142nd COMARE MEETING, Tuesday 11th November 2025.

COMMITTEE ON MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT

Hybrid meeting at 12 Bloomsbury Square, London and online

Present	**Chair:**	Professor John Harrison
	Members:	Professor Amy Berrington de Gonzalez Professor Russell Foster Dr Geoff Heyes Dr Mark Hill Dr Mark Little Dr Susan McCready-Shea Dr Richard McNally Professor David Read Professor Graham Smith Professor James Smith Professor Malcolm Sperrin Professor David Sutton Dr Samantha Terry
	Assessors:	DESNZ DHSC DoH NI EA FSA NDA ONR PHS SEPA SG WG UKHSA
	Secretariat:	Dr Emma Petty (UKHSA) Mrs Samantha Watson (UKHSA) Dr Simon Mann (UKHSA)

Open Session

1. Welcome & declarations

1.1 The Chair welcomed members and assessors, attending in person or online, to the 142nd COMARE meeting, the final meeting of 2025. It was noted that two minutes of silence would be observed at 11am to mark Armistice Day.

1.2 The Chair informed members that November 2025 marks the 40th anniversary of the establishment of COMARE.

1.3 Apologies were received from Dr Chris Westcott, Professor Mireille Toledano, Dr Ray Kemp and assessors from Scottish Government and FSA. The Chair reminded assessors that substitutes may attend the meeting to ensure representation.

1.4 The Chair reminded attendees about confidentiality and the need to disclose any relevant interests to the Chair either at the beginning of the meeting or before the items concerned.

1.5 The Chair noted that this would be the last meeting for Dr David Sutton, who will complete 10 years on the Committee at the end of January 2026. He thanked Dr Sutton for his work with COMARE and the support he has given the committee, including his input to the production of the 19th report, his membership of the ICRP Recommendations Working Group, and his role as chair of the Authorisations Working Group. Congratulations were also given on Dr Sutton's recent appointment to the ICRP Main Commission as Chair of Committee 3.

1.6 The Chair also informed members that Professor Rhodes has resigned from the committee. The UV Sunbeds Subcommittee will continue its work and Professor Rhodes will remain an author of the report in preparation.

2. Minutes of the 141st COMARE meeting

i. Minutes, actions & matters arising

2.1 The Chair asked for comments or corrections to the minutes from the 141st meeting. No comments were raised, and the minutes were approved without amendment. The minutes of the open session will be posted on the COMARE webpage, while the minutes of the closed session will remain confidential.

[Action: Secretariat]

2.2 The Chair reviewed the actions and ongoing matters from the 141st meeting, noting that the SAHSU paper (Childhood cancer incidence around nuclear installations in Great Britain, 1995-2016) was published in the International Journal of Epidemiology in July 2025[1], and a statement with a link to the paper was published on the COMARE website. The secretariat informed CoRWM about the publication. Members were advised that the journal had also published an invited commentary from Professor Richard Wakeford: Forty years of investigations of childhood leukaemia 'clusters' near nuclear installations[2].

2.3 The Chair noted that DHSC has been asked whether COMARE should note its concerns about aspects of the US Executive Order which orders the reform of the Nuclear Regulatory Commission, including a call to abandon the use of a linear non-threshold (LNT) dose response model as the basis for control of low dose exposures to ionising radiation. It has been agreed that COMARE will not comment, noting that others have

[1] https://academic.oup.com/ije/article/54/4/dyaf107/8202583
[2] https://academic.oup.com/ije/article/54/5/dyaf174/8264488

issued recent papers or statements of relevance, including the ICRP[3], HERCA[4] and the UK Society for Radiological Protection.

3. Committee matters

i. Correspondence

3.1 The Chair reminded members of the action from the 140th meeting to write to those responsible at the University of Oxford regarding the preservation of childhood cancer databases: the Oxford Survey of Childhood Cancers (OSCC) and National Registry of Childhood Tumours (NRCT). A letter was sent to Professor Eva Morris and is- included in the correspondence paper. No response has been received.

3.2 The Chair asked Dr Hill and Dr McNally for updates regarding the two databases. Drs Hill and Little advised that a report for the OSCC was required by 4th December for the confidential advisory group (CAG) to consider retention of image files (IF) in the database. A new application may be required to cover future use. Dr Mike Murphy is working on this with the support of others, including Dr Gerry Kendall.

3.3 Dr McNally informed members that discussions are ongoing in Oxford regarding the NRCT database. Professor Eva Morris made a successful application to CAG for the NRCT earlier in the year, similar to what is required for the IF of the OSCC. For the extension of the thyroid cancer study (as referred to in the letter to the University of Oxford), it may be possible to use data from a specialist registry in Newcastle. There have also been discussions regarding access to a Children's Tumour Registry in Manchester.

