

# **Radiation Advisory Committee Meeting Minutes**

February 15, 2023

## **Attending Advisory Members**

David Hamby – Oregon State University  
Dennis Wood – Medical Physicist  
Mandy Henrikson – Operating Partner for Palm Beach Tanning  
Alicia Zambelli – Fern Hill Veterinary - Veterinarian  
Garrett Frey – Industrial – KnifeRiver Safety Officer  
Barbara Smith – ARRT (Retired)

## **RPS Staff**

David Howe	Michelle Martin
Brent Herring	Sarah Brodesser
Alex Parker	Tom Mynes
Lee Lind	Rich Patterson
Toby Irving	Tom Pfahler
Daryl Leon	Judy Smith
Dong Lim	Patty Thompson
Erin DeSemple	Ram Wusirika

## **Guests**

Katherine Landsberg – Dental Assisting National Board (DANB)  
Jan Holly Price – Dental Assisting National Board  
Mary Harrison – Dental Assistant  
Dr. Saulo Sousa Melo – RAC nominee  
Luke Breazeal – Oregon Imaging Center  
Linda Kihs – Oregon Dental Assistants Organization  
Carlee Curtin – OHSU Diagnostic Imaging Clinical Instructor

## **October RAC Meeting Minutes Approval**

Motion by Garrett Frey  
Second by Mandy Henrikson  
Meeting minutes approved

## **RAC Member Nominee**

Dr. Saulo Sousa Melo is being nominated to fill the position of Dr. Jennifer Frankel, who served two of the four-year term, had to step away from the RAC due to other conflicts. Dr. Sousa Melo was recommended to us by the Oregon Dental Association.

Barb Smith proposed motion to nominate Dr. Saulo Sousa Melo to the RAC  
David Hamby second it.  
Motion approved.

## **RPS Staffing**

RPS is at fully authorized staffing of 18 members.

## **RPS Program Updates**

In 2021 Oregon Legislature approved a fee increase. We now charge user fees for electronic products on a tube fee based instead of control panel based. This fee structure change allowed us to generate revenue to staff 18 people.

### Fiscal Snapshot July 2021 to April 2022

- Tanning Device Registration beginning balance \$59,967, ending balance \$148,799.
- Oregon Department of Energy Emergency Response/Hospital training beginning balance \$19,249, ending balance \$25,564.
- Grain Analysis beginning balance -\$1132, ending balance -\$8,481 during COVID-19 we were not receiving samples to process.
- RPS Emergency Response Training beginning balance -\$2,238, ending balance -\$11,664. This is for our staff training.

### Radioactive Material Licensing (July 1, 2021 to June 30, 2023)

Beginning balance -\$179,213

Remaining balance -\$189,248

Revenue \$1,322,712

This program bills quarterly for services

### X-ray Registration (July 1, 2021 to June 30, 2023)

Beginning balance \$74

Remaining balance \$963,013

Revenue \$3,086,949

### Mammography contract with Food and Drug Administration

105 facilities

\$1,500,000 revenue over 5-year contract period

### Electronic/Tanning Inspection Update

- Inspector Sign Offs to perform solo inspections
  - Sarah Brodesser is signed off on dentals
  - Dong Lim is signed off on chiropractic and veterinary
  - Rich Patterson is signed off on tanning and industrial
  - Toby Irving is currently working on therapy

### Inspections performed since last meeting (October 2022)

- 268 X-ray inspections (medical, dental, vet, therapy, MQSA and industrial)
- 24 Tanning inspections

### Inspections performed in 2022

- 556 X-ray inspections (medical, dental, vet, therapy, MQSA and industrial)
- 99 Tanning inspections

### Inspections performed in 2021 (for comparison)

- 326 X-ray inspections (medical, dental, vet, therapy, MQSA and industrial)
- 22 Tanning inspections

### 2022 Violation Summary

- 48 violations documented out of 556 X-ray inspections
- 51 violations documented out of 99 Tanning inspections

