

Radiation Advisory Committee Meeting

June 12, 2024

Hybrid Meeting

Attending:

Radiation Advisory Committee Members

David Hamby – OSU Emeritus in Health Physics & Nuclear Engineering

Alicia Zambelli – Veterinarian & Co-owner of Fern Hill Veterinary Care in Happy Valley

Barbara Smith – Portland Community College Instructor in Radiologic Technology, Retired

Mandy Henrikson – COO of Palm Beach Tanning

Garrett Frey – Safety Manager, Radiation Safety Officer @ KnifeRiver (Industrial)

Dennis Wood – Medical Physicist at Bay Area Hospital, Coos Bay

Robert Berry – Nuclear Medicine Lead & Radiation Safety Officer at Providence Portland
Medical Center and East Portland

Radiation Protection Services

David Howe – Program Director

Todd Carpenter – Licensing and Emergency Preparedness Manager

Hillary Haskins – Operations and Emergency Response Manager

Brent Herring – Lead X-ray Inspector, Health Physicist

Alex Parker – Tanning Program Administrative Specialist

Rama Wusirika – Inspector, Health Physicist

Patty Thompson – Section Administrative Specialist and Staff Support

Tom Mynes – Inspector, Health Physicist

Lee Lind – Radioactive Materials Licensing Administrative Specialist

Rich Patterson – Inspector, Health Physicist

Daryl Leon – Inspector, Health Physicist

Toby Irving – Inspector, Health Physicist

Guests

Thomas King – Oregon Board of Medical Imaging

Linda Kihs – Oregon Dental Assistants Association

Stephen Prisby – Executive Director of Oregon Board of Dentistry

Joe Mateo – Stoel Rives, Law Firm

Nichole Krishnaswami – Oregon Medical Board

Catherine Hess – Oregon Health and Science University, Radiation Safety Officer

Jamie Dyer – Cascade Medical Imaging

Approval of the Minutes from February 14, 2024 – Barb Smith

Motioned by Bob Berry

Second by Garrett Frey

Minutes approved with noted corrections on pages 3, 5, 6 and 8.

RAC Member Expirations – David Howe

Dr. Sousa Melo’s first 4-year term and Mandy Henrikson’s two full 4-year terms end on December 31, 2024. The Chairperson and Vice Chairperson terms will also end at the same time. RAC members will need to nominate candidates at the October RAC meeting for appointment-referral to the OHA Director.

Name	*First Term	Second Term	Third Term	Comments
Zambelli, Alicia	01/01/23-12/31/26			
Berry, Bob	01/01/20-12/31/23	01/01/24-12/31/27		Vice Chair- 1 st <u>term</u> 01/01/23- 12/31/24
Henrikson, Mandy	01/01/17-12/31/20	01/01/21-12/31/24		
Hamby, David	05/07/20-12/31/23 Replaced M. Krahenbuhl	01/01/24-12/31/27		
Smith, Barbara	07/25/14-12/31/17 Replaced R. Farmer	01/01/18-12/31/21	01/01/22-12/31/25	Chairperson-2 nd <u>term</u> 01/01/23-12/31/24
Wood, Dennis	01/01/22-12/31/25			
Frey, Garrett	01/01/23-12/31/26			
Sousa Melo, Saulo	04/01/23-12/31/24 Replaced J. Frankel			

*May be partial term due to replacing a member. Bylaws state a member can serve two full terms after the bylaws were adopted.

RPS Staffing – David Howe

At this time, there are two Environmental Health Specialist positions vacant. One from the promotion of Hillary Haskins to Operations Manager and one from Dong Lim leaving RPS.