3.4 The Chair brought members' attention to two emails directed to the committee. The first queried whether the UK should implement a software fix for the iPhone 12 A2403 following a ruling by the EU. Members were provided with background information on the issue. The correspondence was reviewed by the EMF and Health Working Group and directed to DHSC for attention.

3.5 The second email highlighted public concerns about potential radioactive contamination at a Nottinghamshire airfield. This topic was discussed by the CWG at a meeting on the previous day (see 4.ii).

ii. Proposal for future work – Cancer risk from low dose

3.6 The Chair reminded members that a scoping exercise to consider cancer risks from low dose exposures to ionising radiation was discussed at the last meeting. It was agreed to carry out this exercise once the cardiovascular disease report was finalised. A subcommittee has been established, chaired by Professor Berrington de Gonzalez, and a project proposal has been drafted. The Chair asked Professor Berrington de Gonzalez to introduce the proposal to the committee.

3.7 Professor Berrington de Gonzalez noted that the last UK report on solid cancers was published in 2011 by the Advisory Group on Ionising Radiation (AGIR), and since then there has been progress in both cancer epidemiology and radiobiology in relation to low dose radiation and cancer risks. Some of these data have been summarised in several international reports. It was agreed that it is now an appropriate time to consider a new UK report. The aim would not be to undertake an extensive review of all the available data, but to write a summary report with COMARE's interpretation and the implications for the UK population. The goal is to complete this project within the next two years. The

[3] Rühm et al. Essentials of the system of radiological protection. J Radiol Prot. 2025 Sep 15;45(3). PMID: 40924392.
[4] HERCA statement on the importance of maintaining trust in the international radiological protection system and regulatory independence : HERCA

subcommittee will comprise of COMARE members together with some external members. Members were asked to volunteer if they were interested in the project. Members approved the draft project proposal and agreed that it would be submitted to DHSC with a request for permission to proceed with the project.

[Action: Members]
[Action: Secretariat]

4. Updates to the Committee:

i. Authorisations Working Group

4.1 The Chair asked the Chair of the Authorisations Working Group (AWG), Professor Sutton, to update members on the consultations considered by the AWG since the last meeting. Professor Sutton reported that the AWG had responded to two EA consultations – the first on a permit application to accept low level radioactive waste at Port Clarence landfill, and the second on an application for a permit variation at the Winfrith nuclear site.

4.2 The AWG had no comments on the first application, which was a follow-up with a revised safety case after an earlier consultation. It was noted that the previous comments from the AWG had been taken into account.

4.3 The second consultation concerned an application where the radioactive inventory, and hence annual doses, was very low. The AWG felt that the extent of the documentation provided for the consultation was disproportionate to the environmental impact and that it was difficult to comment on such extensive documentation in the short timescale provided. It was noted that the operator determined the volume of documentation provided in the consultations.

ii. Contaminations Working Group

4.4 The Chair informed members that the Contaminations Working Group (CWG) met on 10th November, and asked the CWG Chair, Professor Read, to provide an update to the committee.

4.5 Professor Read informed members about the beach monitoring reports from EA and SEPA. The Sellafield beach monitoring had covered 94 hectares by mid-October, against a target of 105 hectares for the year, and recovered 37 particles and two larger objects. The find rate was comparable with the long-term trend. Over the past 20 years or so, around 3,600 particles have been found over about 3,000 hectares. For Dounreay, SEPA had reported that there were three finds on the foreshore in 2025, one of which was significantly active, and three finds on Sandside beach. A report from the Particles Retrieval Advisory Group (Dounreay) (PRAG(D)) is expected by the end of the year. Discussions are continuing over a planning application for an offshore electricity link to Dounreay, which has the potential to disturb contaminated sediments. At Dalgety Bay, verification monitoring is continuing following completion of the remediation work. There have been eight finds since January 2025. The remediation closure report is expected by the end of the year or early in 2026. Drone surveys continue to be used to map bulk sediment movements in the area.

4.6 Professor Read informed members that the University of Bristol gave an invited talk to the CWG about monitoring with drones.

4.7 Professor Read reported that the CWG considered correspondence regarding redevelopment of a former airfield site near Nottingham. A radiological survey was carried out in 2008 on one section of the site used as a caravan park and detected two small hot spots of radioactive contamination. There had also been a report on leukaemia cases in the local area. It was noted that there is chemical contamination on the site from PFAS

(Per- and Polyfluoroalkyl Substances). Local residents are raising concerns regarding the proposed development of the site. UKHSA are aware and are in contact with the Local Authority. The CWG will continue to keep a watching brief on the situation.

