

COMMITTEE ON THE MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT

122nd meeting, Thursday 14th March 2019
Skipton House, London

Present

Chair: Dr Chris Gibson

Members: Dr Paul Darragh
Dr Frank de Vocht
Professor John Harrison
Dr Ray Kemp
Professor Stephanie McKeown
Dr Richard McNally
Dr Tom Nunan
Professor Paul Pharoah
Dr Peter Riley
Mr Graham Smith
Professor David Sutton
Professor Mireille Toledano
Ms Helen Warner

Assessors: BEIS
DHSC
EA
FSA
HSE
ISD National Services Scotland
NDA
ONR
PHE
SEPA
SG
WG

Secretariat: Dr Simon Mann (PHE)
Dr Emma Petty (PHE)
Mrs Samantha Watson (PHE)

Observers: Member of the UK & Commonwealth EMF Action Group
(attended for items 2-6)

Mr Hutchins
(attended for items 8 & 9)

Aides for observers: PHE Staff

COMARE 122

CLOSED SESSION

ITEM 1 Studies in progress

- i. Cancer incidence analysis request
 - ii. SAHSU update
- 1.1 The minutes for this item were considered as reserved business as it relates to pre-publication material.

OPEN SESSION

ITEM 2 Welcome & declarations

- 2.1 The Chair opened the open session of the 122nd meeting and welcomed members. The Chair also welcomed the new assessor from ONR and from DHSC, and the substitute assessors from BEIS and FSA. The aides from PHE who would be escorting the observers to and from the meeting were also welcomed. The Chair welcomed the first observer to the meeting, who was a member of the UK & Commonwealth EMF Action Group and who had requested to address the committee. This address would be covered under item 4.iii. The Chair informed members that a second observer would be attending the meeting for items 8 & 9.
- 2.2 The Chair advised members that papers marked for members' use only should remain confidential. Members were asked to declare any interests during the meeting.
- 2.3 Apologies were received from Dr Jane Barratt, Professor Brenda Howard and Dr Colin Martin. Apologies were also received from the assessors for DforE, DHSC, DoH NI, EA, FSA, FSS, and MHCLG. The Chair reminded assessors that substitutes may attend the meeting.

ITEM 3 Minutes of the 121st COMARE meeting

- 3.1 The Chair asked for comments or corrections to the minutes of the 121st meeting. The minutes were approved with one amendment and would be published on the COMARE webpage.
- [ACTION: Secretariat]**
- 3.2 The Chair advised members that there had been an action from the last meeting regarding the feedback received by PHE from the 18,000 householders in new build properties fitted with radon protection. The PHE assessor informed members that householders had been contacted in January 2018, with targeting of new build homes built from 2012-2016 in high radon areas (radon potential bands above 10%). It is estimated that between 2,000 and 5,000 such homes were built each year. The response rate was determined in three ways:
- the number of hits on the UK radon website were seen to increase by around 20% in the period after the letters were sent
 - PHE were asked to supply 139 radon test kits to targeted properties
 - there was an increase in the number of telephone enquiries, although this has not been quantified.
- 3.3 The Chair informed the committee that a 360° feedback exercise would be undertaken to assist in providing information to DHSC on the operation of their scientific advisory committees. The committee members will be invited to provide 360° feedback with

comments on performance of the Chair and Secretariat. Although providing feedback was not obligatory, the Chair encouraged members to participate, noting that feedback could be as brief or as detailed as required. The form would be sent out by the secretariat following the meeting and should be returned directly to DHSC.

[ACTION: Secretariat]
[ACTION: Members]

ITEM 4 Committee matters

i. COMARE membership

- 4.1 The Chair advised members that two vacancies are currently being advertised, with a deadline for applications of Monday 18th April. Members were asked to continue to encourage colleagues to apply. The Chair noted that if either of the posts are not filled, the vacancy will be carried over to future appointment rounds.

[ACTION: Members]

ii. Work programme & annual report

- 4.2 The Chair introduced COMARE's work programme for 2019-2020 to the committee, which had been drafted and discussed with DHSC. The work programme continues to include a watching brief on the health effects of electromagnetic fields (EMFs). The formation of a working party to review evidence on an association between low level radiation exposure and cardiovascular disease is also included. The members agreed the drafted work programme, which would be published on the COMARE webpage.

[ACTION: Secretariat]

- 4.3 The Chair brought the 2018 COMARE Annual Report to members' attention for their information. The document is produced annually and provides details on membership changes and ongoing work. It will be published in the COMARE webpage.

