

136th COMARE MEETING, Thursday 23rd November 2023.
COMMITTEE ON MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT
Hybrid meeting – 12 Bloomsbury Square, London and online

Present	Chair:	Professor John Harrison
	Members:	Professor Frank de Vocht Dr Mark Hill Dr Colin Martin Dr Ray Kemp Professor Stewart Martin Dr Susan McCready-Shea Dr Richard McNally Professor David Read Professor James Smith Professor Malcolm Sperrin Professor Mireille Toledano Dr Chris Westcott
	Assessors:	DH (NI) DHSC EA FSA HSE NDA ONR SEPA SG WG
	Secretariat:	Dr Simon Mann (UKHSA) Dr Emma Petty (UKHSA) Mrs Samantha Watson (UKHSA)

Open Session

1. Welcome & declarations

- 1.1 The Chair opened the 136th meeting, welcomed members and assessors and noted that the meeting is split into an open and a closed session for the minutes.
- 1.2 The Chair welcomed the substitute WG assessor to their first meeting.
- 1.3 Apologies were received from Dr Jane Barrett, Professor Lesley Rhodes, Professor Graham Smith, Professor David Sutton, and assessors for DESNZ, DforE, NHS Scotland, and UKHSA. The Chair reminded assessors that substitutes may attend the meeting.
- 1.4 The Chair reminded members of the private nature of the Committee's proceedings and that those papers marked "For Members Use Only" should be kept in members' own hands. Members were also reminded that they should disclose any relevant interests to the Chair.

2. Minutes of the 135th COMARE meeting

i. Minutes, actions & matters arising

2.1 The Chair asked for comments or corrections to the minutes from the 135th meeting. None were raised and the minutes were accepted as an accurate record. The Chair noted that the minutes of the open session will be posted on the COMARE webpage. The minutes of the closed session will remain confidential.

[Action: Secretariat]

2.2 The Chair reported on an action placed on Professor G Smith to lead on a statement on standardisation on terms relating to low doses / low activities of ionising radiation. A draft document was produced and discussed by the ICRP Recommendations Subgroup (IRS), then further revised. It will be discussed under Agenda item 4.iv.

2.3 The Chair updated members on an action to respond to the British Medical Association regarding protection of female health workers from ionising radiation at work. A response has been submitted, noting that the current regulatory arrangements are appropriate.

2.4 The Chair reported on communications between the Contaminations Working Group (CWG) and CoRWM following the last meeting. The Chair has written to the CoRWM Chair proposing a joint meeting. There are several areas of mutual interest for both committees. It was noted that the proposal would be discussed at the upcoming CoRWM meeting.

2.5 The Chair reminded members of the inquiry into the effects of light and noise pollution on human health by the House of Lords Science and Technology Committee. The House of Lords [committee report](#) has now been published. Dr Mann updated members on the findings of the inquiry, summarising the conclusions and recommendations. The committee had concluded that environmental noise and light remain neglected pollutants, and are poorly understood and poorly regulated despite their potential to negatively impact human health. The Government response is expected on 1st December 2023 and will consider whether the remit of existing bodies can be extended to cover noise and/or light. The Chair asked for opinions on whether COMARE should consider health issues associated with light pollution. Members supported the proposal and suggested that it falls within the committee's remit, while recognising that it would require recruitment of additional expertise onto the committee. It was agreed that the precise definition of any role for COMARE would be important along with the mobilisation of any resources needed to deliver the role. The Chair agreed to discuss this with UKHSA, DHSC and other stakeholders. It was also noted that Welsh Government has a program of work on noise and light, which is going through the Senate currently.

[Action: The Chair]

3. Committee matters

i. Correspondence

3.1 The Chair brought members' attention to the briefing note on correspondence to COMARE. There had been only one FOI request since the last meeting, which was sent to multiple recipients. There has been no mention of COMARE in any Parliamentary Questions since the last meeting and no email enquiries have been received.

3.2 A letter of support was sent by the Chair for the continued provision and maintenance of the Oxford Survey of Childhood Cancers (OSCC) data. Dr Hill is pursuing this with the Oxford Cancer Centre and will keep the Committee updated.

[Action: Dr Hill]

3.3 The Chair noted that three items of post marked for the attention of the Chair and the head of the secretariat were received at Chilton, having been redirected from an address unconnected with COMARE. The letters are notifications from the same sender and have

been passed to the UKHSA Information Rights team, following the same procedure as for FOI requests.

