

Report of the Senate Environment, Communications, Information Technology and the Arts References Committee

Inquiry into Electromagnetic Radiation

Government Response

Introduction

The Committee's report was tabled on 4 May 2001. There are a total of thirteen recommendations listed in the main body of the Report, eight of which are attributed to the Committee Chair and the remaining five to the Committee as a whole.

In addition to the main body of the report, there is a section entitled 'Government Members' Comments' in which the Government members of the Committee comment upon the Report and the recommendations, generally opposing the recommendations of the Committee Chair.

A minority report by Labor Senators makes eleven separate recommendations and is highly critical of the report.

Recommendations in Body of the Report

The Government makes the following comments in relation to the recommendations in the body of the report:

Recommendation 2.1

The Committee Chair recommends that, particularly in the light of recent reports on the links between powerlines, radio towers and leukaemia, additional research into extremely low frequencies and TV/radio tower exposure should be encouraged.

The Government agrees with the commentary from the Government members of the Committee that little evidence was presented during the course of the inquiry concerning exposure to extremely low frequency (ELF) fields and that this part of the recommendation falls outside the scope of this inquiry.

The second part of recommendation 2.1 is concerned with the incidence of cancer in people living near to radio or television transmitters. The Government supports research into electromagnetic radiation (EMR) through the Australian Electromagnetic Energy (EME) Program and the research component administered by the National Health and Medical Research Council (NHMRC).

Recommendation 2.2

The Committee Chair recommends that precautionary measures for the placement of powerlines be up-graded to include wide buffer zones, and undergrounding and shielding cables where practicable.

As with recommendation 2.1 this falls outside the scope of this inquiry.

The Government notes the current prudent avoidance approach adopted by the electricity industry in the design and operation of its electricity generation, transmission and distribution systems.

Recommendation 2.3

The Committee recommends that based on a growing body of research that provides evidence of biological effects, the Commonwealth Government considers developing material to advise parents and children of the potential risks associated with mobile phone use.

Studies involving exposure of animals and cellular systems to low level radiofrequency fields have sometimes shown biological effects. The evidence supporting a positive association (between the exposure and the effect), however, is inconsistent and further confirmatory research needs to be carried out. Nevertheless, the Government acknowledges that gaps in the current scientific knowledge are sufficient to justify a precautionary approach.

With regard to educational material, a package of information relating to EMR, mobile phones and mobile phone base stations has been developed by the Australian Communications Authority (ACA) in consultation with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and other government organisations. The package includes:

- a poster (*Mobile Phone Base Stations and EMR*);
- a fact sheet (*Installation of Telecommunications Facilities—a Guide for Consumers*); and
- two booklets (*Mobile phones...your health and radiofrequency EMR* and *Telecommunications Facilities—Information for Local Councils*) and other related information.

The package was mailed to all Australian Local Government councils and to all Australian primary and secondary schools in early June 2001.

Also, the ACA and representatives of mobile phone manufacturers reached an agreement in August 2000 that industry should make available information on the specific absorption rate (SAR) of cellular mobile phones. An international SAR test standard has been finalised and mobile phone manufacturers have begun testing new products using this protocol. Handset specific SAR information is made available in the product manuals, or in a separate brochure in the box, for all new mobile phone models released in Australia. Information included provides the following handset details:

- the phone is a low-power radio transmitter and receiver;
- it meets specific guidelines for RF exposure; and
- the measured SAR level.

This information is also available on the product manufacturer's web-site.

Recommendation 2.4

The Committee recommends that shielding and hands-free devices are tested, labelled for their effectiveness and regulated by standards.

In regard to hands-free devices the Government will ensure that ARPANSA and ACA cooperate in the provision of general information to the public on these devices but otherwise supports the view that if individuals are concerned, they can choose to reduce their exposure by using hands-free kits while operating their mobile phone away from the body.

The effectiveness—or otherwise—of shielding devices depends not only on the design features of the device, but on the particular model of mobile phone handset it is used with. Very few shielding devices have been scientifically tested and the Government will ensure that Commonwealth Authorities monitor the claims for and testing of these devices.

Recommendation 2.5

The Committee Chair recommends that the Government review the Telecommunications (Low-impact Facilities) Determination 1997, and as a precautionary measure, amend it to enable community groups to have greater input into the siting of antenna towers and require their installation to go through normal local government planning processes.

The siting and installation of most telecommunications facilities, including all radiocommunications towers over 5 metres in height, require approval under State or Territory legislation (not Commonwealth legislation), with approvals being handled at a local level. In their consideration of mobile phone tower applications, local councils already typically require community consultation.

The levels of community consultation by carriers have recently been formalised and extended with the finalisation of the 'Deployment of Radiocommunications Infrastructure' industry code. As noted by the Government members of the Committee, the development of this Code by the Australian Communications Industry Forum (ACIF) directly addresses Recommendation 2.5.

