

The Swedish Radiation Protection Institute's Regulations on Drying with Microwaves;

issued on October 13th 1995.

On the basis of § 7 in the Radiation Protection Ordinance (1988:293) the Swedish Radiation Protection Institute has issued regulations as follow.

§ 1 These regulations apply to the use of microwaves for the drying of walls and floor structures in buildings. The regulations do not apply on the protection of workers in such practices¹.

§ 2 In these regulations the term microwaves refers to electromagnetic radiation within the frequency interval 10 megahertz (MHz) to 150 000 MHz.

§ 3 Anyone who runs the practice shall ensure that the staff involved has good knowledge about the maintenance of the equipment, the relevant methods of measurements and the risks that may be connected to the practice.

§ 4 Anyone who runs the practice shall ensure that humans or animals are kept away from

1. the room where the microwave source is situated when turned on or
2. places within or close to the building where the radiation density (watts per square meter) or the field strengths (volts per metre or amperes per metre respectively) exceeds the values as shown in the table 1. These values refer to the mean values of the radiation density or the RMS field strengths over a period of time of 6 minutes.

Table 1 Exposure limits to microwaves

Frequency f (MHz)	Exposure limit		
$10 \leq f < 400$	2 W/m ²	27.5 V/m	0.07 A/m
$400 \leq f < 2000$	$f / 200$ W/m ²		
$2000 \leq f \leq 150\ 000$	10 W/m ²		

¹ For the protection of workers the regulations of the Board of Occupational Safety and Health apply.

² Identical with the values given in the standard CENELEC ENV-50 166-2.

§ 5 Checks, by measurements at regular time intervals, of the radiation densities or the field strengths shall be performed at locations surrounding the equipment in order to record changes of the radiation field. Such checks shall also be performed after having moved the source into a new position.

Measurements are not necessary if the one who conducts the practice is able to show that the applicable exposure limit is not exceeded in any place where humans or animals may be situated.

§ 6 The measurement results shall be recorded in a journal for each job in the same building. In addition to the journal a plot of the location(s) of the source(s) shall be included as well as the point of measurements. For this purpose a copy of the plan drawing may be used.

These regulations come into force (i.e. on November 14th 1995) two weeks after the day when they are published in the Swedish Radiation Protection Institute's regulatory statutes.

On behalf of the Board of the Radiation Protection Institute

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