of Sealed Radioactive Sources

*6.5 General Safety Standard for Installations Using Nonmedical Sealed Gamma Ray Sources

6.6 Acceptance Sampling Procedures for Exempted and Generally Licensed Items Containing Byproduct Material

6.7 Preparation of an Environmental Report to Support a Rule Making Petition Seeking an Exemption for a Radionuclide-Containing Product

*6.8 Identification Plaque for Irretrievable Well-Logging Sources

|6.9 Establishing Quality Assurance Programs for the Manufacture and Distribution of Sealed Sources and Devices containing Byproduct Material

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*7.1 Administrative Guide for Packaging and Transporting

Radioactive Material

*7.2 Packaging and Transportation of Radioactively Contaminated Biological Materials

*7.3 Procedures for Picking Up and Receiving Packages of Radioactive Material

*7.4 Leakage Tests on Packages for Shipment of Radioactive Materials

7.5 Administrative Guide for Obtaining Exemptions from Certain NRC Requirements over Radioactive Material Shipments

*7.7 Administrative Guide for Verifying Compliance with Packaging

Requirements for Shipments of Radioactive Materials

*7.10 Establishing Quality Assurance Programs for Packaging | Used in the Transport of Radioactive Material |

*8.1 Radiation Symbol

*8.2 Guide for Administrative Practices in Radiation Monitoring

*8.4 Direct Reading and Indirect Reading Pocket Dosimeters

8.5 Criticality and Other Interior Evacuation Signals

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

*8.14 Personnel Neutron Dosimeters

*8.15 Acceptable Programs for Respiratory Protection

*8.18 Information Relevant to Ensuring that Occupational Radiation Exposures at Medical Institutions Will be As Low As Reasonably Achievable

*8.20 Applications of Bioassay for I-125 and I-131 | 1246, APPENDIX B II-26 Issue Date: 01/05/01

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

8.22 Bioassay at Uranium Mills

*8.23 Radiation Safety Surveys at Medical Institutions

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

|*8.25 Air Sampling in the Workplace

8.26 Applications of Bioassay for Fission and Activation Products

*8.28 Audible Alarm Dosimeters

|*8.29 Instruction Concerning Risks from Occupational Radiation Exposure

8.30 Health Physics Surveys in Uranium Mills

*8.31 Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills Will Be As Low

As Reasonably Achievable

*8.32 Criteria for Establishing a Tritium Bioassay Program

*8.33 Quality Management Program

*8.34 Monitoring Criteria and Methods to Calculate Occupational Radiation Doses

*8.35 Planned Special Exposures

*8.36 Radiation Doses to the Embryo/Fetus

*8.37 ALARA Levels For Effluents From Materials Facilities

|*8.39 Release of Patients Administered Radioactive Materials

*10.4 Guide for the Preparation of Applications for Licenses to Process Source Material

|10.12 Preparation of Petitions for Rulemaking Under 10 CFR

|2.802 and Preparation and Submission of Proposals for Regulatory Guidance Documents ||

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

IN 91-002 Brachytherapy Source Management

IN 91-003 Management of Wastes Contaminated With Radioactive Materials ("Red Bag" Waste and Ordinary Trash)

IN 91-014 Recent Safety-Related Incidents at Large Irradiators

IN 91-023 Accidental Radiation Overexposures to Personnel Due to Industrial Radiography Accessory Equipment Malfunctions

IN 91-030 Inadequate Calibration of TLDs Utilized to Monitor

Extremity Dose at Uranium Processing and Fabrication Facilities

IN 91-035 Labeling Requirements for Transporting Multi-Hazard Radioactive Materials

IN 91-049 Enforcement of Safety Requirements for Radiographers

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

IN 91-071 Training and Supervision of Individuals Supervised by an Authorized User

IN 92-010 Brachytherapy Incidents Involving Iridium-192 Wire Used in Endobronchial Treatments

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

IN 92-062 Emergency Response Information Requirements for Radioactive Material Shipments

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

IN 92-084 Release of Patients Treated With Temporary Implants

IN 93-004 Investigation and Reporting of Misadministrations by the Radiation Safety Officer

IN 93-005 Locking of Radiography Exposure Devices

IN 93-006 Potential Bypass Leakage Paths Around Filters Installed in Ventilation Systems

IN 93-007 Classification of Transportation Emergencies

IN 93-010 Dose Calibrator Quality Control

IN 93-014 Clarification of 10 CFR 40.22, Small Quantities of Source Material

IN 93-018 Portable Moisture-Density Gauge User Responsibilities During Field Operations

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

IN 93-031 Training of Nurses Responsible for the Care of Patients With Brachytherapy Implants
IN 93-036 Notifications, Reports, and Records of Misadministrations
IN 93-060 Reporting Fuel Cycle and Materials Events to the NRC Operations Center ||
IN 93-069 Radiographic Events At Operating Power Reactors
IN 93-100 Reporting Requirements for Bankruptcy
IN 94-007 Solubility Criteria For Liquid Effluent Releases to Sanitary Sewerage Under the Revised 10 CFR Part 20
IN 94-009 Release of Patients With Residual Radioactivity From Medical Treatment and Control Areas ... Revised 10 CFR Part 20
IN 94-015 Radiation Exposures During an Event Involving a Fixed Nuclear Gauge
IN 94-016 Recent Incidents Resulting in Offsite Contamination
IN 94-017 Strontium-90 Eye Applicators: Submission of Quality Management Plan (QMP), Calibration, and Use
IN 94-037 Misadministration Caused By a Bent Interstitial Needle During Brachytherapy Procedure
IN 94-039 Identified Problems in Gamma Stereotactic Radiosurgery
IN 94-047 Accuracy of Information Provided to NRC During the Licensing Process
IN 94-065 Potential Error in Manual Brachytherapy Dose Calculations Generated Using a Computerized Treatment Planning System
IN 94-070 Issues Associated with the Use of Strontium-89 and Other Beta Emitting Radiopharmaceuticals
IN 94-074 Facility Management Responsibilities for Purchased or Contracted Services for Radiation Therapy Programs
IN 94-081 Accuracy of Bioassay and Environmental Sampling Results
IN 95-007 Radiopharmaceutical Vial Breakage During Preparation
IN 95-025 Valve Failure During Patient Treatment with Gamma Stereotactic Radiosurgery Unit
IN 95-039 Brachytherapy Incidents Involving Treatment Planning Errors
IN 95-039 Brachytherapy Incidents Involving Treatment Planning Errors
IN 95-050 Safety Defect in Gammamed 12I Bronchial Catheter Clamping Adapters
IN 95-051 Recent Incidents Involving Potential Loss of Control of Licensed Material ||
IN 96-004 Incident Reporting Requirements for Radiography Licensees
IN 96-035 Failure of Safety Systems on Self-Shielded Irradiators Because of Inadequate Maintenance and Training
IN 96-047 Recordkeeping, Decommissioning Notifications for Disposals of Radioactive Waste by Land Burial Authorized under Former 10 CFR 20.304, 20.302, and Current 20.2002
IN 96-057 Incident-reporting Requirements Involving Intakes During a 24-hour Period That May Cause a Total Effective Dose Equivalent in Excess of 0.05 SV (5 rems)
IN 96-066 Recent Misadministrations Caused by Incorrect Calibrations of Strontium-90 Eye Applicators
IN 96-072 Undetected Failures That May Occur During Patient Treatments with Teletherapy Devices
IN 97-030 Control of Licensed Material During Reorganizations, Employee-Management Disagreements, and Financial Crises
IN 97-042 Management Weaknesses Resulting in Failure to Comply With Shipping Requirements for Special Nuclear Material

IN 97-043 License Condition Compliance
IN 97-055 Calculation of Surface Activity for Contaminated Equipment and Material
IN 97-065 Failures of High-Dose-Rate Remote Afterloading (HDR) Device Source Guide Tubes, Catheters, and Applicators
IN 97-075 Enforcement Sanctions Issued as a Result of Deliberate Violations of NRC Requirements
IN 97-091 Recent Failures of Control Cables Used on Amersham Model 660 Posilock Radiography Systems
|IN 98-001 Thefts of Portable Gauges ||
IN 98-004 Enforcement Sanctions for Deliberate Violations of NRC Employee Protection Requirements
IN 98-005 Criminal History Record Information ||
IN 98-006 Unauthorized Use of License to Obtain Radioactive Materials, and its Implications under Expanded Title 18 of the U.S.Code ||
|IN 98-010 Probable Misadministrations Occurring During Intravascular Brachytherapy with Novoste Beta-Cath System
IN 98-012 Licensee's Responsibilities Regarding Reporting and Follow-Up Requirements for Nuclear-Powered Pacemakers		
IN 98-018 Recent Contamination Incidences Resulting From Failure to Perform Adequate Surveys		
IN 99-004 Unplanned Radiation Exposures to Radiographers,	Resulting from Failures to Follow Proper Radiation Safety Procedures	
IN 99-009 Problems Encountered When Manually Editing Treatment Data on the Nucletron Microselectron-HDR (New) Model 105.999		
IN 99-11 Incidents Involving the Use of Radioactive Iodine-131		
IN 99-24 Broad-Scope Licensees' Responsibilities for Reviewing and Approving Unregistered Sealed Sources and Devices		
IN 99-27 Malfunction of Source Retraction Mechanism in Cobalt-60 Teletherapy Treatment Units		
BL 86-004 Defective Teletherapy Timer That May Not Terminate Treatment Dose		
BL 88-006 Actions To Be Taken for the Transportation of Model No. SPEC 2-T Radiographic Exposure Device		
BL 92-002 Safety Concerns Related to "End of Life" of Aging Theratronics Teletherapy Units		
BL 92-003 Release of Patients After Brachytherapy		
BL 93-001 Release of Patients After Brachytherapy Treatment With Remote Afterloading Devices		
BL 95-001 Quality Assurance Program For Transportation of Radioactive Material		
BL 97-001 Potential for Erroneous Calibration, Dose Rate, or Radiation Exposure Measurements with Certain Victoreen Model 530 and 530SIElectrometer/Dose-Meters		
BL 97-002 Puncture Testing of Shipping Packages Under 10 CFR Part 71 Others as selected by the First Line Supervisor
3. NUREGs (latest revision, where applicable)
NUREG 1324 Proposed Method for Regulating Major Materials Licensees
NUREG 1400 Air Sampling in the Workplace
NUREG 1460 Guide to NRC Reporting and Recordkeeping Requirements

