

## COMMITTEE ON MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT

124<sup>th</sup> COMARE meeting, Wednesday 20<sup>th</sup> November 2019  
Skipton House, London

**Present**

**Chair:** Dr Chris Gibson

**Members:** Dr Paul Darragh  
Professor Brenda Howard  
Dr Ray Kemp  
Professor Stewart Martin  
Professor Stephanie McKeown  
Professor Paul Pharoah  
Professor Roger Taylor  
Professor Mireille Toledano

**Assessors:** BEIS  
DHSC  
DoH NI  
EA  
FSA  
HSE  
ISD (NHS Scotland)  
NDA  
ONR  
PHE  
SEPA  
SG  
WG

**Secretariat:** Dr Simon Mann (PHE)  
Dr Emma Petty (PHE)

**Observer:** Member of the UK & Commonwealth EMF Action Group  
(attended for items 3-10)

**Aides for observers:** PHE Staff

## COMARE 124<sup>th</sup> Meeting

### CLOSED SESSION

#### ITEM 1 COMARE publications in progress

- i. **Interventional radiology issues**
- 1.1 The minutes for this item were considered as reserved business as it concerned pre-publication material.

#### ITEM 2 Studies in progress

- i. **Cancer incidence in the vicinity of Dalgety Bay**
- ii. **SAHSU update**
- 2.1 The minutes for these items were considered as reserved business as they concerned pre-publication material.

### OPEN SESSION

#### ITEM 3 Welcome & declarations

- 3.1 The Chair commenced the open session of the 124<sup>th</sup> meeting and welcomed members. He expressed thanks for the previous contributions from a DHSC assessor, who has left the sponsor team, and welcomed her replacement. It was noted that the deputy director who held responsibility for COMARE has retired from DHSC and a new deputy director has taken on the role. An invitation will be made for them to attend the meetings.
- 3.2 The Chair informed members that the assessors for WG and ISD (NHS Scotland) had both retired and he welcomed the replacement assessors. He welcomed the substitute assessor for this meeting from SEPA. The aide from PHE who would be escorting the observer to and from the meeting was also welcomed. The Chair welcomed the member of the UK & Commonwealth EMF Action Group, who would be observing the meeting.
- 3.3 The Chair noted that Mr Geoffrey Roberts, a scientific secretary for COMARE from 1985 to 1988, had recently died, aged 86.
- 3.4 The Chair advised members that papers marked for members' use only should remain confidential. Members were asked to declare any interests during the meeting. No declarations were given.
- 3.5 Apologies were received from Dr Jane Barratt, Dr Frank de Vocht, Professor John Harrison, Dr Colin Martin, Dr Richard McNally, Dr Tom Nunan, Professor Graham Smith and Professor David Sutton. Apologies were also received from the assessors for DforE, DHSC, EA, FSA, FSS, MHCLG, SEPA and SG. The Chair reminded assessors that substitutes may attend the meeting.

## ITEM 4 Minutes of the 123<sup>rd</sup> COMARE meeting

### i. Minutes, actions and matters arising

- 4.1 The Chair asked for comments or corrections to the minutes of the 123<sup>rd</sup> meeting. The minutes were approved with no amendments. The minutes of the open session of that meeting would be published on the COMARE webpage. **[ACTION: Secretariat]**
- 4.2 The Chair informed members that the guidelines on submissions from observers have been reviewed and the agreed update to the open meeting procedures is now available on the COMARE webpage. He thanked members for their comments and noted that the revisions were taken to achieve a balance of openness and ensuring submissions add value to the work of the committee.
- 4.3 The Chair informed members that the 18<sup>th</sup> report, *Medical radiation dose issues associated with dual-energy X-ray absorptiometry (DXA) scans for sports performance assessments and other non-medical practices*, had been published on the COMARE webpage. Further work on this issue will be led by BEIS.
- 4.4 The Chair reminded members of the indication by the UK & Commonwealth EMF Action Group, detailed in the minutes of the last meeting, that a formal complaint may be lodged regarding the Chair's decision not to provide submitted information to the Committee. He advised members that a formal complaint has now been received from the Action Group, which was submitted in confidence to the Chair. As the complaint mainly related to the actions of the Chair, he had asked permission for the DHSC sponsor team to investigate. This investigation is ongoing.

