5th Meeting of EPReSC

7-9 November 2017

Draft Safety Guide DS471 Radiation Safety of X ray Generators and other Radiation Sources Used for Inspection Purposes and for Non-Medical Human Imaging

For approval for submission to CSS

Technical Officer: Trevor Boal → Olga German, NSRW
Background

GSR Part 3 contains requirements in relation to human imaging for non-medical purposes, to strengthen the regulatory control over such practices.

Radiological Protection in Security Screening, ICRP Publication 125, Ann. ICRP 43(2), 2014


Scope

- **Target audience**: Operators, RP officers, regulatory bodies, designers and manufacturers.
- **Assumes that a proper regulatory infrastructure exists in a country.**
- **Topics covered**:  
  - recommendations and guidance on protection and safety for X ray generators and other types of radiation sources that are used for inspection purposes and for non-medical human imaging,
  - considers the occupational exposure of workers, members of the public and exposure of persons while undergoing non-medical human imaging procedures.
- **Out of scope**:  
  - specific guidance on security aspects,
  - Medical exposure.
Structure of the document

1. INTRODUCTION
   - Background
   - Objective
   - Scope
   - Structure

2. THE USE OF X RAY GENERATORS AND RADIATION SOURCES FOR INSPECTION PURPOSES

3. Description of Inspection Devices
   - Framework for Radiation Protection and Safety
   - Application of Radiation Protection Principles
   - Graded Approach
   - Radiation Protection and Safety Programme
   - Management of Disused Sealed Radioactive Sources
   - Investigation of Events
   - Emergency Preparedness and Response

3. THE USE OF X RAY GENERATORS FOR NON-MEDICAL HUMAN IMAGING
   - Types of Equipment Used for Non-medical Human Imaging
   - Framework for Radiation Protection and Safety for Non-medical Human Imaging
   - Application of Radiation Protection Principles
   - Radiation Protection and Safety Programme
   - Investigation of Events

APPENDIX DOSE LIMITS FOR PLANNED EXPOSURE SITUATIONS
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<th>No. of comments</th>
<th>Accepted</th>
<th>Rejected</th>
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Some highlights from the resolution of comments:

• There is no information dealing with animal imaging with category I and II non-medical human imaging devices in this guide. It is suggested to provide appropriate guidance in this case – comment rejected, as animal exposure was out of scope of the guide, but we are working on a Safety Report on Radiation Safety in Veterinary

• Majority of comments point out wrong internal or external referrals – all accepted. Use automatic referral option in Word to avoid confusion and this extra work for MS and ourselves.
Action Requested

You are kindly requested to approve the submission of DS471 “Radiation Safety of X ray Generators and other Radiation Sources Used for Inspection Purposes and for Non-Medical Human Imaging” to the CSS
Thank you!