International EMF Project

Progress Report
8th International Advisory Committee
9-10 June 2003

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6 June 2002
International Advisory Committee
Terms of Reference

✧ Provide oversight on the conduct of the Project.
✧ Review Project outputs
✧ Provide a forum for a co-ordinated international response on the potential health effects from exposure to EMFs.
  – Biological effects
  – Health issues
  – Use of precautionary measures
  – Standards
Role of WHO staff in EMF Project

- Facilitate and implement the programme agreed by the International Advisory Committee
- Form part of the non-voting secretariat at all meetings and expert groups
- Compile minutes, fact sheets and reports of meetings published after comments by IAC and outside experts
- Give presentations summarising the conclusions of WHO meetings or expert groups
- Ensure compliance with WHO’s conflict of interest policies (Committee membership, funding, etc)
WHO EMF Project

- Risk perception and communication
  - Seminars and W/G Reviews
    - WHO Task Groups
  - User Friendly Handbook and EHC Monograph
    - Handbook published 2002
- International scientific reviews
  - Health Status Reports
    - Research Gaps
  - All scientific reviews completed
  - WHO Task Groups
- Standards
  - Scientific research database
    - See www.who.int/emf
  - Development for Standards
    - Draft framework
    - Regional meetings
- Environmental impact
  - Review of World Standards
    - On web site
  - WHO Task Groups
  - Review EMF Impacts on Environment
  - Training Programmes - Internet
    - ELF on web site
    - RF in 2003-4
- Information and training
  - WHO/IARC Task Group Reviews
    - Health Risk Assessments
      - IARC ELF completed
      - WHO ELF 2002
      - IARC RF 2005?
      - WHO RF 2006?
  - WHO and IARC Monographs
    - IARC static/ELF completed
  - Documents for Environmental Impacts of Major Development Projects
    - Conf. Proceedings
    - Scientific paper

Global EMF Standard Framework

National EMF Protection Programmes
The International EMF Project (EMF)

Location: WHO > WHO Sites > EMF Home

"...through its International EMF Project, the World Health Organization is pooling resources and knowledge concerning health effects of exposure to EMF."

ON THIS SITE, YOU WILL BE ABLE TO FIND DETAILS ON THE FOLLOWING QUESTIONS:

- What is the International EMF Project?
Reviews of the scientific literature are conducted to:

- Provide status report on possible health effects
- Identify gaps in knowledge that need further research leading to better health risk assessments

Scientific reviews:

- RF range (10 MHz-300 GHz), Munich, Germany (1996)
- Static and low frequencies (0-300 Hz) Bologna, Italy (1997)
- Psychosocial impacts of EMF exposure in Graz, Austria (1998)
- Intermediate frequencies (300 Hz-10 MHz) Maastricht, The Netherlands (1999)
- Environmental impacts of EMF, Ismaning, Germany (1999)
- RF pulse-modulated fields in Erice, Sicily, Italy (1999)
- Adverse Temperature Levels in the Human Body, Geneva, March 2002
- Precautionary principle (Luxembourg, Feb 2003)
- EHC (ongoing)
- Effects of EMF on children (being organized)
- Mechanisms (To be organized)

Science updates given at regional meetings with Standards Harmonisation activity
Regional meetings indicated areas requiring further research. This will be input to the meeting on 11 June 2003 to identify areas still needing RF research. Possible effects of RF exposure on children is a key area....

WHO EMF research agenda being revised for web site
Research

Extensive research has been conducted into possible health effects of exposure to many parts of the frequency spectrum. All reviews conducted so far have indicated that exposures below the limits recommended in the ICNIRP (1998) EMF guidelines, covering the full frequency range from 0-300 GHz, do not produce any known adverse health effect. However, there are gaps in knowledge still needing to be filled before better health risk assessments can be made.

The scientific work of the Project has been designed with the following objectives and related activities:

- EMF Research Database
- Health Risk Assessment
- Research Agenda
- Scientific Reviews
Schedule of health risk assessments

2001  IARC carcinogen identification and evaluation of static and ELF fields (completed)
2003-4 Health risk assessment of static and ELF fields
2005-6 IARC carcinogen identification and evaluation of RF fields
2006-7 Health risk assessment of RF fields

WHO will incorporate IARC conclusions into WHO task group reviews of cancer, update it, and add non-cancer risks and publish them as WHO monographs. Anticipated all reports published by 2007
9 June - 10 June 2003: WHO - Geneva, Switzerland. This meeting of representatives from international and national agencies, as well as WHO collaborating centres, is by invitation ONLY.