## ITEM 5 Committee matters

### i. COMARE membership

- 5.1 The Chair informed members that the Committee currently has three vacancies: a lay member, a radiation scientist with interest in non-ionising radiation, and an interventional radiologist. Additionally, four members will be ending their term on the Committee next year. A recruitment round will be held for all these posts next year. The Chair noted that it is valuable for members to promote the posts on the Committee and members may wish to consider potential candidates. Members asked about possible mechanisms for promoting the vacancies. The Chair acknowledged that there would be a formal application process, but that other mechanisms, such as social media, could be used for promotion.

**[ACTION: Members]**

### ii. Correspondence & communications

- 5.2 The Chair informed members that a briefing note was received from Dr Kevin Burchell at the University of Manchester regarding 'Sunlight exposure and vitamin D'. The briefing note, which promoted the need to balance getting enough sunlight for vitamin D production with minimising risks of sunburn and skin cancer, is available from the secretariat.
- 5.3 The Chair advised members that one Freedom of Information (Fol) request had been received since the last meeting, requesting information on research on the safety of 5G.

- 5.4 The Chair referred members to the two-page submission from the UK and Commonwealth EMF Action Group, which was supplemented with a list of references provided by the Group. It was noted that the submission was appropriate for consideration at this particular meeting as the topic of EMF and health would be discussed later with the annual PHE update. The Chair asked for members' comments on the submission. He noted that one comment had been received in advance from Dr Frank de Vocht, as he would not be present at the meeting. Dr de Vocht had queried the interpretation of the GERoNIMO study in the submission, stating that he believed the group's summary of the GERoNIMO results was incorrect (with the possible exception of cognition and behaviour). Dr de Vocht had commented that he thought that GERoNIMO was largely negative with respect to cancers, birth outcomes and co-carcinogenicity. The Chair quoted from the executive summary of the GERoNIMO report that '*There was no clear evidence for associations between RF or IF-EMF exposure and either glioma or meningioma risk*'. Members queried the meaning of the terminology used in the submission of 'quietly published'. The member of the UK & Commonwealth EMF Action Group clarified that publication was made without a press release.

#### ITEM 6 Working group reports

##### i. Contaminations working group (CWG)

- 6.1 The Chair drew members' attention to the particle updates received by the CWG since the last COMARE meeting. He advised members that the CWG met on 19<sup>th</sup> November 2019 and discussed the monitoring programmes at Sellafield, Dounreay and Dalgety Bay.

##### Sellafield

- 6.2 The EA assessor presented an update on the Sellafield beach monitoring programme to the Committee. Up to the end of September 2019 monitoring was completed for 116 out of 150 hectares (77%). There were 75 finds, of which 73 were particles (<2 mm). This was comparable with find rates in previous years. In October 2018 a particle was found with an activity above the 100 kBq of Cs-137 analysis trigger level. Further analysis indicated the dose rate was well below the 300 mSv/h beta-equivalent dose rate limit. Sellafield Ltd has published its 2018 Particles in the Environment annual report including an analysis of storm events and correlation with particle finds. No correlation was determined from the monitoring at Sellafield. The strong correlation with storm events which has been determined Dounreay is thought to be due to the different dynamics of the sea. It was noted that the source of particles at Dounreay is also different to that at Sellafield.
- 6.3 Members discussed the two draft documents of PHE's risk assessment for Sellafield – the technical report and the summary report. The documents had also been reviewed by the CWG. The CWG had commented on the wording used for reassurance in the reports. The discussions at the CWG meeting highlighted the amount of information held in relation to this work and it was agreed that the knowledge management of the information would be reviewed. The CWG supported the conclusions of the risk assessment. The reference to an HSE document in the risk assessment was queried and would be clarified.

