

**Minutes of the Radiation Protection Advisory Committee (RPAC) Meeting
Combination Virtual / In Person Meeting**

April 17, 2024

Meeting called to order at 9:04 a.m.

Members in Attendance:

Margaret Blackwood	Ian Irvin	Marian Wolford
Steven King	Anthony Montagnese	Janice Wirth
John Keklak	Christine Eckenrod	Aaron Fisher
Dr. Lara Paciello		

Members Absent:

Victor Rizzo	Summer Kaplan
--------------	---------------

DEP Staff in Attendance:

John Chipppo	Joe Koshy	Lisa Funk
Benjamin Seiber	Derek Stahl	Dwight Shearer
Bryan Werner	Jennifer Minnick	Ryan Bankert
Alyssa Oskin	Maria Coons	Denise Bleiler
High Garst	Stephanie Banning	Ally Knepp
David Gaisior	Kristina Hoffman	Serena Groff
Christopher Heckert	Barb Bookser	Jeff Cosklo
Robert Lewis	Dale Davis	Kevin Himmelwright
John Kime	Josh Myers	Kathy King
Gage Reesman	Grace Schoeniger	Tracy Scherer
Valerie Shaffer		

Guests in Attendance:

Kendall Berry	Jeffrey Ivicic	Kristen E Stryker
Brenda Colwell	Trent Machamer	Aaron Wilmot
Jaclyn Kain	Andy Madore	

Introduction: Adoption of Agenda; Approval of Minutes:

Minutes: The agenda for this meeting was adopted and the minutes with minimal corrections from the October 19, 2023 meeting were approved.

Christine Eckenrod and Dr. Lara Paciello were introduced as the two newest members of the RPAC Committee. Christine Eckenrod is the Program Director for the Radiography Program at Pennsylvania College of Technology and Dr. Lara Paciello is the Director of Radiation Safety at the University of Pittsburgh. Lindsay Williamson introduced herself as our new attorney.

Open Floor:

No members of the public registered to provide public comment. An RPAC member opened the discussion to propose the hiring of radiologic technologists before they have taken their American Registry of Radiologic Technologists (ARRT) boards. The PA Department of Environmental Protection (DEP) has allowed hospitals and other facilities to hire radiographers after they completed their X-ray program but before they've taken their boards in a grace period. A survey was sent out to Pennsylvania hospitals and we found that the grace period that is being offered across the Commonwealth is between 3-18 months. While we understand this regulation is not on the books and we need to comply with it, there is also a technologist shortage and it is having an impact on patient care. Research shows the State Board of Nursing does allow graduate nurses to begin employment with a Graduate Nurse Temporary Practice Permit. We do not have an X-ray board; however, this would be the model that we are proposing such that they can work as long as there is a supervisor or someone else in the department that is ARRT-certified, which is similar to what they do for student technologists. This could be a short-term fix to get us through this requirement. In the past, the state boards were only given 2-3 times per year. Now they are given more frequently because they can be taken at testing centers. We have received a lot of feedback from hospitals and the results show concerns if this would be implemented immediately. We either need a statement from the Bureau of Radiation Protection (BRP) stating that they have 'x' amount of time to pass their state boards or a statement saying we won't enforce it for a period of time. Speaking of radiation protection, as radiation safety is concerned, there should not be a problem with BRP extending a 60-90-day grace period since it comes down to radiation protection. In the meantime, we can work through the logistics. We can leave it to the regions as an inspector discretion. If we extend a grace period, we expect that facilities, through their Human Resources Departments and/or internal policies, be able to provide the inspectors a list of who is AART-certified and who is on a temporary-permit grace period. Hospitals would need to monitor that their technologists are moving toward passing their boards. ARRT defines that newly graduated technologists have three years and three attempts to pass the boards or must go back to school. Hospitals that are accredited through the Joint Commission define that a technologist can work at a hospital until they are credentialed or up to one year. BRP is requesting the RPAC Committee prepare a draft exemption request until it can be added into the regulations when they open next year. The exemption will cover creating a grace period and creating a means for the hospitals to submit their exemption request. The request must include a proposal describing how the hospital intends to track the technologists that need certified, who is supervising them, how many technologists they supervise, and the length of the request. This should be completed and formalized before the next RPAC meeting and at the October meeting we can make the final changes. Once the exemption is received it can be presented to the inspectors when they come to complete their inspections. Please use inspector discretion until then.

Program Updates:

BRP provided an overview of current DEP initiatives. Our IT department is charging BRP on a quarterly basis for IT support services. We just received a quarterly bill for \$100,000.

Modernization: Our Governor is issuing some thoughts on modernizing our permit process. This includes more agencies than DEP. A global platform for the Commonwealth has not been determined yet, nor do we know if we will have to pay our way into the modernization platform. The process is still being formed. We are trying to go paperless, scanning our paper copies, and digitizing what we can because the Governor is trying to reduce the state workers office footprints of the Commonwealth. If we are teleworking, he would like our office footprint to go down to 60% including parking spaces to go down by 40%. The Rachel Carson State Office Building (RCSOB) is being rehabbed and reorganized. We are receiving a new HVAC system and new delivery systems going into the ceiling. The Department of General Services (DGS) is handling the preparations. The first floor of RCSOB is “hotel style” and is the blueprint for what the other floors will become. No timeline or details exist yet.