[ACTION: Secretariat]

iii. Correspondence & communications

- 4.4 The Chair informed members that a number of queries come into the COMARE email. The Secretariat normally deal with simple queries directly. More complex queries involve the Chair and include discussions with DHSC as appropriate. Correspondence directed to members is usually limited to discussion items at meetings, in recognition of the time commitment of members. However, members can request more information on specific items and sight of correspondence referenced at meetings. The Chair noted that it is his responsibility to ensure the amount of information received by members is in proportion to their agreed commitment to the committee.

- 4.5 The Chair invited the member of the UK & Commonwealth EMF Action Group to address the committee. He noted that this was the first address by an observer under the new process for open meetings and requested that the agreed timeframe was adhered to, allowing for questions and comments from members.

- 4.6 The member of the UK & Commonwealth EMF Action Group informed the committee that the action group were concerned with the biological effects from EMF exposures. The verbal submission provided a concise overview of correspondence between the action group and COMARE. It was noted that committee had received the original 36-page letter of concern from the group in 2018, but that the updated 36-page letter of concern provided for this meeting had not been made available to members. It was agreed that a copy of the briefing notes for this address would be provided to the Secretariat.

[ACTION: The member of the UK & Commonwealth EMF Action Group]

- 4.7 The member of the UK & Commonwealth EMF action group highlighted the specific areas that the group wished to be drawn to members' attention. These included information to assist with the interpretation of the US Food and Drug Administration (FDA)'s statement on the National Toxicology Program (NTP) study, the review by the Swiss Federal Office for the Environment's expert group (BERENIS) on recent studies, the contribution of International Commission on Non-Ionizing Radiation Protection (ICNIRP) to the World Health Organisation (WHO), a United Nations (UN) central strategic priority on stakeholder dialogue mechanisms and the recommendations from the French Agency for Food, Environmental and Occupational Health & Safety about electrical sensitivity. The member of the UK & Commonwealth EMF Action Group suggested to the committee that there were reasons to establish an independent non-ionising radiation (NIR) advisory group and that the decision to not proceed with a dedicated NIR working group within COMARE should be revisited.
- 4.8 The Chair thanked the member of the UK & Commonwealth EMF Action Group for their address and noted that it contained a lot of information for members to consider. Members questioned exactly what the action group's objections to ICNIRP were, while noting that ICNIRP standards had been initially adopted in the UK as part of a precautionary approach after the report from the Independent Expert Group on Mobile Phones. The member of the UK & Commonwealth EMF Action Group responded that the objections were covered in the letter of concern. It was added that there were questions in the past regarding conflicts of interest and that the guidelines have hardly changed in 20-30 years.
- 4.9 It was agreed that COMARE would discuss further the handling of the topic of health effects from EMFs.

[ACTION: Members]

ITEM 5 Working group reports

- i. Contaminations working group (CWG)
- 5.1 The Chair advised members that the working group had met on the 13th March and drew member's attention to the particle finds considered by the CWG. It was noted that two additional particles had been retrieved since the update was circulated – one from the East Foreshore at Dounreay and one at Sandside beach.
- Sellafield
- 5.2 The EA assessor informed members that four papers had been presented to the CWG by EA for their consideration. He advised members that the 2018 beach monitoring programme had been completed, with 159 hectares monitored and 129 particles and 16 larger objects retrieved. The find rate and activities of particles retrieved in 2018 were consistent with previous years. Only one particle was above trigger levels and this was taken for further analysis. Overall the assessed risks are very low.
- 5.3 At their 13th meeting, the CWG considered two papers on risk assessments of particles on the beach, one from PHE and one from Professor Harrison. The two papers differed in approach but had separate purposes. CWG members had discussed the level of caution used in the papers, either taking a realistic approach or a very cautious one. Clear information is needed on the health risks, both deterministic effects and cancer risks. The phenomenon of pica was also discussed at the CWG meeting. CWG members were asked to provide comments to EA on the risk assessment papers.
- 5.4 Members were informed that the future beach monitoring programme proposed by Sellafield Ltd was moving towards routine beach monitoring from 2020. An indicative programme covering 40 hectares is proposed from 2024, following a contract break. It was agreed at the

CWG meeting that the proposed monitoring programme and PHE risk assessment would be provided to the committee for the next meeting and members will be encouraged to provide comments on the scientific aspects including the risk assessment and any implications for monitoring.

