



Office of the County Executive

St. Charles County

Chuck Gross
Director of Administration

**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.)

**REQUEST FOR MODIFICATION OF GRANTED WAIVER OF
COMMISSION RULES REGARDING THE SPECTRAL EFFICIENCY OF
PRIVATE LAND MOBILE RADIO SERVICES IN THE 150-174 AND 450-470
MHZ BANDS, REQUIRING 12.5 KHZ CHANNEL BANDWIDTH OR
EQUIVALENT TECHNOLOGY BY JANUARY 1, 2013**

WAIVER—EXPEDITED ACTION REQUESTED

TO: The Commission

I. INTRODUCTION

The County of St Charles, Missouri, (County) respectfully requests an amendment to the previously granted waiver of the January 1, 2013 narrowband deadline¹. The County supports the Commission's efforts to establish greater spectral efficiency, and has been taking measures to transition to a new 800 MHz trunked radio network and to comply with narrowband standards on spectrum that is to be retained. As described in this PETITION, certain unique operational needs and situations, including equipment delivery schedule, site

¹ ORDER, DA12-245, Public Safety and Homeland Security Bureau, February 21, 2012

acquisition and zoning compliance, have impacted the County's ability to meet certain aspects of the GRANTED WAIVER, which extended the narrowband compliance date for the RETURNED frequencies to December 31, 2013, but retained the compliance date for RETAINED frequencies at January 1, 2013.

II. BACKGROUND

The Commission, in the waiver approval ORDER, conditioned the grant to required filing by the public safety licensees and the County².

1. Any licensee in the St. Louis Urban Area seeking to have the waiver apply to its facilities must file a letter in ULS confirming that it consents to the terms of this Order and agrees to be bound by them
2. The County must file with the Commission a list of VHF/UHF frequencies and/or licenses that will be relinquished.

These conditions were met with the timely filing of all requested documents. This included a listing of frequencies to be RETAINED and frequencies to be RELINQUISHED

The County and the public safety licensees within the county that consent to the terms of the waiver ORDER are continuing to work in earnest to construct and operate the proposed 800 MHz trunked radio system. It is still anticipated that there will be two groups of below 470 MHz legacy frequencies and two narrow banding scenarios.

1. Operations that are not planned to be incorporated into the 800 MHz trunked public safety system will continue to utilize frequencies in the 150-470 MHz range.

² ORDER at Para 14

2. Operations that are currently utilizing frequencies in the 150-470 MHz range and will be transitioned to the new 800 MHz public safety trunked system.

The County was guided by the Commission's statement that the minimum time for narrowband extension should be requested. As such, the County proposed a very conservative time line for completion of the 800 MHz trunked system and the narrow banding of RETAINED frequencies. The County allowed minimal time for purchasing and implementation slippage. The County proposed and the Commission accepted that the frequencies to be RETAINED would be taken to narrowband by the required date of January, 1, 2013³. Only those frequencies that were to be relinquished would be extended to the waver date of December 31, 2013, at which time the frequencies would be abandoned.

The County seeks a modification to that ORDER which would extend both the RETAINED and RELINQUISHED frequency narrowband requirement to the end date of the WAIVER.

III. REASON AND IMPACT OF REQUESTED MODIFICATION

A. OPERATIONS THAT WILL TRANSITION TO NARROWBAND

The County had anticipated that retained frequencies would be narrowband by the required date of January 1, 2013. Purchasing issues have delayed the implementation of narrowband because the equipment needed to operate in a narrowband mode has been procured as part of the master contract for the 800MHz interoperable radio system. This approach leveraged financial resources so that both objectives, the 800MHz radio system and narrow banding

³ ORDER at Para 11.

