

133<sup>rd</sup> COMARE MEETING, Tuesday 15<sup>th</sup> November 2022.

COMMITTEE ON MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT

Etc Venues, Avonmouth House, London

Present	Chair:	Professor John Harrison
	Members:	Professor Frank de Vocht Dr Mark Hill Dr Ray Kemp Professor Stewart Martin Dr Susan McCready-Shea Dr Richard McNally Professor David Read Professor Graham Smith Professor James Smith Dr Chris Westcott
	Assessors:	DHSC EA FSA NDA NI DH ONR SEPA UKHSA
	Secretariat:	Dr Simon Mann (UKHSA) Dr Emma Petty (UKHSA) Mrs Samantha Watson (UKHSA)
	Observers:	Mr B. Mooney Mr A. Naqvi

## Open Session

### 1. Welcome & declarations

- 1.1 The Chair opened the 133<sup>rd</sup> meeting, welcoming members and assessors to the first face-to-face meeting for COMARE since March 2020. The meeting would be split into two sessions – open and closed – due to the minuting requirements of specific items.
- 1.2 The Chair noted that Professor Paul Pharoah has retired from the committee. He expressed the committee's thanks for Professor Pharoah's work and support during his time on COMARE. The new assessors for FSA and ONR were welcomed to their first meeting. The Chair welcomed two observers to the meeting, who would attend the open session of the meeting.
- 1.3 Apologies were received from Dr Jane Barrett, Dr Teik Chooi Oh, Dr Colin Martin, Professor Lesley Rhodes, Professor Malcolm Sperrin, Professor David Sutton, Professor Mireille Toledano and assessors for BEIS, DfE, EA, FSA, HSE, NHS Scotland, SEPA, SG and WG. 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 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 132<sup>nd</sup> COMARE Meeting

### i. Minutes, actions & matters arising

- 2.1 The Chair asked for comments or corrections to the minutes from the 132<sup>nd</sup> meeting. The minutes were agreed with no amendments. 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 noted that an ongoing action had been placed on BEIS to provide details of a consultation on a draft policy on radioactive substances. The BEIS assessor sent his apologies for this meeting; it is understood that the consultation has not yet opened.

- 2.3 The Chair reminded members that an action was placed on HSE at the last meeting to provide an update on the impacts of changes to the radon dose coefficients. The HSE assessor sent his apologies for this meeting and no update has been received.

- 2.4 The Chair informed members that Professor Rhodes had agreed to provide an update on the environmental effects of UV radiation. Professor Rhodes has sent her apologies for this meeting and provided a briefing paper for the item (4.v).

- 2.5 The Chair reminded members that it was agreed at the last meeting that two new subgroups should be established. The Chair thanked Professor de Vocht for agreeing to chair the EMF and Health Subgroup and Dr McCready-Shea for agreeing to chair the ICRP Recommendations Subgroup. The procedures for the two groups are still being formalised. Details of all the committee's working groups; subgroups and subcommittees will be published online once these have been confirmed.

**[Action: Secretariat]**

- 2.6 It was noted that the actions from the CWG update at the last meeting would be covered under item 4.i.

## 3. Committee Matters

### i. Correspondence and updates

- 3.1 The Chair informed members that three FOI requests have been received since the last meeting. There have been four Parliamentary Questions which mention COMARE since the last meeting, all regarding sunbeds and skin cancer. Reference was made to the 13<sup>th</sup> COMARE Report (2009) on health effects and risks from UV sunbeds. It was noted that this advice may be viewed as out of date. The Chair agreed to discuss with DHSC and Professor Rhodes whether an update was required.

**[Action: The Chair]**

- 3.2 The Chair informed members that there have been several email enquiries. Two enquiries concerned ionising radiation issues regarding contaminated goods and were responded to by the Secretariat. Four emails concerning EMF matters were passed onto the EMF and Health subgroup for information.