Nuclear Safety & Emergency Response: We have a new division chief and new section chief for emergency response. They are reworking and improving our policies and procedures for responding to nuclear power plant-type emergencies. New fee increases were presented to the utilities operating the power plants ranging from 7-30%. The fees are increasing 30%. This is to cover 7-8 years of flat rate with no fee increases. That package is being held up in the Governor’s office due to ongoing budget negotiations. The fee is supposed to go into effect in July, but with no word yet on approval, we cannot budget to have it, wiping out \$1 million dollars from the coming year’s budget.

Radon: Radon is working on publishing two papers. A public service announcement was made in January creating radon awareness and testing for radon.

Radiation Control: We received a “Satisfactory” rating from the IMPEP inspection. There were two written comments/recommendations: we need to clear the backlog of renewals and amendments. The IMPEP Team did not like the backlog; however, we intentionally created that backlog because we sometimes had spikes and moving renewal dates would future proof this from happening again. We were also using conditions that may have questions even though we used them verbatim and they were reviewed by our legal team. However, we did not submit them to the NRC for their review and comment. This is a new change from our last IMPEP review. We are already working on the backlog and issuing these to the NRC so hopefully when we go to the formal MRB meeting in May, we may be able to formally ask that they rule those comments be removed/redacted and show that we met their requirements.

We are issuing an acknowledgment of paid invoices received for radioactive materials (RAM) and accelerators to meet the requirements issued by the RPAC Committee and Payback. Radon also requires this either by issuing a certification yearly or by an acknowledgment letter. An RPAC member asked if this could be done electronically. Bureau Director Shearer stated this

request is beyond the scope because at this point because the registrants do not inform us when they terminate or change their point of contact, so we are getting 40-50 return notices each month. The logistics behind cooperating with DGS for the mailing of certificates does not support email.

Decommissioning & Environmental Surveillance: A BRP employee has transferred to the X-ray section and they handled all the Technologically Enhanced Naturally Occurring Radioactive Material (TENORM). Logistically, it makes sense for Decommissioning and Environmental Surveillance to handle TENORM. They will handle the TENORM requests from landfills and any oil and gas issues or leachate studies that arise.

The SWRO Manager stated a new RAM supervisor started last week. She comes to us from the SERO. An RPAC member asked if BRP still had open positions. There are several open positions, but at this time DEP is reprioritizing which departments with openings are being filled based on perceived necessities. BRP is currently at 102 personnel with one open position, SWRO has no open positions, SCRO has one open position, and SERO has two open positions.

Review of Nuclear Material Events Database (NMED) and Medical Reportable Events (MRE):

There were five NMED events since the last RPAC meeting. Two were medical events and the remaining three events included a struck Troxler gauge, a lost/missing source, and a shutter failure. An RPAC member stated that they didn't think the final NMED event was technically a medical event because it was administered in accordance with the written directive. An alteration not from the authorized user (AU) is not legitimate. Another guest agreed that it was technically not a medical event, however, it was reported to the state due to the failure to follow policies and procedures and it is something that could happen in other hospitals. A second RPAC member agreed with the first, asking if events such as these should be reported as confirmed medical events by definition versus as self-reported events/issues. There are certain reporting requirements based on time and it is better to let the agency know if something occurred and retract the report later as opposed to not letting the agency know and possibly missing the timeline if the event evolves into something worse. A BRP staff member stated that the event may have not been reported to the NRC as a medical event, and it was just grouped into the medial event category for this meeting to simplify the presentation.

There were five MRE events since the last RPAC meeting. Two of the events involved patients receiving a higher-than-intended fluoroscopy times during medical procedures. An RPAC member asked if the long-term effects of the treatment were included in the report since it was a medical event. BRP staff stated the information would be included if it was provided, and investigations are conducted by the regions for each reported event. Further information such as long-term effects may not be available within the 6 months between RPAC meetings. The third event was a patient receiving treatment to the incorrect site. The fourth event occurred when a patient did not receive the planned amount of treatments due to a lack of communication

between two different treatment facilities. The fifth event occurred when a patient received treatment that was intended for another patient.

A motion was made to keep the MRE and NMED events on the agenda, but instead of reading them all we will allow time to discuss any of the events that occurred, as long as the events are provided to the RPAC committee in plenty of time to review before the meeting. Policy notes that the agenda and materials will be presented to RPAC members 10 days before the meeting.

