

Minutes of the 4th meeting of the 3rd
Radiological Protection Advisory Committee (RPAC)
Monday, 18th November 2024 – via MS Teams

Members present:	Tom Ryan - EPA (Chair) John Tuffy, Health Information Quality Authority Mary O'Mahony, Health Service Executive Helen Hourihane, Health and Safety Authority John Upton, Irish Association of Physicist in Medicine Paula Barry Walsh, Veterinary Council Heinz Peter Nasheuer, Irish Radiation Research Society Stephen Thomas, Environmental Pillar Andrew Bolas, Dental Council Michele Monahan, Irish Institute of Radiographers and Radiation Therapists Gareth Thomas, UK Office of Nuclear Regulation Antony Bexon, UK Health Security Agency Paul Dorfman, Nuclear Free Local Authorities
EPA staff in attendance:	Andy Fanning, Programme Manager, ORM Carol O'Sullivan, Programme Manager, OEE David Fenton, Manager Radiation Protection Regulation, OEE Kevin Kelleher, Manager EP and Nuclear Safety, ORM Aisling O'Connor, Manager Radon and Citizen Science, ORM Alison Dowdall, Scientific Officer, Radon, ORM
Apologies:	Micheál Lehane, ORM Director, EPA Sean Curran, Medical Council Luis Leon Vintro, Royal Irish Academy Wayne Anderson, Food Safety Authority of Ireland Susan McCready-Shea, Society for Radiological Protection Carole Rousse – French Radiation Protection Authority (Autorité de Sûreté Nucléaire) Carol Robinson, Norwegian Radiation Protection Authority
Secretary:	Catherine Scully

1. Minutes of meeting of 30th May 2024 (in person)

Dr Tom Ryan, Chair of the Committee, opened the meeting by thanking the members, on behalf of the EPA Board, for their contributions over the last number of meetings. He asked if there were any comments on the minutes of the meeting of the 30th May 2024.

A committee member stated there he had raised legacy facilities at Sellafield and related article in the media on cybersecurity at the meeting and requested that this be reflected in the minutes. It was noted that two emails had sent to the committee since that last meeting that had not been formally responded to. Andy Fanning apologised for this

oversight and, noted that all correspondence would be formally acknowledged in the future. In relation to the correspondence on radon, he advised that it had been noted and was shared with and reviewed by colleagues in the radon unit within EPA.

The Chair then gave the following update on matters raised at the meeting of 30th May 2024:

Nuclear Safety

EPA continues to engage with international bodies and bilaterally with other national regulators. EPA hosted an EU exercise testing the early notification of a radiological emergency under the ECUREX arrangements in September and tested bi-lateral notification arrangements with the UK on the same day. EPA also participated in an IAEA Emergency Preparedness and Response Standards Committee with discussions considering updating of the IAEA's GSR Part 7 (Preparedness and Response for a Nuclear or Radiological Emergency). EPA met with ONR and EA in the UK in November for an annual update meeting. EPA is supporting the Department in preparations for convention meetings in 2025 and 2026.

National Radon Control Strategy, Current Phase and Future Planning

EPA thanks the committee for its input at the last meeting. The EPA's State of the Environment Report (Environment and Health Chapter) emphasised that prevention of exposure to high radon levels is critically important to protect health. EPA has reached out to DSA to arrange a follow-up meeting to share approaches to radon management in their respective countries following invite at previous meeting from DSA representative. EPA has also reached out to Canadian organisations to learn from work completed there on preventative measures (barriers and depressurisation). The EPA has established links with the National Construction Training Centre to build awareness and will be working with the centre to develop training on Radon Remediation and will be supporting DHLGH on training development on Radon Prevention which will be targeted towards the construction industry and those involved in retrofitting. Research is being progressed on radon and retrofitting via two projects:

- the EPA funded INFORM research project which is investigating radon concentrations following deep-energy retrofit;
- a pilot project with SEAI to assess radon levels in homes pre- and post-retrofit.

EPA expects work on the development of the 3rd phase of the National Radon Control Strategy to commence in 2025. The 2024 National Radon Survey is well progressed and the outcomes will inform this 3rd phase.

Decommissioning of Linear Accelerators

Following the last meeting, EPA engaged with the UK EA to seek their views on linear accelerators. The UK have a detailed exemption/clearance regime (Radioactive substances legislation: scope and exemptions - GOV.UK (www.gov.uk)). In addition, relevant IAEA guidance has been identified (SSG-59 Radiation safety of accelerator-based radioisotope production facilities; and Technical report on decommissioning particle accelerators Pub1854). For disused linear accelerators decay storage has been used to manage the small components that become activated within the accelerators during use.

Regard was had to this guidance in drafting the EPA's guidance on Applying for Authorisations for Linear Accelerators which makes specific reference to their post use management. Consultation with relevant stakeholders on this draft guidance is complete. EPA will be presenting on this topic at next IAEA RASSC meeting in December and will seek the input of other parties on their experiences of this topic.

Integrated Regulatory Review Service Mission to Ireland

Since the last RPAC meeting an IRRS project structure has been put in place comprising of an IRRS Oversight Committee and an IRRS Project team as well as working groups within each of the main participating organisations. A project plan and a communications plan have been developed to prepare adequately for the mission. A memo was presented to the Board in July, detailing project structures and approach to preparation.

The Chair asked for any comments from the committee.

A question was asked if food was included in the recent EU ECUREX scenario. Kevin Kelleher explained that the purpose of the ECUREX exercise was to test communications and systems and not around any protective actions so food controls were not considered as they were outside of scope for the exercise in question.

