G-76 Use of Artificial Intelligence in Radiation Protection

December 2024

Chairperson: Boris Tsenov (WA) 2/24

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Continuous working group (rotation required annually)

Members		Advisors	
Seble Aynachew (TN) 2/24		Carlos Delgada-Loya (WA) 2/24	
Sara McMahon (NY) 2/24		David Spelic (Honorary) 2/24	
Shay Christian (TX) 10/24 Rama Wusirika (OR) 10/24		Mason Jaussi (ID) 10/24 Jeremy Tristan (TX) 12/24*	
Resource Individuals			
NRC	Matthew Dennis	OAS	TBD
NRC	Alfred "Trey" Hathaway	AAPM	
FEMA	Matt Celia		Nathan Quails
ACR	Eugenia Brandt	CRCPD	Kim Steves
ACR	Marthony Robins		
Notes and Comments			
(Bolded text in a Fact Sheet (other than headings) indicates the most recent change.)			
* Jeremy Tristan added as an Advisor.			
NOTE: If difficulty in getting resource persons, contact the following Federal Liaisons to the Board of Directors for assistance.			
NRC	TBD		

mc 12-5-2024

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Charges:

The Conference of Radiation Control Program Directors (CRCPD) charges a working group to explore the use of artificial intelligence (AI) in radiation protection. This working group will be comprised of CRCPD members and resource representatives from federal agencies with relevant expertise.

General Charges

- 1. Conduct a thorough literature review of current research and development in the field of AI in radiation protection.(G1,O3), (G5,O1)
- 2. Consult with experts in the field of AI and radiation protection, including but not limited to researchers, practitioners, and stakeholders.(G1,O3), (G5,O1)
- 3. Share knowledge and insights among working group members and solicit feedback from CRCPD members and federal agencies. (G1,O3),(G5,O1)

Specific Charges:

- 1. Identify potential applications of AI in radiation protection, including but not limited to radiation detection, monitoring, and assessment. (G1,O3),(G5,O1)
- Assess the benefits and risks of using AI in radiation protection, including implications for public health and safety, regulatory compliance, and resource allocation. (G1,O3),(G5,O1)
- 3. Evaluate the current state of AI technology and its potential for advancement in the field of radiation protection. (G1,O3),(G5,O1)
- Develop recommendations for the responsible use of AI in radiation protection, including guidelines for data privacy, transparency, and accountability. (G1,O3), (G1,O5),(G5,O1),
- Developing a report summarizing the group's findings and recommendations and present the report to CRCPD and relevant federal agencies. (G1,O3), (G1,O5),(G5,O1)

Timeline:

The working group is expected to complete its work within 12 months of its formation. The group should provide interim progress reports to CRCPD and relevant federal agencies as needed.

Note: When a Letter/Number combination appear in brackets after a charge, it denotes how the charge links to CRCPD's Goals and Objectives, as listed in <u>CRCPD's Strategic Plan</u>.

If interested in serving on this working group, contact the Chairperson at <u>Boris.tsenov@doh.wa.gov</u>.