

RPO in medical world

- Tasks
- Implementation during corona
- Challenges

Radiation Protection Officer Tasks



1. Control the correct application of work procedures concerning radiation protection
2. Identification and management of radioactive contaminations
3. Determination of dose rates and types of radiation
4. Control of protective equipment and dosimeters
5. Periodic evaluations of safety and alarm systems
6. Providing information
7. Urgent measures in case of incident or accident
8. Surveillance of transport activities
9. Control of HASS
10. Informing the head of the internal service and RPE about abnormal situations

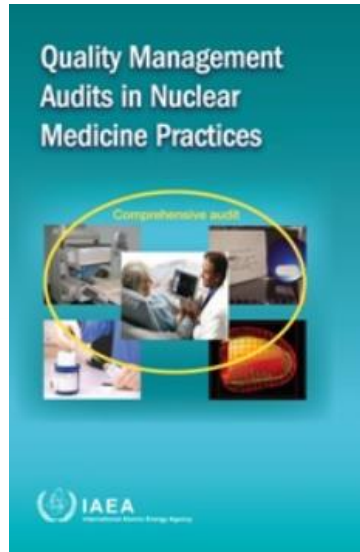
1. Radiation Protection Officer Tasks

Control that radiation protection procedures, rules, measures and work procedures concerning radiation protection are applied



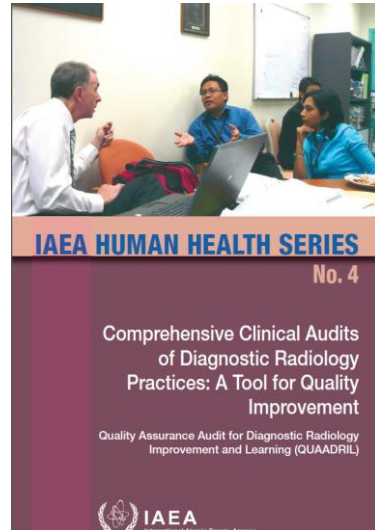
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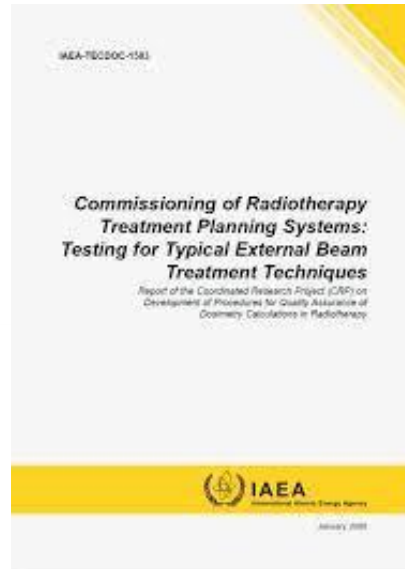
1. Radiation Protection Officer Tasks

Control that radiation protection procedures, rules, measures and work procedures concerning radiation protection are applied



1. Radiation Protection Officer Tasks

Control that radiation protection procedures, rules, measures and work procedures concerning radiation protection are applied



2. Radiation Protection Officer Tasks

Identification and management of contaminations



3. Radiation Protection Officer Tasks

Determine intensity of radiation and signalisation

- Appropriate device



Ioniserende stralingen



Radiations ionisantes

4. Radiation Protection Officer Tasks

Control if protective equipment, measuring devices and dosimeters are available, in good working condition and being used appropriately.

- **control measuring devices**
- **control dosimeters**
- **control PPE**
 - *Lead aprons*
 - ...



4. Control protective equipment

- Proper functioning and efficiency

- Sufficient number and in good condition

- Individual: lead aprons, gloves,
 - Collective: lead pots, housings



- Measuring devices: testing the functioning

- Emergency stops, warning lamps/lights, alarms, interlocks (door contacts, LPO buttons, motion sensors,) → see safety/alarm systems

- Registration

- Frequency in accordance with RPE

- Annually, monthly

- Via checklist



4. Control lead aprons

Take care!!!

- Visual inspection before use
- Hang by both shoulders
 - *Do not fold*
- Keep away from heat sources
 - *Do not wash*
- Do not puncture
 - *Pens*



Control lead aprons

- Control program
 - **Identification / labelling**
- Periodic check
 - **At least annually**
- Lock-out / tag-out procedure
 - **Remove 'bad' aprons**

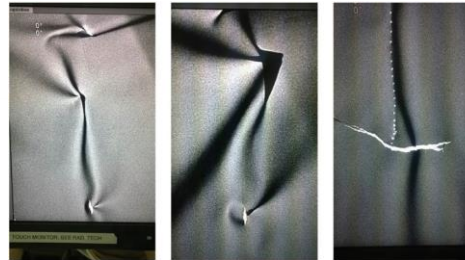
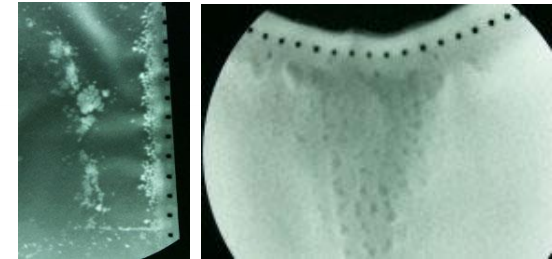


Figure 1. Three radiographs of lead aprons.