NUREG 1507 Minimum Detectable Concentrations with Typical Radiation Survey Instruments for Various Contaminants and Field Conditions ||
NUREG 1556 Consolidated Guidance About Materials Licenses
Vol. 1: Program-Specific Guidance About Portable Gauge Licenses ||
Vol. 2: Program-Specific Guidance About Industrial Radiography Licenses ||
Vol. 3: Applications for Sealed Source and Device Evaluation and Registration
Vol. 4: Program-Specific Guidance About Fixed Gauge Licenses ||
Vol. 5: Program-Specific Guidance About Self-Shielded Irradiator Licenses ||
Vol. 6: Program-Specific Guidance About 10 CFR Part 36 Irradiator Licenses ||
Vol. 7: Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope ||
Vol. 8: Program-Specific Guidance About Exempt Distribution Licenses ||
Vol. 9: Program-Specific Guidance About Medical Use Licenses ||
Vol. 10: Program-Specific Guidance About Master Material Licenses ||
Vol. 11: Program-Specific Guidance About Licenses of Broad Scope ||
Vol. 12: Program-Specific Guidance About Possession Licenses for |
Manufacturing and Distribution ||
Vol. 13: Program-Specific Guidance About Commercial Radiopharmacy Licenses ||
Vol. 14: Program-Specific Guidance About Well Logging, Tracer, |and Field
Flood Study Licenses ||
Vol. 15: Program-Specific Guidance About Changes of Control and
About Bankruptcy Involving Byproduct, Source, or Special Nuclear
Material Licenses ||
Vol. 16: Program-Specific Guidance About Licenses Authorizing
Distribution to General Licensees ||
Vol. 17: Program-Specific Guidance About Service Provider Licenses ||
Vol. 18: Program-Specific Guidance About Special Nuclear Material of Less
than Critical Mass Licenses
Vol. 19: Guidance For Agreement State Licensees About NRC Form |241, Report
of Proposed Activities in Non-Agreement States, |Areas of Exclusive Federal
Jurisdiction, or Offshore Waters, |and Guidance for NRC Licensees
Proposing to Work in Agreement State Jurisdiction (Reciprocity)
Vol. 20: Program-Specific Guidance About Administrative Licensing Procedures
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 0216 Radioactive Waste: Production, Storage, Disposal ||
NUREG/BR 0240 Reporting Safety Concerns ||
|NUREG/BR 0241 NMSS Handbook for Decommissioning Fuel Cycle and
Materials Licenses ||
NUREG/CR 4884 Interpretation of Bioassay Measurements
NUREG/CR 5849 Manual for Conducting Radiological Surveys in Support
Of License Termination
Others as selected by the First Line Supervisor
|4. Generic Letters (GL)
GL 86-011 Distribution of Products Irradiated in Research Reactors

GL 88-004 Distribution of Gems Irradiated In Research Reactors
GL 94-004 Voluntary Reporting of Additional Occupational Radiation
Exposure Data
GL 95-09 Monitoring and Training of Shippers and Carriers of Radioactive
Material

GL1 99-001 Recent Nuclear Materials Safety and Safeguards Decision on
Bundling Exempt Sources ||

Others as selected by the First Line Supervisor

5. Federal Register Notices

U. S. Nuclear Regulatory Commission, "Decommissioning, Recordkeeping
and License Termination: Documentation Additions - Final Rule,"

Federal Register 58 (No. 141), 39628-39635, July 26, 1993

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

Others as selected by the First Line Supervisor

6. NRC Branch Technical Positions

Guidelines for Decontamination of Facilities and Equipment Prior to
Release for Unrestricted Use or Termination of Licenses for Byproduct,
Source, or Special Nuclear Material, April 1993

7. Policy and Guidance Directives

As selected by the First Line Supervisor |

8. Sealed Source and Device Registry

9. Technical Assistance Requests

As selected by the First Line Supervisor

B, The application of these guidance documents to the materials license
review program should be studied in detail by the qualifying individual and
covered by the First Line Supervisor in discussions, interviews, or oral
quizzes.

1 Required for non-sealed source licensees.

|NRC Inspection Manual Chapters(MC)

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

IP 92703 Followup of Confirmatory Action Letters

2. 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 2800 Materials Inspection Program (Inspection Priorities and

Scheduling)

3. INTERACTIONS WITH OTHER FEDERAL AGENCIES

MC 1007 Interfacing Activities between Regional Offices of NRC and OSHA

IP 87102 Maintaining Effluents from Materials Facilities As Low As Is Reasonably Achievable (ALARA) [EPA]₁

4. 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

MC 1360 Use of Physician and Scientific Consultants in the Medical Consultant Program

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

5. 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 84850 Radioactive Waste Management - Inspection of Waste Generator Requirements of 10 CFR Part 20 and 10 CFR Part 61

IP 84900 Low-Level Radioactive Waste Storage

6. MATERIALS SAFETY PROGRAM

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

IMC 2800 Materials Inspection Program

IMC 2810 Materials Inspection Program Programs for Multisite, and | Multiregional Broad Licensees |

IMC 2815 Construction and Preoperational Inspection of Panoramic, Wet-Source Storage Gamma Irradiators

IP 87101 Performance Evaluation Factors

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

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

IP 87110 Industrial/Academic/Research Programs |

IP 87111 Materials Processor/Manufacturer Programs |

IP 87112 Irradiator Programs |

IP 87113 Well Logging Programs |

IP 87114 Fixed and Portable Gauge Programs |

IP 87115 Nuclear Medicine Programs |

IP 87116 Medical Teletherapy Programs |

IP 87117 Radiopharmacy Programs |

IP 87118 Brachytherapy Programs |

IP 87119 Medical Broad-Scope Programs |

IP 87120 Industrial Radiography Programs |

IP 87250 Locating Missing Materials Licensees |

7. 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

IP 83895 Radiation Protection - Followup on Expired Licenses

8. 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

9. OTHER

MC 1010 Independent Assessment and Analysis

MC 1100 Notification of Significant Meetings

MC 1201 Conduct of Employees

MC 2900 Performance Appraisal Program

B. The 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 inspection program.

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 N13.5 Performance Specifications for Direct Reading
and Indirect Reading Pocket Dosimeters for X and Gamma Radiation

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 N42.13 Calibration and Usage of Dose Calibrator
Ionization Chambers for the Assay of Radionuclides

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 N43.3 General Radiation Safety - Installations Using Non-Medical X-Ray
and Sealed Gamma-Ray Sources, Energies up to 10 MeV

ANSI 43.7 Safe Design and Use of Self Contained Dry Source Storage Gamma Irradiators (Category I)

ANSI N43.8 Classification of Industrial Ionizing Radiation Gaging Devices

ANSI N43.10 Safe Design and Use of Panoramic Wet Source Storage Gamma Irradiators (Category IV)

ANSI N44.1 Integrity and Test Specifications for Selected Brachytherapy Sources

ANSI N44.2 Leak Testing Radioactive Brachytherapy Sources

ANSI N44.3 Thyroid Radioiodine Uptake Measurements Using a Neck Phantom

ANSI N319 Personnel Neutron Dosimeters

ANSI N322 Inspection and Test Specifications for Direct and Indirect Reading Quartz Fiber Pocket Dosimeters

ANSI N323 Radiation Protection Instrumentation Test and Calibration

ANSI N449 Guidelines for Maintaining Cobalt-60 and Cesium-137 Teletherapy Equipment

ANSI N449.1 Procedures for Periodic Inspection of Cobalt-60 and Cesium-137 Teletherapy Equipment

ANSI N542 Sealed Radioactive Sources Classification

ANSI Z88.2 Practices for Respiratory Protection

ANSI Standards as selected and documented by the First Line Supervisor

2. NRC Accepted HP Computer Codes PC-DOSE Varskin RASCAL REMIT

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

NCRP Reports No. 8, 30, 37, 40, 41, 47, 49, 50, 57, 58, 59, 61, 65,

69, 70, 71, 84, 87, 93, 94, 95, 99, 100, 101, 102, 105, 107, 110,

|111, 112, 114, 115, 116, 117, 121, 122, 123, 124, 125, 127, 129

NCRP Commentaries No. 9, 11

4. International Commission on Radiological Protection (ICRP)

ICRP 19, 23, 25, 26, 27, 28, 30 and Supplements, 35, 44, 51, 52, 53,

54, 56, 60, 61

|5. U.S. Environmental Protection Agency (EPA)

EPA Federal Guidance Report No.11

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

BEIR Reports (As selected by supervisor)

7. International Commission on Radiological Units (ICRU)

ICRU 12, 18, 20, 22, 24, 32, 38

8. International Atomic Energy Agency (IAEA)

Safety Series No. 1, 25, 33, 38 Technical Report Series No. 120, 133

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.

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 2800 Materials Inspection Program

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 0620 Inspection Documents and Records
|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 8.10 NRC Medical Event Assessment Program
|Management Directive 8.9 Accident Investigation
9. Preliminary Notification
|MC 1120 Preliminary Notifications
10. Bulletins/Information Notices
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MC 0720 NRC Bulletins and Information Notices |
11. Use of Consultants of NRC
MC 1360 Use of Physician and Scientific Consultants in the Medical |
Consultant Program
Management Directive 10.6 Use of Consultants & Experts ||
12. Allegations and Investigations
Management Directive 8.8 Management of Allegations ||
13. Communication outside NRC
Management Directive 5.5 Public Affairs Program
Management Directive 3.6 Distribution of Unclassified NRC |
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

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

Review of Significant Events at Materials Licensees

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 materials inspection program should be stressed.

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 material inspection program.

State of Oregon

License Reviewer

Qualification Journal

MATERIALS LICENSE REVIEWER
OREGON RPS LICENSE REVIEWER QUALIFICATION JOURNAL

This NRC License Reviewer Qualification Journal implements NRC Manual Chapter 1246, Appendix A, Section I, by establishing the minimum training requirements for personnel assigned to perform license reviews for materials facilities. The License Reviewer 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 provides documentation to show that minimum requirements are met for each license reviewer.

The Oregon RPS License Reviewer Qualification Journal consists of a series of qualification guides and supervisory signed verifications. Each verification 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 license type.

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

In order to support the review of upper tier documents, programs, and policies, the license reviewer's immediate supervisor will assign one or more specific materials licensees as reference licensees. The selection of reference licensees is intended to provide the license reviewer's management with the ability to tailor the qualification process to the experience and training level of the license reviewer, and to meet the licensing standards of the NRC. The use of specific real world material will reinforce the qualification process.

