EMF Inspect

Electromagnetic Field Inspection Services
Site Surveys and Personal Exposure Assessment

RADIOFREQUENCY / MICROWAVE EXPOSURE GUIDELINES

(High Frequency Electromagnetic Waves)

1. Building Biology precautionary guidelines for sleeping areas. SBM 2015

Power density	No Concern	Slight Concern	Severe Concern	Extreme Concern
Microwatts per square meter µW/m²	<0.1	0.1 - 10	10 - 1000	> 1000

2. Bioinitiative Report Precautionary Guidelines (2007-2012) www.bioinitiative.org

Dr. Martin Blank - Columbia University - Biologically Based Precautionary Levels 100 µW/m²

3. Canada and USA Government Guidelines (1999, 2009, 2015)

In Canada, guidelines for Radio Frequency Wave exposure lay under the jurisdiction of Health Canada. Safety code 6 was developed in 1999 and offers federal guidelines for safe RF exposure levels.These limits are in the range of 2,000,000 to10,000,000 µW/m² and based solely on the short term thermal effects or the heating of body tissue. Adverse biological effects have been documented at levels far below Safety Code 6 guidelines. No Canadian biological exposure guidelines exist for long term exposure to low level Radio Frequency Radiation. This also holds true for the USA.

AC MAGNETIC & ELECTRIC FIELD EXPOSURE GUIDELINES

(Low Frequency Electromagnetic Fields ELF, VLF)

1. Building Biology precautionary guidelines for sleeping areas. SBM 2015

AC Magnetic - Flux Density	No Concern	Slight Concern	Severe Concern	Extreme Concern
In Milligauss **mG**	<0.2	0.2 - 1	1 - 5	> 5

AC Electric	No Concern	Slight Concern	Severe Concern	Extreme Concern
Field strength **V/m**	<0.3	0.3 - 1.5	1.5 - 10	> 10

2. Bioinitiative Report Precautionary Guidelines (2007-2012) www.bioinitiative.org

Dr. Martin Blank - Columbia University
AC Magnetic Field Levels 1-2 mG
AC Electric Field Levels – Not Addressed in BioInitiative report.

3. Canada and USA Government Guidelines (1999, 2009, 2015)

In Canada, guidelines for EMF exposure lay under the jurisdiction of Health Canada. Health Canada has not independently established guidelines for magnetic field or electric field exposure. When pressed, they will state that Canada follows the International Commission on Non-Ionizing Radiation Protection “ICNIRP” guidelines (1998) of 830 mG at 60 Hz (Magnetic Field) or 4167 V/m (Electric Field) at 60 Hz for a 24-hr period. Since these guidelines are based on short-term acute exposure we still do not have guidelines that protect the public from long-term low level exposure, which is the case with the distribution of electricity. Associations based on epidemiological studies and cause-effect relationships based on laboratory experiments suggests that exposure to magnetic and electric fields should be thousands of times lower.

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