

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

**In the Matter of** )  
 )  
**Request for Temporary Waiver of Section** )  
**74.462 of the Commission's Rules to Permit** )  
**Licensees of Remote Pickup Broadcast** )  
**Auxiliary Stations to Utilize Digital Radio** )  
**Telephony and Data Emissions** )

**To: The Chief, Broadband Division**  
**Wireless Telecommunications Bureau**  
**Via: Office of the Secretary**

**REQUEST FOR TEMPORARY WAIVER**

The Society of Broadcast Engineers, Incorporated ("SBE")<sup>1</sup>, by counsel and pursuant to Sections 1.3 and 1.925 of the Commission's Rules (47 C.F.R. §§ 1.3 and 1.925) hereby respectfully requests that the Commission temporarily waive portions of Section 74.462 of the Commission's rules insofar as those rules presently prohibit the use by Broadcast Auxiliary Service (BAS) Remote Pickup (RPU) Broadcast Stations of certain digital voice and data emissions in BAS allocations at VHF and above. Specifically, SBE asks the Commission to facilitate the use of existing, narrowband, spectrum-efficient digital voice and data technology by permitting the use of equipment used extensively now in the Land Mobile Radio Service under Part 90 rules. The digital emissions of that equipment are not currently permitted by Subpart D, Part 74 for RPU stations. This temporary waiver is sought on an expedited basis, and is necessary only until the final resolution of SBE's contemporaneously filed Petition for Rule Making

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<sup>1</sup> SBE is the national association of broadcast engineers and technical communications professionals, with more than 5,000 members worldwide.

seeking modification of the same rule section cited above. As good cause for the requested temporary waiver, SBE states as follows:

1. There is available now to broadcast licensees FCC-certified, narrowband VHF and UHF RPU equipment using either Time Division Multiple Access (TDMA) technology or Next Generation Digital Network (NXDN) technology. While these are but two among several digital technologies that can facilitate the gradual conversion from analog voice to narrowband digital voice and data technologies by RPU station licensees, there is a strong desire on the part of broadcasters to deploy TDMA and NXDN narrowband equipment in the RPU Service now. These technologies are in widespread deployment by Part 90 licensees. TDMA and NXDN should clearly be permitted where analog voice and data emissions are now permitted pursuant to Section 74.462 of the Commission's Rules, but they are not. Both TDMA and NXDN are permitted for Part 90 PMRS licensees (and are widely deployed in that Service) and in general, the applications for this equipment are similar for Part 74 RPU stations.

2. In the 2002 Report and Order in ET Docket No. 01-75 (17 FCC Rcd. 22979, FCC 02-298, released November 13, 2002) which extensively rewrote the Part 74 Rules, the Commission specifically held at Paragraph 111 thereof that Remote Pickup service licensees will benefit most by having the capability to choose from a wide variety of radios, and that in accordance with the Commission's proposal to standardize Remote Pickup channels with those listed in Part 90, it believed that RPU licensees should adhere to the technical standards of Part 90. In this way, the Commission stated, "Part 74 licensees could choose from among the wide variety of radios available for PLMRS licensees." Accordingly (and with SBE's support as the only entity that commented on

the proposal) the Commission decided to apply to the RPU channels the Part 90 technical rules for the emission mask (47 C.F.R. § 90.210) and frequency stability (47 C.F.R. § 90.210).<sup>2</sup> What has not been done to date, however, is to permit digital emissions for RPU stations, though such emissions have been permitted for some years by part 90 PMRS and public safety licensees.

3. SBE is filing contemporaneously with this waiver request a Petition for Rule Making, proposing, among other things, to amend Section 74.462 of the Commission's rules, in order to permit RPU Service licensees to utilize digital emissions generally in RPU allocations at VHF and above. That rule is currently outdated in that it unreasonably restricts BAS RPU licensees typically to analog emissions. Such is not the case, incidentally, with respect to Part 74 Low Power Auxiliary Stations. See, Section 74.861(e)(3).

4. Motorola has a Part 90 TDMA system marketed commercially (to land mobile licensees) as "MotoTRBO." Motorola's TDMA product conforms to the Digital Mobile Radio (DMR) Tier 2 Standard (a published, open standard; See, ETSI TS 102-361, parts 1-4). It is two-slot TDMA technology (as to the *repeater*; the associated portable and mobile transceivers use single-slot TDMA emissions). It is compatible with existing RPU channelization plans, and thus can contribute to a gradual and interference-free migration to digital communications in the RPU Service. Both Kenwood and ICOM have a current product line of radios using the NXDN Common Air Interface technology, which is an FDMA (Frequency Division Multiple Access) technology with 4FSK modulation that uses 6.25 kHz channel bandwidths. This is certified in two different manufacturer

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<sup>2</sup> At SBE's request, the Commission in Docket 01-75 did not include any new restrictions on the allowable types of modulation permitted on RPU channels. *Id.* at paragraph 112-113.

configurations for Part 74 use. Both Motorola's TDMA product and the current generation of NXDN products conform to the Digital Mobile Radio (DMR) Tier 2 Standard, which is a published, open standard (See, ETSI TS 102-361, parts 1-4).<sup>3</sup> NXDN and TDMA technologies would be helpful in migration to digital emissions for RPU licensees.

