

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones	)	WT Docket No. 01-309
	)	
Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services	)	WT Docket No. 03-264
	)	
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules	)	WT Docket No. 06-169
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86
	)	

**COMMENTS OF MOTOROLA, INC. IN SUPPORT OF PETITION FOR  
RECONSIDERATION FILED BY VERIZON WIRELESS**

On June 14, 2007, Verizon Wireless filed a petition for reconsideration<sup>1</sup> urging the Commission to correct and clarify certain aspects of its technical rules adopted in the most recent *Report and Order*<sup>2</sup> concerning the use of the 700 MHz band. Verizon

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<sup>1</sup> Petition for Reconsideration, WT Docket No. 06-150, filed by Verizon Wireless, June 14, 2007 (“*Reconsideration Petition*”).

<sup>2</sup> Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72 (April 27, 2007) (“*Report and Order*”).

Wireless indicated that the rules adopted to regulate the maximum permitted transmitter power in the 700 MHz band do not necessarily achieve the Commission’s stated objectives of “accommodating all technologies” and “promot[ing] uniformity in CMRS regulation.”<sup>3</sup> To address its concerns, Verizon Wireless asked the Commission to adopt multiple rule changes to its technical provisions for 700 MHz operations as summarized below:<sup>4</sup>

- Modify the power flux density (PFD) rule for both the Lower and Upper 700 MHz bands such that the limit applies for any base or fixed stations exceeding 1000 watts ERP and 1000 watts per MHz ERP;
- Modify the rules to make clear that all Lower and Upper 700 MHz licensees exceeding 1000 watts ERP and 1000 watts per MHz ERP must provide advance notice to any licensee authorized to operate on adjacent spectrum, including public safety licensees authorized under Part 90 and regional planning committees identified in § 90.527; and
- Consolidate all rules for the Upper and Lower 700 MHz bands such that a single set of rules applies to both bands.

Verizon Wireless provided the Commission with a complete set of proposed rules to be codified at Section 27.50 through Section 27.55 of the Commission’s rules that would apply transmitter power restrictions to commercial operations in both 700 MHz bands.

Motorola strongly supports the efforts and recommendations of Verizon Wireless. With only minor modifications as discussed herein, adoption of the recommendations contained in the Reconsideration Petition will improve the clarity and consistency of the Commission’s 700 MHz technical standards.

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<sup>3</sup> *Reconsideration Petition* at 2.

<sup>4</sup> *Id.*

Attached as Appendix A to this document, Motorola provides its “redlined” recommended modifications to the proposed rule changes submitted by Verizon Wireless in its Reconsideration Petition. As shown, Motorola’s recommendations are modest in number and apply only to Verizon Wireless’s proposed rewrite of Section 27.50(b)(6) of the Commission’s Rules. While minimal in scope, Motorola’s proposed revisions are intended to provide additional clarity and protection for 700 MHz public safety operations. The substantive aspect of Motorola’s proposed changes to Verizon Wireless’s rules can be summarized as follows:

- 1) ***PFD Applicability:*** The FCC’s Report and Order adopted rules to require 700 MHz commercial licensees operating base stations in excess of certain power limits to comply with a power flux density (PFD) limit.<sup>5</sup> Verizon Wireless correctly notes that the Commission’s adopted rules are not technology neutral and recommended that they be rewritten to impose the PFD limit for stations that exceed 1000 watts ERP *and* 1000 watts per MHz ERP.<sup>6</sup> Motorola recommends that this rule be slightly modified to apply the pfd limit to stations that exceed either condition. This clarification would ensure that emissions less than 1 MHz wide that exceed 1000 watts ERP must comply with the PFD limit.
- 2) ***Notification Distance:*** The Report and Order obligated licensees that wish to operate facilities exceeding 1000 watts ERP or 1000 watts per MHz ERP to notify adjacent channel licensees.<sup>7</sup> Verizon Wireless points out that the Commission’s rules provided conflicting notification distances, specifying 75 kilometers in one rule and 120 kilometers in another, as applied under different operating conditions.<sup>8</sup> Verizon Wireless would remove this inconsistency by modifying Section 27.50(b)(6) to specify a notification distance of 75 kilometers. While Motorola agrees that the inconsistency should be addressed, it instead recommends that the larger notification distance – 120 kilometers – be used to further minimize any interference concerns.