[ACTION: EA]

- 5.5 It was noted that PHE will produce a lay version of the risk assessment. Members suggested that this document could include examples of hypothetical cases that the public might identify with, to help explain the risks. Members offered to assist EA & PHE in reviewing the lay version.

[ACTION: Members]

Dounreay

- 5.6 The SEPA assessor informed members that the CWG had been updated on the 2018 Dounreay monitoring programme. Members were advised that additional backpack monitoring surveys had been carried out on the rocky surfaces of the East foreshore.
- 5.7 Two members of the Particles Retrieval Advisory Group (Dounreay) (PRAG(D)) have retired, which has had impact of the group's work. New members are being sought for the group to assist with assessing the data. It is hoped that the group will produce a trend analysis on the particles. The next meeting of the group is planned for May.
- 5.8 The Best Practicable Environmental Option (BPEO) study being undertaken by the site is ongoing and the analysis of the high activity particle has paused. The CWG encouraged the completion of this analysis.

Dalgety Bay

- 5.9 The SEPA assessor advised members that the current intervention measures remain in place, affording a level of protection for the general public.
- 5.10 Financial approval for the remediation has now been granted by the minister; however, approval is still required from the cabinet office before the MoD can go out to tender for contractors. It is hoped that the work will start in 2020 and is likely to take two years to complete.
- 5.11 The MoD contractor has continued monthly monitoring and there is anecdotal evidence of an increase in finds following the September storms. Members discussed whether the remediation works may also displace particles. It was confirmed that monitoring would continue during and after remediation.

ii. Authorisations working group (AWG)

- 5.12 The Chair asked Professor Sutton to update members on the consultations considered by AWG since the last meeting. Professor Sutton noted that the working group had submitted a response to the consultation on a Sellafield Ltd Radioactive Substances Activities Permit Variation on 17th December 2018. The consultation information was very comprehensive; however, there was no specific steer for the response. The AWG felt the proposals with tiered site limits (lower limits with increases permitted for short durations with a good case) were sensible and proportionate.
- 5.13 Professor Sutton informed members that the AWG were also considering a consultation on an application for a permit variation for the Lillyhall landfill site. The consultation documentation is very comprehensive. There are no specific questions to be considered for the consultation, only a request for comments. It was noted that these types of consultations, containing a large amount of information and not asking specific questions, are difficult to

respond to. It was suggested that responders could be directed to the pertinent documents for the consultation. The EA assessor agreed to take the comments on process back for consideration.

[ACTION: EA]

ITEM 6 Working party reports

i. Cardiovascular effects scoping exercises

6.1 The Chair informed members that a small working party had been established to discuss the potential association between low to medium level ionising radiation exposure and cardiovascular disease (CVD) and held a teleconference in January to consider available evidence. The working party discussed the 2010 Advisory Group on Ionising Radiation (AGIR) report plus other relevant material and agreed there appeared to be sufficient evidence to take matters further and that it would be timely to update the 2010 AGIR report. Dr de Vocht added that he hoped to be able to share the details of a relevant study with the group, once it had been peer-reviewed.

[ACTION: Dr de Vocht]

6.2 Members discussed studying low dose effects with epidemiological studies and with mechanistic studies. It was noted that the working party would need to define 'low dose'.

6.3 The Chair informed members that the terms of reference of the CEWP has been changed to include cerebrovascular effects and to advise on a causal association. The next stage will be to determine how best to progress with this work – whether it forms an internal document or a full report. The Chair agreed to discuss the options with DHSC. Professor McKeown noted the work was important but completing the interventional radiology (IR) report should be the priority. The Chair confirmed that the cardiovascular work should not impact on the IR report.

[ACTION: The Chair]

ITEM 7 COMARE publications in progress

i. Interventional Radiology issues

7.1 Professor McKeown presented an update on the project to the committee. Members were informed that a survey was sent out to 36 hospitals requesting information, but only 6 responses have been received, some of which are incomplete. It was appreciated that the survey was time consuming to complete and there was also an issue of knowing who to contact within each hospital. It may be necessary to trawl for more data.

7.2 Members were provided with a revised schedule for the project. It is hoped that the first draft sections will be submitted by 29th March. There are some sections still to be allocated. Dr Riley offered to help with the cardiac section of the report and may have other contacts that could be approached. Professor Sutton confirmed that he was contacting some hospitals in Scotland regarding the survey. Dr Kemp noted that he was a lay member for the Royal College of Radiologists and could investigate lines of communication with the college regarding the project.

