Comment Submission
Federal Communication Commission
ET Docket Nos. 03–137 and 13–84; FCC 13–39

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Comment: The FCC should adopt Italian-Swiss frame of restrictions for global exposures to ELF/RF/MWs. For partial exposures, below.

The frame includes

1.exposure limits (EL)
2. attention values (AV)
3. quality targets (Swiss plant limits) (PL)

(See ANNEX 1 below)

The exposure limits must be also observed for occasional exposures. Attention values must be observed for exposures longer than 4 hours and indoor exposures, quality target must be observed for longer exposure than 4 hours and only for sensitive targets (schools, hospitals, etc.) also for outdoor exposures.

Following Salzburg Resolution (2000) and the Parliamentary Assembly of Council of Europe Resolution 2011/12608, the attention values or Quality targets and limits for plants should be decreased down to 0.6 V/m, 0,166 ma/m 1 mw/m^2.

Restrictions for partial exposures to the head should be equal to occasional global exposures restriction due to the practice of ionizing radiation where the restriction for global or head exposures are the same.

RESTRICTION OF 1.6 W/kg CAN BE KEPT FOR PARTIAL EXPOSURES TO ARMS AND TO PARTS OF BODY BUT NOT HEAD.

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ANNEX 1 – ITALIAN AND SWISS FRAMEWOK OF RESTRICTION FOR RFs/MWs GLOBAL EXPOSURES

- ITALIAN EXPOSURE LIMITS (GOVERNMENTAL DECREE 1998/2001; REGIONAL LAW PIEMONTE 1989/11, LAZIO 1989/56) - PROPOSAL OF HEALTH MINISTRY - ISPESL (Fogi di informazione 1997 (4) Suppl.)
- SWISS EXPOSURE LIMITS (FEDERAL ORDINANCE ORNI Dec. 29th 1999) PROPOSAL OF BUWAL, 1999

Table 1 – Italian EXPOSURE LIMITS (*) FOR GLOBAL EXPOSURES TO RFs/MWs			
f = frequency (MHz)	0.1 < =f < 3	3<=f<3000	3000 <= f <300,000
Electric field (V/m)	60	20	40
Magnetic field (A/m)	0.16	0.05	0.10
Power density (W/m^2)	10	1	4

(*) They must be observed for less than 4 hours global exposures

Table 2 – Swiss EXPOSURE LIMITS FOR GLOBAL EXPOSURES TO RFs/MWs						
f = frequency	0.003< =f <0.15	0.15<=f<1	1<=f<10	10<=f<400	400<=f<2000	2000 <= f <300,000
Electric field (V/m)	87	87	$87/f^{1/2}$	28	$1.375\ f^{1/2}$	61
Magnetic field (A/m)	5	0.73/f	0.73/f	0.073	$0.0037\ f^{1/2}$	0.16
Power density (W/m^2)				2	$0.0046\ f^{1/2}$	10

Table 3 – Italian ATTENTION VALUES (**) FOR GLOBAL EXPOSURES TO RFs/MWs	
f = frequency (MHz)	0.1 < =f < 300.000
Electric field (V/m)	6
Magnetic field (A/m)	0.016
Power density (W/m^2)	0.1

(**) They must be observed in the case of more than 4 hours indoor global exposures

Table 3 bis – Italian QUALITY TARGETS (***) FOR GLOBAL EXPOSURES TO RFs/MWs	
f = frequency (MHz)	0.1 < =f < 300.000
Electric field (V/m)	6
Magnetic field (A/m)	0.016
Power density (W/m^2)	0.1

(***) They must be observed in the case of more than 4 hours outdoor global exposure only for sensitive targets (schools, hospitals, etc.)

Table 4 – Swiss QUALITY TARGETS (****) FOR GLOBAL EXPOSURES TO RFs/MWs					
f = frequency	0.150< =f <	200<=f<900	900<=f<1,800	1,800<= f	Mixed

(MHz)	200	(*****)		<3,000	frequencies
Electric field (V/m)	6	3	4	6	5
Magnetic field (A/m)	0.016	0.008	0.011	0.016	0.014
Power density (W/m^2)	0.1	0.024	0.044	1	0.07

(****) They are limits for each plant; global exposures can be summarized for points highlighted from two or more plants.

(*****) Only for Amplitude Modulated VHF/UHF

Table 5 – Italian EXPOSURE RESTRICTION FOR INDUSTRIAL (50/60 Hz) GLOBAL EXPOSURES			
f = frequency (MHz)	EXPOSURE LIMITS	ATTENTION VALUES (>4 hours)	QUALITY TARGETS (>4 hours only sensitive targets)
Electric field (kV/m)	5	5	5
Magnetic flux (mT)	0.1	0.01	0.003