Reference MC1246, APPENDIX B I-2 Issue Date: 01/05/01

LICENSE REVIEWER QUALIFICATION JOURNAL
Materials License Reviewer

Name	Title	SPVR	Cert Date	License Types
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		TSC	PRE-2006	PG/FG/GL
		TSC	PRE-2006	IR (Fixed/Field)
		TSC	PRE-2006	Medical Imaging
		TSC	PRE-2006	Medical Therapy
		TSC	PRE-2006	Well Logging
		TSC	PRE-2006	Broad Scope A,B,C
		TSC	PRE-2006	Nuclear Pharmacy
		TSC	PRE-2006	Veterinary Therapy
		TSC	PRE-2006	Source Material
		TSC	PRE-2006	RAM NOS
		TSC	PRE-2006	RECIPROCITY

To complete your qualification as a Materials License Reviewer you are to complete the following training verification. All signoffs shall include the signature of the responsible reviewer and the date. These records will be maintained in training journal along with any background or written material required by the RPS Licensing program.

License Reviewer Qualification Journal

Signature When Complete Date

1. NRC/Oregon RPS Orientation _____
Signature Date

First Line Supervisor

2. Code of Federal Regulations (CFR)/Oregon Administrative Rules (OAR)

10 CFR (Appropriate Parts related to OAR Divisions)

49 CFR (Appropriate Parts related to OAR Divisions)

OAR Chapter 333 Divisions 100-124 (See appropriate Divisions below)

- Portable Gauge/Fixed Gauge and General Licensees
(Divisions 100,101,102,103,111,118,120,124)
- Industrial Radiography Licensees
(Divisions 100,101,102,103,105,111,118,120,124)
- Medical Imaging/Nuclear Medicine Licensees (with Radioisotope Therapy)
(Divisions 100,101,102,103,111,116,118,120,124)
- Medical Brachytherapy/HDR/Teletherapy Licensees
(Divisions 100,101,102,103,111,116,118,120,124)
- Research & Education/Broad Scope A, B, and C Licensees
(Divisions 100,101,102,103,111,118,120,124)
- Naturally Occurring or Accelerator Produced Material (NORM) Licensees
(Divisions 100,101,102,103,111,117,118,120,124)
- Nuclear Pharmacy/Cyclotron Isotope Production Licensees
(Divisions 100,101,102,103,111,116,118,120,124)
- Veterinary Medicine Radioisotope Therapy Licensees
(Divisions 100,101,102,103,111,116,118,120,124)
- Source Material Licensees
(Divisions 100,101,102,103,111,117,118,120,124)
- Radioactive Material (RAM) Not Otherwise Specified (NOS) Licensees
(Divisions 100,101,102,103,111,117,118,120,121,124)
- Well Logging Licensees
(Divisions 100,101,102,103,111,113,118,120,124)

3. Office Instructions/RPS Licensing Procedures

- _ Portable Gauge/Fixed Gauge Licensee Licensing Protocol
- _ General Licensee Licensing Protocol
- _ Industrial Radiography (Fixed/Field) Licensing Protocol
- _ Medical Imaging/Nuclear Medicine Licensee Licensing Protocol
- _ Medical Brachytherapy/HDR/Teletherapy Licensee Licensing Protocol
- _ R&E/Broad Scope A, B and C Licensee Licensing Protocol
- _ NORM Licensee Licensing Protocol
- _ Nuclear Pharmacy/Cyclotron Isotope Production Licensee Licensing Protocol
- _ Veterinary Medicine Radioisotope Therapy Licensee Licensing Protocol
- _ Source Material Licensee Licensing Protocol
- _ RAM/NOS Licensee Licensing Protocol
- _ Well Logging Licensee Licensing Protocol

Note: NUREG 1556 Licensing Guidance is used as primary Oregon RPS Licensing guidance for all license types - See listing and links below:

Consolidated Guidance About Materials Licenses (NUREG-1556)

File	Title
Informational Note	<i>Please Read this Informational Note Regarding NUREG-1556</i>
Volume 1	Program-Specific Guidance About Portable Gauge Licenses (Revision 1)
Volume 2	Program-Specific Guidance About Industrial Radiography Licenses
Volume 3	Applications for Sealed Source and Device Evaluation and Registration (Revision 1)
Volume 4	Program-Specific Guidance About Fixed Gauge Licenses
Volume 5	Program-Specific Guidance About Self-Shielded Irradiator Licenses
Volume 6	Program-Specific Guidance About 10 CFR Part 36 Irradiator Licenses
Volume 7	Program-Specific Guidance About Academic, Research and Development, and Other Licenses of Limited Scope Including Gas Chromatographs and X-Ray Fluorescence Analyzers
Volume 8	Program-Specific Guidance About Exempt Distribution Licenses
Volume 9	Program-Specific Guidance About Medical Use Licenses (Revision 2)
Volume 10	Program-Specific Guidance About Master Materials Licenses
Volume 11	Program-Specific Guidance About Licenses of Broad Scope
Volume 12	Program-Specific Guidance About Possession Licenses for Manufacturing and Distribution
Volume 13	Program-Specific Guidance About Commercial Radiopharmacy Licenses (Revision 1)
Volume 14	Program-Specific Guidance About Well Logging, Tracer, and Field Flood Study Licenses
Volume 15	Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Materials Licenses
Volume 16	Program-Specific Guidance About Licenses Authorizing Distribution to General Licensees
Volume 17	Program-Specific Guidance About Licenses for Special Nuclear Material of Less than Critical Mass
Volume 18	Program-Specific Guidance About Service Provider Licenses
Volume 19	Guidance for Agreement State Licensees About NRC Form 241 Report of Proposed Activities

- 11. Standard Review Plans _____
- 12. Sealed Source and Device Registry _____
- 13. Technical Assistance Requests N/A _____
- B. Discussion of regulatory guidance with application to the materials license review program _____

- First Line Supervisor
 NRC Inspection Manual Chapters (MC)
- A. Review of appropriate NRC MCs completed _____
 - B. Discussion of NRC MCs and their relation to the materials inspection program _____

- First Line Supervisor
 Industry Codes and Standards
- A. Review of selected codes and standards completed _____
 - B. Discussion of the application of codes and standards in the materials licensing program _____

First Line Supervisor
 Required (As Appropriate) Licensing Site Visits to Core Licensees

First Line Supervisor - Licensing Site Visits
 A. Site visits completed

Licensing Review Licensee Site Visit Record

Lic Reviewer	Supervisor	License Type	License No.	Date(s)

B. Review and discussion by first line supervisor of licensing site visits and their relation to the materials license review program

NRC Management Directives
 A. Review of selected portions of the NRC Management Directives completed

B. Discussion of the application of the NRC Management Directives to the materials inspection program _____

First line supervisor
 Review of Significant Events at Materials Licensees
 A. Review of selected significant historical materials events

B. Discussion of the importance of these events and lessons learned

First Line Supervisor
 Directed Review of Selected Licensing Casework

Qualification Requirement Met _____
Signature Date

Second Level Supervisor or RPS Section Manager
Recommended as a qualified reviewer _____
Signature Date

Second Level Supervisor
Certification documented in License Reviewer Training Journal

Second Level Supervisor
NRC/RPS Orientation
A. Site Orientation
1. New employee processing completed _____
Signature Date

2. Facility tour and introduction
First Line Supervisor
B. NRC/Oregon Health Authority (OHA) Organization
1. Review of OHA/PHD/OEPH Organizational Structure
2. Discussion of NRC/OHA/PHD/OEPH/RPS organizational structure

First Line Supervisor
Code of Federal Regulations (CFR)
A. Familiarization with selected CFR parts completed _____
Signature Date
B. Discussion completed on CFR parts related to the materials inspection program _____

First Line Supervisor
Office Instructions/Procedures
A. Familiarization with office/OHA policies and procedures _____
B. Discussion completed on office policies and procedures _____

First Line Supervisor
Regulatory Guidance
A. Review of regulatory guidance
1. Regulatory Guides _____
2. Information Notices /Bulletins _____
3. NUREGS 1556 Series (licensing guides) _____
1757 Volumes (Decommissioning) _____
4. Generic Letters N/A _____
5. Federal Register Notices N/A _____
6. NRC Branch Technical Positions N/A _____
7. Policy and Guidance Directives N/A _____
8. Standard Deficiency Paragraphs _____
9. Standard License Conditions _____
10. Licensing Checklists _____

A. Review of selected licensing casework _____

- 1. _____
(Case Study) Employee
- 2. _____
(Case Study) Employee
- 3. _____
(Case Study) Employee
- 4. _____
(Case Study) Employee

B. Discussion by first line supervisor of directed review of the selected casework and its relation to the materials license review program.

- 1. _____
(Case Study) First Line Supervisor
- 2. _____
(Case Study) First Line Supervisor
- 3. _____
(Case Study) First Line Supervisor
- 4. _____
(Case Study) First Line Supervisor

Formal Training

| A. CORE TRAINING:

- 1. Health Physics Technology Course (H-201)

Training Coordinator

- 2. Diagnostic and Therapeutic Nuclear Medicine Course (H-304)

Training Coordinator

- 3. Safety Aspects of Industrial Radiography Course (H-305)

Training Coordinator

- 4. Teletherapy and Brachytherapy Course (H-313)

Training Coordinator

- 5. Licensing Practices and Procedures Course (G-109)

Training Coordinator

- 6. Transportation of Radioactive Materials Course (H-308)

Training Coordinator

- 7. NMSS Radiation Worker Training Course (H-102)

N/A

Training Coordinator

ADDITIONAL CORE TRAINING (for cross-trained license reviewers/inspectors):

- 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

N/A

Training Coordinator

5. OSHA Indoctrination Course (G-111)

Training Coordinator

6. NMSS Radiation Worker Training (H-102)

Training Coordinator

B. SPECIALIZED TRAINING

Other specialized training courses required for license reviewers performing activities in specific areas:

Course Title Course # Initials Date

Supervisor Training Coordinator

Supervisor Training Coordinator

Supervisor Training Coordinator

Supervisor Training Coordinator

Attachment 1 - RPS License Reviewer Training Guidance/NRC References

NRC/RPS Orientation

A. Site Orientation

1. The qualifying individual should read and complete, as appropriate, the forms for processing into the Oregon Radiation Protection Services:
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/RPS Organization

1. The qualifying individual should review and become familiar with the following, as appropriate:
 - a. Organizational charts of NRC and Oregon RPS section
 - b. Role of NRC and Oregon OHA as regulatory agencies
 - (1) 10 CFR Part 1 (Organization)
 - (2) Atomic Energy Act of 1954, as amended
 - (3) Energy Reorganization Act of 1974, as amended
 - (4) NRC Enforcement Policy (NUREG 1600)
 - (5) Incident Response Plan (NUREGs 0728 and 0845)
 - (6) Energy Policy Act of 1992
2. The Supervisor should discuss NRC/RPS organizations and role with the qualifying individual to ensure the individual has a full understanding of RPS's organization and mission as an Oregon OHA/RPS inspector.

