

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

In the Matter of)	
)	
Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended)	WT Docket No. 99-87
)	
Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies)	RM-9332
)	

ORDER

Adopted: March 15, 2013

Released: March 18, 2013

By the Chief, Wireless Telecommunications Bureau, Chief, Public Safety and Homeland Security Bureau, and Chief, Office of Engineering and Technology:

1. *Introduction.* In this *Order*, we grant in part and deny in part a Petition to Delay Indefinitely Implementation of Section 90.203(j)(5) of the Commission’s Rules filed by Ritron, Inc. (Ritron) on September 21, 2012.¹ Pursuant to Section 90.203(j)(5) of the Commission’s rules, the Commission no longer accepts applications for certification of Part 90 private land mobile radio (PLMR) equipment in the 150-174 MHz and 421-512 MHz bands that cannot operate in a 6.25 kHz mode or with equivalent efficiency.² Ritron requests that implementation of this requirement be delayed indefinitely. We conclude that the requirement should be waived only until January 1, 2015.

2. *Background.* In 1995, the Commission adopted rule changes to promote the efficient use of the PLMR service and facilitate the introduction of advanced technologies.³ To promote the transition to a more efficient narrowband channel plan, the Commission provided, *inter alia*, that “only increasingly efficient equipment” would be approved.⁴ The Commission did not set a date after which it would no longer approve equipment with a wideband (25 kHz) mode, or after which such equipment could no longer be manufactured or used.⁵ The Commission contemplated that, as systems reached the end of their service life and new radios were needed, users would migrate to the narrower bandwidth multi-mode radios in order to avoid the adjacent-channel interference that could occur from systems using the adjacent narrowband channels.⁶

3. Subsequently, the Commission determined that the 1995 rules failed to provide adequate incentive to realize the Commission’s spectrum efficiency goals in these bands, and stronger measures

¹ See Petition to Delay Indefinitely Implementation Section 90.203(j)(5) of the Commission’s Rules (filed Sept. 21, 2012) (Petition).

² See 47 C.F.R. § 90.203(j)(5).

³ See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, *Report and Order and Further Notice of Proposed Rule Making*, PR Docket No. 92-235, 10 FCC Rcd 10076, 10077 ¶ 1 (1995).

⁴ *Id.* at 10081 ¶ 7.

⁵ *Id.* at 10100 ¶ 40.

⁶ *Id.*

would be required to bring about a timely transition to narrowband technology.⁷ The Commission therefore amended the rules to provide that, by January 1, 2013, Industrial/Business and Public Safety Radio Pool licensees in the 150-174 MHz and 421-512 MHz bands must migrate to 12.5 kHz channel bandwidth or utilize a technology that achieves equivalent efficiency.⁸

4. The Commission also adopted interim deadlines to facilitate this transition to narrowband technology. Among other rules, the Commission provided that, beginning January 1, 2011, it would no longer accept applications for certification of equipment that cannot operate in 6.25 kHz mode or with equivalent efficiency.⁹ In 2010, the Commission temporarily waived this requirement until January 1, 2013,¹⁰ but stated, “If 6.25 kHz standards still are not in place at that date, interested parties may request a further extension.”¹¹

5. Ritron, a manufacturer of wireless products, contends that standards for 6.25 kHz technology are not yet in place and that other issues exist that justify delaying implementation of mandatory 6.25 kHz certification by manufacturers. Ritron states that no one 6.25 kHz equipment standard exists and that, in the Industrial/Business sector of the market, two incompatible and proprietary technologies have emerged.¹² It also argues that 6.25 kHz equipment is still unduly expensive.¹³ Finally, Ritron asserts that using the equipment authorization process to facilitate the transition to narrowband technology has been largely unsuccessful.¹⁴ It concludes that the implementation of Section 90.203(j)(5) should be delayed until (a) a real need has been established for additional PLMR frequencies beyond those created by the transition to 12.5 kHz channels; (b) the benefits of 6.25 kHz outweigh the associated research and development, manufacturing, and product costs; and (c) a standard has emerged for a more cost-effective voice compressor/decompressor (vocoder).¹⁵

6. The Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau and the Office of Engineering and Technology sought comment on Ritron’s request.¹⁶ We asked commenters to address whether the public interest would be served by further delaying implementation of

⁷ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, WT Docket No. 99-87, 18 FCC Rcd 3034, 3038 ¶ 12 (2003).

⁸ See 47 C.F.R. § 90.209(b)(5). The January 1, 2013 deadline for converting to 12.5 kHz technology has been waived for licensees in the 470-512 MHz segment of the UHF band (the T-Band). See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Order*, WT Docket No. 99-87, 27 FCC Rcd 4213 (*T-Band Order*), *on recon.*, *Order on Reconsideration*, 27 FCC Rcd 14770 (WTB/PSHSB/OET 2012).

⁹ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Third Report and Order*, WT Docket No. 99-87, 22 FCC Rcd 6083, 6090 ¶ 16 (2007) (*Third Report and Order*).