[ACTION: Dr Riley]

[ACTION: Professor Sutton]

[ACTION: Dr Kemp]

7.3 The Chair referred to the information paper by Tsapaki et al and suggested that the challenge in obtaining information is not unique.

- 7.4 Professor McKeown advised members that the last two meetings of the subcommittee had been via teleconference. It is hoped that a face to face meeting will be held in May. It will provide an opportunity to review the submitted material and determine if any gaps are present. She added that the Tsapaki et al paper provided a good background to the issue. The Chair thanked Professor McKeown, Dr Riley, Professor Sutton and Dr Kemp for their input and looked forward to the committee receiving drafts of the report.

[ACTION: Secretariat]

ITEM 8 COMARE submitted reports

- i. DXA scanning issues
- 8.1 The Chair informed members that the report has been approved for publication by DHSC and it is hoped that it can be published as soon as possible. As it is a technical report there is expected to be less public interest and therefore there will not be a launch at the Science Media Centre, as has been done for previous reports. The report will be put on the COMARE site and a notification of publication released to stakeholders.
- 8.2 It was noted that DHSC wish to put a formal submission to the minister before publication. There is no confirmed date yet for publication, but it is expected to be weeks rather than months.
- 8.3 The Chair noted that once the report was published, BEIS will assist DHSC with the justification decision making process. The committee will keep a watching brief on the process.

ITEM 9 COMARE published reports

- i. 13th report – Artificial tanning devices
- 9.1 The Chair reminded members that COMARE's 13th report, published in 2009 considered the health effects and risks from artificial tanning devices. The report made a number of recommendations, one of which (banning sunbed use by under 18s) was incorporated into the 2010 Sunbed Regulations Act. In recent months, Melanoma UK raised a petition to ban the use of sunbeds. Over 15,000 signatures were received, which resulted in a debate in Westminster Hall in February, <https://parliamentlive.tv/event/index/1107281d-c22d-4b15-9e56-c26906f9191e>.
- 9.2 The Chair informed members that the CEO of Melanoma UK has asked for a meeting with DHSC, PHE and COMARE. The Chair will attend this meeting. It was noted that COMARE has not been asked to update the advice provided in the 13th report. COMARE will only be able to refer to its recommendations at the meeting. It is also understood that DHSC are not seeking to introduce further regulation at this time.
- 9.3 Members discussed the differences in regulations between England and the devolved authorities. It was noted that complete bans have been introduced in some international countries. The Chair advised members that the WHO had reviewed sunbed regulation world-wide and found a spectrum of approaches. He would update the committee on the discussion with Melanoma UK at the next meeting.

[ACTION: The Chair]

ITEM 10 Information papers

- 10.1 The Chair noted that a range of information papers had been circulated for the meeting. Members were encouraged to bring forward any interesting papers for consideration at future meetings, to help capture interesting developments.
- 10.2 Members commented that the Karapidis et al paper investigating correlations between mobile phone use and brain tumours was well written and that no correlation was found. It was suggested that the overall view from the Smith et al paper was that there was no evidence to overturn the linear no-threshold (LNT) hypothesis. The UK National Radon Plan was also noted to be a useful paper, bringing all relevant information into one place and which could be updated as required.

ITEM 11 AOB

- 11.1 There was no other business raised. The Chair advised members that the next meeting would be on 9th July 2019 at the MRC Conference Centre, London. He thanked members for attending and closed the meeting at 2.10 pm.

Abbreviations

AGIR	Advisory Group on Ionising Radiation
AWG	Authorisations Working Group
BEIS	Department for Business, Energy & Industrial Strategy
BPEO	Best Practicable Environmental Option
CEO	Chief Executive Officer
CEWP	Cardiovascular Effects Working Party
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
EU	European Union
FDA	Food and Drug Administration
FSA	Food Standards Agency
FSS	Food Standards Scotland
HSE	Health & Safety Executive
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IR	Interventional Radiology
ISD	Information Services Division (NHS Scotland)
LNT	Linear no-threshold
MHCLG	Ministry of Housing, Communities & Local Government
MRC	Medical Research Council
NDA	Nuclear Decommissioning Authority
NIR	Non-ionising radiation
NTP	National Toxicology Program
ONR	Office for Nuclear Regulation
PHE	Public Health England
PRAG(D)	Particles Retrieval Advisory Group (Dounreay)
SAHSU	Small Area Health Statistics Unit
SEPA	Scottish Environment Protection Agency
SG	Scottish Government
UN	United Nations
WG	Welsh Government
WHO	World Health Organisation