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**
- | 6. 10 CFR Part 21 Reporting of defects and noncompliance
- | 7. 10 CFR Part 25 Access authorization for licensee personnel
- | 8. 10 CFR Part 26 Fitness for duty programs
- | 9. 10 CFR Part 30 Rules of general applicability to domestic licensing of byproduct material
- | 10. 10 CFR Part 31 General domestic licenses for byproduct material
- | 11. 10 CFR Part 32 Specific domestic licenses to manufacture or transfer certain items containing byproduct material
- | **12. 10 CFR Part 33 Specific domestic licenses of broad scope for byproduct material**
- | 13. 10 CFR Part 34 Licenses for radiography and radiation safety

requirements for radiographic operations

|14. 10 CFR Part 35 Medical use of byproduct material

|15. 10 CFR Part 36 Licenses and radiation safety requirements for irradiators

|16. 10 CFR Part 39 Licenses and radiation safety requirements for well logging

|17. 10 CFR Part 40 Domestic licensing of source material

18. 10 CFR Part 61 Licensing requirements for land disposal of radioactive waste

19. 10 CFR Part 70 Domestic licensing of special nuclear material

20. 10 CFR Part 71 Packaging and transportation of radioactive material

21. 10 CFR Part 110 Export and import of nuclear equipment and material |

22. 10 CFR Part 150 Exemptions and continued regulatory authority in agreement states and in offshore waters under section 274

23. 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 |

24. 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 |

25. 29 CFR Part 1910 Occupational safety and health standards |

26. 40 CFR Part 61 National emission standards for hazardous air pollutants (emphasis on Subpart I)

27. 40 CFR Part 190 Environmental radiation protection for nuclear power operations (uranium fuel cycle standards)

28. 40 CFR Part 141 National primary drinking water regulations |

29. 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.

Office Instructions/Procedures

A. OHA/Office Policies and Procedures

1. Read appropriate OHA/PHD/OEPH/RPS Policy and Procedures
2. The qualifying individual should review the Office policies and procedures contained in employee orientation manual

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.

Regulatory Guidance

A. An appropriate selection of currently applicable regulatory guidance should be identified by the First Line Supervisor. These references should include those listed below (documents marked by an asterisk must be included as a minimum) and should be documented. The qualifying individual should be expected to have a general knowledge of the topics addressed in the references.

1. Regulatory Guides (use latest revision)

4.6 Measurements of Radionuclides in the Environment - Strontium-89 and Strontium-90 Analyses

4.13 Performance, Testing and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications

4.15 Quality Assurance for Radiological Monitoring Programs

| 4.20 Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees other than Power Reactors.

*6.1 Leak Testing Radioactive Brachytherapy Sources

6.2 Integrity and Test Specifications

6.3 Design, Construction, and Use of Radioisotopic Power Generators for Certain Land and Sea Applications

6.4 Classifications of Containment Properties of Sealed Radioactive Sources

*6.5 General Safety Standard for Installations Using Nonmedical Sealed Gamma Ray Sources

6.6 Acceptance Sampling Procedures for Exempted and Generally Licensed Items Containing Byproduct Material

6.7 Preparation of an Environmental Report to Support a Rule Making Petition Seeking an Exemption for a Radionuclide-Containing Product

*6.8 Identification Plaque for Irrecoverable Well-Logging Sources

| 6.9 Establishing Quality Assurance Programs for the Manufacture and Distribution of Sealed Sources and Devices containing Byproduct Material

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*7.1 Administrative Guide for Packaging and Transporting Radioactive Material

*7.2 Packaging and Transportation of Radioactively Contaminated Biological Materials

*7.3 Procedures for Picking Up and Receiving Packages of Radioactive Material

*7.4 Leakage Tests on Packages for Shipment of Radioactive Materials

7.5 Administrative Guide for Obtaining Exemptions from Certain NRC Requirements over Radioactive Material Shipments

*7.7 Administrative Guide for Verifying Compliance with Packaging Requirements for Shipments of Radioactive Materials

*7.10 Establishing Quality Assurance Programs for Packaging | Used in the Transport of Radioactive Material |

*8.1 Radiation Symbol

*8.2 Guide for Administrative Practices in Radiation Monitoring

*8.4 Direct Reading and Indirect Reading Pocket Dosimeters

8.5 Criticality and Other Interior Evacuation Signals

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

*8.14 Personnel Neutron Dosimeters

*8.15 Acceptable Programs for Respiratory Protection

*8.18 Information Relevant to Ensuring that Occupational Radiation Exposures at Medical Institutions Will be As Low As Reasonably Achievable

*8.20 Applications of Bioassay for I-125 and I-131 |
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*8.21 Health Physics Surveys for Byproduct Material at NRC Licensed Processing and Manufacturing Plants

8.22 Bioassay at Uranium Mills

*8.23 Radiation Safety Surveys at Medical Institutions

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

|*8.25 Air Sampling in the Workplace

8.26 Applications of Bioassay for Fission and Activation Products

*8.28 Audible Alarm Dosimeters

|*8.29 Instruction Concerning Risks from Occupational Radiation Exposure

8.30 Health Physics Surveys in Uranium Mills

*8.31 Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills Will Be As Low As Reasonably Achievable

*8.32 Criteria for Establishing a Tritium Bioassay Program

*8.33 Quality Management Program

*8.34 Monitoring Criteria and Methods to Calculate Occupational Radiation Doses

*8.35 Planned Special Exposures

*8.36 Radiation Doses to the Embryo/Fetus

*8.37 ALARA Levels For Effluents From Materials Facilities

|*8.39 Release of Patients Administered Radioactive Materials

*10.4 Guide for the Preparation of Applications for Licenses to Process Source Material

|10.12 Preparation of Petitions for Rulemaking Under 10 CFR

|2.802 and Preparation and Submission of Proposals for Regulatory Guidance Documents ||

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

IN 91-002 Brachytherapy Source Management

IN 91-003 Management of Wastes Contaminated With Radioactive Materials ("Red Bag" Waste and Ordinary Trash)

IN 91-014 Recent Safety-Related Incidents at Large Irradiators

IN 91-023 Accidental Radiation Overexposures to Personnel Due to Industrial Radiography Accessory Equipment Malfunctions

IN 91-030 Inadequate Calibration of TLDs Utilized to Monitor
Extremity Dose at Uranium Processing and Fabrication Facilities
IN 91-035 Labeling Requirements for Transporting Multi-Hazard
Radioactive Materials
IN 91-049 Enforcement of Safety Requirements for Radiographers
IN 91-060 False Alarms of Alarm Ratemeters Because of
Radiofrequency Interference
IN 91-071 Training and Supervision of Individuals Supervised by
an Authorized User
IN 92-010 Brachytherapy Incidents Involving Iridium-192 Wire
Used in Endobronchial Treatments
IN 92-034 New Exposures Limits for Airborne Uranium and Thorium
IN 92-062 Emergency Response Information Requirements for
Radioactive Material Shipments
IN 92-072 Employee Training and Shipper Registration
Requirements for Transporting Radioactive Materials
IN 92-084 Release of Patients Treated With Temporary Implants
IN 93-004 Investigation and Reporting of Misadministrations by
the Radiation Safety Officer
IN 93-005 Locking of Radiography Exposure Devices
IN 93-006 Potential Bypass Leakage Paths Around Filters
Installed in Ventilation Systems
IN 93-007 Classification of Transportation Emergencies
IN 93-010 Dose Calibrator Quality Control
IN 93-014 Clarification of 10 CFR 40.22, Small Quantities of
Source Material
IN 93-018 Portable Moisture-Density Gauge User Responsibilities
During Field Operations
IN 93-030 NRC Requirements for Evaluation of Wipe Test Results;
Calibration of Count Rate Survey Instruments
IN 93-031 Training of Nurses Responsible for the Care of
Patients With Brachytherapy Implants
IN 93-036 Notifications, Reports, and Records of Misadministrations
IN 93-060 Reporting Fuel Cycle and Materials Events to the NRC
Operations Center ||
IN 93-069 Radiographic Events At Operating Power Reactors
IN 93-100 Reporting Requirements for Bankruptcy
IN 94-007 Solubility Criteria For Liquid Effluent Releases to
Sanitary Sewerage Under the Revised 10 CFR Part 20
IN 94-009 Release of Patients With Residual Radioactivity From
Medical Treatment and Control Areas ... Revised 10 CFR Part 20
IN 94-015 Radiation Exposures During an Event Involving a Fixed
Nuclear Gauge
IN 94-016 Recent Incidents Resulting in Offsite Contamination
IN 94-017 Strontium-90 Eye Applicators: Submission of Quality Management Plan
(QMP), Calibration, and Use
IN 94-037 Misadministration Caused By a Bent Interstitial Needle During
Brachytherapy Procedure
IN 94-039 Identified Problems in Gamma Stereotactic Radiosurgery
IN 94-047 Accuracy of Information Provided to NRC During the Licensing
Process
IN 94-065 Potential Error in Manual Brachytherapy Dose Calculations Generated
Using a Computerized Treatment Planning System

IN 94-070 Issues Associated with the Use of Strontium-89 and Other Beta Emitting Radiopharmaceuticals
IN 94-074 Facility Management Responsibilities for Purchased or Contracted Services for Radiation Therapy Programs
IN 94-081 Accuracy of Bioassay and Environmental Sampling Results
IN 95-007 Radiopharmaceutical Vial Breakage During Preparation
IN 95-025 Valve Failure During Patient Treatment with Gamma Stereotactic Radiosurgery Unit
IN 95-039 Brachytherapy Incidents Involving Treatment Planning Errors
IN 95-039 Brachytherapy Incidents Involving Treatment Planning Errors
IN 95-050 Safety Defect in Gammamed 12I Bronchial Catheter Clamping Adapters
IN 95-051 Recent Incidents Involving Potential Loss of Control of Licensed Material ||
IN 96-004 Incident Reporting Requirements for Radiography Licensees
IN 96-035 Failure of Safety Systems on Self-Shielded Irradiators Because of Inadequate Maintenance and Training
IN 96-047 Recordkeeping, Decommissioning Notifications for Disposals of Radioactive Waste by Land Burial Authorized under Former 10 CFR 20.304, 20.302, and Current 20.2002
IN 96-057 Incident-reporting Requirements Involving Intakes During a 24-hour Period That May Cause a Total Effective Dose Equivalent in Excess of 0.05 SV (5 rems)
IN 96-066 Recent Misadministrations Caused by Incorrect Calibrations of Strontium-90 Eye Applicators
IN 96-072 Undetected Failures That May Occur During Patient Treatments with Teletherapy Devices
IN 97-030 Control of Licensed Material During Reorganizations, Employee-Management Disagreements, and Financial Crises
IN 97-042 Management Weaknesses Resulting in Failure to Comply With Shipping Requirements for Special Nuclear Material
IN 97-043 License Condition Compliance
IN 97-055 Calculation of Surface Activity for Contaminated Equipment and Material
IN 97-065 Failures of High-Dose-Rate Remote Afterloading (HDR) Device Source Guide Tubes, Catheters, and Applicators
IN 97-075 Enforcement Sanctions Issued as a Result of Deliberate Violations of NRC Requirements
IN 97-091 Recent Failures of Control Cables Used on Amersham Model 660 Posilock Radiography Systems
|IN 98-001 Thefts of Portable Gauges ||
IN 98-004 Enforcement Sanctions for Deliberate Violations of NRC Employee Protection Requirements
IN 98-005 Criminal History Record Information ||
IN 98-006 Unauthorized Use of License to Obtain Radioactive Materials, and its Implications under Expanded Title 18 of the U.S.Code ||
|IN 98-010 Probable Misadministrations Occurring During Intravascular Brachytherapy with Novoste Beta-Cath System
|IN 98-012 Licensee's Responsibilities Regarding Reporting and Follow-Up Requirements for Nuclear-Powered Pacemakers ||
|IN 98-018 Recent Contamination Incidences Resulting From Failure to Perform Adequate Surveys ||
|IN 99-004 Unplanned Radiation Exposures to Radiographers,