channels to be retained could be accomplished using the minimum of public funds. Specifically, narrowband alert paging receivers, necessary to alert public safety personnel of an emergency situation and begin the response process and outdoor warning siren transceivers, necessary to alert the citizens of St. Charles county of an emergency situation and direct them to information outlets, are not expected to be delivered until mid-2013, and the narrowband base station network required to alert these receivers and transceivers will not be complete until the system is accepted. Also, continued operation on frequencies below 470 MHz will require dual band mobile and portable radios, which include 800 MHz trunked operation as well as conventional operation in spectrum below 470 MHz. These dual band radio units provide interoperability with adjacent agencies that are not participating with the Tri-County⁴ 800 MHz trunked network of networks. These dual band radio units are not expected to be delivered and installed, until mid to late 2013. Last, site connectivity for existing 800 MHz systems currently operated in St. Charles County are linked using frequencies below 470 MHz. These systems will be folded into the new county-wide, 800 MHz system. The site links will be replaced by way of microwave spectrum which is expected to be delivered and installed mid to late 2013 at which time those links will be decommissioned.

The extension of the narrowband waiver transition date to include those frequencies to be retained would be in the public interest of ensuring the safety and well-being of County residents, businesses, and visitors; and to the safety and efficiency of the public safety first responders.

⁴ St Louis County, St Charles County, Jefferson County 9-1-1, and the Independent City of St. Louis

B. OPERATIONS THAT WILL TRANSITION TO THE TRUNKED SYSTEM

The County has identified in a prior filing with the Public Safety and Homeland Security Bureau specific frequencies expected to be relinquished at the end of the narrowband waiver, after those operations are transitioned to the new 800 MHz trunked radio system. There is no change proposed to these specific frequencies or to the narrowband waiver attached to these frequencies by the current ORDER.

IV. PROJECTED IMPACT TO OTHER LICENSEES

A. Impact to existing licensees.

The County anticipates that there will not be an impact to any other licensee that is licensed and operating today. The County and the allied public safety licensees are currently licensed in wideband (20 kHz maximum occupied bandwidth) and will continue in wideband operation during the waiver. There will be no change to other existing licensees operation or interference level. Quite the contrary, as other existing licensees on adjacent channels comply with the FCC's narrowband mandate; the possibility of receiving interference from the County or other allied licensees will be significantly reduced.

B. Impact to a future licensee at UHF (450-470 MHz).

The County and/or other allied public safety licensees are currently operating on UHF channels with wideband (20 kHz maximum occupied bandwidth) emission. The FCC has authorized interstitial channels at UHF that are spaced at 12.5 kHz on center. Many licensees have applied for authority to operate narrowband systems on the

offset channels and are using geographic spacing to attain about 30 dB of Adjacent Channel Protection, which is the Adjacent Channel Coupled Power (ACCP) value assumed for UHF⁵. There will be no impact to these narrowband stations due to the continued operation of the County and other allied public safety agencies at wideband. There will be an undermined impact on the ability for new licensees to license channels at 12.5 kHz offset to the County and allied licensee frequencies, without the need to consider geographic spacing to attain adjacent channel protection. Without knowing which potential licenses may apply for the UHF spectrum, it is not possible to quantify the degree of impact. Since most of the 12.5 kHz UHF channels are already licensed with geographic spacing from the County, the only remaining area viable to new licensees would be within the County boundary. The modification of narrowband transition requested would only affect the RETAINED spectrum, as the RETURNED spectrum is presently extended to December 31, 2013. The County knows of no licensees waiting to obtain licenses within the current coverage area that would be impacted by a delay in narrow banding.

C. Impact to a future licensee at VHF (150-174 MHz).

The County and/or allied public safety licensees are currently operating on VHF channels with wideband (20 kHz maximum occupied bandwidth) emission. The FCC had previously authorized channels at VHF that are spaced at 15 kHz on center; and in consideration of narrow banding has authorized interstitial channels at 7.5 kHz on center. Both of these channel centers are impacted by a wideband emission of 20 kHz

⁵ See FCC DA97-2006 and Letter from Larry A. Miller, President, LMCC, to Daniel B. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (Sept. 10, 1997).