4. Updates to the Committee:

i. Contaminations Working Group (CWG)

- 4.1 The Chair informed members that the CWG met on the previous day and asked the Chair of CWG, Professor Read, to present a summary of the meeting. Professor Read reported that Sellafield is now ahead of schedule for the 2023 beach monitoring programme, with low find rates and UKHSA indicating that the finds are very low risk. A new monitoring programme is currently out to tender, with the expectation of issuing a contract in January and commencing monitoring in April. Remediation at Dalgety Bay has been completed and the site is now entering a verification phase. One significant particle (54 kBq) has been found in the first month following completion. SEPA are preparing a closure report on the remediation. COMARE published a statement welcoming the completion of the remediation. There have been no finds on the Dounreay foreshore since March 2022 and a small number of finds have been retrieved from Sandside beach. There is concern that plans for offshore electricity cables could disturb the seabed at Dounreay. The CWG also discussed other potentially radioactively contaminated sites.
- 4.2 The CWG discussed the marine discharges of radioactive water from the Fukushima nuclear power plant. There has been media interest in the discharges, although the activities from the releases of tritiated water are small in comparison with other sites. Members were informed that the media coverage was handled well in the UK.

ii. Authorisations Working Group (AWG)

- 4.3 In the absence of the Chair of the AWG, Professor Sutton, the Chair asked Dr McCready-Shea to comment on the briefing note circulated to members. There has been one consultation since the last meeting concerning an application from Sellafield for a permit variation. The AWG has submitted a response to this. No further consultations are under consideration at this time.

iii. EMF and Health Subgroup (EAHS)

- 4.4 The Chair informed members that the EMF and Health Subgroup (EAHS) held its fourth meeting on 18th October 2023. The Chair of EAHS, Professor de Vocht, provided an update on the work of the subgroup. The subgroups appraised 15 publications and selected a small number for the attention of the main committee. The EAHS has produced a paper on the selection criteria used for reviewing publications, outlining the procedure for identifying which papers to present to the main committee. The paper was well received, and it was proposed that it should be reviewed in a year. Possible options for the paper will be discussed further.

[Action: EAHS Chair, the Chair & secretariat]

iv. ICRP Recommendations Subgroup (IRS)

- 4.5 The Chair asked the ICRP Recommendations Subgroup (IRS) Chair, Dr McCready-Shea, to provide an update for the committee from the fourth meeting of the IRS, held on 5th October 2023. Dr McCready-Shea reported that several ICRP consultations had finished this year, including one where COMARE gave a joint response with the Society for Radiological Protection (SRP). A current consultation on radiological protection in PET and PET/CT has a closing date towards the end of December and is under consideration by the subgroup. While it mainly reviews existing recommendations as opposed to recommending new ones, it does contain information that could be carried through into new recommendations. There will be a report next year on optimisation of protection in digital radiology which some COMARE members have been involved in writing.

4.6 The Chair informed members that the paper on standardising communication on the significance of low doses had been drafted by Professor G Smith and updated by the Chair following comments from the IRS. It was noted that low dose is a relative term and can legitimately mean different things in different contexts. The final table in the report puts this into simple terms. It is thought that ICRP will need to revisit this in new recommendations. Members discussed the risk levels used by different groups, the perception of dose levels versus risks, and recognised the desire to define what is meant by low dose. Members welcomed the paper as readable, interesting, and helpful.

v. **UKHSA update – EMF and Health**

4.7 The UKHSA assessor presented the update from UKHSA on EMF and health issues. International developments included the ongoing process and latest publications towards completion of WHO's review of exposures to radiofrequency fields, publication of an Opinion on the health effects of radiofrequency fields from the EU's Scientific Committee on the Health Effects of Environmental Risks (SCHEER), and the publication of a Preliminary Opinion by SCHEER on the health effects of low frequency fields for consultation. An update was also provided about four research projects on EMF/5G supported by the EU's Horizon Europe programme: GOLIAT, SEAWAVE, NextGEM and ETAIN.

4.8 The latest developments and publications from UK-supported research at Imperial College were summarised, including the Airwave Health Monitoring Study Tissue Bank, the Cohort Study of Mobile Phone Use and Health (COSMOS) and the Study of Cognition, Adolescents and Mobile Phones (SCAMP). UK contributions to EU-supported research were also covered, including the MOBI-Kids, GERoNiMO and GOLIAT projects. An important event for the international research community had been the hosting of the BioEM 2023 conference in Oxford in June.

4.9 HSE's post implementation review of the Control of EMF at Work Regulations 2016 was covered as were the following areas of public and occupational concern and national responses: exposure to radio waves from smart meters, exposure to radio waves from 5G technologies, and occupational exposure.