| Resulting from Failures to Follow Proper Radiation Safety Procedures ||
| IN 99-009 Problems Encountered When Manually Editing Treatment Data on the
Nucletron Microselectron-HDR (New) Model 105.999
IN 99-11 Incidents Involving the Use of Radioactive Iodine-131 ||
| IN 99-24 Broad-Scope Licensees' Responsibilities for Reviewing
and Approving Unregistered Sealed Sources and Devices ||
| IN 99-27 Malfunction of Source Retraction Mechanism in Cobalt-60 Teletherapy
Treatment Units ||
BL 86-004 Defective Teletherapy Timer That May Not Terminate Treatment Dose
BL 88-006 Actions To Be Taken for the Transportation of Model No. SPEC 2-T
Radiographic Exposure Device
BL 92-002 Safety Concerns Related to "End of Life" of Aging Theratronics
Teletherapy Units
BL 92-003 Release of Patients After Brachytherapy
BL 93-001 Release of Patients After Brachytherapy Treatment With Remote
Afterloading Devices
BL 95-001 Quality Assurance Program For Transportation of Radioactive
Material
| BL 97-001 Potential for Erroneous Calibration, Dose Rate, or Radiation
Exposure Measurements with Certain
Victoreen Model 530 and 530SIElectrometer/Dose-Meters
BL 97-002 Puncture Testing of Shipping Packages Under 10 CFR Part 71 Others
as selected by the First Line Supervisor
3. NUREGs (latest revision, where applicable)
NUREG 1324 Proposed Method for Regulating Major Materials Licensees
NUREG 1400 Air Sampling in the Workplace
NUREG 1460 Guide to NRC Reporting and Recordkeeping Requirements
NUREG 1507 Minimum Detectable Concentrations with Typical Radiation Survey
Instruments for Various Contaminants and Field Conditions ||
NUREG 1556 Consolidated Guidance About Materials Licenses
Vol. 1: Program-Specific Guidance About Portable Gauge Licenses ||
Vol. 2: Program-Specific Guidance About Industrial Radiography Licenses ||
Vol. 3: Applications for Sealed Source and Device Evaluation and Registration
Vol. 4: Program-Specific Guidance About Fixed Gauge Licenses ||
Vol. 5: Program-Specific Guidance About Self-Shielded Irradiator Licenses ||
Vol. 6: Program-Specific Guidance About 10 CFR Part 36 Irradiator Licenses ||
Vol. 7: Program-Specific Guidance About Academic, Research and Development,
and Other Licenses of Limited Scope ||
Vol. 8: Program-Specific Guidance About Exempt Distribution Licenses ||
Vol. 9: Program-Specific Guidance About Medical Use Licenses ||
Vol. 10: Program-Specific Guidance About Master Material Licenses ||
Vol. 11: Program-Specific Guidance About Licenses of Broad Scope ||
Vol. 12: Program-Specific Guidance About Possession Licenses for |
Manufacturing and Distribution ||
Vol. 13: Program-Specific Guidance About Commercial Radiopharmacy Licenses ||
Vol. 14: Program-Specific Guidance About Well Logging, Tracer, | and Field
Flood Study Licenses ||
Vol. 15: Program-Specific Guidance About Changes of Control and
About Bankruptcy Involving Byproduct, Source, or Special Nuclear

Material Licenses ||

Vol. 16: Program-Specific Guidance About Licenses Authorizing
Distribution to General Licensees ||

Vol. 17: Program-Specific Guidance About Service Provider Licenses ||

Vol. 18: Program-Specific Guidance About Special Nuclear Material of Less
than Critical Mass Licenses

Vol. 19: Guidance For Agreement State Licensees About NRC Form |241, Report
of Proposed Activities in Non-Agreement States, |Areas of Exclusive Federal
Jurisdiction, or Offshore Waters, |and Guidance for NRC Licensees
Proposing to Work in Agreement State Jurisdiction (Reciprocity)

Vol. 20: Program-Specific Guidance About Administrative Licensing Procedures
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 0216 Radioactive Waste: Production, Storage, Disposal ||

NUREG/BR 0240 Reporting Safety Concerns ||

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

NUREG/CR 4884 Interpretation of Bioassay Measurements

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

Others as selected by the First Line Supervisor

|4. Generic Letters (GL)

GL 86-011 Distribution of Products Irradiated in Research Reactors

GL 88-004 Distribution of Gems Irradiated In Research Reactors

GL 94-004 Voluntary Reporting of Additional Occupational Radiation
Exposure Data

GL 95-09 Monitoring and Training of Shippers and Carriers of Radioactive
Material

GL1 99-001 Recent Nuclear Materials Safety and Safeguards Decision on
Bundling Exempt Sources ||

Others as selected by the First Line Supervisor

5. Federal Register Notices

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

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

Others as selected by the First Line Supervisor

6. NRC Branch Technical Positions

Guidelines for Decontamination of Facilities and Equipment Prior to
Release for Unrestricted Use or Termination of Licenses for Byproduct,
Source, or Special Nuclear Material, April 1993

7. Policy and Guidance Directives

As selected by the First Line Supervisor |

8. Sealed Source and Device Registry

9. Technical Assistance Requests

As selected by the First Line Supervisor

B, The application of these guidance documents to the materials license review program should be studied in detail by the qualifying individual and covered by the First Line Supervisor in discussions, interviews, or oral quizzes.

1 Required for non-sealed source licensees.

|NRC Inspection Manual Chapters (MC)

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

IP 92703 Followup of Confirmatory Action Letters

2. 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 2800 Materials Inspection Program (Inspection Priorities and
Scheduling)

3. INTERACTIONS WITH OTHER FEDERAL AGENCIES

MC 1007 Interfacing Activities between Regional Offices of NRC and
OSHA

IP 87102 Maintaining Effluents from Materials Facilities As Low As
Is Reasonably Achievable (ALARA) [EPA];

4. 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

MC 1360 Use of Physician and Scientific Consultants in the Medical
Consultant Program

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

5. 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 84850 Radioactive Waste Management - Inspection of Waste Generator
Requirements of 10 CFR Part 20 and 10 CFR Part 61

IP 84900 Low-Level Radioactive Waste Storage

6. MATERIALS SAFETY PROGRAM

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

IMC 2800 Materials Inspection Program

IMC 2810 Materials Inspection Program Programs for Multisite, and | Multiregional Broad Licensees |

IMC 2815 Construction and Preoperational Inspection of Panoramic, Wet-Source Storage Gamma Irradiators

IP 87101 Performance Evaluation Factors

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

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

IP 87110 Industrial/Academic/Research Programs |

IP 87111 Materials Processor/Manufacturer Programs |

IP 87112 Irradiator Programs |

IP 87113 Well Logging Programs |

IP 87114 Fixed and Portable Gauge Programs |

IP 87115 Nuclear Medicine Programs |

IP 87116 Medical Teletherapy Programs |

IP 87117 Radiopharmacy Programs |

IP 87118 Brachytherapy Programs |

IP 87119 Medical Broad-Scope Programs |

IP 87120 Industrial Radiography Programs |

IP 87250 Locating Missing Materials Licensees |

7. 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

IP 83895 Radiation Protection - Followup on Expired Licenses

8. 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

9. OTHER

MC 1010 Independent Assessment and Analysis

MC 1100 Notification of Significant Meetings

MC 1201 Conduct of Employees

MC 2900 Performance Appraisal Program

B. The 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 inspection program.

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 N13.5 Performance Specifications for Direct Reading and Indirect Reading Pocket Dosimeters for X and Gamma Radiation
 - 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 N42.13 Calibration and Usage of Dose Calibrator Ionization Chambers for the Assay of Radionuclides
 - 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 N43.3 General Radiation Safety - Installations Using Non-Medical X-Ray and Sealed Gamma-Ray Sources, Energies up to 10 MeV
 - ANSI 43.7 Safe Design and Use of Self Contained Dry Source Storage Gamma Irradiators (Category I)
 - ANSI N43.8 Classification of Industrial Ionizing Radiation Gaging Devices
 - ANSI N43.10 Safe Design and Use of Panoramic Wet Source Storage Gamma Irradiators (Category IV)
 - ANSI N44.1 Integrity and Test Specifications for Selected Brachytherapy Sources
 - ANSI N44.2 Leak Testing Radioactive Brachytherapy Sources
 - ANSI N44.3 Thyroid Radioiodine Uptake Measurements Using a Neck Phantom
 - ANSI N319 Personnel Neutron Dosimeters
 - ANSI N322 Inspection and Test Specifications for Direct and Indirect Reading Quartz Fiber Pocket Dosimeters
 - ANSI N323 Radiation Protection Instrumentation Test and Calibration
 - ANSI N449 Guidelines for Maintaining Cobalt-60 and Cesium-137 Teletherapy Equipment
 - ANSI N449.1 Procedures for Periodic Inspection of Cobalt-60 and Cesium-137 Teletherapy Equipment
 - ANSI N542 Sealed Radioactive Sources Classification
 - ANSI Z88.2 Practices for Respiratory Protection
- ANSI Standards as selected and documented by the First Line Supervisor
2. NRC Accepted HP Computer Codes PC-DOSE Varskin RASCAL REMIT
3. National Council on Radiation Protection and Measurements (NCRP)
 - NCRP Reports No. 8, 30, 37, 40, 41, 47, 49, 50, 57, 58, 59, 61, 65, 69, 70, 71, 84, 87, 93, 94, 95, 99, 100, 101, 102, 105, 107, 110, 111, 112, 114, 115, 116, 117, 121, 122, 123, 124, 125, 127, 129

NCRP Commentaries No. 9, 11

4. International Commission on Radiological Protection (ICRP)
ICRP 19, 23, 25, 26, 27, 28, 30 and Supplements, 35, 44, 51, 52, 53,
54, 56, 60, 61

|5. U.S. Environmental Protection Agency (EPA)

EPA Federal Guidance Report No.11

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

BEIR Reports (As selected by supervisor)

7. International Commission on Radiological Units (ICRU)

ICRU 12, 18, 20, 22, 24, 32, 38

8. International Atomic Energy Agency (IAEA)

Safety Series No. 1, 25, 33, 38 Technical Report Series No. 120, 133

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.

