

COMMITTEE ON MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT

123rd COMARE meeting, Tuesday 9th July 2019
MRC Conference Centre, London

Present

Chair: Dr Chris Gibson

Members: Dr Paul Darragh
Dr Frank de Vocht
Professor John Harrison
Professor Brenda Howard
Dr Colin Martin
Professor Stewart Martin
Professor Stephanie McKeown
Dr Richard McNally
Professor Paul Pharoah
Mr Graham Smith
Ms Helen Warner

Assessors: DoH NI
EA
FSA
HSE
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 3-6)

Aides for observers: PHE Staff

COMARE 123rd Meeting

CLOSED SESSION

ITEM 1 Studies in progress

- i. **SAHSU update**
- 1.1 The minutes for this item were considered as reserved business as it relates to pre-publication material.

ITEM 2 Committee procedures

- i. **Handling of written and verbal submission to the Committee**
- 2.1 The minutes for this item were considered as reserved business.

OPEN SESSION

ITEM 3 Welcome & declarations

- 3.1 The Chair opened the open session of the 123rd meeting and welcomed members. He welcomed Professor Stewart Martin to his first meeting since being appointed a COMARE member. The Chair informed members that Dr Peter Riley had resigned from the Committee and that a letter thanking Dr Riley for his contributions to the Committee had been sent. He also announced that this would be Ms Helen Warner's last meeting. Ms Warner was one of the first lay members to join the Committee and had also served on several subcommittees. He thanked Ms Warner for her work with the Committee
- 3.2 The Chair informed members that the current assessor from ONR was retiring and he welcomed the new ONR assessor. The aides from PHE who would be escorting the observer to and from the meeting were also welcomed. The Chair welcomed the Member of the UK & Commonwealth EMF Action Group, who would be observing the meeting.
- 3.3 The Chair advised members that papers marked for members' use only should remain confidential. Members were asked to declare any interests during the meeting.
- 3.4 Apologies were received from Dr Jane Barratt, Dr Ray Kemp, Dr Tom Nunan, Professor David Sutton, Professor Roger Taylor and Professor Mireille Toledano. Apologies were also received from the assessors for BEIS, DforE, DHSC, EA, FSS, ISD, MHCLG, NDA and SG and from Mrs Samantha Watson (PHE Secretariat). The Chair reminded assessors that substitutes may attend the meeting.

ITEM 4 Minutes of the 122nd COMARE meeting

- i. **Minutes, actions and matters arising**

- 4.1 The Chair asked for comments or corrections to the minutes of the 122nd meeting. The minutes were approved with no amendments and the minutes of the open session would be published on the COMARE webpage.

[ACTION: Secretariat]

- 4.2 The Chair reminded members that at the last meeting a request was made for them to consider submitting 360° feedback on the performance of the Chair and the handling of Committee processes by the secretariat. A number of members have submitted feedback

to DHSC. Whilst the provision of feedback is not obligatory, the Chair encouraged those members who had not submitted feedback to consider doing so.

[ACTION: Members]

ITEM 5 Committee matters

i. COMARE membership

- 5.1 The Chair advised members that two vacancies were advertised in March. There were several applications for the radiobiologist post and unfortunately none for the radiation scientist with an interest in non-ionising radiation. Professor Martin was the successful radiobiology candidate. The Chair welcomed Professor Martin and Dr Mann formally introduced him to the Committee.
- 5.2 The Chair noted that there were two expert member posts vacant on the Committee. Members were advised that DHSC will undertake two campaigns in the next year, one for the appointment of new members and one for the reappointment of existing members. The Chair added that vacancies on the Committee should be regarded as an opportunity.

ii. Correspondence & communications

- 5.3 The Chair informed members that a position statement was published by the British Institute of Radiology (BIR) on 27th June 2019 on Radiation Safety Culture and Image Optimisation Teams. The statement includes '*In particular, the BIR endorses the recommendation by the Committee on Medical Aspects of Radiation in the Environment (COMARE) that departments form local Image Optimisation Teams (IOT) and identify champions within each discipline to raise awareness and lead on radiation safety education*'. This relates to recommendation 7 of the 16th COMARE report. The Chair added that it was encouraging that this was being taken forward by the BIR and it would be interesting to see how this would work in practice.
- 5.4 The Chair advised members that one Freedom of Information (FoI) request had been received since the last meeting, asking for details on the Committee's 5G Strategy. The response noted that COMARE has not been asked to look at 5G concerns and therefore does not have a 5G strategy.
- 5.5 The Chair noted that FOI requests are only one aspect of communications for COMARE, there are other queries from the general public and stakeholders, and potential submissions from observers. The open meeting process should be beneficial to both observers and the Committee. The Committee is interested in peer-reviewed science relevant to its remit and work programme. It is not helpful for the Committee to receive opinions.
- 5.6 The Chair informed members that since January 2018 more than 50 emails have been received from the UK & Commonwealth EMF Action Group. One of the most recent emails queried the Chair's decision not to provide information submitted by the Action Group to the Committee. The information submission request from the UK & Commonwealth EMF Action Group was refused for this meeting to allow a discussion by the Committee on the handling of submissions. The email from the UK & Commonwealth EMF Action Group indicated that if the Chair did not allow the submission to go to the Committee, a formal complaint may be submitted. The Chair sought the views of the Committee in relation to this. Members determined that it was unreasonable for all information received to be forwarded to members for their review. There was agreement that the Chair is justified in filtering information for the Committee. Information put to the Committee must be relevant to the work programme and COMARE's remit, and be based on published peer-reviewed