Research Review Meeting
11 June 2003 - 13 June 2003
WHO - Geneva, Switzerland
Link to more information

International Conference on Non-Ionizing Radiation (ICNIR)
20 October 2003 - 23 October 2003
Kuala Lumpur - Malaysia
Link to more information

WHO / US Air Force Asia Pacific EMF Conference - Postponed until further notice
Bangkok, Thailand
Link to more information

International Commission on Non-Ionizing Radiation Protection (ICNIRP)
20 May 2004 - 22 May 2004
5th Non-Ionizing Radiation Workshop: Sevilla - Spain
EMF Project

✦✦
The International EMF Project. Fact Sheet #181, Oct 1997
✦✦
Physical properties and effects on biological systems. Fact Sheet #182, Oct 1997
✦✦
Health effects of radiofrequency fields. Fact Sheet #183, Oct 1997
✦✦
Public perception of EMF risks. Fact Sheet #184, Oct 1997
✦✦
Mobile telephones and their base stations. Fact Sheet #193, updated June 2000
✦✦
Video display Units (VDUs) and human health. Fact Sheet #201, July 1998
✦✦
Extremely low frequency electromagnetic fields. Fact Sheet #205, Nov 1998
✦✦
Radars and Human Health. Fact Sheet #226, June 1999
✦✦
Cautionary Policies (WHO Backgrounder), March 2000
✦✦
ELF fields and cancer Fact Sheet #263, October 2001
✦✦
Others for review during this meeting

Note: if WHO disapproves of publication as fact sheet, text approved by IAC will be placed on web site as Information Sheets

On home page: http://www.who.int/emf/ in multiple languages
Scientific Journal Publications

Scientific Journal Publications

WHO/IARC publications

Harmonization of EMF Standards

Differences in the EMF limit values in standards in some countries are over 100 times.

This raises concerns about their safety and has led to public anxiety about increasing EMF exposures from the introduction of new technologies.

The purpose of this activity is to work towards international agreement on a framework for developing guidelines on protection of the public and workers from exposure to EMF.
Standards Harmonization Meetings

> Xi'an, China 23-26 October 2000.
> San Antonio, Texas 13-14 November 2000
> Lima, Peru 7-9 March 2001
> Bulgaria 30 April - 4 May 2001
> South Korea, 22-24 October 2001
> Cape Town, South Africa, 4-7 December 2001
> Moscow/St Petersburg, Russia, 17-25 Sept. 2002
> Guilin, Guangxi, China 18-22 April 2003 (Postponed)
> International consensus meeting, Geneva, 2004?
Framework for Developing EMF Standards

DRAFT

International EMF Project
World Health Organization
Geneva, Switzerland

December 2001
A number of national and international organizations have formulated guidelines establishing limits for occupational and residential EMF exposure. The exposure limits for EMF fields developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) - a non-governmental organization formally recognised by WHO, were developed following reviews of all the peer-reviewed scientific literature, including thermal and non-thermal effects. The standards are based on evaluations of biological effects that have been established to have health consequences. The main conclusion from the WHO reviews is that EMF exposures below the limits recommended in the ICNIRP international guidelines do not appear to
# General details

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<thead>
<tr>
<th>Country #1</th>
<th>Russian Federation</th>
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<tr>
<td>EMF protection #2</td>
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<tr>
<td>Instrument type #3</td>
<td>Law</td>
</tr>
<tr>
<td>Standards (BNS)</td>
<td>Sanitary regulations and norms (SanPiNs)</td>
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<tr>
<td>Instrument coverage #4</td>
<td>National</td>
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<td>National</td>
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**Title of Instrument #5**

| | Federal law "The sanitary-epidemiological welfare of the population" from March 30th, 1999 no. 52-FZ |
| | GOST 12.1.002-84 Occupational safety standards system. Power frequency electric fields. Permissible levels of field strength and requirements for control at work-places |
| | SanPiN 1742-77 Permissible levels of static magnetic fields during work with magnetic devices and magnetic materials |
| | GOST 12.1.006-84 Occupational safety standards system. Electromagnetic fields of radio frequencies. Permissible levels at work-places and requirements for control |
| | SanPiN 5802-91 Sanitary norms and regulations of work in power frequency (50 Hz) electric fields exposure conditions |
| | GOST 12.1.046-84 Occupational safety |
| | SanPiN 2.2.4.723-98 |
СИСТЕМА СТАНДАРТОВ БЕЗОПАСНОСТИ ТРУДА

ЭЛЕКТРИЧЕСКИЕ ПОЛЯ
ПРОМЫШЛЕННОЙ ЧАСТОТЫ

ДОПУСТИМЫЕ УРОВНИ НАПРЯЖЕННОСТИ И ТРЕБОВАНИЯ
К ПРОВЕДЕНИЮ КОНТРОЛЯ НА РАБОЧИХ МЕСТАХ

ГОСТ 12.1.002—84

Издание официальное

Цена 3 коп.

ГОСУДАРСТВЕННЫЙ КОМИТЕТ СССР ПО СТАНДАРТАМ
EMF risk perception, communication and management

Information gathered from international reviews in Vienna in 1997 and Ottawa in 1998, and many editorial meetings

A user-friendly handbook has been published. Being translated to different languages
Press Releases

- WHO clarifies its position on health effects of mobile phone use. Note for the press No 14 10 October 2001
Questions for meeting

- The Thermal Workshop was closed to specialists: Should future workshops, such as one on Sensitivity of Children to EMF be open?
- Are there any other projects or information needed by IAC members that is not currently being provided?
- Is the web site adequate and informative?
- Model legislation for countries is to be developed by Tom McManus…what inputs from IAC?
- Other topics that need to be addressed?