#### 4. Working Group Reports:

##### i. Contaminations Working Group (CWG)

- 4.1 The Chair informed members that the CWG met on 14<sup>th</sup> November 2022 and asked the CWG Chair, Professor Read, to update the committee on the meeting.
- 4.2 Professor Read provided a summary of the meeting, covering the beach monitoring programmes at Dounreay and Sellafield, the remediation work at Dalgety Bay and legacy contamination at a site in Stroud, Gloucestershire. Members were reminded that a small group from the CWG attended an online workshop arranged by Wood plc to consider proposals for the future beach monitoring programme at Sellafield. The workshop report is being finalised.
- 4.3 Members were informed about the visits made on 1<sup>st</sup> and 2<sup>nd</sup> November 2022 by a small group from the CWG to the Sellafield site and the Low Level Waste Repository (LLWR) site near Drigg. Professor Read and other members of the CWG who had attended the sites updated the committee on the visits. The open nature of the staff at the sites was welcomed and acknowledged by the visiting group. Thanks were given to the NDA assessor and to Sellafield Ltd and LLWR for organising the visits. The ground-water contamination and the remediation programme of the Magnox Swarf Storage Silo (MSSS) were discussed during the visit to Sellafield. At the LLWR site, the group discussed monitoring programmes and plans to cover the site by 2130. It was noted that the consideration of nuclear waste is in the remit of the Committee on Radioactive Waste Management (CoRWM). There has been communication between the Chairs of COMARE and CoRWM, which it is hoped will continue.
- 4.4 Members were informed that the visiting group are producing a note about the visits, which will go to CWG members and COMARE members.
- [Action: CWG visiting group]**
- 4.5 The EA assessor gave an update on the Sellafield Beach Monitoring Programme. The current programme is nearing completion, with 91 hectares of beach monitoring completed against an annual target of 105 hectares. A total of 40 particles and 4 larger objects have been recovered, with no intervention required. The finds are in line with those in previous years. The notification and intervention protocol for particles on West Cumbrian beaches has now been published<sup>1</sup>.
- 4.6 The EA assessor provided information on one action regarding the magnitude of uncertainty for the MSSS leak. A second action regarding the release of the Sellafield Ltd mitigations report is ongoing.
- 4.7 The Chair commented on the Sellafield Ltd consultation on the future beach monitoring programme, the subject of the online workshop by Wood plc earlier in the year. The CWG members who attended the workshop expressed the opinion that monitoring should continue to cover the same locations so that temporal trends would be appropriately recorded, but that reassurance might be achieved with a reduced programme, perhaps a 50% reduction to 75 hectares per year.
- 4.8 The SEPA assessor gave a brief update on the current situation at Dalgety Bay. The second season of remediation has now been completed, with work suspended in October 2022 due to overwintering birds. Finds were comparable with those in the first season of monitoring, with radium contamination found all over the site but no hotspots. SEPA have

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<sup>1</sup> <https://www.gov.uk/government/publications/sellafield-radioactive-objects-notification-and-intervention-plan>

made weekly visits during the remediation work. Signage and a FEPA ban remain in place and the contractor is carrying out monthly monitoring. SEPA has continued to undertake drone surveys to monitor sediment movement, which will inform future monitoring. The next season of remediation will start in April 2023 and is expected to take 2 to 3 months to complete.

- 4.9 The SEPA assessor gave a brief update on the current situation at Dounreay. There have been no finds on the foreshore since March 2022, though there have been some minor particles found on Sandside beach. The Particles Retrieval Advisory Group (Dounreay) (PRAG(D)) have not met since the last COMARE committee meeting.
- 4.10 Members discussed the use of terms such as “high activity” or “low dose”, noting that these terms can have different implications depending on the context. It was suggested that committees should standardise such terminology. The Chair agreed to consider how to deal with this issue.

**[Action: The Chair]**

- 4.11 Members discussed the recent publicity on the remediation work at Dalgety Bay. The SEPA assessor confirmed that there is liaison with local stakeholders on the remediation programme. The publicity has shown the success of the conveyor system used in the remediation. It was noted that there had also been publicity on the high levels of finds on the Dounreay foreshore at the start of the year. SEPA remain content with the level of monitoring undertaken at the site.

## ii. Authorisations Working Group (AWG)

- 4.12 The Chair noted that the Chair of the AWG, Professor Sutton, sent his apologies for this meeting and asked Professor G Smith to comment on the AWG response to a consultation on an environmental permit radioactive substances activities application for Sizewell C. The AWG made a submission on 21<sup>st</sup> September 2022 with comments on the assessment. It was noted that collective doses were presented but that context was needed for the calculations to convert the estimates to public health risk. The EA assessor commented that operators and regulators are not best placed to convert collective dose to risk of health effects. It was noted by members that there was an ongoing debate as to the value of assessing collective dose.

## iii. EMF and Health Subgroup (EAHS)

- 4.13 Professor de Vocht reported that this new subgroup had its first meeting on 1<sup>st</sup> November 2022. The membership of the subgroup consists of COMARE members and two external experts.
- 4.14 The terms of reference, remit and membership were discussed by the subgroup. The EAHS’s remit is to provide advice to the main committee on issues with EMF that affect human health, with a watching brief regarding new publications. The remit and ToR will be reviewed in 12 months.
- 4.15 The EAHS has considered some issues raised from correspondence. The precautionary approach used in the Netherlands not to build around power lines was considered with reference to the differences in approach in the UK. A link to a document on the approaches across Europe has been shared with the Committee. A concern was raised on the effects of EMF exposure on flora and fauna. It was noted that COMARE considers matters of public health related to radiation exposure and the Committee’s remit does not extend to the consideration of effects on flora and fauna, but that it reserves the right to comment on environmental effects if considered appropriate.

- 4.16 The EAHS also considered concerns raised on electromagnetic hypersensitivity (EHS). The subgroup sympathises with those that experience EHS. The subgroup will focus on the science and there is insufficient compelling evidence at present to suggest that experienced symptoms are related to EMF exposure. The EAHS will maintain a watching brief on the evidence for EHS.