5. Radiation Protection Officer Tasks

Performing periodic evaluations of relevant safety and alarm systems



5. Radiation Protection Officer Tasks

Performing periodic evaluations of relevant safety and alarm systems



5. Radiation Protection Officer Tasks

Performing periodic evaluations of relevant safety and alarm systems



6. Radiation Protection Officer Tasks

Providing appropriate information to persons who enter a controlled area about the specific risks of the controlled area and procedures in case of an incident or accident



Ioniserende stralingen

Radiations ionisantes



6. Radiation Protection Officer Tasks

Providing appropriate information to persons who enter a controlled area about the specific risks of the controlled area and procedures in case of an incident or accident



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Danger de contamination radioactive

Gevaar voor radioactieve besmetting



6. Radiation Protection Officer Tasks

Providing appropriate information to persons who enter a controlled area about the specific risks of the controlled area and procedures in case of an incident or accident



Hoge stralingsintensiteit

Intensité de radiation élevée



6. Radiation Protection Officer Tasks

Providing appropriate information to persons who enter a controlled area about the specific risks of the controlled area and procedures in case of an incident or accident



7. Radiation Protection Officer Tasks

Urgent measures in case of an incident or accident

- **Care for victims**
- **Remove danger**
 - Turn off the device
 - Bring source in safe position
 - Decontaminate room / person, ...
- **Communication to RPE / head of internal health physics**
- **Collect information concerning the incident**
- **Incident report by RPE**
- **Modification of instruction/procedure/process**



8. Radiation Protection Officer Tasks

- Surveillance of packing, loading and unloading of radioactive goods and dangerous goods of class 7 inside the establishment

- **Reception :**

- *Procedure delivery and acceptance*
 - *Conformity*

- **Shipping:**

- *Contamination measurement*



Labelling
TI



9. Radiation Protection Officer Tasks

Control of high active sealed sources



10. Radiation Protection Officer Tasks

Informing the head of the internal health physics service and RPE about any abnormal situation

Radiation Protection Officer Tasks

- Tasks are performed following instructions and procedures approved by RPE
- Registration of results is important!

Implementation

Appoint
head/RPO

Train them

Set up procedures:

- Organisation health physics
- Specific check list per service

Execute tasks

RPO training

- Classroom training
 - Then Covid-19 arrived
- Need for solutions:
 - Development of digital learning platform
 - *E-learning*
 - *Live webinars*
- For people in the medical sector who already had followed a profound radiation protection course
 - Medical physicists
 - Nursing staff with a specific radiation protection certificate



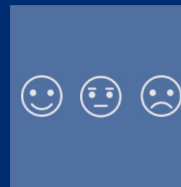
Online Test

Aan de hand van deze test wordt uw kennis over toestellen en bronnen getest. Om te slagen dient u een score van 60% te behalen. Indien u 60% haalt op deze test, ontvangt u een Vincotte-certificaat die u op deze pagina kunt downloaden.

[Start](#)

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Wilt u weten?



Geef uw mening!

Geef uw tevredenheid van deze e-learning mee in onze enquête. Dit neemt maximum 10 minuten in beslag.

[Vol de vragenlijst in](#)

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Wilt u weten?

Certificaat

Download hier uw certificaat na het succesvol afronden van de e-learning (incl. online test en "geef uw mening"). Dit certificaat is het bewijs dat u geslaagd bent voor de theoretische opleiding "Agent Stralingsbescherming Klasse II".



Geblokeerd



Implementation

Appoint head/RPO
Train them

Set up procedures:

- Organisation health physics
- Specific check list per service

Execute tasks

Procedure - Checklist

- Templates available
- Adapt them to your situation

<u>Periodieke Taken Agent Stralingsbescherming:</u> <u>klasse 2: Radiotherapie</u>			
Datum van de controle :			
Agent Stralingsbescherming :			
In het geval van onregelmatigheden of opmerkingen, gelieve contact op te nemen met het Hoofd van de dienst Fysische Controle.			
In het geval van een incident, richt u dan tot punt Van de procedure ".....". Verwittig ook zo snel mogelijk het hoofd van de dienst Fysische Controle.			
Dit document dient gearhiveerd te worden in het archief van de dienst fysische controle. Het dient ook steeds beschikbaar te zijn voor de erkend deskundige tijdens zijn periodieke bezoek.			
Volgende taken dienen continu te worden uitgevoerd en 1x per maand te worden geregistreerd:			
Taak	Resultaat	Opmerkingen	Te nemen acties
Controleer of de regels van de stralingsbescherming gevolgd worden.			
Worden de dosimeters correct gedragen?			
Volgende taken moeten periodiek worden uitgevoerd:			
Taak	Resultaat	Opmerkingen	Te nemen acties
Zorg ervoor dat de stralingssymbolen aanwezig zijn op de toegangsdeuren van de gecontroleerde zones en op de radiotherapiekop. Deze taak dient <u>wekelijks</u> te worden uitgevoerd.			
Controleer de goede werking van de signalisatielampen aan de toegangsdeuren van de gecontroleerde			

Implementation

Appoint head/RPO
Train them

Set up procedures:
- Organisation health physics
- Specific check list per service

Execute tasks

Challenges and good practices

- Time



- Hierarchy

- Good practice: Radiation protection meetings

- RPO of different departments
- Head of internal health physics
- RPE
- Head of radiation physics



Thank you for your attention