### RML Program update

- 226 licensing

### RML Inspections

- 92 inspections performed

### RML Violations

- 95 violations documented out of 92 inspections

### Emergency Response/Incident Reports

- 53 Total for 2022

### Featured Incidents

- CT tech not following scanning and repeat protocols. Rescans due to user error and lack of basic understanding of CT. CT tech tried to hide actions.
- Lu-177 found in various waste facilities.
- Treated wrong area (7 fractions) using Sensus superficial electronic brachytherapy.
- Notified by City of Albany that they are in possession of a "cut up" water treatment tank (original dimensions 15'x10') that has been found to contain "low level" radioactivity when evaluated for disposal by a local company.
- HDR source replacement delivered to wrong address.
- Diagnostic dose (I-123 Ioflupane) fell off back of FedEx truck while in transit to hospital. Pedestrian phoned hospital and dose was retrieved by hospital staff.
- Licensee reported HDR doses delivered short of treatment site due to incorrect transfer tube length.

### RPS Training

- NRC – G-108 Inspection Procedures, H-111 Environmental Monitoring
- Incident Command Systems online (100, 200, 700, 800)
- Mammography Continued Education Units for trained personnel

### RPS Conferences (attend in person and online)

- Organization of Agreement States
- Conference of Radiation Control Program Directors (CRCPD)
- Health Physics Society

### 2023 Priorities

- Recruit for permanent Operations and Emergency Response Manager
- Continue focus on staff inspection cross training
- Acquire new Radioisotope Identifiers (RIID's) and x-ray equipment testing devices
- Finalize State of Oregon Radiological Emergency Response Plan

### **Andre Ourso, Administrator for the Center for Health Protection**

- Introduction to new members and staff
- Center for Health Protection includes Public Health, Regulatory and Environmental Health Programs.
- Radiation Protection Services, Environmental Health and Drinking Water Services are the core.
- We also regulate hospital licensing; regulate some schedule one drugs in the Oregon Medical Marijuana Program and new Psylocibin Program.

### **Exemptions/Rules/Statutes**

- **Exemption: BluePearl Specialty + Emergency Pet Hospital**

This is for a mobile CT unit being used in a veterinary facility. RPS does not currently have any rules concerning this type of modality being used in a veterinary setting. As of now, BluePearl has answered or submitted all the information that we have requested. We are waiting on the shielding study.

RAC approved motion giving RPS the recommendation that if the shielding study is appropriate, they can approve the exemption.

- **Exemption: OHSU Student Fluoroscopy Supervision**

Current RPS rule 333-106-0205(4)(G) students currently enrolled in an approved school of radiologic technology may operate fluoroscopic equipment under the personal supervision of a Radiologist or a Radiologic Technologist (R.T.). The exemption request would like to evaluate potential solutions from the educational gap to the real-world setting. The indirect supervision allowed for other radiographic exams has proved to be key in the student's ability to confidently transition from an experienced student to a new technologist. Oregon Board of Medical Imaging does not approve this recommendation.

RAC approved motion to not grant the exemption for the student fluoro supervision.

- **Exemption: Black Stone Physical Medicine Collimation Exemption request**

This facility performs pain management. The exemption request is to continue to use their current C-arm or fluoroscopy machine because it still operates satisfactorily; however they can

only turn it on in the lateral position and they can only collimate in the lateral position. They were written up based off a health physicist report about their collimation on this fluoroscopy machine.

RAC approved motion to not grant the exemption.

- **Rule: ODOE updating waste rules**

RPS has been working with Oregon Department of Energy (ODOE) on this rule update. This rulemaking project will identify proposed revisions to OAR 345-050-0006 to 345-050-0130 and other rules to implement the new provisions of Senate Bill 246 (2021) and to ensure that Oregon's regulation of radioactive wastes is sufficient to protect public health and safety and the environment. OAR 345-050-0035 and beyond covers the prohibition on holding discarded or unwanted radioactive material. This outlines exemption pathways based on the material and radiation or concentration thresholds. The proposed rule changes are currently under review by the Rule Advisory Committee, they are requesting feedback by March 1, 2023.

### **Legislative Bills**

- **HB 2996: Dental Assistant Oregon Board of Dentistry radiological proficiency certification.**

This bill has to do with how dental assistants are certified in radiologic proficiency. There is a required approved course by the Oregon Dental Board. The Oregon Dental Board is using DANB as the body to certify a dental assistant in radiological proficiency as part of being able to take x-rays. This bill is eliminating the certification exam. Oregon Board of Dentistry rules by reference tie in our agency, RPS, and our requirements we have rule 333-106-0055 that stipulates anybody who serves as an x-ray operator must have completed an authority approved radiation use and safety course.