literature. Members agreed that submissions made by observers must be succinct. It was suggested that more guidance should be given as to the type of submitted information acceptable to the Committee. It was noted that submissions from members follow the guidelines of relevance to the Committee and of being from peer-reviewed journals, therefore observers would be asked to follow the same guidelines as members. The Chair agreed that the guidance for submissions would be reviewed to improve focus.

[ACTION: The Chair, Secretariat & Members]

a. EMF presentation from March 2019

- 5.7 The Chair reminded members of the verbal submission given to the Committee at the last meeting by the Member of the UK & Commonwealth EMF Action Group and stated that the notes of the submission had been circulated to members. It was agreed at the last meeting that members would be given the opportunity to discuss the information in the submission at the current (123rd) meeting. It was noted that some elements of the submission were general comments on regulatory processes and there were not many references to new scientific material. Members agreed that it is not COMARE's remit to comment on other organisations, but it is in the Committee's remit to review the science.
- 5.8 The Chair informed members that a Westminster Hall Debate had been held on 22nd June on the health effects of Electromagnetic Radiation. Such debates require a response from the minister. The debate can be viewed via the [Parliamentlive.tv](https://www.parliamentlive.tv). A number of MPs raised concerns from their constituencies regarding 5G and electrosensitivity. The Parliamentary Under Secretary of State for Health and Social Care, Ms Seema Kennedy, noted that COMARE had a watching brief on non-ionising radiation. The Chair added that it was important for COMARE to maintain that watching brief and to continue with the annual updates from PHE.
- 5.9 Members queried when the WHO review would be published. It was noted that no information had been given by WHO on timelines. The process for producing the report has become more systematic and the most recent update from WHO was regarding what systematic reviews would be commissioned to take this work forward. It is a huge piece of work and the report is not imminent. WHO can gather expertise from all over the world and has authority world-wide. Members agreed that WHO were better placed to undertake a review on radiofrequency electromagnetic fields and there was no advantage in the UK trying to replicate the work. An update on the WHO work would be given in the PHE update at the next meeting. The Chair set the scale of the task by noting that WHO has identified 25,000 publications on EMF risks, so the review process is very significant.

ITEM 6 Working group reports

- i. **Contaminations working group (CWG)**
- 6.1 The Chair drew member's attention to the particle finds considered by the CWG. Members had no comments on the paper. The Chair noted that there had been no significant changes in the pattern of particle finds on the beaches being monitored.
- 6.2 Professor Harrison declared an interest and informed members that he had been contracted by EA to provide a report on doses and risks from exposure to radioactive particles. This was presented to EA, but also made available to PHE. He has also commented separately to PHE on their technical risk assessment report.

