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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band	)	PR Docket No. 93-144 RM-8117, RM-8030 RM-8029
	)	
Implementation of Section 3(n) and 322 of the Communications Act Regulatory Treatment of Mobile Services	)	GN Docket No. 93-252
	)	
Implementation of Section 309(j) of the Communications Act—Competitive Bidding	)	PP Docket No. 93-253

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COMMENTS OF MOTOROLA TO PETITIONS FOR RECONSIDERATION

Motorola hereby files these comments in response to the Petition for Reconsideration filed by The Ericsson Corporation ("Ericsson") in the above-captioned proceeding.[1] Ericsson's petition pertains solely to the new emissions mask adopted in this proceeding for use by wide band 800 MHz systems that are authorized service areas defined by the U.S. Department of Commerce Bureau of Economic Analysis Economic Areas ("EAs").

In its petition, Ericsson states that it supports the Commission's actions to adopt a new emissions mask that is designed to provide EA-based licensees with technical flexibility within their contiguous spectrum while providing protection for non-EA based licensees.[2] Ericsson argues, however, that the new mask should not be applied only to EA-based systems. Rather, "Ericsson believes the new mask should be available for use

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[1] *First Report and Order, Eight Report and Order, and Second Further Notice of Proposed Rule Making*, PR Docket No. 93-144, 11 FCC Rcd 1463 (1995) (*hereinafter* First Report and Order). Ericsson submitted its Petition for Reconsideration on March 18, 1996 (*hereinafter* Ericsson's Petition).

[2] Ericsson's Petition at 1.

by any 800 MHz Part 90 system which operates on a CMRS basis."[3] Ericsson proposes to accomplish this recommended change by amending newly adopted footnote 3 of Section 90.210 to state that "Equipment used in this band [800 MHz] by non-EA systems shall comply with this section or the emission mask provisions of Section 90.691."[4]

Motorola supports the fundamental conclusion of the FCC to minimize the required level of attenuation of emissions within the authorized channel bandwidth and instead focus on the level of emissions falling into adjacent channels authorized to other licensees. Such change is desirable to provide manufacturers with greater flexibility to deploy more sophisticated modulation schemes that better meet the need of the user community while enhancing spectral efficiency. Indeed, the emission mask ultimately adopted by the FCC for EA-based 800 MHz systems is based on input provided by Motorola.[5] In the same vein, Motorola agrees with Ericsson that the emissions mask applicable to non-EA 800 MHz systems should be modified to provide similar flexibility.[6]

Motorola is concerned, however, about adopting a full channel bandwidth "brick wall mask" in an environment that is not characterized by contiguous channel assignments to licensees. Indeed, in the Further Notice of Proposed Rule Making of this proceeding, the FCC discussed its decision in the "Technical Parity" proceeding that "where a licensee has exclusive use of a block of contiguous channels, such as in cellular and PCS, out-of-band emission rules would be applied only to the extent necessary to protect operations

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[3] Ericsson's Petition at 2.

[4] *Id.*

[5] *See* Letter to William Caton, Acting Secretary, FCC from Michael A. Lewis, on behalf of Motorola, Inc., filed December 8, 1995.

[6] There is some confusion as to the scope of Ericsson's proposal. The Petition talks about extending this flexibility to any 800 MHz Part 90 system which operates on a CMRS basis whereas the proposed rule change would instead apply to all non-EA 800 MHz systems (both CMRS and non-CMRS). Motorola believes that there is no basis to limit the scope to CMRS operations only.

outside of the licensee's authorized spectrum."[7] Motorola concurs that this policy is appropriate for such services where the number of adjacent operations is very low.

This is not the case with the non-EA 800 MHz private land mobile bands. Rather, that environment contains trunked systems and conventional operations utilizing channels throughout the available allocation thus resulting in numerous adjacent channel operations in any given geographic area. In such an environment, the need for adjacent channel protection assumes greater importance.

Motorola's primary concern for implementing the newly-adopted EA "brick wall" mask into the less structured environment of the non-EA bands is that the mask provides no safeguard for frequency drift over time. As a transmitter's carrier frequency drifts toward the edge of the channel, even within the permissible frequency stability requirements, the level of energy into the adjacent channel increases. With an emissions mask that allows zero attenuation all the way to the edge of the authorized channel, such frequency drift will result in additional energy falling into the adjacent channel.

Rather than utilizing the EA "brick wall" mask for non-EA applications, Motorola would prefer to modify the existing 800 MHz mask now codified at 90.210(g)(1) to broaden the "nose" of the mask up to the authorized bandwidth of the emission instead of all the way to the edges of the channel. This approach, which is consistent with the FCC's policy for 220 MHz operations, would provide both increased technical flexibility while retaining some guard band with respect to the channel edge. Motorola therefore recommends that Section 90.210(g)(1) be amended by simply repeating the language used in Section 90.210(f)(1) (which defines the 220 MHz mask) to read as follows:

> §90.210(g)(1) On any frequency from the center of the authorized bandwidth f_o to the edge of the authorized bandwidth f_e: Zero dB.

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[7] *Further Notice of Proposed Rule Making,* PR Docket No. 93-144, 10 FCC Rcd 7970 (1995) (*Further Notice),* ¶42.

Motorola believes that this change is better suited to the non-EA spectrum blocks and is a sufficient broadening of technical flexibility.

Respectfully Submitted,

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April 29, 1996

CERTIFICATE OF SERVICE

I, Tanya R. Mason, of Motorola Inc. do hereby certify that on this 29th day of April, 1996 a copy of the foregoing "Comments" was sent to each of the following by hand:

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