A committee member made reference to two studies – Potential radiological impact on Ireland of postulated severe accidents at Sellafield 2016¹ and the 2012 Probabilistic Risk Assessment. He asked if reviews of these studies were planned. The Chair said that this issue could be raised under the Horizon Scanning section of the meeting.

2. National Radon Survey 2024 and 2024

Alison Dowdall gave an overview of the 2024 National Radon Survey and the EPA's plans for the 2025 radon survey. The 2024 survey is to update the geographically weighted average and the planned 2025 survey is to update the population weighted average. The 2024 survey also obtained information from participants on house age, type and energy characteristics. The Committee were asked for their advice on how to increase the low response rates in sparsely populated areas experienced in the 2024 survey, what suggestions can you give for addressing this within the 2025 Population weighted survey.

The committee suggested engaging with local champions such as farming organisations, sports organisations (e.g. GAA) and youth clubs as well as organisations such as An Post to increase participation in the 2025 surveys. EPA advised that it is considering using a citizen science approach to address the lack of response in sparsely populated areas. A committee member referred a citizen engagement project that they had been part of and offered to share outcomes of that research.

The EPA asked if there are other physical characteristics of the buildings that could be included in the survey questionnaire that may give insights into the behaviour of radon in homes. None were identified by the committee members.

A committee member noted the importance of the surveys to inform action to reduce radon exposure and emphasised that primary prevention in new builds is the most effective way

¹ [Potential radiological impact Ireland](#)

of protecting the population against radon stating that preventive measures should be required in all new builds.

3. Handheld dental x-ray units

DF outlined that the regulatory framework for the licensing of handheld dental X-Ray units requires the use of individual units to be justified on a case-by-case basis and only used in exceptional circumstances.

The EPA's Code of Practice gives general guidance for justification but is not prescriptive. The EPA has had occurrences in which where a justification is approved and licence granted, identical requests from other undertakings can follow based on the same justification without consideration of other aspects of that undertaking. He asked the committee for advice on ensure consistency when approving or rejecting applications for these devices on grounds of justification.

The committee noted that licensing and enforcement costs are substantial and engaging in the regulatory process is a significant commitment for dental undertakings and suggested that it would be important to keep the regulated community informed of the need for licensing of these units and for sound justification. The committee also suggested engaging with equipment suppliers to provide them with the necessary information that they (the suppliers) should pass on to their customers on the regulatory obligations associated with these units. Another important avenue would be to engage with RPAs who could advise on the correct equipment to select and other stakeholders such as RPOs as well as the Dental Council.

4. National Dose Register

David Fenton provided an update on the status of the National Dose Register (NDR). The categorisation of workers by undertakings is a key issue to ensure only exposed workers are including in the NDR. Work is ongoing to resolve this. The committee was asked for advice on steps EPA can take or other potential interim solutions that it can use until NDR IT development is finalised. It was noted that it is critical to get the definition of an exposed worker defined correctly. Undertakings have a responsibility to categorise their workers correctly.

5. Horizon Scanning – Committee discussion on radiological protection issues that may be of importance for the EPA to consider in its work going forward

The following items were brought before the Committee for consideration:

- National Radon Control Strategy – Phase 3 informed by Radon Surveys and International Experience
- Support to Department in revision of the 2019 National Plan on Nuclear and Radiological Emergency Exposure Situations
- Support to Department in preparation of Ireland's Country report under the Convention on Nuclear Safety in 2026
- Support to Department at 2026 Convention on Nuclear Safety Review Meeting
- Support to Department on any cross-boundary consultations relating to Extensions of Life of Existing EU Fleet

- Consider implications of any SMR Deployment in Europe e.g. EP arrangements.
- Maintaining a watching brief on update of General Recommendations by ICRP
- Engaging with update of IAEA GSR Part 7 on EPR arrangements
- Capacity Building within EPA for radiological related functions
- Support to Department in Joint Convention Review Meeting on Rad Waste and Spent Fuel in 2025
- Work with Department on management of disused and orphan sources
- Support IRRS review mission 2026 and address recommendations to improve regulatory system
- Develop a regulatory framework for radon in workplaces including radon in show caves
- Developing approaches to regulation of new/emerging technologies in nuclear medicine including consideration of potential discharges and transfer into the environment.

Committee members identified that the implications of AI deployment as one of high importance given its rapid adoption and the current lack of standards for its regulation. Other topics suggested by Committee members were:

- Potential implications of new build nuclear power plants in the United Kingdom (and update of a previous RPII publication), the implications of the extension of life of the existing nuclear fleet in the United Kingdom. Consideration of SMRs and security and safeguards of Advanced Modular Reactors with novel fuel types
- Decommissioning of legacy waste stores at Sellafield, geological disposal and waste facilities, probabilistic risk assessments and reviews of previous studies
- Developing approaches to regulation of new technologies such as flash radiotherapy,
- Regulatory approach to future uses of NMHI
- Identifying skills and competencies opportunities for learning from other organisations.

6. Close

The Chair closed the meeting and thanked the committee for attending and for their contributions, particularly around the suggestions in the horizon scanning item which will be brought before the EPA Board.

The Chair assured the committee that it will address any concerns, questions and issues raised by committee members with the utmost attention and due diligence.

7. Date of next meeting

It is proposed that the next meeting (in person) of the Committee will be held May 2025.

Actions

1. Minutes of 30th May 2024 to be amended to reflect discussions (Secretary)
2. 2004-2006 citizen science research (Professor Dorfman)
3. Feedback from Horizon Scanning presented to EPA Board (EPA Programme Managers)
4. Placeholder dates for 2025 RPAC meetings to be forwarded to Committee Members (Secretary)
5. Document any actions arising from RPAC meetings at the end of the minutes document in future.