[ACTION: EA]  
[ACTION: PHE & HSE]

6.4 It was noted that the aim of the summary risk assessment was to provide a lay perspective for the general public. There was discussion on the use of risk comparisons and members suggested it might be useful to include a diagram on risk, to reduce the number of words used. The Committee agreed that the document was clear to read, and the conclusions were straightforward. Members queried how the information would be made available and were advised that the documents would be published online, as well as being disseminated to local stakeholder groups.

[ACTION: EA & PHE]

6.5 Members discussed the intervention levels set for the monitoring programme. These are being reviewed by the Sellafield Particles Working Group and will be discussed at the next CWG meeting.

[ACTION: EA]

6.6 The EA assessor referred members to the proposed particle monitoring programmes and highlighted that the total proposed area for monitoring would be reduced from 150 to 105 hectares for 2020. Sellafield beach remains the main focus of the programme, with monitoring continuing for the Northern and Southern beaches, and the sentinel beach at Allonby. Monitoring will be undertaken in each quarter, but with flexibility on timing for practicality reasons for the contractors and based on the absence of a seasonal link with particle find rates. It was felt that there was a good set of data on monitoring, finds and habits available now and the proposed ongoing monitoring programme would detect any changes. It was noted that the CWG supported the proposal and there was no justification for targeted monitoring around holiday periods.

6.7 The Chair asked the EA assessor to provide an update on recent reported events at Sellafield. The EA assessor informed members of two leakage events that have occurred on-site. Information on both events is on the [Sellafield Ltd incident reports](#) page on gov.uk. The first event is a leak from a redundant sludge tank which was historically used for the treatment of sludge from the First Generation Magnox Storage Pond. Water in the tank, used to prevent airborne release, has been found to be leaking to the ground. The second is from a Magnox Swarf Storage Silo, where historic leaks from the 1970s are thought to have reoccurred. The liquor balance model has shown loss between July and October 2019. There is no offsite leakage currently from either leak. ONR is the lead regulator on these issues, and is working with EA. The EA assessor agreed to provide an update at the next CWG meeting.

[ACTION: EA]

**ii. Authorisations working group (AWG)**

6.8 In the absence of the AWG Chair, the Chair informed members that the AWG has two consultations under consideration. One consultation concerns a permit application for the Port Clarence landfill site in Teeside to accept and dispose of low level radioactive waste; the other concerns an application to vary the radioactive substances activities permit at Sellafield. No comments were given by members.

**ITEM 7 Working party reports**

**i. Cardiovascular effects scoping exercise**

7.1 The Chair reminded members that a teleconference earlier this year concluded that there was sufficient evidence to take this exercise further. The proposal to include this

on the work programme has been discussed with DHSC, who have asked for a submission to clarify the intent of the work. Comments were invited from members on the draft submission for the cardiovascular effects project and on the definition of low level radiation exposure. Professor McKeown noted that ICRP definitions of dose levels are due to be published next year, which may be of relevance.

- 7.2 Members questioned the overlap with existing Committee work. It was thought that Working Party members would be drawn from COMARE membership and some external experts may be co-opted. A short report would be anticipated from the work.
- 7.3 The Chair agreed that the submission would be finalised and provided to DHSC.

**[ACTION: Secretariat]**

## ITEM 8 PHE updates

- 8.1 The PHE assessor provided a general update from PHE on the following issues:

### i. **EMF and health**

International developments:

- WHO and IARC developments
- ICNIRP Guidelines
- ICNIRP Note 2019 – Critical evaluation of two animal carcinogenicity studies

UK developments:

- General research activities related to EMF and health
- Airwave Health Monitoring Study
- COSMOS – cohort study of mobile phone use and health
- SCAMP – study of cognition, adolescents and mobile phones
- PHE research activities (including MobiKids and Home area network & smart meters)
- Areas of public and occupational concern and national responses
- New public information activities

