



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JUL 16 2003

OFFICE OF  
AIR AND RADIATION

C. K. Chou, Ph.D.  
Co-Chairman, International Committee on Electromagnetic  
Safety (ICES), Subcommittee-4  
Motorola Incorporated, Florida Research Laboratory  
8000 West Sunrise Boulevard  
Plantation, FL 33322

Dear Dr. Chou:

This letter is in response to your proposal of a meeting with the federal Radiofrequency Interagency Work Group (RFIAWG) that would provide an opportunity for the IEEE ICES SC4 to give the Work Group an update of the revision of the C95.1-1999 standard.

We look forward to your presentation regarding the items listed in your proposed agenda, i.e., approaches of standard setting, literature review, rationale, basic restrictions and reference levels, and responses to the 14 issues raised by the RFIAWG in the June 17, 1999, letter to Richard Tell.

The RFIAWG is particularly interested in how these 14 issues are to be treated in the revision process. In addition, the RFIAWG is submitting the following additional issues for the ICES consideration and response.

Issue: Exclusion of pinna

If the pinna is to be considered an extremity and subjected to exposure limit of 20 W/Kg over 10 g of tissue, then a clear rationale for treating the pinna as an extremity should be presented. This rationale should include biological properties of the pinna that qualifies it for this exclusion. If thermal effects would be the basis for the ICES standard, then the thermophysiology of the pinna and the skin, bone and other head tissues adjacent to the pinna should be discussed for all body sizes exposed.

Issue: Rationale for relaxation of current limits

Federal agencies, as well as the general public and the public health community, are very concerned about a relaxation of exposure guidelines that may result in increased exposure in the future. A rationale should be presented for relaxation of standards. The rationale should include a clear explanation of the impact of the exposures that may

result, i.e., the description of the exposures and the effects on critical tissues and organs. An explanation should be given as to why the current standard should be relaxed. The issue of safety factors should be also be addressed as part of the rationale for relaxation of current limits.

Issue: Sensitivity of different tissues

A clear explanation on how the revision has taken into account sensitivity of different tissues to temperature. Effects of acute and chronic exposure to elevated temperature should be adequately covered. We consider it appropriate to include as a part of the revised standard a description of the risk analysis that was done.

We ask that the RFIAWG be provided with a copy of the ICES response to all of the issues raised by the RFIAWG in advance of a meeting so that the Work Group members have sufficient time to study them and prepare for the meeting. We also request that you provide any other materials that you feel would be of value to the Work Group in preparing for a meeting.

Please be aware that comments and opinions that may be expressed by the RFIAWG participants are their personal comments and opinions and have not been reviewed and/or approved by their management or their agencies.

Sincerely,



Norbert N. Hankin  
Center for Science and Risk Assessment  
Radiation Protection Division

Enclosure

cc: H. Bassen  
C. Blackman  
R. Cleveland  
R. Curtis  
H. Cyr  
A. Desta  
J. Healer  
W.G. Lotz  
E. Mantiply  
R. McGaughy

## Radiofrequency Interagency Work Group Members

### Alphabetical Listing

**Cleveland, Robert**

Senior Scientist  
Federal Communications Commission  
Office of Eng & Technology, Room, 230  
2000 M St. NW  
Washington, DC 20554  
(202) 418-2422  
(202) 481-1918 (fax)  
[rclevella@fcc.gov](mailto:rclevella@fcc.gov)

**Cress, Larry**

US FDA, CDRH  
Radiation Biology Branch, DLS, OST  
9200 Corporate Blvd. (HFZ-114)  
Rockville, MD 20850  
(301) 443-7173  
(301) 594-6775 (fax)  
[lwc@cdrh.fda.gov](mailto:lwc@cdrh.fda.gov)

**Curtis, Robert A.**

OSHA  
Dir-U.S. Dept. of Labor/OSHA  
OSHA Health Response Team  
1781 S. 300 W.  
Salt Lake City, UT 84115-1802  
(801) 487-0521, ext. 243  
(801) 487-1190 (fax)  
[rac@osha-slc.gov](mailto:rac@osha-slc.gov)