2024 RPS Program Updates – David Howe

2024 RPS Budget – Todd Carpenter

Fiscal Year 2024 – Expense Report Ending March 31, 2024

RPS Expense Summary		Jean needs to talk with Mai and then RPS managers AYNotes/Items for RPS Managers to Monthreview									
As of 3/31/2024		9 Funds we invoice for A/R									
Grant No	Grant Title	Fund Type	Budget Period	Beginning Balance	Revenue AY25/Budget	Accrued Revenue	Expenditure	Remaining Balance	% Spent	% Budget Period	
480382-25	RPS Grain Analysis Lab Fee	OF	7/1/2023-6/30/2025	(39.29)	3,696.00	-	862.22	2,794.49	23%	38%	
480425-25	RPS X-Ray Registration Fee	OF	7/1/2023-6/30/2025	2,208.79	2,588,987.00		1,804,077.17	787,118.62	70%	38%	
480467-25	RPS Radioactive Materials License (RML)	OF	7/1/2023-6/30/2025	1,370.20	786,527.56		843,228.39	(55,330.63)	107%	38%	
480496-25	RPS Tanning Device Registration	OF	7/1/2023-6/30/2025	187,728.95	131,610.75	9,180.00	123,611.93	195,727.77	94%	38%	
480206-23	RPS DEQ School Disposal	OF	7/1/2021-6/30/2023		1,921.95			1,921.95	-	N/A	
480214-23	RPS DOE First Responder Training	OF	7/1/2021-6/30/2023	19,248.41	25,000.18		7,174.19	37,074.40	N/A	N/A	
480214-26	RPS ODOE First Res./Hos. Training (external)	OF	7/1/2023-6/30/2026			-	-	-	N/A	38%	
480473-23	RPS Metro Rad Mat Disposal	OF	1/1/2021-6/30/2024	70,353.17	18,400.07	-	37,900.62	50,852.62	N/A	N/A	
480473-25	RPS Metro Rad Mat Disposal	OF	3/1/2023-2/28/2025	-	-	-	-	-	N/A	38%	
480408-28	RPS ODOE Rad. Training (Internal)	OF	7/1/2023-6/30/2028	-	28,000.00	-	-	28,000.00	-	15%	
280568-22	RPS Mammography Fac Inspection PH22	FF	5/1/2021-6/30/2022		533,322.48	-	533,322.48	-	100%	N/A	
280568-23	RPS Mammography Fac Inspection PH23	FF	7/1/2022-6/30/2023		195,905.26	-	195,905.54	(0.28)	100%	N/A	
280568-24	RPS Mammography Fac Inspection PH24	FF	7/1/2023-6/30/2024	82,459.73	-	66,720.00	123,875.64	(41,415.91)	N/A	75%	
280568-25	RPS Mammography Fac Inspection PH25	FF	7/1/2024-6/30/2025								

Electronic/Tanning Products Update – Brent Herring

The inspection numbers are “down” do to EHS3/Inspector Dong Lim leaving state service and the remaining Inspectors having to complete multiple trainings, investigations and incidents.

- X-ray facility Inspections performed since the February 14th RAC meeting
 - 347 X-ray Inspections (Medical, Dental, Vet, Therapy, MQSA and Industrial)
 - 760 Machines
 - 771 Tubes
 - 5 Tanning Facility Inspections
- Violation Summary (Most Dominant)
 - X-ray
 - No Machine registration
 - Dosimetry records not maintained
 - Tanning
 - Device Timer not checked annually for accuracy
 - Device Emergency shut-off not tested annually

Radioactive Materials Licensing – Hillary Haskins

- 26 Inspections Performed
- 53 Inspections Remaining
- 71 Licensing Actions Performed
- 110 Open Licensing Actions

Emergency Response/Incidents – Hillary Haskins

January through May 2024

- Mostly radioactive waste and scrap metal
- 2 diagnostic medical events
- 17 open investigations

More waste facilities will be getting portal monitors due to new Oregon Department of Energy requirements relating to what is considered radioactive waste.

RPS Training – Hillary Haskins

- Conference of Radiation Control Program Directors (CRCPD) Annual Meeting
 - Hillary Haskins attended as a Board Member, Todd Carpenter represented RPS
 - Scholarships were awarded to two Oregon State University students to attend the meeting
 - The Oregon State University Undergraduate Advisor also attended
- Radiological Emergency Preparedness (REP) Early Career Program
 - Tom Mynes attended the week-long course
- Department of Energy Radiological Assistance Program Training for Emergency Responders (RAPTER)
 - Tom Pfahler attended the week-long course
- Department of Homeland Security/FEMA Advanced Radiological Incident Operations (ARIO)
 - Michelle Martin attended the week-long course
- NRC Materials Control and Security Systems and Principles
 - Sarah Brodesser attended the week-long course