4.8 Professor Read summarized a presentation from Professor J Smith to the CWG concerning an ICRP report on radiation effects and biota. Professor Smith had identified methodological deficiencies in the report and reported on them to ICRP (see 4.iv).

iii. EMF and Health Working Group

4.9 The Chair informed members that the EMF and Health Working Group (EAHWG) held its 10th meeting on 6th October 2025. In the absence of the EAHWG Chair, Dr Kemp, asked Dr Mann to provide an update. Dr Mann noted that the working group considered a significant number of published papers at its meeting and made a selection of information papers for the main committee. He highlighted the information papers which discussed the systematic review of animal cancer assays commissioned by the WHO. It was noted that the methodology for this systematic review is different to other WHO commissioned systematic reviews, and that this method may produce false positives. Members discussed the different viewpoints on the systematic review.

iv. ICRP Recommendations Working Group

4.10 The Chair advised members that the 10th meeting of the ICRP Recommendations Working Group (IRWG) was held on 16th October 2025. The Chair asked the IRS Chair, Dr McCready-Shea, to provide an update for the committee. Dr McCready-Shea informed members of feedback from ICRP on comments submitted for the consultation on scientific evidence relevant to the assessment of solid cancer radiation risk at low dose and low dose rate. The comments had been considered and most had been responded to positively.

4.11 Dr McCready-Shea highlighted two consultations responded to by the working group since the last COMARE meeting: TG103 Pregnant-female Mesh-type Reference Computational Phantoms, and TG99 Considering the Environment When Applying the System of Radiological Protection: Part 1 Broadening the Reference Animals and Plants Approach and Related Derived Consideration Reference Levels. The TG103 report was recognised as excellent science. Comments on the TG99 report were mainly those of Professor J Smith with the overall point being that the determination of levels of dose of environmental concern requires greater justification and more plausible treatment of available data.

4.12 Dr McCready-Shea informed members that two further consultations are expected relatively soon. One is on dose coefficients for intakes of radionuclides by the public, part III; the second is on factors regarding the individual response of humans to ionising radiation. Members discussed individual susceptibility and potential issues for radiation protection. The assessment of the impact of ICRP recommendations was also discussed.

v. UKHSA update - EMF and Health

4.13 The Chair asked the UKHSA assessor, to present the update from UKHSA on EMF and health issues. The UKHSA assessor reported on the key points of the briefing note, including WHO developments.

4.14 Members were appraised of recent documents and updates from the European Commission's Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) and on four EU Horizon Europe 5G projects (GOLIAT; SEAWAVE; NextGEM; and ETAIN). The UK developments comprised of updates on research projects, including the Airwave Health Monitoring Study Tissue Bank, the COSMOS Cohort Study of Mobile

Phone Use and Health, and the SCAMP Study of Cognition, Adolescents and Mobile Phones. Areas of public and occupational concern were also considered, particularly with health concerns about 5G technologies, about high voltage power lines, and occupational exposure.

vi. UKHSA update - Radon [COMARE 25-17]

4.15 The UKHSA assessor informed members that the radon report would be given at the next meeting.

[Action: UKHSA]

Closed session item – 5 & 6

5. Studies in progress

i. Light & Health Subcommittee (LAHS)

5.1 The minutes for this item was considered as reserved business as it concerned pre-publication material.

ii. UV Sunbed Subcommittee

5.2 The minutes for this item was considered as reserved business as it concerned pre-publication material.

6. COMARE Subcommittee reports

i. Cardio-/Cerebro-vascular Effects

6.1 The minutes for this item was considered as reserved business as it concerned pre-publication material.

7. Information papers

7.1 The Chair noted that a few of the information papers had been noted in earlier items. Members discussed the paper by Smith-Bindman et al[5] regarding the cancer risks for children and young adults from medical imaging. It was agreed that this would be discussed by the subcommittee reviewing cancer risks from low dose radiation. The paper by Walsh et al[6] on the US Million Person Study was also discussed.

8. AOB

8.1 No other business was raised by members. The Chair reminded members that the next meeting would be held in person on 12th March 2026. He thanked members for their attendance and contributions to the meeting. The Chair then declared the meeting closed.

[5] Smith-Bindman et al. Medical Imaging and Pediatric and Adolescent Hematologic Cancer Risk. N Engl J Med. 2025 Oct 2;393(13):1269-1278. doi: 10.1056/NEJMoa2502098. Epub 2025 Sep 17.
[6] Walsh et al. Cancer Mortality after Protracted Low-level Radiation Exposure for Early and Contemporary Workers in Two Large Occupational Cohorts in the U.S. Million Person Study. Radiat Res. 2025 Nov 1;204(5):529-536. doi: 10.1667/RADE-24-00271.1.