

Annex 9. Presentation from international organisations - ICRP

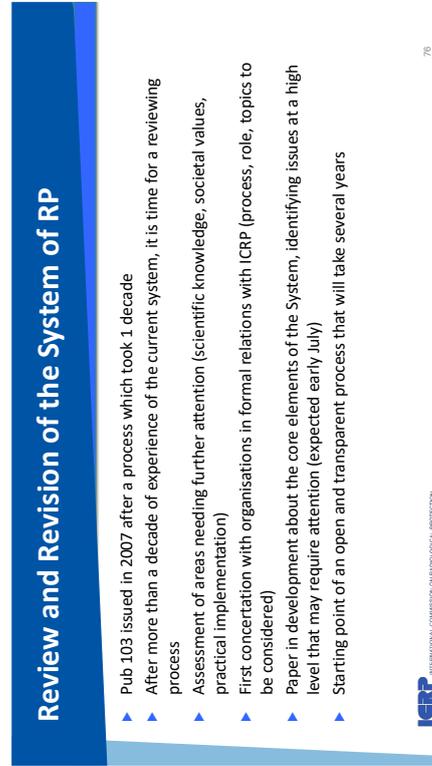


ICRP Report

General Assembly of the NERIS Platform
June 9, 2021

ICRP
INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION

Chris Clement,
Jean-François Lescomte



Review and Revision of the System of RP

- ▶ Pub 103 issued in 2007 after a process which took 1 decade
- ▶ After more than a decade of experience of the current system, it is time for a reviewing process
- ▶ Assessment of areas needing further attention (scientific knowledge, societal values, practical implementation)
- ▶ First concertation with organisations in formal relations with ICRP (process, role, topics to be considered)
- ▶ Paper in development about the core elements of the System, identifying issues at a high level that may require attention (expected early July)
- ▶ Starting point of an open and transparent process that will take several years

ICRP
INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION

76



NEWS FROM INTERNATIONAL ORGANISATIONS

Membership for the 2021-2025 term (MC)

- ▶ Werner Rühm (Chair)
- ▶ Donald Cool (Vice-Chair)
- ▶ Dominique Laurier (C1 Chair)
- ▶ Francois Bochud (C2 Chair)
- ▶ Kimberly Applegate (C3 Chair)
- ▶ Thierry Schneider (C4 Chair)
- ▶ Simon Bouffier
- ▶ Kunwoo Cho
- ▶ Gillian Hirth
- ▶ Michiaki Kai
- ▶ Senlin Liu
- ▶ Sergey Romanov
- ▶ Andrzej Wojcik

The membership of the 4 Committees was published on June 8, 2021

ICRP
INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION

75

New Task Groups

- ▶ Task Group 118 Relative Biological Effectiveness (RBE), Quality Factor (Q), and Radiation Weighting Factor (WR)
- ▶ Task Group 119 Effects of Ionising Radiation on Diseases of the Circulatory System and their Consideration in the System of Radiological Protection
- ▶ Task Group 120 on Radiological Protection for Radiation Emergencies and Malicious Events

New Presentations

- ▶ Publication 148 Radiation Weighting for Reference Animals and Plants
- ▶ Publication 147 Use of Dose Quantities in Radiological Protection
- ▶ ICRU Report 95 (joint with ICRP) Operational Quantities for External Radiation Exposure
- ▶ ICRP 2019 Proceedings Proceedings of the Fifth International Symposium on the System of Radiological Protection FREE!
- ▶ Publication 146 Radiological Protection of People and the Environment in the Event of a Large Nuclear Accident
- ▶ Publication 145 Adult Mesh-type Reference Computational Phantoms
- ▶ Publication 144 Dose Coefficients for External Exposures to Environmental Sources
- ▶ Publication 143 Paediatric Computational Reference Phantoms



Update on ongoing or planned activities of the Committee on Radiological Protection and Public Health (CRPPH)
Focus on the Working Party on Nuclear Emergency Matters (WPNEM)