Exemptions/Rules/Statutes

Exemption Request - Cascade Medical Imaging DEXA Scanning – Brent Herring and Jamie Dyer (Cascade Medical Imaging)

- Request for Exemption of Oregon Administrative Rule 333-106-0035 General Requirements: Deliberate Exposures Restricted
- Cascade Medical Imaging is the technical component and Central Oregon Radiology is the physician medical group that reads the imaging.
- Two locations – Bend and Redmond are proposing to use Dual Energy X-ray Absorptiometry (DEXA) scanning for Body Mass Index (BMI) studies under the following conditions:
 - Self-referral. No doctor's order for the person being scanned
 - Persons to be scanned are not patients
 - The number of scans would be determined by the self-referring person
 - A written post-scan report would be sent to the primary referring Primary Care Practitioner (PMP)
- A Body Composition Scan is a test used to measure the composition of the human body. It provides detailed information about the distribution of fat and lean muscle mass, as well as its distribution in the various parts of the body.
 - The consumers would be people requesting this type of scan who are starting a fitness and/or weightlifting regime and who desire to monitor their progress
- Scan protocol
 - Scan lasts 10-20 minutes – operated by a Radiologic Technologist
 - One scan per four-week period
 - Radiation dose would be 1-5 microsieverts (chest x-ray is about 100 microsieverts)
 - Individual is given a printed report
 - Report will also be sent to individual's PMP and show:
 - Visual image of precise location of bone, lean mass, and fat mass
 - Body fat percentage compared to age group
 - Precise mass measurements of specific areas of the body

- Calculations of total mass, fat mass, and lean mass
 - Estimated amount of visceral fat (the type of fat around internal organs associated with medical disorders such as metabolic syndrome, cardiovascular disease and Type II diabetes)
- Advantages of the DEXA scan include:
 - Accuracy – DEXA scans are considered highly accurate for body composition analysis
 - Detail – Provides detailed, region-specific information about body composition
 - Non-Invasive – The scan is non-invasive and painless
 - Highly useful for tracking change in muscle and fat over time
 - Low radiation exposure
- Alternatives to performing DEXA scan include:
 - Body mass Index (BMI) – does not give information about muscle mass, fat content or fat distribution
 - Abdominal circumference – does not differentiate between visceral fat, subcutaneous fat and muscle, all of which exist around the abdomen
 - Hydrostatic weighing – (water displacement) weigh on land, weight submerged in water – no information about visceral vs. subcutaneous fat
 - The “Bod Pod” (air displacement) – no information about visceral vs. subcutaneous fat
 - Bioelectrical Impedance (BIA) – body fat scales, wearable fitness trackers. Not a high degree of accuracy.
- Compliance
 - Technologist
 - Licensed by the ARRT and Oregon Board of Medical Imaging
 - GE and DEXA specific training on-site
 - Supervision by XR Modality Physician Lead
 - Equipment
 - Warranty or service agreements in place
 - Regularly scheduled provider maintenance
 - Quality Assurance
 - Tech QA
 - Physician Peer Review
- Thomas King (OBMI staff) stated that the exemption request of having patients do self-referrals violates an Oregon Board of Medical Imaging (OBMI) Statute 688-415 License or permit requirement, specifically, “prohibited acts” to:
 - (1)(g) Perform a medical imaging procedure on a person unless the procedure:
 - (B) is ordered by a health care practitioner who is licensed to practice a profession in this state and who is acting within the scope of the licensee’s authority, as determined by the agency that licensed the licensee, to order the medical imaging procedure; and
 - (C) is interpreted by a health care practitioner who is licensed to practice a profession in this state....
- RAC staff reinforced that the cited OBMI regulation is consistent with RPS OAR 333-106—35 “General Requirements: Deliberate Exposures Restricted”
 - A subsequent RAC discussion noted that having physicians refer someone to get monthly scans could be excessive and that DEXA dose sounded low energy/the X-rays would be absorbed well by the human body. RAC members also inquired about the DEXA milliamps and kV settings.

