

# Comments on the draft standard

by Community representatives Lyn McLean and John Lincoln 23.2.08

The standard lacks clarity on some essential issues

The draft standard claims to protect against specific short-term, acute effects:

- (a) “to prevent the occurrence of magnetophosphenes in the sensitive retinal tissue” [2.3(a) p 6]
- (b) “to prevent electrostimulation of excitable tissue” [2.3(b) p 7].

## 1. Anomaly

- (a) How can short-term, acute effects be time averaged? [2.4 p 8]
- (b) How can occupational values be averaged over a working day? [2.5 p 11]
- (c) How can general public values be averaged over 24 hours? [2.5 p 11]

## 2. Scope:

If the draft protects against short-term, acute effects, then how can it claim relevance for continuous, low-level effects?

- (a) It allows general public exposures up to 3000 mG (750 times the level classified by the IARC as possibly carcinogenic).
- (b) It allows occupational exposures up to 15000 mG (3750 times the level classified by the IARC as possibly carcinogenic).

### *Therefore, in light of 1 and 2*

The document must specify to what it applies in the title which should be amended to read “Limits for acute, short-term exposure to electric and magnetic fields and Precautionary Measures for reducing exposure.”

## 3. Precaution anomaly

The draft standard claims to address “Limits and Precautionary Measures for reducing exposure to electric and magnetic fields” [title].

### *But*

The document does not include precautionary measures. Instead, these are relegated to an annex even though the role of an annex is to provide “background information” [1.6 p 4]

### *Therefore*

- (a) The document must include precautionary measures within the body of the standard.
- (b) To the precautionary principles currently in annex 6 [p 22] must be added “precautionary measures” for reducing electromagnetic fields.

# Summary of Issues raised in Public Submissions

by Lyn McLean, EMR Australia, 20.5.07

Submission numbers are given in brackets.

1. The standard does not protect against:
  - Childhood leukemia at 4 mG (2, 9, 10, 14, 18, 23, 25, 26, 48, A Mulvane)
  - Brain cancers (10, 15, 26)
  - Cancer (10, 26). It ignores the dose response literature (10)(Alan Mulvane)
  - Breast cancer (10)
  - Adult leukemia (15, 10)
  - Miscarriage (20)
  - Long-term effects (20, 13)
  - Public health (13, 19, 26, 44)
2. Electrical sensitivity needs to be addressed by the standard
  - Case studies of people with ES are provided (1)
  - Submissions by people with ES are provided (1, 26, 50)
3. Exposure levels
  - Should set about 1 uT (15)
  - Levels are so far above real exposures in homes or workplaces that measurements will always be less than the standard leading to a false sense of "safety". "This is a dangerous and deceptive process." (10)
  - There is potential abuse by employers who can expose workers to higher levels by classifying them as "electrical workers". (10)
4. Precautionary measures
  - Precautions should be included in the standard (10, 13, 25, 43, 44)
  - Precautions are already in place in court (Logan City Council vs Energex) (10)
  - Suggestions for precautions are provided (17, 26)
  - Fields can be reduced by state of art design, so why not do so? (50)
5. There are problems with the science on which the standard is based
  - Scientific assertions in the standard can't be justified (17 - Energy Australia)
  - Standard protects only from limited effects (13)
  - Bradford Hill criteria are flawed (10, 13)
  - IARC report, WHO and California report need to be considered (15).
  - There is not justification for occupational exposure being 5 times higher than public exposure (A Mulvane)
  - There is a need to account for occupational exposures above 8 hours per day (Mulvane, Hocking)
6. Cost-Benefit analysis
  - This has not been correctly calculated (3)
  - Excludes the cost of health problems for sufferers (48)

#### 7. Legislating the standard

- Not including the standard in legislation abrogates responsibility for risk of this possible carcinogen as identified by IARC -on the basic of cost
- Working group has ignored its legal obligation to continually assess and improve safety and health (10)

#### 8. Mechanisms

- There are mechanisms to explain effects (10, 13, 15, 25)