Jacqueline Garnier-Laplace, Scientific secretary

NERIS, 12th GA, 9 June 2021

Nuclear Energy Agency

1- Ongoing work - Preparedness for PA recovery

Main findings of the 2020 workshop on Preparedness for Recovery

- The success of recovery requires a shared understanding of the situation, its evolution and its implications for all parties. Together, authorities, experts, and stakeholders need to cooperate so that people make informed decisions. Earning trust is key.
- Preparedness strategy should include actions targeting the resilience of societies and engaging local communities, the ICRP "co-expertise" process could largely help in meeting this goal.
- Exercising Post-Accident Recovery Management to ensure that the arrangements for recovery management are effective, such exercises have to include participants from the highest levels of leadership.

Nuclear Energy Agency (NEA) - Preparedness for Public Health Recovery. Lesson from Fukushima. <https://www.iaea.org/news-and-features/feature-stories/2020/09/2020-09-20>

Nuclear Energy Agency

Committee on Radiological Protection and Public Health (CRPPH) June 2021

HLC-LDR (2021-2023)

- Improving the effectiveness and efficiency of research through global networking for the co-ordination of ongoing and future low-dose research.

EGR personal

- Views on draft international recommendations or standards (ICRP IAEA) from the perspective of regulation and application

EGRM (2019-2022)

- Elaborate a generic framework for preparedness for post-accident recovery

EGDLE (2019-2023)

- Share regulation and practice experience in occupational exposure in medicine and industry

Working Party on Nuclear Emergency Preparedness (WPNEM)

- Improve cross-border co-ordination through a common understanding of the dose estimation, which influences protective actions
- Develop practical solutions to mitigate mental health and psychosocial impacts in decision making
- Facilitate cross-border and regional information exchange and coordination of count-measures
- Improve the management of occupational exposure at nuclear power plants by exchanging broad and regularly updated information, data and experience

ISOE

ISOE is the international organization for the promotion of research and the exchange of information on occupational exposure in medicine and industry

CRPPH & WPNEM @ <https://www.iaea.org/news-and-features/feature-stories/2021/06/2021-06-20> and <https://www.iaea.org/news-and-features/feature-stories/2021/06/2021-06-20>

Nuclear Energy Agency

2- Fukushima Daiichi Nuclear Power Plant, Ten Years On: Radiological Protection – related recommendations

For improvement, two of them are primarily addressed to the CRPPH.

Recommendation area 6: Stakeholder involvement and risk communication
Promoting Stakeholder Involvement and risk communication enhance community engagement and society resilience

Recommendation area 7: Recognition of mental health impacts
(Both recommendations promote an all-hazards approach to preparedness, response as well as recovery, in line with the UN Sendai Framework for disaster risk reduction)

Fukushima Daiichi Nuclear Power Plant Accident: Ten Years On. Progress, Lessons and Challenges. <https://www.iaea.org/news-and-features/feature-stories/2021/06/2021-06-20>

Nuclear Energy Agency

1- Ongoing work - Preparedness for PA recovery

Expert Group on Recovery Management (EGRM)

- Produce a generic framework for post-accident recovery preparedness that can be adapted to address specific national circumstances; deliverable issued around end 2021 – beginning 2022

Framework for Recovery Preparedness

Public Health Issues (including Environmental Issues)

Recovery Objectives (ROs)

Active ROs

Assess ROs achievement

Monitoring and Health Surveillance

Control & monitor

© 2021 Organisation for Economic Co-operation and Development




Nuclear Energy Agency

3- CRPPH's priorities - Enhancing preparedness for post-accident recovery

Objective: Design, prepare and run an INEX-6 in the coming years to exercise planning and preparedness for the transition and recovery phases of an emergency focusing e.g.:

- The efficiency of Mental Health and Psychosocial Support
- Risk Communication, scenarios combining Multiple Stressors
- Stakeholder Involvement approaches to enhance community engagement and resilience

▶ A dedicated preparatory task force was created under the umbrella of the WPNEM in March 2021, gathering ten experts from six countries (Canada, France, Germany, Ireland, United Kingdom, Slovak Republic) with the following objectives:

- Frame preliminary thoughts on INEX-6;
- Narrow the scope by prioritising areas where exercise could lead to substantial improvement;
- Reflect on methods and approaches that could be applied;
- Finally, propose a multi-option roadmap for INEX-6 implement.

