

**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)	
)	
Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies)	WT Docket No. 99-87
)	
Narrowbanding Memorandum Opinion and Order)	
)	
47 C.F.R. § 90.209(b))	

**REQUEST FOR WAIVER EXTENSIONS OF COMMISSION RULES
EXPEDITED ACTION REQUESTED**

Nelson County, Virginia (“the County”), pursuant to Section 1.925 of the Commission’s rules and the guidelines issued in the Public Notice, DA 11-1189, hereby submits this Request for Extensions of its previously granted Waivers^{1,2} of the January 1, 2013 deadline for transitioning to narrowband operations in the 150-174 MHz VHF Band.³ Due to unforeseen difficulties related to the County’s efforts to coordinate licensing with the National Radio Astronomy Observatory (NRAO), the County encountered a delay of almost eight months in its ability to begin ordering the necessary narrowband-capable infrastructure equipment for its new 12.5 kHz VHF network. The County therefore respectfully requests that the Commission expeditiously grant these requests to extend its Waiver to continue operating on existing 25 kHz channels through June 30, 2014, and to extend its Manufacturing Waiver to continue to receive new dual-mode 25 kHz- and 12.5 kHz-capable equipment for the same period of time, in order to allow the County to complete the implementation of its new countywide 12.5 kHz VHF public safety communications network. As required by Section 1.925, the County believes and will demonstrate in this petition that “(i) [t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of these waiver extensions would be in the

¹ Public Safety and Homeland Security Bureau, Waiver of the FCC’s VHF/UHF Narrowbanding deadline, granted to Nelson County, VA, December 31st, 2012 (“Waiver”)

² Public Safety and Homeland Security Bureau, Waiver of the FCC’s VHF/UHF deadline for importing/manufacturing 25 kHz-capable Part 90 equipment, granted to MSI on behalf of Nelson County, VA, June 28th, 2013 (“Manufacturing Waiver”)

³ Wireless Telecommunications Bureau, Public Safety and Homeland Security Bureau, and Office of Engineering and Technology Provide Reminder of January 1, 2013 Deadline for Transition to Narrowbanding Operations in the 150-174 MHz and 421-512 MHz Bands and Guidance for Submission of Requests for Waiver and Other Matters, DA 11-189, released July 13, 2011.

public interest; or (ii) [i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.” The County further believes that this petition for extensions of its previously granted Waivers follows the recommended content guidelines defined in the Public Notice, DA-11-1189, and addresses the facts applicable to the specific narrowbanding migration path defined by the County.

I. BACKGROUND

Nelson County is located in the Piedmont region of the Commonwealth of Virginia, covering 475 square miles and bordering six of the Commonwealth’s 95 counties. In addition, the County supports the ski resort community of Wintergreen. Approximately 30 Sheriff’s Deputies, 150 fire fighters, 70 emergency medical services and 10 emergency services associates protect the lives and property of the 20,000 residents of the County. These County and municipal first responders are supported in mutual aid incidents by first responders in neighboring Counties and the Virginia State Police (VSP).

Prior to initiating its narrowbanding effort, the County Sheriff’s Office, Fire/Rescue operated an analog conventional 25 kHz LMR communications system, using three Part 90 VHF channels. The number of mobile and portable subscriber radios, of various age, on the system was approximately 50 for Sheriff’s Department, 250 for fire and 150 for EMS and 125 for public safety and local government operating on two transmit and receive sites utilizing PL steered technology. Based on the radio equipment survey that was made, about 3% of the existing subscriber radios were capable of operating in 12.5 kHz mode. The remaining 97% of the subscriber radios are being replaced because they will not operate only in 25 kHz mode. The base radios and system infrastructure are also of various ages dating back to the early 1990’s and are almost universally not capable of being converted to operate in 12.5 kHz mode.

As noted in its original Waiver request, because of the age of its existing communications equipment and the need for improved interoperability, coverage, features and capability offered by new state of the art mission critical communications networks, the County made the decision to enter into a contract with Motorola Solutions, Inc. to implement a narrowband VHF, P25, three site, conventional simulcast system . The County’s goal is to upgrade and enhance its two-way mission critical communications throughout the County for the benefit and safety of life and property of all public safety and government users, and the citizens they serve. This migration to a new P25 system will be accomplished countywide. The implementation of a new P25/12.5 kHz system allows the County to migrate to more efficient spectrum use in the VHF band and thereby meet the Commission’s underlying

goals of its narrowband order.