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 2800 Materials Inspection Program

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 0620 Inspection Documents and Records

|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 8.10 NRC Medical Event Assessment Program

|Management Directive 8.9 Accident Investigation

9. Preliminary Notification

|MC 1120 Preliminary Notifications

10. Bulletins/Information Notices

Issue Date: 01/05/01 II-41 1246, APPENDIX B

MC 0720 NRC Bulletins and Information Notices |

11. Use of Consultants of NRC

MC 1360 Use of Physician and Scientific Consultants in the Medical |
Consultant Program

Management Directive 10.6 Use of Consultants & Experts ||

12. Allegations and Investigations

Management Directive 8.8 Management of Allegations ||

13. Communication outside NRC

Management Directive 5.5 Public Affairs Program

Management Directive 3.6 Distribution of Unclassified NRC |
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

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

Review of Significant Events at Materials Licensees

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 materials inspection program should be stressed.

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 21 Reporting of defects and noncompliance |
7. 10 CFR Part 30 Rules of general applicability to domestic licensing of byproduct material

8. 10 CFR Part 31 General domestic licenses for byproduct material
 9. 10 CFR Part 32 Specific domestic licenses to manufacture or transfer certain items containing byproduct material
 10. 10 CFR Part 33 Specific domestic licenses of broad scope for byproduct material
 11. 10 CFR Part 34 Licenses for radiography and radiation safety requirements for radiographic operations
 12. 10 CFR Part 35 Medical use of byproduct material |
 13. 10 CFR Part 36 Licenses and radiation safety requirements for irradiators
 14. 10 CFR Part 39 Licenses and radiation safety requirements well-logging
 15. 10 CFR Part 40 Domestic licensing of source material
 16. 10 CFR Part 61 Licensing requirements for land disposal of radioactive waste
 17. 10 CFR Part 70 Domestic licensing of special nuclear material
 18. 10 CFR Part 71 Packaging and transportation of radioactive material
 19. 10 CFR Part 150 Exemptions and continued regulatory authority in agreement states and in offshore waters under section 274
 20. 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
 21. 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
 22. 29 CFR Part 1910 Occupational Safety and Health Standards
 23. 40 CFR Part 61 National Emission Standards for Hazardous Air Pollutants (emphasis on Subpart I)
 24. 40 CFR Part 141 National Primary Drinking Water Regulations
 25. 49 CFR Parts 171 Transportation through 180
 26. 40 CFR Part 190 Environmental Radiation Protection for Nuclear Power Operations (Uranium Fuel Cycle Standards)
 27. 10 CFR Part 110 Export and Import of Nuclear Material and Equipment
- B. Following completion of the qualifying individual's self study of the listed 10 CFR Parts, a discussion will be held with the qualifying license reviewer by the First Line Supervisor to test the qualifying license reviewer's knowledge of these Parts. To the extent possible, recent application of various sections, new regulatory initiatives, and current industry issues should be emphasized.

Review of Significant Events at Material Licensees

- 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 license reviewer and go over recommendations made, lessons learned, and changes identified to prevent recurrence. The relevance of the event to the overall materials license review program should be stressed.

Directed Review of Selected Licensing 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 material license review program.

State of Oregon

Inspection Protocol

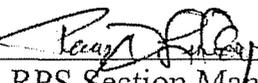
Materials Inspection

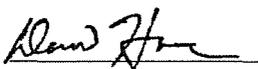
RPS STANDARD OPERATING PROCEDURE

Procedure Name: MedRAM 2010.2

No. 011

Approved by:


RPS Section Manager


Program Manager

Effective date:

Supercedes: MED 2007.3

Revised: 21 Jan 2010

Review Date: 21 Jan 2011 (1year)

Page 1 of 10

Reference	Focus elements based on U.S. Nuclear Regulatory Commission (NRC) Procedures: IP87130, IP87131, IP87132, IP87133, IP87134. Additional references: Oregon Administrative Rules (OARs) 333-100 to 124 which cover radioactive material (RAM) use, Titles 10, 40, 49 Code of Federal Regulations, NUREG 1556 Vol 9 Rev 2, SA-300, National Council on Radiation Protection and Measurements (NCRP) several titles, MedRAM 2010.2 Guide.
Attachments	Procedure and Form MedRAM 2010.2
Objective	Update medical RAM inspection procedures, and expand traditional focus elements. The new procedure is in the form of a checklist. The checklist format should help managers and auditors understand the scope of medical inspections.
Guidelines	<p>Inspections</p> <ul style="list-style-type: none"> ▪ Inspections are generally unannounced ▪ To be completed in an efficient manner ▪ Be flexible for unannounced inspections ▪ Follow Inspection Preparation Protocol
Equipment Required	<ol style="list-style-type: none"> 1. Procedure/checklist MedRAM 2010.2 2. Pertinent OARs 3. Oregon Form 591 + Cover Letter 4. Radiation detection equipment and sample media appropriate to the licensee's RAM use 5. Personal Protective Equipment appropriate to the facility
Procedure	Procedure MedRAM 2010.2 is attached to this cover page. Standard RAM inspection protocols apply to all medical RAM inspections.
Suggested Enhancements	Entries on the first two pages of the inspection report reflect information found in the database. Ideally this information would be auto-filled, from the database.

Medical Radioactive Material Inspection Procedure and Form (MedRAM 2010.2)

License #	Last Amd #	Inspection Site <input type="checkbox"/> Material Address	1 st Phone
Address		<input type="checkbox"/> Field Site	2 nd Phone
			RSO/Contact
			Title
			E-Mail
License Type	Program Code		Fax
			Alt Contact
Inspection Date	Docket #	Inspection Type	Complete
Previous Inspection	Prev Docket #	<input type="checkbox"/> Unannounced <input type="checkbox"/> Announced	

Inspection Findings

Issued: 591 Form Letter

Scope of Program	<input type="checkbox"/> IC Licensee	<input type="checkbox"/> NSTS Sources
<input type="checkbox"/> 333-116-0300 Uptake and Dilution	<input type="checkbox"/> 333-116-0420 Manual Brachytherapy	
<input type="checkbox"/> 333-116-0320 Nuclear Med – No WD	<input type="checkbox"/> 333-116-0465 Emerging Technologies	
<input type="checkbox"/> 333-116-0360 Nuclear Med – WD Required	<input type="checkbox"/> 333-116-0480	
<input type="checkbox"/> 333-116-0120 Mobile Nuclear Medicine	<input type="checkbox"/> Afterloader (HDR)	
<input type="checkbox"/> 333-116-0850 Radiopharmacy	<input type="checkbox"/> Teletherapy	
	<input type="checkbox"/> Gamma Knife or Stereotactic Radiosurgery	

	SL1	SL2	SL3	SL4	SL5
New INC					
	SL1	SL2	SL3	SL4	SL5
Repeat INC					
Point Total	0				
Rating	5				

Inspector(s)

Date

Reviewer Comments:

Reviewer

Date

Focus Elements (FE)

Focus Elements categorize the basic inspection points. Items listed under Focus Elements are basic inspection requirements, but other inspection points may be included. Each FE contains inspection topics. Items of inspection, regulatory references, and additional information are listed in the MedRAM 2010.1 Guide. Items under focus elements must be objectively evaluated for health and safety, as well as compliance. The inspector should assess the licensee's performance through direct observations, demonstrations, discussions, and document review.

Inspection Findings

Written Inspection findings are presented to the licensee. Categories of findings are as follows: Satisfactory (Sat)", "Not Applicable (NA)", "Not Reviewed (NR)", "Recommendation (Rec)", and Item of "Non-Compliance (INC)". The inspector may record an INC as "Non-Cited (NC)" on the 591 form, if the licensee had previously identified the problem, and developed corrective action. The inspector will check boxes, as appropriate, next to the inspection area.

INCs, or violations must be tied to a specific Oregon statute or rule, or a specific License Condition (LC). INCs are categorized by Severity Level (see table below), and have prescribed point values. Instructions for inspection grading, are listed on Oregon Form 591. Non-Cited INCs may be recorded if the licensee self-identified a violation, and has plans to implement corrective action. Recommendations are provided to suggest program improvements, or to inform the licensee of impending changes to regulation, policy, or industry standards.

Description of Violation Severity Levels			
Severity Level	Point Total	Description	Example
SL1	15	Caused or may cause a significant health and safety problem	<ul style="list-style-type: none">• Abnormal Occurrence (Criteria listed in NRC SA-300 pp 25-30)• Injury or Death• Significant security breach (IAEA Safety Guide No. RSA-G-1.9 Category 1 and 2 Sources)
SL2	7	Caused or may cause a moderate health and safety problem	<ul style="list-style-type: none">• Medical Event• Security breach (IAEA Category 3 source)
SL3	5	Caused or may cause a minor health and safety problem	<ul style="list-style-type: none">• Misadministration• Dose limit exceeded• Security breach (IAEA Category 4 and 5 sources)• Failure to mitigate leaking source• Failure to mitigate spills (dependent on License Condition)
SL4	3	If continued, may cause a minor health and safety problem	<ul style="list-style-type: none">• License Condition ALARA standards exceeded• Security in place, but not sufficient to meet rule
SL5	1	Minor rule infraction	<ul style="list-style-type: none">• Posting requirement not met

Personnel Contacted:

Record licensee, or pertinent 3rd party personnel contacted during the inspection. This should include members of management, the RSO, Authorized Users (AUs), supervised personnel, and consultants.

FE1 Security and Control of Licensed Material

The inspector should independently verify the licensee controls access to RAM and radiation.