Sellafield

- 6.3 The EA assessor advised members that for the current 2019 beach monitoring programme 56 Ha of beach had been monitored of the 150 Ha target, up to 1st May 2019. There had been 23 particles and 1 object retrieved. The find rate and activities of particles retrieved were consistent with previous years. One particle with high Cs-137 level (132 kBq) was detected in October 2018 and this was taken for further analysis.
- 6.4 At their 13th meeting, the CWG considered a draft of the technical report on the risk assessments of particles. The draft summary document was provided to members for this meeting and includes the methodology used by PHE, the probability of encounter and commentary on what might happen in the future. The summary document covers the probability of a fatal cancer from encountering a particle. The justification for continuing with the current level of beach monitoring based on health risks alone was discussed. Members were informed of the varying risk levels for the beaches and the impact of occupancy levels. The level of caution used in the risk assessment was discussed by the CWG. More information on skin doses has been given in the technical report. One improvement to the summary report would be to expand the section on skin doses.
- 6.5 Members noted that it was difficult to form a judgement on the summary report without having seen the technical report. The PHE assessor noted that the technical report was being finalised. The EA assessor added that it could be circulated to the Committee once completed. The Chair replied that it would be useful to have the detailed report as a paper for the next COMARE meeting.
- [ACTION: EA]**
- 6.6 Members suggested that including examples of risks for individuals, e.g. a child, would help in showing how the risks are calculated. The use of the word 'very' was also queried as to what it actually meant in practice. Members suggested that comparisons against other risks could also be included, although it was noted that the report did contain other beach risks. The EA assessor replied that the selection of other risk comparisons was difficult, and the report could be criticised for including inappropriate ones. Members felt that the report would be understood by lay persons, but that inclusion of examples would be helpful.
- [ACTION: EA]**
- 6.7 The SEPA assessor noted that there are some differences in the approaches taken by England and Scotland, and SEPA would welcome the opportunity to discuss these with EA.
- 6.8 The EA assessor advised members that the proposed particle beach monitoring programmes paper had been discussed by the Sellafield Particles Working Group. The paper covers the principles applied for a monitoring programme, with guidance used in England, Wales and Scotland. It is appropriate for this guidance to be used for the Sellafield beach monitoring programme moving forward. An indicative monitoring programme is given in the paper for 2020, which includes monitoring of a far-field location. There are contractual and commercial considerations to be taken into account for this being progressed through to 2025.
- 6.9 The EA assessor noted that COMARE had offered Sellafield Ltd advice a number of years ago regarding the monitoring of high occupancy beaches during peak seasons. Compromises were made to the programme to cover each side of the holiday period. The EA assessor noted that the proposed programme would limit flexibility of monitoring and EA would welcome a reconsideration of COMARE's advice. It was stated that there is no

temporal variation through the year in terms of risk and no obvious correlation with storm events. The people at the highest risk use the beaches throughout the year.

- 6.10 Members questioned the minimum level of monitoring required to be able to detect the low-level risk. The EA assessor stated that Sellafield Limited calculated that 1 Ha was required to stay below the 10^{-6} trigger level; however, it was recognised that this was not practical, and a larger area would need to be monitored. Members noted that the trigger levels for intervention appeared high compared with the actual find rates. The EA assessor suggested this could be discussed at the next CWG meeting.

[ACTION: EA & CWG members]

- 6.11 Returning to the idea of providing examples, the Chair noted that if one of the examples was a summer holiday child and their risk was shown to be very low, that would be useful in relation to seasonality. He added that the Committee should review the technical risk assessment before commenting on the proposed monitoring programme.

Dounreay

- 6.12 The SEPA assessor informed members that no particles had been detected since 4th April 2019. The monitoring programme is running to plan.
- 6.13 The Particles Retrieval Advisory Group (Dounreay) (PRAG(D)) held a meeting in May. The draft results are available for the destructive analysis of the high-americium particle and are being evaluated. Negligible activity was removed into the solution. The group reviewed the 208 surveys and the success of the hand-held surveys, which will continue. The off-site wave height and wind modelling is now correctly modelling the movement on the sea bed and the translocation of particles to Sandside beach. The site's Best Practicable Environmental Option (BPEO) study has been completed and no significant changes have been identified.
- 6.14 The PRAG(D) are still looking for a replacement statistician, so further work is on hold until that vacancy is filled.

Dalgety Bay

- 6.15 The SEPA assessor advised members that particles are still being detected and the monitoring is continuing. Following recent poor weather, repairs were made to a barrier fence. Monitoring was also undertaken of the mussel beds, with no particles detected.
- 6.16 A 180 kBq particle was detected in the high activity area but was not recovered by the MoD contractors. SEPA have carried out further spot checks of the monitoring area and found two more additional particles. The MoD is investigating the issue of particle detection with the contractor.
- 6.17 The MoD has taken the requirements for remediation out to tender. It is hoped that a contractor will be on site by Spring 2020, but this is dependent on the tender and the granting of permits.
- 6.18 Members discussed the challenges of monitoring the mussel beds. It was noted that members of the public are observed digging in the beds, so the area still needs to be actively monitored.
- 6.19 The Chair advised members that the cancer incidence report for Dalgety Bay was still to be published. COMARE will publish a statement on the report once it has been published.

[ACTION: The Chair]

ii. Authorisations working group (AWG)

- 6.20 In the absence of the AWG Chair, the Chair informed members that the AWG had submitted a response to the consultation on an application for a permit variation for the Lillyhall landfill site. No other consultations were being considered at this time.

ITEM 7 Working party reports

i. Cardiovascular effects scoping exercises

- 7.1 The Chair reminded members that the working party had held a teleconference in January to consider available evidence on the potential association between low to medium level ionising radiation exposure and cardiovascular disease (CVD). The Chair has agreed to discuss this with DHSC in August and will come back at the November meeting for agreement from the Committee on how to take this forward.