▶ Based on these findings, decisions on the next steps will be taken at the end of 2021 for the exercise to be conducted, potentially around 2023 or 2024.




Nuclear Energy Agency

3- CRPPH's priorities : anticipate the revision of the ICRP system

▶ The NEA, and especially the CRPPH, has always contributed to the evolution of the system and the improvement of its application through bilateral cooperation and/or feedback from its 34 member countries.

▶ The CRPPH has now started its reflections identifying areas for potential improvement in the current RP system.

- As a first stage, the link between optimisation and uncertainties in the field of low dose risk to human health and the environment will be the main driver of the reflection.
- In parallel, the Expert Group on International Recommendations (EGIR) will be re-activated through a call for experts




Nuclear Energy Agency

3- CRPPH's Priorities: Modernise the optimisation process in decision-making

▶ The third stakeholder involvement workshop will broaden the stakeholder engagement process, which is essential for deciding upon an optimised solution, and to develop the thinking on reasonableness in optimisation.

▶ Across the various sectors in which the NEA is supporting its member countries through the PoW of its Standing technical Committees, the workshop aims to examine:

- how optimisation in decision-making processes is structured, understood and to what extent and where stakeholder involvement in the overall decision making process lies;
- the successes and challenges in achieving sustainable, accepted or tolerated policy decisions (or regulatory or individual site-related decisions), in a transparent manner, through a process of balancing the different components of risk (covering both benefits and drawbacks), in order to identify the most balanced optimal protection;
- obstacles or bottlenecks identified in reaching an optimal consensual decision: how inclusive can the approach be? how can the approach address and integrate cultural contexts as well as different social, legal, economic and political environments? how to build and maintain trust?
- whether a common multidimensional framework (i.e. a holistic and integrated approach) would help to improve the optimisation of protection.




Nuclear Energy Agency

NEA CRPPH and ISOE Publications

NEA (2020), *Occupational Exposures at Nuclear Power Plants (2017)*, Twenty-Seventh Annual Report of the ISOE Programme, 2017, NEA Publication No. 7510, OECD Publishing, Paris. www.oecd-nea.org/rpp/pubs/2020/7510-ISOE-2017-annual-report.pdf

NEA (2020b), *Lessons learnt from non-nuclear crises: Making the most of practical experiences gained during past crises or disasters for improving mental health and psychosocial support in radiation emergencies*, OECD Publishing, Paris, www.oecd-nea.org/rpp/pubs/2020/7514-ISOE-2020-mental-health-report.pdf

NEA (2021), *Towards a Shared Understanding of Radiological Risks: Summary Report of the NEA Stakeholder Involvement Workshop on Risk Communication*, Paris, France, 24-26 September 2019, OECD Publishing, Paris. www.oecd-nea.org/rpp/pubs/2021/7515-ISOE-2019-risk-communication-report.pdf

NEA (2021), "Workshop Summary Report NEA Workshop on "Preparedness for Post-Accident Recovery: Lessons from Experience" organised with the Japanese Nuclear Regulation Authority, Tokyo, Japan, 18-19 February 2020, OECD Publishing, Paris, www.oecd-nea.org/rpp/pubs/2021/7516-ISOE-2020-post-accident-recovery-report.pdf

NEA (forthcoming), "Workshop Summary Report NEA Workshop on Optimisation: Rethinking the Art of Reasonable", Lisbon, Portugal, 13-15 January 2020, OECD Publishing, Paris, *available on line soon*

NEA (2021), *Fukushima Daiichi Nuclear Power Plant Accident, Ten Years On: Progress, Lessons and Challenges*, NEA Publication No. 7558, OECD Publishing, Paris, www.oecd-nea.org/rpp/pubs/2021/7558-NEA-10-years-on-fukushima-report.pdf