The Code complements the new limits-based human exposure standard, by requiring telecommunications carriers to consult with the local community and to adopt a precautionary approach in the planning, installing and operating of all radiocommunications infrastructure. The ACIF committee which developed the code was representative of industry and the community and included the ACA as an observer. The code covers:

- site selection, facility design and operations;
- notification and consultation processes;
- health and safety information about radio emissions; and
- complaints-handling and arbitration.

The ACA will register the Code under section 117 of the Telecommunications Act 1997 (the Act).

Recommendation 2.6

The Committee recommends the development of an industry code of practice for handling consumer health complaints.

The Government believes that the establishment of a centralised complaints register is a better way of handling consumer health complaints (see response to Recommendation 2.7).

Recommendation 2.7

The Committee recommends the establishment of a centralised complaints mechanism in ARPANSA or the Department of Health for people to report adverse health effects associated with mobile phone use and other radiofrequency technology, and for the data from this register to be considered by the NHMRC in determining research funding priorities.

The Government is aware of the concerns held by some users of radiofrequency technologies about the possible health effects of such devices. The Government accepts the establishment of a centralised complaints mechanism. It is proposed that ARPANSA will implement and manage a complaints register. The register may identify emerging issues as well as possible activities. This information would be

shared with the public and industry (via ARPANSA's website) as well as other Commonwealth agencies.

Recommendation 2.8

The Committee recommends that the Commonwealth Government consider sponsoring conferences on the health effects of radiofrequency radiation along similar lines to that conducted on gene technology.

The Commonwealth Government will consider sponsoring conferences to discuss the health effects of radiofrequency radiation.

Recommendation 2.9

The Committee Chair recommends that a study into p53 mice be listed as an area of research for which future research applications should be encouraged.

The Government supports the NHMRC process for selection of research for funding. It notes that the Government and Labor Senators did not have any substantial criticisms of the NHMRC processes and that the Report found no evidence that the NHMRC had been deficient or biased in its allocation of the research funds.

Recommendations 3.1 and 3.2

The Committee Chair recommends that the equivalent of \$5 for each mobile phone in use be collected annually for this purpose (approximately \$40 million) and that the rate be reviewed after a period of five years.

The Committee Chair recommends that funding for maintaining the NHMRC administered research program be provided at \$4 million per annum of the \$40 million and that the balance be used by the CSIRO to establish a structured program of research and set up a specialised research unit for this purpose.

The Government considers that the present level of research funding dedicated to this field is appropriate. It supports continued research through the ongoing funding system of \$1 million per annum, derived from a levy imposed upon the radiocommunication licence fees. The NHMRC is the body best placed to distribute the research funding through its competitive and peer-reviewed processes.

Recommendations 4.1 and 4.2

The Committee Chair recommends that the radiofrequency standard be defined and administered by a process similar to that used by Standards Australia. The Committee Chair recommends that the level of 200 microwatts per square centimetre in the expired Interim Standard (AS/NZS 2772.1(Int):1998) be retained in the Australian Standard.

The Australian/New Zealand Interim Standard (AS/NZS 2772.1 [Int]:1998) Radiation Fields— Maximum exposure—3kHz to 300GHz was officially withdrawn by Standards Australia in May 1999. Following the failure of Standards Australia to produce a revised Standard, ARPANSA undertook the development of a new standard: “Radiation Protection Standard—Maximum exposure levels to radiofrequency fields—3kHz to 300 GHz”. The task of drafting the Standard was carried out by an expert Working Group of ARPANSA's Radiation Health Committee (RHC). The new standard was formally released on May 7 2002.

The Standard was developed through ARPANSA's Radiation Health Committee (RHC). The RHC was established under the ARPANS Act to formulate national codes, standards and guidelines for consideration by the Commonwealth, States and

Territories. The RHC includes a senior radiation control officer from each State and Territory, an NIR (non-ionising radiation) expert and a public representative. An expert working group of RHC was established to draft the Standard. The expert working group also included community and union representatives.

The new Standard is in alignment with widely accepted international guidelines but incorporates a number of technical improvements. The Standard includes an improved methodology for determining compliance and offers greater protection against pulsed fields. In addition to the numerical exposure limits, the Standard provides major reviews of the current epidemiology and research on the effects of low level exposure to radiofrequency electromagnetic energy. The Standard also adopts a precautionary approach in the protection of the public. The limits in the new Standard are fully defined so as to allow unambiguous interpretation by regulatory bodies.