- 8.2 The Chair commented that there was considerable ongoing UK activity in EMF research. Members discussed the potential for radiofrequency fields to be included in the IARC monographs programme during 2020-2024. Members also discussed the 10 topics chosen for the systematic reviews by the WHO and noted that these included two relating to electrohypersensitivity. Professor Toledano reported that the COSMOS study is progressing well with the cancer data compilation. The analysis of the data should commence in 2020.
- 8.3 Members discussed the information paper on 5G wireless communications and health effects by Simko & Mattsson, noting that 94 studies had been reviewed but there was a paucity of human epidemiological studies. Members remarked on the last line in the abstract of the paper, which highlighted that studies needed to be better designed, and also questioned how relevant animal studies were to people.
- 8.4 Members questioned how the Committee would approach the review of the WHO report, when it is released, and what skills were available in the UK to assist with this. The Chair reminded members that a vacancy currently exists on the Committee for a radiation scientist with interest in non-ionising radiation. The skill sets of current members would be considered and a review of the expertise required on the Committee would be undertaken for the annual recruitment round in 2020. It was noted that the topics selected for the systematic reviews indicated the wide range of skills

required to undertake such a primary review of evidence. However, COMARE's role in reviewing the report will be to advise DHSC on the implications for the UK.

**[ACTION: Chair & Secretariat]**

**ii. Radon**

- Implementation of the EU Basic Safety Standards Directive
- Dose conversion factors (DCF) for radon
- IAEA International Regulatory Review Service (IRRS) mission to UK – October 2019
- Research and guidance on radon
- Targeted radon campaigns and public information

8.5 The Chair noted that the proposal for a two-fold increase in dose from updated radon conversion factors could have implications for employers. The HSE assessor replied that the HSE was working with PHE on this issue.

8.6 The Chair asked about any correlation being determined when the atlas of Variation of Respiratory Disease was compared with the radon atlas. The PHE assessor agreed to investigate this.

**[ACTION: PHE]**

**ITEM 9 Information papers**

9.1 The Chair noted that a selection of information papers had been circulated to members, covering both ionising and non-ionising radiation topics of interest for COMARE. There were no further comments from members on the information papers provided for this meeting. Members were asked to bring forward any interesting papers, particularly strong review papers and new science, for future consideration.

**[ACTION: PHE]**

**ITEM 10 AOB**

10.1 The Chair noted that as Professor Brenda Howard would not be present at the 125<sup>th</sup> meeting, this was her last COMARE meeting. He thanked Professor Howard for all her input into the work of the Committee.

10.2 There was no other business raised. The Chair thanked members for attending and closed the meeting at 1.50 pm.

## Abbreviations

AWG	Authorisations Working Group
BEIS	Department for Business, Energy & Industrial Strategy
CNS	central nervous system
Cs-137	caesium-137
CWG	Contaminations Working Group
DCF	dose conversion factor
DforE	Department for Education
DHSC	Department of Health and Social Care
DoH NI	Department of Health for Northern Ireland
DXA	dual X-ray absorptometry
EA	Environment Agency
EMF	electromagnetic field
FoI	Freedom of Information
FSA	Food Standards Agency
FSS	Food Standards Scotland
HSE	Health & Safety Executive
IAEA	International Atomic Energy Agency
IARC	International Agency for Research on Cancer
ICNIRP	International Commission on Non-Ionizing Radiation Protection
ICRP	International Commission on Radiological Protection
IR	Interventional Radiology
ISD	Information Services Division (NHS Scotland)
kBq	kilo-Becquerels
LNHL	leukaemia and/or non-Hodgkin's lymphoma
MHCLG	Ministry of Housing, Communities & Local Government
mSv	millisievert
NDA	Nuclear Decommissioning Authority
ONR	Office for Nuclear Regulation
PHE	Public Health England
RCR	Royal College of Radiologists
RF	radiofrequency
SAHSU	Small Area Health Statistics Unit
SEPA	Scottish Environment Protection Agency
SG	Scottish Government
SIR	standard incidence ratio
WG	Welsh Government
WHO	World Health Organisation