IAEA
INTERNATIONAL ATOMIC ENERGY AGENCY

Update on IAEA Activities EPR

NERIS General Assembly
June 9, 2021

R. De la Vega, Emergency Preparedness Coordinator
Kilian Smith, RANET officer
Incident and Emergency Centre/Department of Nuclear Safety and Security

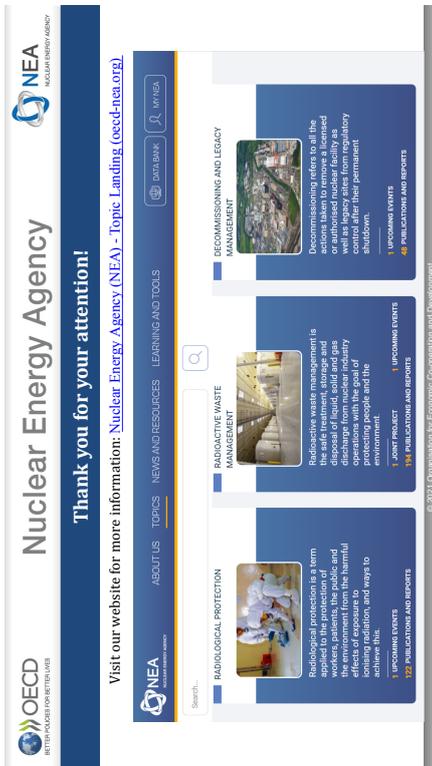
r.l.de-la-vega@iaea.org
k.smith@iaea.org



IAEA

Draft EPR-Related Publications to be published soon

- SSG-65: Safety Guide on Preparedness and Response to Nuclear or Radiological Emergencies Taking Place during Transport of Radioactive Material
 - Approved by CSS in April 2020
 - To be published end 2021 /beginning 2022
- Safety Guide on "SOURCE MONITORING, ENVIRONMENTAL MONITORING AND INDIVIDUAL MONITORING FOR PROTECTION OF THE PUBLIC AND THE ENVIRONMENT"
 - Revision of the current RS-G-1.8.
 - Safety Guide will include guidance on radiation monitoring specific for planned, existing and emergency exposure situations
 - Expected to be completed in 2022 with publication likely in 2023



OECD
INTERNATIONAL ENERGY AGENCY

NEA
NUCLEAR ENERGY AGENCY

Nuclear Energy Agency

Thank you for your attention!

Visit our website for more information: [Nuclear Energy Agency \(NEA\) - Topic Landing \(occd-nea.org\)](https://www.iaea.org/iaea-topics/iaea-topics-landing)

ABOUT US | TOPICS | NEWS AND RESOURCES | LEARNING AND TOOLS

Search: []

RADIOLOGICAL PROTECTION
Radiological protection is a term applied to the protection of workers, patients, the public and the environment from the harmful effects of exposure to ionising radiation, and ways to achieve this.

1 UPCOMING EVENTS
2 PUBLICATIONS AND REPORTS

RADIOLACTIC WASTE MANAGEMENT
Radioactive waste management is the safe treatment, storage and disposal of liquid, solid and gas waste from the industry protecting people and the environment.

1 JOINT PROJECT
2 PUBLICATIONS AND REPORTS

ECONOMICISSING AND LEGACY MANAGEMENT
Current regulations of the actions taken to remove or control after their permanent shutdown.

1 UPCOMING EVENTS
4 PUBLICATIONS AND REPORTS

© 2021 Organisation for Economic Co-operation and Development



IAEA

Recently issued EPR-Related Publications

- GSG-14, "Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency" (Published September 2020)
- EPR Combined Emergencies (October 2020)
- EPR Protection Strategy (April 2021)



Draft EPR-Related Publications to be published soon (2)

- Revised EPR Series Publication “Manual for First Responders to a Radiological Emergency”
 - Revision of the existing EPR Series published in 2006
 - Expected to be published in 2021



Draft EPR-Related Publications to be published soon (3)