- A RAC Recommendation motion to deny the exemption request was made by Bob Berry and seconded by David Hamby
 - Vote results: 5 in favor – 1 opposed (Dennis Wood) – 1 abstained (Mandy Henrikson)

Digimed Dental Handheld Device – Brent Herring

- Since the Digimed hand-held device was approved by FDA, the manufacturer requested RPS approval for its sale and use in Oregon.
- RPS requires a physical review new devices
- The proposed Digimed Shield unit has barium sulfate back scatter shield which is claimed to be lead equivalent
- RPS denied sale/use of this Digimed unit based upon:
 - RPS could not verify that the shield was 0.25 millimeters of lead equivalency
 - The shield has holes in it
 - Information listed in the manual was for leakage, not backscatter
- The company withdrew the original request and re-submitted a Digimed model with a lead shield that meets RPS requirements and RPS has now been approved it for sale/use in Oregon

Proposed New Superficial Brachytherapy Device (Xoft) – Brent Herring

- The Xoft unit is to be used for skin treatments
- Based upon the machine's expanded capabilities, the manufacturer is requesting that the device be considered as an electronic brachytherapy (EB) device and not have to adhere to Dermatologist superficial electronic brachytherapy (SEB) OAR Authorized User (AU) training requirements.
 - The stated challenge is that there are no other Xoft machines in Oregon for the dermatologist (AU) to get the training needed to meet RPS requirements [i.e., assist in 15 or more patient treatments using the machine under personal supervision of an Authorized User with 3 years of machine experience].
 - The proposed Authorized User would need to either go out of state to get the training, be trained by a competitor, or bring someone into their facility to train them.
- The Machine and Operation specifications include: that, (even though the company intends to have the device be used for SEB), it can function as an Electronic Brachytherapy (EB) device (i.e., source is placed inside the body or near target tissue (skin), the machine is like a High Dose Remote afterloader (HDR), but uses electronic sources (very small x-ray tubes) instead of radioactive materials, and there would be a need for survey meters.
- The OAR EB operator requirements include being: a Radiology Technologist (therapy) – RT(T); ARRT certified; and OBMI licensed; completing Manufacturer Applications and Operations and emergency response training for machine
- There are different OAR SEB AU/operator requirements, which include: Being an RPS-approved AU Dermatologist/ being an Oregon Board of Medical Imaging (OBMI)-licensed RT(T); completing Authority approved radiation use and safety training; completing manufacturer's applications and Operation and emergency response training; and assisting in 15 or more patient treatments using the machine under personal supervision of an Authorized User with 3 years of machine experience.

- Following discussion, a RAC recommendation motion was made by David Hamby and seconded by Bob Berry that the Xoft machine should adhere to EB OARs and that the exemption request be denied. The motion was approved by the RAC.

RPS Operations Update

- **Databases** – Hillary Haskins
 - The RPS “Access” database has been used since 2000
 - The Section is updating to web-based databases
 - X-ray program was updated pre-pandemic
 - Incident database was updated 2023
 - Tanning and Radioactive Materials Licensing (RML) databases are currently being updated (including RML switch from “focus elements” to “risk modules”) and tested
 - When fully functional, facilities will be able to set up an account for access to inspection summary reports, inventory reports, billing statements and license/registration documents.
- **PHD All Hazards Mobile Lab/Trailer relocation, via Portland Bureau of Emergency Management (PBEM) Interagency Agreement (IAA)** – Todd Carpenter
 - All Hazards Mobile Lab (AHML) is currently parked at the Oregon Public Health Lab in a secured area and the utility trailer is located at the Oregon Department of Transportation (ODOT) Clackamas Station lot.
 - Portland Bureau of Management notified RPS that they are solidifying where the AHML and trailer will to be securely stored
 - Once the location is confirmed, RPS and PBEM will finalize an IAA and relocate the AHML/trailer to the storage site
- **Oregon Department of Energy-RPS Interagency Agreement for First Responder/Receiver Training** – Todd Carpenter
 - A new 4-year agreement has been finalized with Oregon Department of Energy

Rulemaking

- **Minor Clarifications of Rule Divisions 116 & 125** – Todd Carpenter
 - OAR 333-116-0604 is being amended by changing the term from “U.S. Nuclear Regulator master material license” to “U.S. Nuclear Regulatory master material licensee”
 - OAR 333-116-0740 is being amended by changing the term from “by a U.S. Nuclear Regulatory Commission master material license of broad scope” to “in accordance with a Commission master material broad scope license”
 - OAR 333-116-0910 is being amended by changing the term “American Council on Pharmaceutical Education to “Accreditation Council on Pharmacy Education”
 - OAR 333-125-0001 is being amended by removing section (2)(h) within the rule which directs the licensee to report their radioactive sources to the National Source Tracking System by January 21, 2009.
 - OAR 333-125-0080 is being amended by inserting the city of Rockville within the address to submit fingerprint cards in section (1) of the rule.