[ACTION: The Chair]

- 7.2 If further work is agreed, members will be asked to volunteer to participate in the project.

ITEM 8 COMARE publications in progress

i. Interventional Radiology (IR) issues

- 8.1 Professor McKeown informed members that the Subcommittee had held its 4th meeting on 20th May. The outline of the report has been restructured to be more in line with the 16th COMARE report and now has a more logical chapter order. Approximately 60% of the report is still to be drafted. Professor McKeown detailed the current chapters for the report. She noted that only a few responses had been received from the hospital survey and only a very few of those provided information on neuroradiology. It is recognised that the survey takes around three hours to complete, which may be a factor in the level of response.

- 8.2 It is hoped that a more complete draft of the report will be ready by the end of September. This will be reviewed by the Subcommittee at their next meeting in November. The aim is to bring a draft report to the main Committee for the March 2020 meeting. Professor Martin and Professor Taylor noted possible contacts with the British Institute of Radiology (BIR) and the Royal College of Radiologists (RCR).

[ACTION: MPS(IR)]

- 8.3 The Chair welcomed the progress being made on the report and requested that the key principles from the report would be shared with members at the November meeting.

[ACTION: MPS(IR)]

- 8.4 Members discussed the evidence of tissue reactions following IR procedures and the types and usage of dosimeters by staff. Professor McKeown confirmed that the use of dosimeters was included in the report and may lead to recommendations.

ITEM 9 COMARE submitted reports

i. DXA scanning issues

- 9.1 The Chair informed members that the report has been fully approved for publication. A formal submission noting the publication went to the Secretary of State for acknowledgement. The Chair understood that the Department of Health and Social Care (DHSC) would be liaising with the Department for Business, Energy and Industrial Strategy (BEIS) on the justification process.

9.2 The Chair thank Dr Martin for his work in producing the report.

ITEM 10 COMARE published reports

i. 13th report – Artificial tanning devices

10.1 The Chair reminded members that COMARE's 13th report, on the health effects and risks from artificial tanning devices, was published in 2009. The report made a number of recommendations, including banning sunbed use by under 18s, which was incorporated into the 2010 Sunbed Regulations Act.

10.2 The Chair informed members that a meeting was arranged with the CEO of Melanoma UK, DHSC and PHE, and he attended on behalf of COMARE. Discussion focussed on the information given to tanning salon clients and the perception of a tan being healthy. Reference was also made to a recent report by the World Health Organisation (WHO) on control of sunbeds in various countries. There were no specific actions for COMARE from the meeting. DHSC are putting together an options paper and possible outcome from this may be requesting that COMARE updates the advice provided in the 13th report.

10.3 Members discussed whether the use of sunbeds had changed significantly since the introduction of the regulations. The Welsh Government (WG) assessor confirmed that Wales had taken additional steps compared with England and the data appeared to show a bigger effect on sunbed usage for Wales. It was noted that coin-operated sunbeds had been removed. The WG assessor agreed to share the report with the committee.

[ACTION: WG]

ITEM 11 Information papers

11.1 The Chair noted that a range of information papers had been circulated for the meeting and asked members for comments on the papers. Members were encouraged to bring forward any topical papers relevant to the Committee's work programme for consideration at future meetings. Professor Pharoah commented that the information papers provided a useful resource for the Committee.

[ACTION: Members]

ITEM 12 AOB

12.1 There was no other business raised. The Chair advised members that the next meeting would be on Wednesday 20th November 2019 at Skipton House, London. He thanked members for attending and closed the meeting at 1.35 pm.

Abbreviations

AWG	Authorisations Working Group
BEIS	Department for Business, Energy & Industrial Strategy
BIR	British Institute of Radiology
BPEO	Best Practicable Environmental Option
Cs-137	Caesium-137
CEO	Chief Executive Officer
CVD	Cardiovascular disease
CWG	Contaminations Working Group
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
Ha	Hectare
HSE	Health & Safety Executive
IOT	Image Optimisation Team
IR	Interventional Radiology
ISD	Information Services Division (NHS Scotland)
kBq	kilo-Becquerels
MHCLG	Ministry of Housing, Communities & Local Government
MoD	Ministry of Defence
MP	Member of Parliament
NDA	Nuclear Decommissioning Authority
ONR	Office for Nuclear Regulation
PHE	Public Health England
PRAG(D)	Particles Retrieval Advisory Group (Dounreay)
RCR	Royal College of Radiologists
SAHSU	Small Area Health Statistics Unit
SEPA	Scottish Environment Protection Agency
SG	Scottish Government
WG	Welsh Government
WHO	World Health Organisation