- EPR Series Publication “RADIATION MONITORING IN A NUCLEAR OR RADIOLOGICAL EMERGENCY (EPR-Monitoring)
 - (revision of the existing TECDOC. 1092 “Generic Procedures for Radiation Monitoring in Emergencies”)
 - Expected to be published in 2021
- EPR Series Exercise (revision of 2005 version of this publication)
 - Provides guidance on preparation, conduct and organization of Emergency Exercises
 - To be published by the end of 2021



Draft EPR-Related Publications to be published soon (4)

- EPR Series On-Site NPP
 - Provides guidance on how to implement GSR Part 7 requirements in Onsite Emergency Plans for NPP
 - Includes a Sample On Site Emergency Response Plan for an NPP
 - Expected to be published by the end of 2021
- EPR Series NPP-Assessment
 - Includes guidance for decision makers in NPP related emergencies based on classification, assessment and prognosis of the emergency
 - Expected to be published by the end of 2021



Nuclear/radiological EPR and Covid-19 situation

- Technical Report on Member State experience being prepared
- IEC survey of EPReSC members on the impact of the pandemic to national EPR
- Webinar on EPR Challenges & Actions Taken by Member States Due to COVID-19
 - <https://elearning.iaea.org/m2/mod/ folder/view.php?id=19384>

Next Generation Reactors and EPR

- 2nd Technical Meeting on EPR for NGR
- Part 1 held virtually in 2020
 - Part 2 scheduled for October 2021
 - Will seek update on EPR for deployed and planned TNPP and other MS leading on SMR/NGR
 - Seek to clarify issues framed at virtual TM
 - Prepare to develop EPR Series document

TECDOC summarizing result of Coordinated Research Project on SMR EPZ

EPR Series Guidance on EPR for SMR/NGR to be developed based on the outcome of TM and CRP

EPRIMS 3.0

- New features are one part of a larger effort to improve EPRIMS usefulness (EPRIMS 3.0)
- Quantitative Information and Peer Review upgrades are live as of 8 April 2021
 - Announcements have been sent via EPRIMS and USIE
- Other Future improvements are expected to be ready in early 2022

ConvEx-3 Exercise (26 – 27 October)

- Purpose of ConvEx-3 exercises is to
 - Evaluate response at national and international levels to severe nuclear or radiological emergency
 - To identify areas of emergency arrangements and capabilities that need improvements
- Conducted every 3 to 5 years
- Based on national exercise

ConvEx-3 (2021)

- UAE's offered to host the ConvEx-3
- Exercise will be conducted on **26 and 27 October 2021** and will last for 36 hours to allow work in shifts and testing shift change
- It will be conducted in near real time mode



'Accident NPP'

- Barakah NPP



101

Common Exercise Objectives – 1



- To enable harmonized exercise evaluation
 - To test response management during severe nuclear emergency
 - To assess efficiency of exchange of information during an emergency
- To assess exchange of information in performing assessment and prognosis
 - To analyse level of consistency of recommended protective and other actions

102

Common Exercise Objectives – 2



- To assess effectiveness of arrangements for international assistance
 - To assess public information activities (consistency, coordination, timeliness)
 - To assess links and response coordination between nuclear safety and nuclear security authorities at national/international levels
- Participating States/IOs decide which objective is applicable to them

103

Invitation to Participate



- IAEA sent invitation to all MS and IOs to participate in exercise on 9 February 2021 with registration **deadline 26 May 2021**
- IAEA offered two levels of participation
 - Level A Participation – basic level
 - Level B Participation – complex level

104

Exercise Specific Features

- International Assistance Exercise
 - IAEA Assistance Mission carrying out actual field activities, in limited time of exercise
- Gamma Spectrum Analysis Exercise
- Use of Social Media Simulator
 - Used to incorporate basic social media interactions, training in advance of the exercise
- Historic weather conditions
 - Date/time in the exercise manual

105

Exercise Documents

- Following international exercise documents are in preparation
 - Exercise Manual
 - Guide for Controllers
 - Guide for Evaluators
 - Guide for Players



as guidelines/templates for national exercises

106



IAEA
International Atomic Energy Agency
Department of Technical Cooperation

Thank you!

Questions?

7. OTHER ISSUES

- ▶ Date and venue of the next General Assembly
Break 15:30-15:45

108