- **HB 2583: Changes Physician Assistant to Physician Associate**

This is a professional title change. In relation to RPS, Physician Assistants are allowed to be involved with doing fluoroscopy if they have specific training. That falls to our rules to be a fluoroscopy supervisor or operator.

- **HB2584: Eliminates performance assessment from Physician Assistant Collaboration Agreement**

This bill removes the performance assessment between a physician and physician assistant in the collaborative agreement. It expands upon the physician assistant being able to operate independently of a physician.

- **HB 2215: Reactor Licensing/Fuel Waste**

This bill is going more to the commercial side when there is a power plant generating fuel waste. This bill removes a requirement that an adequate repository for terminal disposition of

high-level radiation waste be licensed as a precondition for issuing a certificate for the nuclear fueled thermal power plant.

### **Rulemaking**

Pending rule amendments, Division 125 and Division 116 are both on the radioactive material side.

Division 125 covers materials of concern that require increased controls for Cat 1 and Cat 2 materials. The mathematical formula is revised to correct a sum of fractions formula. Minor corrections regarding reports of transaction involving nationally traced sources. Update the mailing address to submit fingerprint cards.

Division 116 covers minor clarification regarding training for Radiation Safety Officer, Associate Radiation Safety Officer, authorized nuclear pharmacist. Minor clarifications regarding medical physicist, authorized user and nuclear pharmacist.

Proposed changes to non-radiologic physician training requirements. Require all non-radiologist practitioners who supervise Radiation Technologists (RT) during fluoroscopy procedures to have state approved fluoroscopy training. OAR 333-106-0005 defines a non-radiologist practitioner as an individual who practices medicine as a Medical Doctor (MD), Doctor of Osteopathic Medicine (DO), Doctor of Chiropractic Medicine (DC), Doctor of Podiatric Medicine (DPM) or Doctor of Veterinary Medicine (DVM). Direct supervision means that the supervisor is physically present in the building and immediately available to furnish assistance as needed. Personal supervision means the supervisor is physically present in the room during the performance of the procedure at all times. The proposed rule change to OAR 333-106-0205 section 4, subsection c is to remove the word direct. The section would then read: Radiologic technologists who have a permanent or temporary license from the OBMI to practice radiography may operate fluoroscopic equipment under the personal supervision of a radiologist or non-radiologist practitioner who has had proper training in the use and operation of fluoroscopic x-ray equipment.

Reason for rule change: Increased radiation awareness for physicians. The tech is the one pushing the pedal on the fluoro machine, but the physician is the one telling the tech how long to do the exposure. Direct supervision is not practical at most facilities. The current rule allows it, but it is difficult to implement/demonstrate.

What would the proposed rule change mean? More non-radiologic practitioners will be required to take fluoroscopy training.

Who is exempt: operation of fluoroscopy prior to April 10, 2005, State of California fluoroscopy license, State of Colorado fluoroscopy license, Portland Community College fluoroscopy training certificate.

RAC approved proposed rule change to require non radiological practitioners to require them to have fluoroscopy training outlined in the rule. If they are in the room with a fluoroscopy machine, whether they are operating the machine, or the technologist is operating the machine.

## **Emergency Preparedness/Response**

Columbia Generating Station Hanford Exercise: In October 2022, we did our FEMA evaluated exercise. The exercise entails a simulated release of a real radioactive plume from the Columbia Generating Station (CGS) in Richland, Washington. We are responsible for monitoring ingestion pathways.

We are evaluated by FEMA every 2 years on the following criteria:

- Emergency operation management – notification and activation of the Emergency Response Team.
- Exposure Control – monitoring radiation dose in the field. Establishing turn-back rates, dose reporting limits.
- Alert and Notification – communication processes during response. Equipment and communication redundancies.
- Detect, Measure, Sample, Analyze and Assess – collection of air, soil, vegetation and water samples.

FEMA comments:

The 2022 Columbia Generating Station evaluated plume exposure pathway exercise was successfully conducted on October 25, 2022. The participants demonstrated knowledge of their emergency response plans and procedures and adequately implemented them during the exercise. There were no finding or plan issues identified. Evaluators were impressed with team member level of knowledge and coordination.