¹⁰ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Order*, WT Docket No. 99-87, 25 FCC Rcd 8861, 8866 ¶ 11 (2010) (*Order*).

¹¹ *Id.* at 8866 n.41.

¹² See Petition at 1-2.

¹³ See *id.* at 2.

¹⁴ See *id.* at 3. Ritron argues that the equipment authorization process does not motivate licensees to adopt narrowband technology because they gain no advantage from doing so.

¹⁵ See *id.*

¹⁶ See Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau and Office of Engineering and Technology Seek Comment on Petition to Delay Indefinitely Implementation of Section 90.203(j)(5) of the Commission’s Rules, *Public Notice*, WT Docket No. 99-87, 27 FCC Rcd 14893 (WTB/PSHSB/OET 2012).

the requirement that applications for equipment certification demonstrate capability to operate on 6.25 kHz channel bandwidths or with equivalent efficiency, and whether any additional waiver should be indefinite or tied to a specific date. Six parties filed comments or reply comments. Commenters generally favor temporarily or permanently delaying the implementation of Section 90.203(j)(5).

7. *Discussion.* We deny Ritron's request that we indefinitely delay implementation of mandatory 6.25 kHz certification by manufacturers, but we conclude that a temporary waiver is appropriate. As noted above, Ritron argues that the benefits of 6.25 kHz operation do not outweigh the associated research and development, manufacturing, and product costs, and that current 6.25 kHz vocoders are not cost-effective. We do not find this persuasive, for Ritron does not explain why, if this is the case, many manufacturers (including Ritron)¹⁷ have been able to develop equipment that is capable of operating in 6.25 kHz mode.¹⁸ Ritron has also not quantified its claim that 6.25 kHz-capable radios are disproportionately more costly than non 6.25 kHz-capable radios nor balanced any increased cost for 6.25 kHz-capable radios against the spectrum efficiency benefits inherent in 6.25 kHz technology.

8. Ritron also argues that no need has been established for additional PLMR frequencies beyond those created by the transition to 12.5 kHz technology. The Commission has already concluded, however, that 12.5 kHz technology is only a transitional step in the eventual migration to 6.25 kHz technology,¹⁹ and has indicated that it will in the future establish a timeline for PLMR licensees to migrate.²⁰ Pursuant to the 1995 rules, the Commission in 1997 stopped accepting applications for certification of Part 90 PLMR equipment in the 150-174 MHz and 421-512 MHz bands that could not operate in a 12.5 kHz mode or with equivalent efficiency.²¹ When the Commission subsequently enacted a deadline for mandatory migration to 12.5 kHz technology, it noted that the wide availability of 12.5 kHz-capable equipment resulting from the 12.5 kHz requirement for new equipment certifications in the preceding years would facilitate licensees' migration.²² Just as the timeline for mandatory migration to 12.5 kHz technology was predicated on 12.5 kHz-capable equipment already being available, we expect the availability of 6.25 kHz-capable equipment to be an important prerequisite to the adoption of a timeline for mandatory migration to 6.25 kHz technology.²³ Ritron provides no basis for us to abandon the Commission's plan.

9. Finally, Ritron argues that implementation of the requirement that applications for equipment certification demonstrate 6.25 kHz capability should be delayed until a single industry-wide standard emerges in the marketplace. We disagree. As Ritron notes, manufacturers have developed multiple standards, as the Commission anticipated when it suggested in 2010 that it would entertain a request for a further extension of the deadline if "6.25 kHz standards" had not been developed by 2013.²⁴ Indeed, the Commission has never suggested that it foresees or will require adoption of a single

¹⁷ See, e.g., FCC ID # AIERIT28-150.

¹⁸ See Comments of Icom America, Inc. at 3-4.

¹⁹ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Fourth Memorandum Opinion and Order*, WT Docket No. 99-87, 23 FCC Rcd 8042, 8044-45 ¶ 8 (2008).

²⁰ See *Third Report and Order*, 22 FCC Rcd at 6088-89 ¶¶ 10-11.

²¹ See 47 C.F.R. § 90.203(j)(3).

²² See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Third Memorandum Opinion and Order, Third Further Notice of Proposed Rule Making and Order*, WT Docket No. 99-87, 19 FCC Rcd 25045, 25056-57 ¶ 25 (2004) (*Third MO&O*).

²³ See *Third Report and Order*, 22 FCC Rcd at 6088-89 ¶ 11.

²⁴ See *Order*, 25 FCC Rcd at 8866 n.41.

mandatory standard, and we do not expect such a development to occur in the Industrial/Business sector.²⁵

10. We do, however, anticipate the development of a single standard in the Public Safety sector, for which the ANSI 102 “Project 25 Phase II” standard (P25 Phase II) is being completed.²⁶ This standard will help ensure that public safety radios are interoperable, a critical goal of public safety communications.²⁷ We find that it is in the public interest to allow standards bodies to complete the P25 Phase II standard before imposing the requirement that radios be capable of operating on 6.25 kHz channels, and extend the implementation of Section 90.203(j)(5) until January 1, 2015.