bandwidth. Many licensees currently exist operating both wide and narrowband systems on the 15 and 7.5 kHz spaced channels, respectively, and are using geographic spacing to attain about 30 dB and 60 dB of Adjacent Channel Protection, which is the Adjacent Channel Coupled Power (ACCP). There will be no impact to these currently licensed stations due to the continued operation of the County or any of the allied public safety licensees at wideband. There will be an undetermined impact on the ability for new licensees to license channels at both 15 and 7.5 kHz offset to the County and allied licensee frequencies, without considering geographic spacing to attain adjacent channel protection. Without knowing which potential licenses may apply for the VHF spectrum, it is not possible to quantify the degree of impact. Since most of the 15 and 7.5 kHz VHF channels are already licensed, with geographic spacing from the County, the only remaining area viable to new licensees would be within the County boundary. It is noted that channels spaced at 7.5 kHz from the current County and allied public safety licensee frequencies will still require geographic spacing due to bandwidth overlap, which is notably higher than the bandwidth overlap between 15 kHz spaced channels and wideband emission. The County has consulted with the State of Missouri project team and we have determined that the frequencies intended to be retained will not impact the frequency plan for their system currently in implementation. The County will continue to work with the State of Missouri and other Public Safety agencies to minimize any impacts that extended wideband transmissions will have to the operation of other systems.

V. CONCLUSION

As shown above, the County of St Charles and allied public safety licensees have worked diligently and in good faith to comply with the Commission's narrow banding WAIVER, while still maintaining current systems at the highest performance levels.

The County seeks a modification of the WAIVER ORDER to extend the narrowband required implementation date to frequencies that are RETAINED, so as to match the date granted to the frequencies to be RETURNED. This modification will permit an orderly transition to the new radio equipment required to properly implement narrowband operation and will have minimal, if any, effect upon other licensees or potential licensees.

For the reasons stated and in consideration of the public safety issues involved, the Commission is PETITIONED to grant the MODIFICATION of the NARROWBAND WAIVER ORDER, bringing all spectrum into compliance or RELINQUISHED by December 31, 2013.

Respectfully submitted,


Chuck Gross
Director of Administration

APPENDIX A

**FREQUENCIES TO BE RETAINED FOR SPECIAL OPERATIONS AND
INTEROPERABILITY THAT WERE ORIGINALLY REQUIRED TO BE
NARROWBAND BY JANUARY 1, 2013, FOR WHICH A MODIFICATION IS
REQUESTED**

Licensee	Call sign	Frequency
Central County Fire and Rescue	WSL519	154.0850
Central County Fire and Rescue	WSL519	154.0850
Central County Fire and Rescue	WSL519	154.0850
Central County Fire and Rescue	WSL519	154.0850
Central County Fire and Rescue	WSL519	154.0850
Central County Fire and Rescue	WSL519	154.0850
Cottleville	KNJG666	158.8650
Cottleville	KNJG666	158.8650
New Melle	WPKH797	150.0850
New Melle	WPKH797	150.9500
New Melle	WPKH797	150.9500
New Melle	WPKH797	155.3700
New Melle	WPKH797	155.4750
New Melle	WPKH797	155.4750
O'Fallon PD	KXZ610	154.4750
O'Fallon PD	KXZ610	154.9500
O'Fallon PD	KXZ610	155.3700
O'Fallon PD	KXZ610	155.4750
St Charles County Ambulance Dist	KZ4029	155.2200
St Charles County Ambulance Dist	KZ4029	155.3400
St Charles County Ambulance Dist	KZO390	155.9400
St Charles County Ambulance Dist	KZO390	155.9400
St Charles County Ambulance Dist	KZO390	155.9400
St Charles County Ambulance Dist	KZO390	155.9400
St Charles County Ambulance Dist	KZO390	158.8350
St Charles County Ambulance Dist	KZO390	158.8350
St Charles County Ambulance Dist	KZO390	158.8350
St Charles County Ambulance Dist	KZO390	158.8350
St Charles County Ambulance Dist	KZ4029	463.0000

St Peters, City of	KKD426	155.4750
St Peters, City of	WGJ507	173.2100
St Peters, City of	KD20527	453.0125
St Peters, City of	KB88145	453.4375
Wentzville	KUS658	155.3700
Wentzville	KUS658	155.3700
Wentzville	KUS658	155.4750