- **RPS Draft Information Bulletin Regarding Rectangular vs. Circular Collimation** – David Howe
 - Follow up from February RAC meeting.
 - Dr. Sousa Melo is assisting RPS in crafting language about studies showing how rectangular collimation drastically reduces the amount of radiation that patients receive.
- **Draft Letter to Oregon Board of Dentistry Regarding CBCT Image Interpretation** – David Howe
 - Follow up from February RAC meeting.
 - Dr. Sousa Melo is assisting RPS on the merits of cone-beam CT scans being read by a well-versed dentist, or ideally, by an Oral and Maxillofacial Radiologist, including comprehensive documentation of the findings.
- **Addition of the Oregon Board of Medical Imaging (OBMI) Executive Director (or Designee) as an Ex Officio Member on RAC** – David Howe
 - RPS and OBMI have had a long-standing partnership in radiation regulation including Operators and AU's. The RPS Program Director (or designee) is an Ex Officio Member on the OBMI.
 - David has confirmed there is merit to the OBMI Executive Director (or designee) being a RAC Ex Officio member due to the overlap of RPS and OBMI rules and regulations.
 - This proposed action will require legislative approval as a statutory change.

Emergency Preparedness/Response Update

- **Columbia Generating Station Dress Rehearsal/Full Exercise** – Hillary Haskins
 - The RPS Emergency Response Team (ERT) participated in the February "Dress Rehearsal" drill and Full Exercise in March
 - This was a larger-than-normal drill series due to it being an "Ingestion Pathway Exercise" (tested every 8 years).
 - Brent Herring shadowed Todd Carpenter as the RPS Liaison at the ODOE Agency Operations Center in Salem and the ERT was deployed to Hermiston, OR.
 - Preliminary evaluation results were positive.
- **2024 Rose City Thunder Terrorist-Created Weapon of Mass Destruction and Radiological Incident (Providence Health & Services Exercise)** – Hillary Haskins & Bob Berry
 - Providence Portland Medical Center teamed up with Department of Homeland Security, Office of Radiological Security to conduct a Tabletop Exercise (TTX) focusing on interagency coordinated responses to an attempt breaching of PPMC radioactive material sealed sources
 - A moderator facilitated a dynamic discussion between a variety of participating agencies
 - An added benefit was making inter-agency connections.

- Attendees included Portland Police Bureau, Portland Fire Bureau, Providence Security, Providence Dispatch Team, County Emergency Personnel, FBI and nine RPS staff members.
- **Oregon HazMat Training** – Hillary Haskins
 - This 3-day training event was organized by the Portland Fire Bureau HazMat Team
 - Attendees included local and regional state HazMat teams and National Guard Civil Support Team (CST) members
 - RPS provided two Subject Matter Experts/instructors and a radioactive material source, as a part of detector training to locating radioactive sources.
- **Hiroshima, Japan Memorial Presentation** – Tom Mynes
 - RPS Inspector Tom Mynes shared his experience about touring Japan and, specifically, his take aways from seeing the Hiroshima Memorial. It was a very interesting and insightful presentation.
- **New Business** – David Howe
 - Dr. Sejal Hathi has been selected and recently began as the new Oregon Health Authority Director. She has been a practicing physician, with experience as a White House Public Health Policy Advisor and Deputy Public Health Commissioner at the New Jersey Department of Health.
 - The recruitment process for a new Public Health Division Director is progressing; 2 finalists have been selected and here is one final interview to complete before Dr. Hathi selects a candidate to fill the position

Public Comments

- No comments

Announcements

- Next meeting scheduled for October 16, 2024
- Meeting adjourned at 1:10 pm