5. The Motorola TDMA product specifies emission designators 7K60FXE in voice mode and 7K60FXD for data for portable and mobile transceivers. The problem with this is that the "X" symbol in the second space defining the emission is not included in Section 74.462 in permitted emissions in at least some of the bands, including the UHF allocations. TDMA repeaters, which employ multiple time-slot TDMA emissions, utilize an F7E or F7D emission which is not permitted either. *In general*, digital emissions are not permitted for RPU facilities. The NXDN products utilize, among other emissions, F1D, F1E, F1W, and F2D emissions. In order to permit the use of TDMA and NXDN equipment in digital mode in the VHF and UHF bands pending the resolution of SBE's Petition for Rule Making, temporary waiver of Section 74.462 is necessary.

6. That digital TDMA and NXDN equipment is in wide deployment by Part 90 licensees now; that the equipment is certified for Part 74 use now; but that similar uses in similar bands are not allowed in the Broadcast Auxiliary Remote Pickup Service is illogical and is counter to the Commission's well-established, specifically stated intent to provide flexibility in the implementation of spectrum-efficient digital technologies in the RPU Service. The spectrum-efficient, narrowband systems that use TDMA or NXDN technology, and which are absolutely compatible with existing band plans in Subpart D

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<sup>3</sup> Other manufacturers have access to this DMR standard as well. Several land mobile radio manufacturers either have or are in the process of designing products that are compatible with the DMR standard.

of Part 74 and clearly will not (if coordinated by SBE local frequency coordinators) cause interference, should be permitted to operate while the Commission is considering the Petition for Rule Making that SBE is submitting with this waiver request to permit a wide array of digital equipment to be deployed by RPU licensees.

7. The Commission may waive a rule for good cause shown. 47 C.F.R. § 1.3. Waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation would better serve the public interest than would strict adherence to the general rule. *Northeast Cellular*, 897 F. 2d 1164, 1166 (D.C. Cir. 1990). Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest. *WAIT Radio v. FCC*, 418 F.2d 1153, (DC Cir 1969); *Dominion Video Satellite, Inc., Order and Authorization*, 14 FCC Rcd. 8182 (Int'l Bur. 1999). In *WAIT Radio*, it was held that even if the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule. 418 F. 2d at 1157. In discussing the treatment of requests for waivers of established rules, the court in *WAIT Radio* emphasized that the agency's discretion in applying general rules is intimately linked to the existence of "a safety valve procedure" to permit consideration of an application for exemption based on special circumstances. *Id.* Indeed, the court considered a rule most likely to be undercut if it does not take into account "consideration of hardship, equity, or more effective implementation of overall policy..." *Id.* at 1159. The Commission's waiver authority, per Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, allows the Commission

to grant a waiver if it is shown that (a) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and grant of the requested waiver would be in the public interest; or (b) if there are unique or unusual factual circumstances in a specific case where application of the rule would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.

8. In this case, RPU licensees can economically utilize commercially available spectrum-efficient narrowband digital equipment for BAS use, and it can be implemented off-the-shelf without any disruption of incumbent licensee's analog RPU operations. The same equipment is in regular daily use by Part 90 licensees in the private land mobile radio service. The Commission has an express policy of encouraging the deployment of digital communications equipment, and has expressly stated its encouragement for RPU licensees to have available to them a wide variety of equipment.


9. Strict compliance with the overly limiting rules in Section 74.462 of the Commission's rules would preclude the use of modern digital equipment pending Commission action on a very minor rule change, which could take several years. The waiver in this case is necessary therefore to permit the deployment of modern, spectrum efficient equipment on a temporary basis. It is suggested that the strict application of the rule in this instance would be inequitable, unduly burdensome and contrary to the Commission's policies enunciated in the 2004 Part 74 Rules rewrite, Docket 01-75.

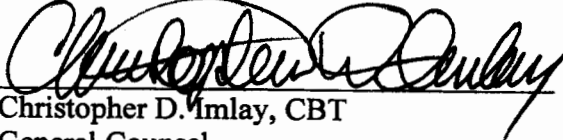
10. SBE would accept the incorporation of a non-interference condition on the waiver, and accepts that the waiver would be in force only until final adjudication of its contemporaneously filed Petition for Rule Making on this same subject.

Therefore, the foregoing considered, SBE respectfully requests that the Commission temporarily waive Section 74.462 of the Commission's Rules, to the limited extent of permitting FCC-certified, digital equipment utilizing TDMA or NXDN emissions (subject to the normal emission mask requirements and bandwidth limitations specified in that rule section); that operation pursuant to such waiver be on a non-interference basis; and that TDMA and NXDN systems operated by RPU licensees pursuant to this waiver be required to comply with all other applicable Part 74 rules. Finally, such waiver would be in place only until final adjudication of SBE's contemporaneously filed Petition for Rule Making on the same subject.

Respectfully submitted,

**THE SOCIETY OF BROADCAST ENGINEERS,  
INC.**

  
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