There has been broad public consultation on the Standard during its development. The draft Standard was released for public comment last year. All submitted comments were considered by the expert working group during the final revision of the draft Standard. A draft Regulatory Impact Statement for the new Standard was also released for public comment. All submitted comments were considered during the final revision of the statement. The final Regulatory Impact Statement was judged to meet the requirements of the Council of Australian Governments' Principles and Guidelines for National Standard Setting and Regulatory Actions by Ministerial Councils and Standard-setting Bodies (Nov 1997) by the Commonwealth Office of Regulation Review.

The Standard was published by ARPANSA in May 2001. It is intended that the Standard will be prescribed under the Australian Radiation Protection and Nuclear Safety Act 1998 as a standard that controlled persons (Commonwealth entities and Commonwealth contractors) must observe and follow.

ARPANSA has also published 'An Explanatory Question and Answer Guide to the Standard'. The guide provides a clear interpretation of the technical subject area covered by the Standard. Both electronic and printed versions of the Guide are available from ARPANSA.

Recommendations of Labor Senators (page 187 of the report)

The Government makes the following comments in relation to the Labor Senators' recommendations:

Research:

Labor Senators conclude there is justification to some of the criticisms of past studies of the physical and health effects of EMR. Accordingly, Labor Senators support ongoing research into potential adverse effects of EMR. (Chapter 4, p 209)

The Government accepts the conclusion clearly reached by the Government and Labor Senators that health effects due to electromagnetic radiation exposure at levels below those that produce heating effects have not been established. The Government, therefore, supports the recommendation of ongoing research into potential adverse effects of EMR.

Labor Senators note that in the light of the limited resources available for research into health issues where causes are identifiable, and given the existing

inconclusiveness of the many completed studies into EMR, the funding available for EMR research does not appear to be inadequate. (Chapter 3, p 196)

The Government has continued the ongoing level of funding (\$1 million annually) derived from a levy imposed upon the radiocommunications licence fees.

Also see response to recommendation 3.1 and 3.2.

Labor Senators conclude that there does not seem to be an identifiable problem with expenditure of funding by NHMRC on the evidence. (Chapter 3, p 195)

The Government supports the present NHMRC process in determining research-funding priorities.

Also see response to recommendation 3.2.

Standards Setting:

Labor believes that Standards Australia should be the primary body for setting standards. However, in this case, Labor Senators conclude that Standards Australia failed to achieve an outcome. This is because the structure of Standards Australia in this instance allowed a small proportion of participants to exercise a veto on any outcome. Accordingly, this ongoing failure warranted the transfer of responsibility for setting a standard to an alternate body such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). (Chapter 5, p 217)

Labor Senators find no substantial criticism of the transfer of the responsibility for setting a new Australian standard for electromagnetic emissions to ARPANSA. (Chapter 6, p 226)

Labor Senators support a standard setting process consistent with existing science on the health effects of EMR, and ongoing research into potential adverse health effects arising from non-thermal levels of exposure. (Chapter 4, p 206)

Labor Senators support the inclusion of precautionary measures in the new standard, and consider the approach taken in the draft standard to be sensible. (Chapter 6, p 226)

Given that the draft RF standard produced by ARPANSA incorporates a precautionary approach, and recognises the need for ongoing research, Labor Senators conclude that there is no justification for this Committee to recommend alternative courses of action. (Chapter 4, p 207)

Labor Senators conclude that there is currently no scientific evidence to support the proposition that maintaining lower permissible levels of RF radiation in the standards will decrease the potential for health effects, and that therefore there is no compelling scientific argument for such action at this time. However, Labor Senators support ongoing research in this area. (Chapter 5, pp 219-220)

The above comments relate to the draft ARPANSA standard published in March 2001. The final Standard was published on May 7, 2002. The Standard sets maximum exposure levels to radiofrequency fields. The Standard draws from the most recent research and accords with the guidelines of the International Commission on Non-Ionizing Radiation Protection. It includes a precautionary statement designed to minimise unnecessary exposure of the public to radiofrequency fields. The Government supported the approach taken by ARPANSA and a detailed description of the process is given in response to Recommendations 4.1 and 4.2.

Other:

Labor Senators endorse the ACA's role in monitoring the dissemination of information to the public, and seek that the ACA table 12 monthly statements in the parliament which detail industry adherence to this voluntary undertaking and public or consumer complaints or comments about this process. (Chapter 4, p 208)

The Government supports the role of the ACA and its monitoring of information dissemination to the public.

Although acknowledging the problem of inclusion of frequencies employed by the metals industry in the draft RF standard, Labor Senators consider that the issue would more appropriately be raised in the standard setting process being undertaken by ARPANSA. (Chapter 5, p 220)

The Government agrees that this issue can best be resolved through the ARPANSA Standard setting process. ARPANSA, through their Radiation Health Committee, could also consider developing Codes of Practice if the implementation of the RF Standard causes difficulties in any industrial sector.