

	Electromagnetic Fields (EMF) Protection
Country #1	Switzerland
EMF protection #2	Yes
Instrument type #3	Ordinance
Instrument coverage #4	National
Title of Instrument #5	
a.	Ordinance relating to Protection from Non-ionizing Radiation (ONIR) , (Explanatory report can be found at ONIR-explanatory report)
Issued by whom? #6	Swiss Federal Government
Issued when? #7	23 December 1999; entry into force 1st February 2000
Is there a revision pending? #8	No
Are the limits based on ICNIRP? #9	ICNIRP reference levels are applied for protection against proven adverse health effects. They must be respected at all places accessible to persons. In addition precautionary emission limitations, so called installation limit values (ILV), must be respected at places of sensitive use, e.g. apartments, schools, hospitals, permanent workplaces, children playgrounds. They refer to the radiation of a single installation at a defined reference state of operation. Under certain circumstances exemptions from respecting the ILV can be granted.
Compliance #10	Mandatory
If mandatory - how is compliance verified? #11	Measurements and / or calculations, by authorities (local or national, depending on type of installation)
Group protected #12	Public
Frequency range covered #13	0 Hz-300 GHz
Quantities #14	Reference levels
Basic restriction quantities #15	No
SAR details #16	No

a. averaging time	
b. averaging mass	
c. measurement method	
Reference level quantities #17	RMS electric field strength; RMS magnetic field strength; RMS magnetic flux density; RMS induced limb current; RMS contact current
Measurement method for reference level quantities #18	Measurement of NIR – 1st part: frequency range 100 kHz to 300 GHz. SAFEL 1992 (German and French) Mobile phone and WLL base stations – Enforcement recommendation. SAFEL 2002 (German, French and Italian) Mobile phone base stations (GSM) – Measurement recommendation. SAFEL and METAS 2002 (German and French) Mobile phone base stations (UMTS – FDD) – Measurement recommendation. Public draft. SAFEL and METAS 2003 (German and French)
Multiple frequency exposure #19	Yes
Pulsed field exposure #20	Yes
Contact details #21	Swiss Agency for the Environment, Forests and Landscape (SAFEL), Non-ionizing radiation section, CH-3003 Bern, Switzerland. E-mail: nis@buwal.admin.ch
Request for limit data #22	Download of documents: http://www.umwelt-schweiz.ch/buwal/eng/fachgebiete/fg_nis/index.html
EMF handbook for general public #23	<ol style="list-style-type: none"> 1. Title: 2. Publisher: 3. Publishing Year: 4. Number of Pages: 5. Basis on WHO handbook?: 6. Language: 7. Contact for free copies/Internet link: <p>Brochure containing general information for the public about electromagnetic fields is in preparation.</p>

Comment #24	<p>The ONIR does not regulate the limitation of emissions that are generated:</p> <ul style="list-style-type: none"> • by sources in firms, insofar as the radiation affects staff employed by them; • in connection with the application of medical devices in accordance with the Ordinance relating to Medical Products of 24 January 1996; • by military installations, insofar as the radiation affects members of the army; • by electrical appliances such as microwave ovens, cookers, electric tools or mobile telephones.
-------------	---

Installation Limit Values (ILV)

Installation	ILV (RMS value)	Reference operational state
Electric power lines; transformer stations; substations	1 μ T	Maximum rated current
Electric railways	1 μ T	24 hour average, at operation according to schedule
Cellular phone base stations		Maximum rated emitted power
900 MHz	4 V/m	
\geq 1800 MHz	6 V/m	
mixed frequency	5 V/m	
Long- and medium-wave broadcasting	8.5 V/m	Maximum rated emitted power
Radar	5.5 V/m	Average over a complete survey scan, at maximum rated power
All other radio transmitters	3 V/m	Maximum rated emitted power

[Europe](#) [World](#)

*Last Updated on 12-Nov-2003
By D Simunic & S Bullock*