**Elder, Joseph A.**

US Environmental Protection Agency  
U.S. EPA, NHEERL (MD-87)  
2525 Highway 54  
Research Triangle Park, NC 27711  
(919) 541-2542  
(919) 541-4201 (fax)  
[elder.joe@epamail.epa.gov](mailto:elder.joe@epamail.epa.gov)

**Hankin, Norbert N.**

U. S. Environmental Protection Agency  
Mailcode 6604J  
U.S. EPA  
Washington, DC 20460  
(202) 564-9235  
(202) 565-2038 (fax)  
[hankin.norbert@epamail.epa.gov](mailto:hankin.norbert@epamail.epa.gov)

**Healer, H. Janet**

NTIA  
Department of Commerce (H-4099)  
14<sup>th</sup> & Constitution Ave., NW  
Washington, DC 20230  
(202) 482-1850  
(202) 482-4396 (fax)  
[jhealer@ntia.doc.gov](mailto:jhealer@ntia.doc.gov)

**Lotz, W. Gregory**

Chief, Physical Agents Effects Branch  
National Institute for Occupational Safety  
and Health  
4676 Columbia Parkway C-27  
Cincinnati, OH 45226-1998  
(513) 533-8153  
(513) 533-8139 (fax)  
[wlotz@cdc.gov](mailto:wlotz@cdc.gov)

**Owen, Russell D.**

U.S. FDA/CDRH (HFZ-114)  
Chief, Radiation Biology Branch (HFZ-114)  
9200 Corporate Blvd.  
Rockville, MD 20850  
(301) 443-7153  
(301) 761-1842 (fax)  
[rdo@cdrh.fda.gov](mailto:rdo@cdrh.fda.gov)

A 2013 presentation by the FCC shared the RFIAWG Charter.

# RESEARCH NEEDS AND ACTIVITIES FOR COMPLIANCE ASSESSMENT

ROBERT D. WELLER

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF ENGINEERING & TECHNOLOGY  
WASHINGTON, DC USA



## RFR REGULATION IN THE U.S.A.

- FCC establishes and enforces RF exposure limits from regulated facilities and equipment, but FCC is not a health agency
- U.S. Health and Safety agencies are responsible for monitoring research and advising FCC on appropriate safety limits. FCC has regular meetings with experts from:
  - EPA
  - FDA
  - NIH
  - NIOSH
  - OSHA

### Radiofrequency Interagency Work Group

Environmental Protection Agency  
Federal Communications Commission  
Food and Drug Administration  
National Telecommunications and Information Administration  
National Institutes of Health  
National Institute of Occupational Safety and Health  
Occupational Safety and Health Administration

#### Charter

The Radiofrequency Interagency Work Group (RFIAWG) is composed of Federal agencies which have regulatory or public health responsibility to evaluate or control the risk to public health from the use of specific devices or exposure to radiofrequency energy, or have responsibility for regulation and management of the use of the radiofrequency spectrum.

The purpose of the Radiofrequency Interagency Work Group is to provide a forum to discuss public health and regulatory issues pertaining to radiofrequency radiation, and to provide a basis for technical and policy coordination among member agencies in their approach to human exposure to radiofrequency energy. The RFIAWG may address the development of non-ionizing electromagnetic radiation exposure standards, guidance or guidelines to better understand the implications of exposure on human health and the environment, and prudent use of specific devices or technologies. The RFIAWG provides a forum for discussion of specific RF radiation-related activities and policies of the member Agencies that could affect other federal agencies represented in the Group. The Work Group also provides a forum to discuss developing issues, research, and to address the need for long-range federal strategy. It is intended that such coordination and discussion will lead to a more coordinated federal approach to potential health issues associated with existing and proposed technologies which use and produce human exposure to RF energy.