CBCT Regulation Discussion:

Bureau Director Shearer had asked the regions to investigate other states Cone-Beam Computed Tomography (CBCT) regulations and then to compare them to ours. The regions formed a committee and reviewed the regulations from Ohio, Maryland, West Virginia, and New Jersey. The committee decided that New Jersey's regulations are the best ones they reviewed. They did ask for a lot within their regulations, however, they provided a quality assurance manual and had everything broken down in the manual to make it easy to understand and follow. After reading the other states' regulations we found that our regulations did not seem to be too strict but the committee felt like we needed to either remove the Qualified Expert (QE) requirement or define what BRP considers to be a QE that is able to perform the performance evaluations and the quality assurance program requirements. The current definition of a QE essentially leads you to a Qualified Medical Physicist (QMP). Do we need a new regulation for dental CBCT or just CBCT? Ohio and New Jersey both have their regulations separated out by Dental CBCT and other CBCT. An RPAC member agreed that Dental CBCT is different from other CBCT and would recommend they be separated in the regulations. Another RPAC member was concerned that dentists using CBCT were not getting the required education about patient dose compared to other methods. The accessibility of QMPs to rural dentists is still in question. Currently, BRP field inspectors are enforcing this regulation at their discretion. BRP formerly accepted a service provider as a QE, but were instructed to stop, and now requires a QMP. An RPAC member asked if BRP would accept a service provider or a QE who operated under the direction of a QMP that would review the service provider or QE's results. Another RPAC member stated that there is an article in the April edition of the *Journal of the American Dental Association* concerning optimizing radiation safety in dentistry. The article outlines clinical recommendations and regulatory considerations using 95 different sources as a reference to provide a summarized best practice for the dentistry field. Several committee members expressed an interest in reading the article to see what guidance concerning the CBCT testing can be found. Bureau Director Shearer asked an RPAC member to speak with other dentists and ask them what a reasonable amount would be for a dentist to pay to have a QMP report generated for them to meet our regulations. Bureau Director Shearer also shared that the regions were gathering a list of service providers and manufacturers who can perform various tests, including the CBCT, that can be shared with the various facilities. It was decided that the inspectors acting on their discretion was the best path going forward until the regulations reopen and dental CBCT can be separated out from CBCT.

Public Safety Fee Code Discussion:

Bureau Director Shearer asked the RPAC Committee to consider allowing school districts to add multiple facilities on one X-ray registration for baggage X-ray equipment in school districts. Our regulations force potential school districts that have multiple facilities at multiple addresses paying multiple registrations. When our regulations open in 2025, I propose we have a public safety tube-fee category. The difference with this category would be that they could add multiple facilities to one registration. The school would then pay one administration fee and one tube fee even though they are at different locations. This change could also apply to courthouses because we are now seeing courthouses have multiple locations and multiple entrances. This could also potentially affect prisons as they could have multiple entrances and multiple locations. We could group them together as long as they are one entity. An RPAC member asked that if a grouping of X-ray units is allowed for some then why not allow it for all? The reason to group them together would be for public safety. An RPAC member asked if there was a separate fee for government facilities. There is not a separate fee but there is a different registration number for tracking purposes only. This would apply to any school or amusement park to assist with public safety.

Bureau Director Shearer brought up the discussion topic of ring badges for IR doctors. Our inspectors have concerns about this. Radiation Safety Officers are the go-between to the administration and the doctors. I would make the push to doctors that if you don't want to wear ring badges and skirt the regulations than other jewelry should not be allowed. The second issue is one from a radiation perspective. I would ask the members of the RPAC Committee on an annual basis to go to their budget office and ask them who their #1 cardiologist is, remove the names, ask how many procedures they performed, and then I'd like you to perform a calculation of how much their appendages would have received. The regulations are based on monitoring. An RPAC member agreed and shared that they were able to get their medical facility to create a policy forcing the doctors to wear a ring badge and instructed them on how to sterilize it appropriately. We let them have discretion that if they felt it wasn't safe to wear during a procedure then to remove it. They stated it would be best for them to wear the ring badge and know exactly what their exposure is, versus having a range calculated off one doctor when the exposure can range greatly depending on how often their hands are in the beam versus not in the beam during each surgery. Inspectors going in and seeing nothing listed for exposure for those doctors is not acceptable. There needs to be an effort made by the facilities to have the calculations and the dose rates for doctors who are routinely exposed to certain levels of radiation.

Open Floor:

An RPAC member asked if the doctor or supervisor needs to be trained when using fluoroscopy X-ray equipment. An X-ray technologist must have a supervisor with them when using the fluoro X-ray equipment. It seems to be interpreted in two different ways. Some feel the doctor

that is supervising should also be trained. They feel if the registered technologist is trained then that is considered acceptable even though the doctor is not trained. BRP staff replied that the regulation states that any individual using or supervising the X-ray equipment must be properly trained on it. The regulation should be revised to make the statement clearer.

An RPAC member said that when the X-ray machine inspectors come in to inspect the facility, they are asking registrants for copies of their radiation safety committee minutes. The radiation safety committee is not required for X-ray machine registrations. The RPAC member explained that this is for a simple outpatient urgent care which only has one modality. Because we only have one modality (X-ray equipment) then minutes are not required to be taken.

A BRP staff member reminded RPAC members of the required annual review for the radiation protection program for that is required for every facility. The programs don't have to be long or complicated, especially for smaller locations. But inspectors have discretion to judge as to whether a practice should have a formalized policy.

The meeting was adjourned at 12:06 p.m.

The date for the next RPAC meeting is October 16, 2024. The meeting format will be most likely will again be a hybrid combination of virtual and in person.