In DA 11-1189, the Commission provided guidance to licensees for submission of Requests for Waiver of the narrowband deadline. It emphasized that Requests for Waiver of the deadline will be subject to a high level of scrutiny under the waiver standard set forth in Section 1.925 of the Commission's rules, which requires the waiver petitioner to demonstrate either that "(i) [t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the waiver would be in the public interest; or (ii) [i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."⁴

Relevant to the Commission's assessment of the Waiver Request, it recommended that petitioners provide addressing the following to show that the waiver Request has met the Commission's waiver standard under Section 1.925:⁵

- Steps already taken to plan for, initiate, and complete the transition to narrowband operations
- System size and complexity
- Whether system equipment is narrowband-capable or must be replaced or upgraded
- Whether the licensee plans additional system upgrades or improvements in addition to converting to narrowband operation
- Funding sources, including whether the licensee's budget requires government approval or a multi-year budget process
- Whether the licensee's narrowbanding schedule is affected by neighboring systems due to interoperability relationships or other interdependencies
- Plans to minimize the negative impact of extended wideband operations on co-channel and adjacent channel operations, including a description of the spectrum environment in the affected area
- If the licensee plans to migrate to a non-VHF/UHF band (*e.g.*, 700 MHz or 800 MHz), whether it will relinquish VHF/UHF spectrum once it has migrated and the amount of spectrum to be relinquished

The Commission further requested that licensees should provide a proposed timetable for completion of narrowbanding that includes the following elements:

⁴ 47.C.F.R. §§ 1.925(b)(3)

⁵ DA 11-189, released July 13, 2011, page 3.

- What steps in the process have been or will be taken prior to January 1, 2013
- Anticipated dates of commencement and completion of:
 - Replacement or retuning of mobiles/portables
 - Infrastructure replacement or retuning

When addressing the above factors, the Commission recommend that licensees explain how (i) they have worked diligently and in good faith to narrowband their systems expeditiously; (ii) their specific circumstances warrant a temporary extension of the deadline; and (iii) the amount of time for which a waiver is requested is no more than is reasonably necessary to complete the narrowbanding process.

II. NARROWBANDING STEPS TAKEN TO DATE

The County has implemented and completed a number of specific steps towards the build out of its new VHF narrowband system, before and after the original narrowband deadline, and is working to finalize that network as quickly as possible. Steps that have already been completed include:

1. Completed a survey of existing mobile and portable subscriber radios and base station radio equipment to determine the capability of current radio equipment to operate in 12.5 kHz mode via a software update. Results are defined above.
2. Completed a countywide coverage and capacity analysis and developed the corresponding proposed site plan. The system being implemented will be expanded to a three site system, using the existing site locations, operating on four channels in the VHF band. Three of sites will be simulcast sites operating in both transmit and receive mode on all channels and one channel will be transmit only providing Countywide paging. The system is designed to provide a guaranteed 95% mobile coverage throughout the County.
3. Funding request for the complete project approved by the Nelson County Board of Supervisors.
4. The Contract Design Review, including system equipment requirements, is 75% complete, and all site and fixed network equipment has now been ordered with the exception of antennas and combiners.
5. While installation of the infrastructure equipment has just begun, as of August 2013 more than 80% of the subscriber devices have been programmed.
6. In September of 2012, the County initiated the process of coordinating applications to modify its VHF call signs with NRAO, as required. While most of the call signs in question have been approved (in some cases with special conditions) after several months of negotiations with the NRAO and FCC,

the County is still working to get final approval from the FCC for all of the necessary call signs. Until all of the license applications are approved, the design review cannot be completed, and the necessary combiners and antennas cannot be ordered from the vendor.

7. In its original Waiver request, the County provided a detailed plan and project completion schedule to migrate to a countywide interoperable Project 25 network, and obtained vendor detailed pricing proposal to design, implement and install the system, including option for new subscriber equipment, and provide ongoing maintenance services. The original target date for Final Acceptance of the system was September 15, 2013. However, due to the delays in ordering the necessary infrastructure equipment caused by issues related to coordinating with the NRAO, a revised project timeline is provided below, with a revised completion date of June 30, 2014.