Sat N/A NR Rec INC

Facilities

- Locations of use must be licensed OAR 333-116-0040
- Facilities/Procedures outside the Radiology Dept
- Materials and forms match license

RAM must be physically secured or under surveillance

- RAM in storage OAR 333-120-0250
- RAM not in storage OAR 333-120-0260
- HDR and Gamma Knife extra requirements OAR 333-116-0495

RAM Use per license and OARs

- Authorized Users
 - Visiting Authorized User up to 60 Days OAR 333-116-0110
- Authorized Medical Physicists
- Authorized Radiopharmacists
- Supervised use OAR 333-116-0100, OAR 333-100-0005

Special Access Controls and Postings
(See MedRAM2010 Guide FE6)

Inventory Control (See MedRAM2010 Guide FE1)

- Inventories
- Leak Tests
- Disposal OAR 333-120-0500

Effluent Release

- Aerosols and Gases controlled per OAR 333-116-0340
- Public Dose **Restriction:** 100 mrem/year OAR 333-120-0180
- Reference values in 10 CFR 20 Appendix B
- Sanitary Sewer Release per OAR 333-120-0520 tied to 10 CFR 20 Appendix B Table 3
- Public Dose **Constraint:** 10 mrem/year OAR 333-120-0020(4)
 - Equivalent of 10 CFR 20.1101(d)
 - If exceeded, licensee notifies RPS within 30 days per OAR 333-120-0720

Receipt and Transfer

- Compliance with federal rules is mandatory OAR 333-118-0050(1)(a)
- Records for receipt, transfer, and disposal of all radiation sources OAR 333-100-0055
- Compliance with federal rules is mandatory OAR 333-118-0050(1)(a)
 - 49 CFR 107, 171-180, and 390-397
- Packages are compliant
- Accounting/Tracking system appropriate

- Package receipt and Opening OAR 333-120-0450
 - Receipt Surveys per OAR 333-120-0450(2)

Sat N/A NR Rec INC

Written Directives (WD)

- Definition 333-116-0020(52)
- Required for (333-116-0105):
- Licensee's WD Procedure must 333-116-0107:
- Revisions permitted
- Required Information 333-116-0105(2)

Therapy Patient Release 333-116-0260

- Permitted if:
 - TEDE to member of Public less than 0.5 rem
 - Patient/subject or guardian is provided written instructions
 - ALARA recommendations if public dose may exceed 0.1 rem (1 mSv)
 - If dose to breastfeeding child could exceed 0.1 rem (1 mSv):
 - Record must maintain the basis for release
 - Policies should (not specifically required) prevent waste stream problems

Misadministrations and Medical Events (See MedRAM2010 Guide FE4)

Comments on FE1 Findings:

FE2 Shielding of Licensed Material

The inspector should independently verify the licensee makes appropriate use of shielding. Shielding and engineering controls should be used in accordance with manufacturer's instructions.

Sat N/A NR Rec INC

Appropriate types of shielding

Syringe and Vial Shields

Hot Lab shielding

Storage and Waste Areas

Therapy shielding

Process and Engineering Controls

- E.g. handling tools, hoods
- Shields, shielding devices, engineered safeguards

Product Shielding

Shielding for Maintenance

Comments on FE2 Findings:

FE3 Comprehensive Safety Measures

The inspector should independently verify the licensee has implemented comprehensive safety measures to limit non-radiological hazards to worker and the public.\

Sat N/A NR Rec INC

Non-Radiological safety issues

- Culture of Safety in place (Federal Register Volume 74, No. 214, Friday November 6, 2009)
- OR-OSHA concerns
 - RPS must notify OR-OSHA, if issues identified
- Board of Pharmacy
 - E.g. compliance with USP 797
- Accreditation
 - ACR
 - ICANL
- Camera QC per manufacturer's instructions OAR 333-116-0550
- Elution Test "Moly Break-Through" below 0.15 uCi/mCi OAR 333-116-0330

Comments on FE3 Findings:

FE4 Radiation Dosimetry Program

The inspector should independently verify the licensee has implemented an appropriate dosimetry program. The dosimetry program must accurately assess radiation dose, from the licensee's activities, to workers, and members of the public.

Sat N/A NR Rec INC

ALARA Program developed and implemented

Dose Restrictions

Dose Restriction Table					
Category	DDE (rem)	SDE (rem) 7 mg/cm ²	LDE (rem) 300 mg/cm ²	TEDE (rem)	Reference
Worker	5	50	15	5	OAR 333-120-0100
Minor Worker	0.5	5	1.5	0.5	OAR 333-120-0160
Worker's Embryo/Fetus				0.5	OAR 333-120-0170
Public Member				0.1	OAR 333-120-0180(1)(a)
Patient Visitor				0.5	OAR 333-120-0180(3) *If approved by AU
Unrestricted Area	0.05				OAR 333-120-0190(2)(b)(B)

Worker Dose OAR 333-120-0210

- External monitoring

- Bioassay OAR 333-120-0130
 - Within 3 days (if prepared or administered I-131) OAR 333-116-0380(1)(h)
- ALI and DAC calculations OAR 333-120-0130
- Declared Pregnant and Embryo/Fetus program OAR 333-120-0170
- PPE and respiratory protection
- Dose reported to workers OAR 333-111-0015
- Overexposures OAR 333-120-0720

Sat N/A NR Rec INC

Public and Ancillary Worker Dose OAR 333-120-0180, 0190

- Dose Limits and Exposure Rate Limits not exceeded
- Area monitoring
- Effluents Limits (See FE1)
- Effluent Constraints (See FE1)
- Engineering controls
- Surveys, contamination tests, effluent calculations (See FE1 and FE5)
- Waste (See FE1)
- Bio-waste monitored and controlled (See FE1 and FE5)
- Area Monitors

Patient Dose

- Authorized User (AU) oversight
- Instruction to patients
- Pregnancy Policy
- Diagnostic Doses within parameters
- Written Directives (See FE1)
- Reportable Events
 - Misadministrations OAR 333-116-1010
 - Medical Events OAR 333-116-1000
 - Abnormal Occurrence (AO) (described in NRC SA-300)

Comments on FE4 Findings:

FE5 Radiation Instrumentation and Surveys

The inspector should independently verify the licensee has implemented an appropriate radiation measurement program. Radiation detection instruments must be of appropriate quantities, detection types, and sufficient sensitivity to monitor radiation levels in areas of RAM use or storage.

Sat N/A NR Rec INC

Survey Program

- Documentation OAR 333-120-0620
- Appropriate instruments
- Frequency of surveys
- Dose rates in limits
- Contamination tests
- Appropriate sensitivity OAR 333-116-0250(3), 0390, 0470
- Calibration and repair procedures

Measurement Systems

- Survey meter calibrations OAR 333-120-0200(1), OAR 333-116-0170
- Scaler/contamination meter tests and calibrations
- Uptake probes
- Well counters
- Radiopharmaceutical Dose calibrators OAR 333-116-0160(2), and 116-0165 (betas)
- Brachytherapy dose calibrators
- Portal monitor tests

- Emergency Response Instruments
 - Includes RPS HPP/REP instruments

INSPECTOR'S Survey Instruments: Record information on inspector instruments

Manufacturer	Model #	Serial Number	Calibration Dates	Notes

Licensee Instruments: Record information on Licensee instruments observed during inspection.

Manufacturer	Model #	Serial Number	Calibration Dates	Notes

Dose Calibration Devices: Record Dose Calibrator information.

	QUARTERLY LINERARTY 116-0160(2)(c)	1ST QTR	2ND QTR	3RD QTR	4TH QTR
DOSE CALIBRATOR					
MANUFACTURER					
MODEL					
SERIAL NUMBER					
GEOMETRY 116-0160(2)(d)					
ACCURACY 116-0160(2)(b)					

Comments on FE5 Findings:

FE6 Radiation Safety Training and Practices

The inspector should independently verify the licensee workers have an adequate level of radiation protection knowledge, and operational ability. The radiation safety training program must ensure safe work in normal, and accident conditions.

Sat N/A NR Rec INC

Assess training program, implementation and effectiveness

- Observations, demonstrations, interviews, document review
- Refer to training requirement table in SOP Reference
- Postings, Notices, and posted instructions (See MedRAM2010 Guide FE6)

RSO Training

AU Training

AMP Training

Supervised Worker Training

Ancillary Worker Training

Sat N/A NR Rec INC Instructions to Patients

Comments on FE6 Findings:

FE7 Management Oversight

The inspector should independently verify the licensee's management system ensures safe operation of radiological work. The organization must ensure a radiation protection program appropriate to the scope of work. Present activities must be monitored for safety practices, and ALARA principles. Past performance must be assessed, to ensure quality, and appropriate actions must be taken when needed.

- Sat N/A NR Rec INC Authority and RSO Authorization OAR 333-116-0090
- Organization matches license commitments
- Supervision OAR 333-116-0030(2), 0100, OAR 333-100-0005(137)
- Program Documented per OAR 333-100-0057
- Radiation Safety Committee (RSC) OAR 333-116-0090
 - Membership
 - AU for each type of RAM use
 - RSO
 - Nursing
 - Management (not AU or RSO)
 - Broad Scope A 333-116-0055
- Audit Programs (annual)
 - ALARA OAR 333-120-0020(2, 4)
 - Radiation Protection Program OAR 333-120-0020(1, 3)
 - QMP and QMP Audits OAR 333-116-0125
 - Incident investigations and corrective actions
- Notifications
- Corrective Actions

Comments on FE7 Findings:

Additional Areas Reviewed

Management Summary Meeting

Record: Names of people present, findings presented, other items discussed, future RPS actions needed.

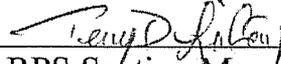
State of Oregon

Incident Documentation Log Protocol

RPS STANDARD OPERATING PROCEDURE

Procedure Name: Incident Log Documentation

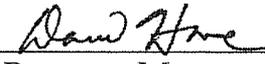
No. 006

Approved by: 
RPS Section Manager

Effective date: 1/13/09

Supersedes: NEW

Revised: _____


Program Manager

Review Date: _____ (1year)

Page 1 of 3

Reference	SA 300
Attachments	Reportability Matrix
Objective	To ensure that proper reporting procedures are followed and documented for incidents that occur in the State of Oregon involving radioactive materials, tanning beds and X-ray machines.
Guidelines	Steps to follow when documenting radiation related incidents as required by NRC. See SA 300 – reportability matrix (attached).
Equipment Required	Computer Database
Procedure	<p>A. Administrative Items (Instructions to complete Incident Report Summary 1 – 9)</p> <ol style="list-style-type: none"> 1. Log into the RML database. 2. Click the “Incident” button (top right) 3. Create a new file by clicking on the <i>right arrow and star</i> button at bottom (bottom left) 4. Assign Docket number by clicking “Assign no” button next to Docket No. 5. Assign RPS number by clicking “Assign no” button next to RPS No. 6. Fill out the information fields with known information. <p><u>Ensure that the following fields are correct:</u></p> <ol style="list-style-type: none"> a. EMD No. – (2008 – XXXX) Number received when called into/or received from OERS. (Skip until after calling OERS.) b. RPS Responder – Person assigned to handle incident or the initial call receiver. c. Completed By – Person entering initial data. (bottom left) d. Final Review – Sign off by manager after investigator recommends incident for closure.