**[Action: EAHS]**

#### iv. UKHSA update on EMF and health

- 4.17 The UKHSA assessor provided a summary of the briefing note supplied to members on EMF and health, which covered the following topics:

*International developments:*

- WHO developments
- SCHEER Public Consultation on Preliminary Opinion on RF EMFs
- European Union Horizon Europe 5G Projects (GOLIAT, SEAWAVE, NextGEM, ETAIN)
- Reports from other countries
  - New Zealand Ministry of Health – Interagency Committee on the Health Effects of Non-ionising Fields
  - Health Council of the Netherlands

*UK developments:*

- EMF-related Policy Activities
    - Health and Safety Executive
  - Research activities related to EMF and health
    - Airwave Health Monitoring Study Tissue Bank
    - COSMOS – Cohort Study of Mobile Phone Use and Health
    - SCAMP – Study of Cognition, Adolescents and Mobile Phones
    - UKHSA research activities (including EU FP7 EMF projects and the Smart meter project)
  - Areas of public and occupational concern and national responses
    - exposure to radio waves from 5G technologies
- 4.18 Members discussed the EU projects. It was noted that SCHEER uses predefined terminology in evaluating evidence across a range of topics and provides a good overview of the state of the current science. Members discussed the interpretations of evidence in the information paper by the International Commission on the Biological Effects of Electromagnetic Fields, noting it was a position paper by a self-appointed group. It was also noted that the EU Horizon projects are giving a broad overview on exposure of workers. Members were informed that 6G technology is now on the horizon. It was suggested that the EAHS should consider future evidence on this and report back to the Committee.

**[Action: EAHS]**

- 4.19 The Chair asked the observers for any questions regarding the discussions on EMF. The Committee was asked about studies and funding. It was noted that for the Mobile Telecommunications and Health Research (MTHR) Programme the funding was from both industry and government and that to ensure the independence of the research, scientific management of the programme was entrusted to an independent Programme Management Committee. The Committee was also asked about the validity of using ICNIRP publications as a reference. It was noted that there are two main international

groups (ICNIRP & IEEE) who produce guidance. IEEE guidelines are used more in the US.

#### v. ICRP Recommendations Subgroup (IRS)

- 4.20 Dr McCready-Shea reported that the IRS met on 5<sup>th</sup> October 2022 and agreed the terms of reference, the remit, and the ways of working of the subgroup. Membership consists of COMARE members.
- 4.21 It was agreed that the subgroup will follow the output of ICRP and other agencies, providing a synopsis to COMARE. The subgroup will draft COMARE responses to ICRP consultations, and in due course, comment on implications for public health in the UK, as appropriate. It is recognised that this work will have a long time-frame and that COMARE assessors would be involved as required.
- 4.22 Members were informed that the NEA has an expert group looking at the same areas and that IRPA are also maintaining a watching brief.

#### vi. Environmental effects of UV radiation

- 4.23 The Chair informed members that although Professor Rhodes was not able to attend this meeting, a briefing note had been provided to members and that Professor Rhodes would welcome any questions.

**[Action: Members]**

#### vii. UKHSA update on Radon

- 4.24 The UKHSA assessor presented a briefing note on recent developments. This included work with HSE, with discussions on radon dosimetry; radon campaigns and public information; professional training, laboratory services, international collaborations, work programmes and publications. Members were informed that publication of an updated radon map for Great Britain was scheduled for 1<sup>st</sup> December 2022<sup>2</sup>.
- 4.25 Members noted the importance of the new map and commented on a potential conflict between the need for ventilation and energy conservation and associated possible health effects. Members discussed the dose coefficients used to convert radon concentration to dose and noted that there is a difference of opinion between UNSCEAR and ICRP.

#### 5. Information Papers.

- 5.1 Members highlighted papers of particular interest to the Committee, including a paper by Yu & Rimjaem that considered THz safety and a paper by Lopes et al which reported positive dose-risk relationships for cerebrovascular diseases and Parkinson's disease with ionising radiation. Members also discussed a paper by Russo et al concerning incidence of childhood leukaemia before and after the shutdown of nuclear power plants in Germany in 2011.
- 5.2 The Chair reminded members that suggestions of relevant publications, in particular papers published by them or their institutions, would be welcomed for future meetings.

**[Action: Members]**

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<sup>2</sup> <https://www.ukradon.org/information/ukmaps>

**6. AOB.**

- 6.1 It was noted that the Society for Radiological Protection (SRP) has raised the issue of the Government consulting on the Retained EU Law (Revocation and Reform) Bill (REUL). The Bill includes a sunset clause that will revoke REUL contained in domestic secondary legislation and retained direct EU legislation on 31<sup>st</sup> December 2023. There are over 2,000 pieces of legislation included in the scope of the Bill, including the IRR, IR(ME)R and other radiation-related legislation. Possible options include retaining, reforming, sunseting or extending the deadline for decision.

**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 on Wednesday 8<sup>th</sup> March 2023. The format will be confirmed in due course. The Chair then declared the meeting closed at 1.44pm.