



EMF policy facts: Switzerland

Radio Exposure Limits

Switzerland very often is presented as role model for applying the precautionary principle regarding electromagnetic fields (EMF) emitted from fixed mobile communications equipment. The most relevant source of information regarding EMF regulation in Switzerland is the “Ordinance relating Protection from Non-Ionising Radiation” (ONIR) which entered into force on February 1st, 2000. ONIR codifies the exposure limit values for total EMF emission as set by the International Commission on Non-Ionizing radiation Protection (ICNIRP) and as recommended by the European Union. These limits must be kept at all places at which persons - even at short notice - can stay.

Installation exposure limits

Additionally, lower installation exposure limits are set when an installation provides radio service in or nearby a “place of sensitive use”. These places are deemed to be rooms in buildings that are regularly occupied by persons for prolonged periods, public or private children's playgrounds designated in spatial planning legislation as well as those areas of undeveloped sites on which aforementioned uses are permitted. It has to be emphasized that each installation has to comply with the installation exposure limits at places of sensitive use but also in these places aggregated exposure is only limited by ICNIRP exposure values.

Lessons learnt

Regardless of the political and legal efforts made to allay public concerns discussions remain lively and controversial. “The clear lesson is that the implementation of restrictive limits based on precautionary arguments does not reduce public concern. Indeed, these limits often mean that more antenna sites are required, which can lead to an increase in public resistance.”¹ This situation (ongoing since 2004) has not changed as yet. Moreover, it turns out as one of the major problems for 3G network roll out.

Quoted source: Ordinance relating to Protection from Non-Ionising Radiation (ONIR) of 23 December 1999 (as of 1 February 2000)²:

The Swiss Federal Council, pursuant to Article 12 para. 2, 13 para. 1, 16 para. 2, 38 para. 3 and 39 para. 1 of the Federal Law relating to the Protection of the Environment of 7 October 19831 (Law) and to Article 3 of the Federal Law on Spatial Planning of 22 June 19792, *hereby ordains*:

¹ Report «Second Mobile Communications Seminar», Résidence Palace, Brussels, September 2004

² The translation of important passages on the back is for your convenience and not legally binding.



Art. 1 Purpose

The purpose of this Ordinance is to protect people against harmful effects or nuisances caused by non-ionising radiation.

Art. 2 Scope

1 This Ordinance regulates:

a. the limitation of electric and magnetic field emissions with frequencies in the range 0 Hz to 300 GHz (radiation) that are generated by stationary installations; (...)

2 It does not regulate the limitation of emissions that are generated:

- a. by sources in firms, insofar as the radiation affects staff employed by them;
- b. in connection with the application of medical devices in accordance with the Ordinance relating to Medical Products of 24 January 1996;
- c. by military installations, insofar as the radiation affects members of the army;
- d. by electrical appliances such as microwave ovens, cookers, electric tools or mobile telephones.

3 It also does not regulate the limitation of radiation that affects electrical or electronic medical life-support systems such as cardiac pacemakers. (...)

6 Transmission installations for mobile telecommunication systems and wireless local loops

61 Scope

1 The provisions of this Number apply to transmission installations for cellular mobile telecommunication networks and to transmission installations for wireless local loops with a total equivalent radiated power (ERP) of at least 6 W.

2 They do not apply to point-to-point microwave links.

62 Terminology

1 An installation comprises all transmission antennae for wireless services in accordance with Number 61 that are either attached to the same mast or located in close proximity, e.g. on the roof of the same building.

2 A modification is defined as an increase in the maximum equivalent radiated power (ERP) or change in the transmission directions.

63 Reference operating mode

The reference operating mode is defined as operation at maximum speech and data traffic at maximum transmission power.

64 Installation limit value

The installation limit value for the rms electric field strength is:

- a. 4.0 V/m for installations transmitting exclusively in the range of 900 MHz;
- b. 6.0 V/m for installations transmitting exclusively in the range of 1800 MHz or higher;
- c. 5.0 V/m for installations transmitting simultaneously in both the frequency ranges specified in letters a and b.

65 New and old installations

At places of sensitive use, new and old installations shall comply in the reference operating mode with the installation limit value.

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³ The MMF is an international association of wireless communications manufacturers established to support scientific research in relation to mobile telephony and health, for further information: www.mmfaif.org

⁴ www.forummobil.ch