4.10 Members were updated on a Judicial Review challenge about public health concerns associated with 5G technology which has concluded, having been to the Court of Appeal.

4.11 Members discussed the GOLIAT, COSMOS, SCAMP and AirWave projects and the current funding status of the projects. An update will be provided at the next COMARE meeting.

[Action: Professor Toledano]

4.12 It was noted that the EAHS looked at several papers on ecological effects at their last meeting and discussed whether this was within the subgroup's remit. It was noted that the Committee's remit supports the statutory duties of the Secretary of State for Health for the protection of public health. Other government departments lead on addressing ecological issues.

vi. **UKHSA update – Radon**

4.13 The UKHSA assessor presented the UKHSA update on Radon. There has been a recent HSE prosecution of a school for failing to mitigate excessive exposures to radon. The HSE will review its radon policy in 2024. The 20th annual Radon Forum took place in November at the UKHSA's Radiation, Chemical and Environmental Hazards Centre in Oxfordshire and included details of the forthcoming update to the National Radon Action Plan. A consultation on the second edition of the National Radon Action Plan has just opened. Members discussed whether any specific changes had resulted in the action plan being reviewed and the UKHSA assessor agreed to check on why this update is required.

[Action: UKHSA]

- 4.14 Members were informed that the radon-dedicated website continues to receive a high number of hits and there is work ongoing to enable a substantial upgrade. Demands remain high for radon services. The revised radon affected area map for Great Britain, which was jointly produced by UKHSA and the British Geological Survey, was published on 1st December 2022. UKHSA radon group scientists continue to engage with organisations setting national and international standards. Members queried whether there had been any change in policy for radon detectors in the UK, noting that the US uses portable detectors and the UK uses passive detectors. The UKHSA assessor agreed to report back.

[Action: UKHSA]

5. Information papers.

- 5.1 The Chair drew members' attention to the information papers and the digital links. The aim of the information papers is to provide the Committee with strong reviews and new, high quality scientific studies, relevant to the Committee's work programme.
- 5.2 Professor de Vocht, Chair of the EAHS, commented on the non-ionising radiation papers, selected using the agreed appraisal procedure. The paper by Cordelli et al on effects of RF-EMF exposure on pregnancy and birth outcomes was highlighted. This is the first systematic review published as part of the WHO review. The paper by Jamal et al, concerning electrical brain activity and 5G exposures, was selected as it is one of the first papers from the GOLIAT project. The paper by Rahban et al on mobile phone use and fertility in men was also highlighted to the committee. It was noted that the Rahban study had received media attention.
- 5.3 The Chair drew attention to several papers on ionising radiation. An editorial by Wakeford et al on the LNT risk model was highlighted as providing a robust defence of the model. The paper by Dauer et al considered Parkinson's disease mortality in the US million persons study. Richardson et al reported a large study of UK, US and French radiation workers in an update of the INWORKS study, with overall risk estimates similar to those of the atomic-bomb survivors. The paper by Bosch de Basea Gomez et al investigated the risk of haematological malignancies in children exposed to CT radiation. Ruehm et al reported on the ICRP workshop on the review and revision of the system of radiological protection; members referred to the helpful summaries in this paper of input and views from various international organisations, including the need for consideration of an all-hazards approach.

6. AOB

- 6.1 At the request of the Chair, Professor de Vocht informed members of a possible concern regarding handheld lasers used for welding, which was raised at the last SRP EMF and Optical Radiation group meeting. The HSE assessor advised that HSE are looking to update their guidance on handheld lasers.
- 6.2 Dr Martin reported on the recent ICRP symposium. There was a focus on wellbeing, with good health and wellbeing particularly relevant to radiation protection. Presentations at the symposium included the approach taken after the Fukushima accident, particularly regarding mental health effects; and how information was gathered from the atomic bomb survivors. There was discussion about RBE, Q factors and radiation weighting factors, as well as stratification and individualisation of risks, particularly in relation to medical exposures of patients. UN sustainability development goals, including quality education, reducing inequalities and environmental detrimental effects, were also discussed. A working party has been set up on uncertainty.

Closed session

7. Studies in progress

i. Thyroid cancer incidence study

ii. SAHSU update

- 7.1 The minutes for these items were considered as reserved business as they concerned pre-publication material.

8. COMARE Subcommittee reports

i. Cardio-/cerebrovascular effects

- 8.1 The minutes for these items were considered as reserved business as they concerned pre-publication material.

Close of meeting

The Chair thanked members for their attendance and contributions to the meeting. The next COMARE meeting will be held online on 6th March 2024.