- e. **Incident type** – Indicate the type of incident from pull down menu at top of screen.
- f. **NMED #** - If reported to NMED, the NRC number assigned to this incident. (see NRC document “SA-300” for reporting requirements)
- g. **Program Type** – Program overseeing incident (**RML, X-Ray, Tanning**)
- h. **Incident Category** – Select the appropriate boxes.
 - i. **Incident** – An unplanned event.
 - ii. **Allegation** – An accusation against a person or company.
 - iii. **Notification** – An event that does not require RPS involvement.
 - iv. **Inquiry** – A request for information by someone or a company relating to a previous incident or FOIA.
 - v. **AOR** – An event of significant level that will be reported to the US Congress. (As defined in SA 300.)
- i. **Description** – The initial summary of the incident.
- j. **RPS Follow-Up Actions Required / Completed** – list actions that need to be completed. Indicate date completed.
- k. **Notifications** – List all organizations notified by RPS responder. (NRC, OERS, etc.)
- l. **Lic. No.** – License number of primary Licensee that is involved.
- m. **Other Registrants** - License number of other Licensees that are involved.
- n. **DOT Exemption** – The type and number of the DOT exemption issued.
- o. **Enforcement** – Select appropriate action from drop down menu.
- p. **Date Closed** – The date RPS responder deems incident closed.
- q. **Copy to file** – A check box to indicate that responder has placed a completed hard copy in licensee’s file. Don’t check until done.
- r. **Data Entry Initials** – Initials of person entering data.
- s. **Incident Log** – Every follow up action beyond initial opening of incident needs to be entered.
 - i. To enter something click “**add note**”.
 1. Ensure date and time are correct.
 2. Indicate who made entry.
 3. Type what was done.

- ii. To edit an entry click “**Edit Note**” and page through to correct note. Make changes then click “**Save**”.
 - t. Enter time spent on incident or action in “**Time Tracking**” section.
 - i. On the right side of the time block, enter information. (**Date, Initials, Hours Spent**)
 - ii. Click “**Add/Update**”
- 7. Enter incident into master incident log table of contents. (in the front of book)
- 8. Place initial copy of incident report summary in correct tab. (ensure at each update that the copy is replaced). (To print click the button on top right “details this incident”, print.)
- 9. Responder updates information in appropriate fields and time tracking as time and incident progresses (Action/Notes, Time Tracking).
- 10. Place all e-mail, pictures, or notes needed for documentation into the file.
- 11. When incident completed enter “**Date Closed**” and ensure that a final copy is printed and placed into master incident log book along with all supporting documents, e-mails, pictures, etc.
- 12. Send e-mail to E.R. manager recommending final review and to perform final review.
- 13. Management performs final review and signs off on incident.
- 14. Ensure copy of final closed out incident is placed in licensees file.

Microsoft Access - [Production RPS Incident Menu] [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62] [63] [64] [65] [66] [67] [68] [69] [70] [71] [72] [73] [74] [75] [76] [77] [78] [79] [80] [81] [82] [83] [84] [85] [86] [87] [88] [89] [90] [91] [92] [93] [94] [95] [96] [97] [98] [99] [100]

File Edit View Insert Format Records Tools Window Help Adobe PDF

Incident Reporting Form Incident Type: 10958 Scrap Monitor Alarm HMed Item #:

Docket No: 10-0716 Action No. Program Type: RML Category: Incident Inquiry Allegation AOR

RPS No: 10-0A60 Action No. Location/Ticket Dt. Description: Box of actor above background. Box being returned to origin site in Idaho.

EMD No. RPS Follow-Up Actions Required / Completed: Survey box issue SP 10656 Evaluate response from origin site.

Incident Date/Time: 8/15/2010 Notify Date/Time: 8/15/2010 RPS Responder: Kevin H. Siebert Notified By: Greg Will

Phone: (503) 226-3441 Fax: (503) 241-0381 Facility Name: Dalbag Metals

Incident Location: 2500 N.W. Nicola Street County: Multnomah City: Portland Zip: 98406

Materials Released: No Radiation Exposures: No Was Anyone Injured or Contaminated? No Has Access Been Restricted? No

Press release? No If Yes, Notify Public Affairs and attach copy. Record: 14 of 1 Lic No: 00406 Name: Dalbag Metals Company

Other Registrants Involved: Lic No. Lic Name

Isotope	Activity	Physical State	DOT Exemption	Exemption DOT #	Vehicle ID
				10656	OR-ID-10-01 UNKNOWN

Enforcement: N/A Date Closed: Copy to RML File: Y Responder Time: 0:30 Date Entry Initials: KHS Date: 8/15/2010

Completed By: Kevin H. Siebert Date: 8/15/2010 Final Review: Date: Time Tracking: Date Initials Hours Spent Date Initials Hours Spent

Date	Initials	Hours Spent	Date	Initials	Hours Spent
		Total Hours: 0.00			

Incident Log: 9/15/2010 12:34 - KH5 logged incident and went to survey package for return to Idaho.

Add Note Edit Note EXIT

Record: 14 of 759

Start Novus Groupwise - Mail RML PRODUCTION Mail From: Catherine... Production RPS Incide... 2:45 PM

Table 1. Regulatory Reporting Requirements

NRC reporting requirements are contained in multiple Parts of Title 10 of the Code of Federal Regulations (10 CFR). The following provides a complete listing of the current 10 CFR material reporting requirements for which Agreement States should have comparable regulations.

10 CFR Part	Reporting Category		Brief Summary of Reporting Requirement	Notification
	Significant	30-60 Day		
20, Standards for Protection Against Radiation	20.1906(d)(1)		reports of removable contamination on package > limits in 10 CFR 71.87.	Immediate
	20.1906(d)(2)		radiation levels on package > limits in 10 CFR 71.47	Immediate
	20.2201(a)(1)(i)		reports of theft or loss of licensed material > 1000 X App C value	Immediate
		20.2201(a)(1)(ii)	reports of theft or loss of licensed material > 10 X App. C value	30 days
	20.2202(a)(1)		exposure (real or threatened) ≥ TEDE of 25 rem (.25 Sv), or eye or lens dose equiv. of 75 rem (.75 Sv) or shallow dose equiv. (skin/extremities) of 250 rads (2.5 Gy).	Immediate
	20.2202(b)(1)		exposure (real or threatened) ≥ TEDE of 5 rem (.05 Sv), or eye or lens dose equiv. of 15 rem (.15 Sv), or shallow dose equiv. (skin/extremities) of 50 rads (.5 Gy).	24 hours
	20.2202(a)(2)		release where individual could have intake > 5 X A.L.I over 24 hours.	Immediate
		20.2202(b)(2)	release where individual could have intake > 1 X A.L.I over 24 hours	24 hours
30, Rules of General Applicability to Domestic Licensing of Byproduct Material		20.2203(a),	radiation exposures, releases or concentrations of radioactive material that exceed the limits.	30 days
	30.50(a)		events involving prevention of immediate protective action, involving exposures or releases that could exceed regulatory limits	4 hours
	30.50(b)(1)		events involving unauthorized contamination restricting access >24 hours (no radionuclide with half-lives <24 hrs)	24 hours
	30.50(b)(2)		events involving equipment failure or disability to function as designed when equipment is required to be available and operable and no redundant equipment is available and operable, includes source disconnection and failure to retract source	24 hours
	30.50(b)(3)		events involving unplanned medical treatment of contaminated person	24 hours

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10 CFR Part	Reporting Category		Brief Summary of Reporting Requirement	Notification
	Significant	30-60 Day		
	30.50(b)(4)		events involving fire, explosion affecting integrity of material, device or container, and material exceeds 5Xs ALI	24 hours
31, General Domestic Licenses for Byproduct Material		31.5(c)(5)	failure or damage to shielding, on-off mechanism or indicator, or ≥ 0.005 microcuries (185 Bq) removable radioactive materials for generally licensed device	30 days
34, Licenses for Radiography & Radiation Safety Requirements for Radiographic Operations		34.27(d)	reporting of leaking sources, leak test results ≥ 0.005 microcurie (185 Bq), includes source disconnect and failure to retract source	5 days
		34.101(a)	radiography source disconnection, inability to retract source, or component failure (critical to safe operation of device)	30 days
35, Medical Use of Byproduct Material	35.3045		notifications and reports of medical events involving administration and use of byproduct materials, with the exception of patient intervention events ²	24 hours
	35.3067		leak testing sealed sources and brachytherapy sources	5 days
	35.3047		events involving an excessive dose to an embryo/fetus or a nursing child	24 hours
36, Licenses & Radiation Safety Requirements for Irradiators	36.83		irradiator events, release of material, defective components, systems or structures; (if not reported under other 10 CFR reporting requirements)	24 hours
39, Licenses & Radiation Safety Requirements for Well-Logging	39.35		leaking sealed sources found during periodic leak testing requirement	5 days
	39.77 (a)		well logging source rupture	Immediate
	39.77(b)		theft or loss, exposures, excessive concentration of rad material	24 hours

² Medical events require 15 day-licensee event report and 24 hour notification to referring physician and patient.

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10 CFR Part	Reporting Category		Brief Summary of Reporting Requirement	Notification
	Significant	30-60 Day		
40, Domestic Licensing of Source Material	40.26(c)(2)	39.77(c) and (d)	when apparent recovery impossible, irretrievable source, abandonment tailings or waste retention system failure that results in a release of material into unrestricted areas, or unusual conditions	30 days Immediate
	40.60(a)		requirements for domestic licensing of source material to receive, possess, use, transfer, or deliver source and byproduct material (NOTE: Same as 30.50 above)	
70, Domestic Licensing of Special Nuclear Material	(b)(1)-(b)(4) 70.50(c)(2)	70.50 (b)	events involving special nuclear material (SNM)	(a) 24 hours (b) 30 days (c) 60 days
71, Packaging and Transportation of Radioactive Material	71.5 49 CFR 171.15(a)(1) and (2)	(c)	49 CFR 171.15 (a)(1) events involving hazardous materials (which include radioactive materials) that result in an individual's death, injury requiring hospitalization, carrier or property damage in excess of \$50,000, evacuation of the general public for at least one hour and the closure of one or more major transportation facility or roadway for at least one hour. 49 CFR 171.15(a)(2) requires the immediate reporting of fire, breakage, spillage, or suspected radioactive contamination occurs involving the shipment of radioactive material	Immediate