Milestone	Completion Date
Contract Award	August 23, 2012
Initiate license modifications applications with NRAO	September 1, 2012
Initiate Review of Contract Design	September 25 & 26, 2012
Contract Design Review and equipment requirements	75% complete as of June, 2013
All Site/Infrastructure Fixed Network Equipment Ordered	July 5, 2013
Subscriber Radio Reprogram or Replacement	80% complete as of August, 2013
Complete Contract Device Review	Pending completion of license modifications
Order Combiners and Antennas	Pending Contract Design Review completion
Fixed Equipment Installation	November 30, 2013
System Optimization	April 15, 2014
System Testing and Cutover	April 30, 2014
Final Acceptance and System Cutover Completed	June 13, 2014

Pursuant to the Section 1.925 of the FCC rules, the County has no other viable alternative than to proceed with the plans currently in place. While the County has already made significant progress in deploying its new communication system, due to the unexpected delays in coordinating with NRAO, insufficient time exists to properly plan and execute an alternative approach that would allow the County to meet the November 30, 2013 deadline granted by the FCC in its original Waiver. As demonstrated by

the effort that has already gone into this project, the County believes that its migration to this new state of the art countywide network that will provide its first responders with an effective and reliable communications network that will promote safety of life and property, and would be in the public interest. Failure to provide the system in lieu of another narrowbanding alternative will be inequitable, unduly burdensome and contrary to public interest.

III. REQUEST FOR WAIVER EXTENSION

Nelson County is executing on its plans for the replacement of its aging communications system and is committed to meeting the FCC's narrowbanding requirements as defined in this request for extensions of its previously granted Waiver and Manufacturing Waiver. The County is working diligently to comply with the mandatory narrowbanding requirement as quickly as possible, in line with the above revised project completion schedule, despite the setbacks that have been encountered in obtaining the necessary licensing modifications. All existing infrastructure, including (but not limited to) base stations, antennas, and coax systems, are being replaced by new state of the art 12.5 kHz equipment, and the County believes that the additional time being requested will allow it to complete the deployment of the new network.

The County requests that the Commission expeditiously grant this request to extend both its Waiver to continue to operate on existing 25 kHz channels, and its Manufacturing Waiver to allow our vendor to continue to provide the County with dual-mode 25 kHz / 12.5 kHz-capable equipment, through June 30, 2014 in order to allow the County to complete the implementation of its new countywide Project 25/12.5 kHz public safety communications network. These requested additional 7 month extensions will provide the County adequate time to complete the system per the optimum milestone schedule shown above plus a reasonable time for any additional schedule slippage and unforeseen setbacks, such as severe weather conditions, delay in availability of parts and equipment, and public safety emergencies. The underlying purpose of the Commission's narrowbanding rule would not be frustrated by the Commission grant of these Waiver Extensions. These Requests to Extend the County's existing Waiver and Manufacturing Waiver do not extend the date for narrowbanding the County's 25 kHz operation to a lengthy or indefinite date, but instead petitions for a finite time extension to permit the implementation of a new interoperable countywide network.

IV. CONCLUSION

As detailed above, Nelson County believes we have shown that a grant of these requests for Extensions of its original Waiver and its Manufacturing Waiver for an additional 7 month period are in

the public interest, could actually promote extended interoperability with neighboring Counties, will not harm any other licensee, and will not frustrate the Commission's underlying goals of its narrowbanding order. The County urges the Commission to recognize that we are in process of implementing a new narrowband Project 25/12.5 kHz VHF digital conventional simulcast system and that we have no other viable alternative than to proceed with the plans currently in place.

The County respectfully requests that the Commission expeditiously grant these Requests to Extend both our Waiver and our Manufacturing Waiver to continue operating on existing 25 kHz channels until June 30, 2014, to allow the County to complete the implementation of a new countywide 12.5 kHz VHF public safety communications network.

Respectfully submitted,



Mr. Stephen A. Carter
County Administrator
Nelson County
P. O. Box 336
Lovington, VA 22949