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<sup>5</sup> *Report and Order* at ¶ 97.

<sup>6</sup> *See Reconsideration Petition* at Appendix A, proposed rule Section 27.50(b)(6).

<sup>7</sup> *Report and Order* at ¶ 97, n.226.

<sup>8</sup> *Reconsideration Petition* at 9, 10.

**3) Notification Applicability:** In its proposed draft of Section 27.50(b)(6), Verizon Wireless intends to clarify the pool of affected parties that must be notified when a commercial licensee wishes to operate facilities exceeding 1000 watts ERP or 1000 watts per MHz ERP. As drafted, the rule would not obligate commercial licensees to notify public safety licensees within the required notification distance if the public safety licensee was not operating on adjacent spectrum. Subject to further FCC action in this proceeding to revise the Upper 700 MHz band plan, it remains possible that high-power commercial transmitters could be deployed on spectrum separated from the public safety allocation by a mere 1 MHz guard band. Motorola believes that, particularly for signals greater than 1 MHz, there is a potential for interference from signals separated by greater than 1 MHz. Without extending this notification requirement licensees would not have an opportunity to identify and address potential interference under such conditions. Accordingly, rather than limiting the notification requirement to adjacent channel licensees as proposed by Verizon, Motorola recommends that the requirement be applied to licensees operating within 5 MHz of the high-power transmitter frequency(s). Motorola believes that this requirement is appropriate considering the potential for intermodulation interference generated by high-powered signals occupying bandwidths up to 5 MHz.<sup>9</sup>

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<sup>9</sup> The appropriate value for notification separation is dependent on certain assumptions about use and configuration of the band. At the time that these comments were drafted and submitted, the Commission had not adopted final rules in response to the Further Notice of Proposed Rule Making and, according to recent press reports, was considering significant changes to the Upper 700 MHz band. As those rules are finalized, Motorola would welcome working with all concerned parties to further refine the required notification separation as appropriate.

Adoption of these modest changes to the clarifications and recommendations submitted by Verizon Wireless will clarify the Commission's technical requirements as well as licensee obligations. Motorola urges the Commission to adopt these changes expeditiously.

Respectfully submitted,

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July 16, 2007

**Certificate of Service**

On July 16, 2007, a copy of these COMMENTS OF MOTOROLA, INC. IN SUPPORT OF PETITION FOR RECONSIDERATION FILED BY VERIZON WIRELESS has been provided to the following parties by electronic mail.

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## Appendix A

### Motorola Revisions to the Proposed Rules Contained in the Petition for Reconsideration Submitted by Verizon Wireless in WT Docket No. 06-150

#### § 27.50 Power and antenna height limits.

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(b) The following power and antenna height limits apply to transmitters operating in the 698-764 MHz and 776-794 MHz bands:

\* \* \* \* \*

(6) Licensees authorized to transmit in the 698-746, 747-762 or 777-792 MHz bands and intending to operate a base or fixed station at an ERP greater than 1000 watts for emissions less than 1 MHz or greater than 1000 watts/MHz for emissions greater than 1 MHz must comply with the power flux density requirements of §27.55 (b) and must provide advance notice of such operation to certain licensees on blocks separated by 5 MHz or less. Licensees on blocks separated by 5 MHz or less within 120 km (75 mi) of the base or fixed station (or with jurisdiction within 120 km (75 mi) of the base or fixed station) that must be notified are:

Deleted: and

Deleted: adjacent channel

Deleted: in adjacent spectrum blocks

Deleted: 75

Deleted: 75

- (i) licensees authorized to operate in the 698-746, 747-762, and 777-792 MHz bands;
- (ii) licensees authorized to operate in the 764-776 MHz and 794-806 MHz bands under Part 90 of this chapter; and
- (iii) all regional planning committees, as identified in §90.527 of this chapter.

Licensees must provide the location and operating parameters of the base or fixed station, including the station's ERP, antenna coordinates, antenna height above ground, and vertical antenna pattern, and such notifications must be provided at least 90 days prior to the commencement of station operation.

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