FEMA recommendations: Include a briefing section on how to use CBRN Responder, ensure each team member using CBRN Responder has enabled tracking capabilities, consider life vests for collection of water samples, upgrade equipment in reference to the shears used for vegetation collection.

### CGS Off year exercise

This was an ungraded exercise, but it was an opportunity to get the agency operations center (AOC) together and work with interagency partners. The focus of this exercise was receiving the notification from the power plant ensuring several modes of communication were working correctly.

### Radiological Operations Support Specialist (ROSS)

The objective of ROSS is to have a subject matter expert at the local and state level that can provide immediate assistance in the event of a nuclear incident. We want to have subject matter experts to immediately be able to hit the ground running and have an idea of how to direct a response. It was a thorough course that covered response resources from federal agencies, communication to the public, scenarios and how to respond.

## Recent Incidents

- **OHSU Tuality Hospital**  
A radiation worker received 30 Rem DDE in 2020 during fluoroscopy procedures. The facility was notified of the overexposure from the dosimetry company in October of 2020. This was an orthopedic surgeon operating a C-arm in an operating room. A non radiologist practitioner. RPS was notified in December 2020, and our rule stipulates reporting of this type within 30 days. We did an investigation and additional dosimetry records were requested. A notice of violation was issued to the facility in July of 2022. The facility responded to the notice of violation. The response included creating additional safety procedures and having additional radiation safety training for the staff.
- **Salem Hospital – Event 1 – Irradiation of unintended tissue.**  
This incident involved a high dose rate afterloader. This device is used to deliver therapeutic doses. The licensee last measured the length of the transfer tube in July of 2020. It was discovered in June 2022, nearly two years later that the transfer tube was 3 centimeters, approximately 1.2 inches, longer than expected. This resulted in patient doses delivered to unintended tissue outside the treatment area. There were twenty-seven patients treated since the previous transfer tube measurement. The Nuclear Regulatory Commission had to be notified of the event. The licensee was issued two notices of violation. One for failure to perform transfer tube measurements directly every three months, and then overdosing cylinder patients greater than 50% of an expected dose to unintended tissue and greater than 50 Rem to unintended tissue. The licensee has corrected both items.
- **Salem Hospital – Event 2 – Source delivered to wrong location.**  
The source was to be delivered on the first floor to the HDR facility but was delivered to the 4<sup>th</sup> floor Radiology Department. The delivery carrier and staff on the 4<sup>th</sup> floor Radiology Department missed where the package was intended to be delivered. The package sat in the secured area on the 4<sup>th</sup> floor for six days before it was discovered to be at the wrong location. NRC was notified of the event. The licensee was issued a notice of violation for two items: loss of control of the package once delivered to the site and failure to have documented procedures to receive shipments resulting in non-radiation workers receiving unnecessary doses of radiation in violation of ALARA. The licensee has since corrected the times.
- **Lu-177 Waste Alarms**  
A load of municipal solid waste set off the radiation detectors at Dry Creek Landfill in Eagle Point. The load was returned to the transfer station. Kromek Group identified the material as medical lutetium-177 used in radiopharmaceutical therapy under the name Lutathera. RPS personnel responded to the site and confirmed the presence of lutetium.

## **New Business**

Mandatory training for RAC members relating to privacy, ethics, discrimination and harassment.



## **Public Comments**

- A group presented testimony relating to their concerns about House Bill 2996. This bill has to do with how dental assistants are certified in radiologic proficiency. Presenters included: Catherine Lansberg, Dental Assistant National Board (DANB), Bonnie Marshall, Oregon Dental Assistants Association (via written testimony), Linda Kihs, Oregon Dental Assistant Association (via written testimony), Virginia Jorgenson (via written testimony). Due to the length of presentations, a separate document reflecting their testimonies is available upon request.
- Carly Curtin from Oregon Health Sciences University (OHSU) spoke regarding the denied exemption request regarding supervision of fluoroscopy students. She proposed orthopedic surgeons being able to directly supervise x-ray students toward the latter part of their education for them to gain more confidence, being more independent.

**Meeting adjourned at 1:50 pm**

**Next meeting is scheduled for June 14, 2023**