11. When the Commission extended the implementation of mandatory 6.25 kHz certification by manufacturers from 2011 to 2013, it noted commenters’ arguments that requiring applications for equipment certification to specify 6.25 kHz capability as of January 1, 2011 would increase equipment cost, and that compelling the purchase of more expensive equipment that may need to be replaced once a public safety standard was developed would burden public safety resources.²⁸ In addition, proliferation of 6.25 kHz equipment that is incompatible with the P25 Phase II standard could undermine interoperability,²⁹ which would be contrary to the public interest and the Commission’s goals.³⁰ Therefore, we conclude that a temporary extension of the waiver of the requirement that applications for equipment certification demonstrate 6.25 kHz capability, to allow completion of the ANSI 102 Project 25 Phase II standard, is appropriate.

12. We note that as of January 1, 2015, the Commission will no longer accept applications for certification of Public Safety equipment in the 700 MHz band that cannot operate in a 6.25 kHz mode or with equivalent efficiency.³¹ We therefore grant a waiver until that date, rather than the indefinite waiver requested by Ritron. Specifically, we grant a waiver of the requirement in Section 90.203(j)(4)(iii)-(iv) and (j)(5) that VHF and UHF equipment operating on 25 kHz channels be capable of operating with the equivalent of four voice channels.³² We will continue to accept applications for certification of equipment operating on 25 kHz channels if it is capable of operating with two voice channels until January 1, 2015.³³ In addition, we waive the requirement in Section 90.203(j)(4)(ii) that

²⁵ Ritron itself observes that “a consolidated standard may never exist” in the Industrial/Business sector. *See* Petition at 2.

²⁶ *See Third MO&O*, 19 FCC Rcd at 25060 ¶ 37.

²⁷ *See The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, Fourth Notice of Proposed Rule Making*, WT Docket No. 96-86, 15 FCC Rcd 16899, 16916 ¶ 42 (2000).

²⁸ *See Order*, 25 FCC Rcd at 8865 ¶ 11.

²⁹ *See Comments of Association of Public Safety Communications Officials-International, Inc.* at 1-2.

³⁰ *See Order*, 25 FCC Rcd at 8864 ¶ 8 (“When the Commission adopted the 2011 deadlines, it specifically stated that the narrowbanding schedule was designed to avoid complicating efforts to establish public safety interoperability.”) (citing *Third MO&O*, 19 FCC Rcd at 25022 ¶ 22). The Commission places great importance on facilitating public safety interoperability. *See, e.g.*, *The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, Fourth Memorandum Opinion and Order*, PR Docket No. 96-86, 17 FCC Rcd 4736, 4746 ¶ 24 (2002).

³¹ *See* 47 C.F.R. § 90.203(m).

³² *See id.* § 90.203(j)(4)(iv), (j)(5). We hereby clarify that we do not waive the requirement that equipment with a channel bandwidth of more than 6.25 kHz that is capable of transmitting data must be capable of supporting a minimum data rate of 4800 bits per second per 6.25 kHz of channel bandwidth. *See* 47 C.F.R. § 90.203(j)(5); *see also* 47 C.F.R. § 90.203(j)(3). Ritron did not request a waiver of the data efficiency standard, and the record does not support such a waiver.

³³ *See* 47 C.F.R. § 90.203(j)(3).

equipment operating with a channel bandwidth of 12.5 kHz also be capable of operating with a channel bandwidth of 6.25 kHz.³⁴

13. It would be impractical to regulate equipment at the certification stage based on whether the equipment will be used by Industrial/Business or Public Safety licensees. Moreover, the narrowbanding rules have consistently been applied in the same manner to both groups of licensees.³⁵ Consequently, this waiver applies to certification of all PLMR equipment in the 150-174 MHz and 421-512 MHz bands regardless of end user-licensee.

14. *Conclusion.* We grant Ritron's request to the extent that we waive until January 1, 2015 the requirement that applications for equipment certification demonstrate 6.25 kHz voice capability. We deny Ritron's request for an indefinite waiver. We conclude that it would be contrary to the underlying purpose of the Commission's narrowbanding rules to delay the implementation of the 6.25 kHz voice capability requirement beyond the temporary waiver granted herein.

15. Accordingly, IT IS ORDERED pursuant to Sections 4(i), 11, 303(g), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 161, 303(g), and 303(r), that the instant Petition filed by Ritron, Inc. on September 21, 2012, IS GRANTED IN PART and DENIED IN PART, to the extent set forth above.

16. This action is taken under delegated authority pursuant to Sections 0.31, 0.131, 0.191, 0.241, 0.331, and 0.392 of the Commission's Rules, 47 C.F.R. §§ 0.31, 0.131, 0.191, 0.241, 0.331, 0.392.

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³⁴ See *id.* § 90.203(j)(4)(ii).

³⁵ See *T-Band Order*, 27 FCC Rcd at 4215 ¶ 7 (citing *Order*, 25 FCC Rcd at 8863-64 ¶ 7).