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

In the Matter of	)	
	)	
	)	PS Docket No. 06-229
	)	
The effect of Federal Communications Commission (FCC) Rule 90.535d(2) "Modulation And Spectrum Efficiency Requirements" on the future efficiency, budgetary impact and sustained viability of Statewide 700 MHz Radio System Interoperability in Region 7 (the State of Colorado).	)	WT Docket No. 02-378

PETITION FOR WAIVER AND REQUEST FOR EXPEDITED REVIEW AND ACTION FOR RULEMAKING

Submitted by
The City of Thornton; Call Sign WQLJ860;
A member of the Region 7 (Colorado) Regional Planning Committee.

I. SUMMARY OF REQUEST 2
II. BACKGROUND 3
III. DISCUSSION 4
IV. CONCLUSION 7

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I. SUMMARY OF REQUEST

Pursuant to Section 47 C.F.R. § 1.925(b)(3), The City of Thornton., a member of the Region 7 (Colorado) Regional Planning Committee, respectfully submits this Request for Waiver as well as an amendment of the Commission's Rule 90.535d(2) "Modulation and spectrum efficiency requirements" .

The City of Thornton requests the mandatory transition deadline to operate the 700MHZ Public Safety Narrowband channels with a voice efficiency of at least one voice path per 6.25 kHz of spectrum bandwidth be waived or modified from December 31, 2016 to a date not sooner than December 31, 2024 or a date to be determined based upon criteria set forth by the Regional RPC. Furthermore the City of Thornton petitions for an amendment to the Commission's Rule 90.535 allowing the RPC to determine when narrowband operation would be required in their region.

II. BACKGROUND

The Commission's rules; §90.535(d)(1), §90.535(d)(2) and §90.535(d)(3) set timelines for operation of the 700MHZ Public Safety Narrowband channels with a voice efficiency of at least one voice path per 6.25 kHz of spectrum bandwidth.

In 1998, the Federal Communications Commission (Commission) established a structure to allow RPCs optimal flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and as yet unanticipated developments in technology and equipment.[1] There are fifty-five RPCs, and each committee is required to submit its plan for the General Use spectrum.[2] The Commission's role in relation to the RPCs is limited to (1) defining the regional boundaries; (2) requiring fair and open procedures, *i.e.*, requiring notice, opportunity for comment, and reasonable consideration; (3) specifying the elements that all regional plans must include; and (4) reviewing and accepting proposed plans (or amendments to approved plans) or rejecting them with an explanation.[3]

On July 31, 2007, the Commission adopted a *Second Report and Order* revising the rules governing wireless licenses in the 700 MHz band.[4] The Commission adopted a plan for the 700 MHz band to establish a nationwide, interoperable public safety broadband communications network for the benefit of state and local public safety users. The Commission designated the lower half of the 700 MHz public safety band for broadband communications (763-768/793-798 MHz) and consolidated existing narrowband allocations in the upper half of the public safety 700 MHz band (769-775/799-805 MHz).

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[1] *See* Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking,* 14 FCC Rcd 152 (1998) (*First Report and Order*); *Second Memorandum Opinion and Order*, 15 FCC Rcd 16844 (2000). *See also* 47 C.F.R. § 90.527.

[2] *See* 47 C.F.R. § 90.527. Each RPC must incorporate certain common elements into its 700 MHz plan. A list of 700 MHz RPCs and region activities is available at http://www.fcc.gov/pshs/public-safety-spectrum/700-MHz/.

[3] *First Report and Order*, 14 FCC Rcd at 195 ¶ 87.

[4] Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, PS Docket No. 06-229, WT Docket No. 96-86, *Second Report and Order*, 22 FCC Rcd 15289 (2007) (*Second Report and Order*).

In revising the band plan for the public safety 700 MHz band, the Commission noted that consolidating the narrowband channels in the upper part of the band will impact approved and pending 700 MHz RPC plans (*i.e.* require that the plans be amended).[5] The Commission required RPCs with approved plans or plans on file to submit amended plans consistent with the decisions adopted in the *Second Report and Order* by November 23, 2007.[6] On November 9, 2007, the Public Safety and Homeland Security Bureau (Bureau) extended the deadline for RPCs to submit amended plans, consistent with the decisions adopted in the *Second Report and Order,* to January 31, 2008, and provided additional guidance for the development of plan amendments.[7]

The Region 7 RPC was established on April 20th, 2001. The July 31, 2007, *Second Report and Order* created a need for retuning of existing narrowband equipment to allow for operation of the new Broadband Band Plan.

The Public Safety and Homeland Security Bureau approved the Region 7 700 MHz revised regional plan on December 3, 2008 in DA 08-2648.

The Middle Class Tax Relief and Job Creation Act of 2012 enacted February 22, 2012, Sec. 6102. "Flexible Use of Narrowband Spectrum." states "The Commission may allow the narrowband spectrum to be used in a flexible manner, including usage for public safety broadband communications, subject to such technical and interference protection measures as the Commission may require."

III. DISCUSSION

To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that: (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest; or (ii) in view of unique or unusual factual circumstances of the

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[5] *Id.* at 15414 ¶ 346.

[6] As of the adoption date of the *Second Report and Order*, the following regional plans had been approved: Region 5 (Southern California), Region 19, (New England), Region 24 (Missouri), Region 22 (Minnesota), Region 12 (Idaho), Region 39 (Tennessee), Region 43 (Washington), Region 41 (Utah), Region 3 (Arizona), and Region 40 (Northern Texas). The following regional plans were pending as of the adoption date of the *Second Report and Order*: Region 1 (Alabama), Region 27 (Nevada), Region 45 (Wisconsin), Region 7 (Colorado), Region 9 (Florida), Region 16 (Kansas), and Region 20 (Northern Virginia, Maryland, and the District of Columbia).

[7] *See* Public Safety and Homeland Security Bureau Announces an Extension of the Deadline for 700 MHz Regional Planning Committees to Amend 700 MHz Narrowband Plans from November 23, 2007 to January 31, 2008, PS Docket No. 06-229, WT Docket No. 96-86, *Public Notice,* 22 FCC Rcd 19461 (PSHSB 2007).

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.[8] An applicant seeking a waiver faces a high hurdle and must plead with particularity the facts and circumstances that warrant a waiver.[9] Although a successful waiver petition needs to satisfy only one of the two tests, The City of Thornton. will demonstrate that this request satisfies both tests.

Throughout the State of Colorado, the use of 700 MHz public safety narrowband voice spectrum is minimal as compared to the use of 800 MHz public safety narrowband voice spectrum. This use has neither met, nor exceeded, any of the allocated 12.5 kHz narrowband voice channel allotments in any county-like area defined in or by the Region 7 700 MHz RPC's frequency plan. To date, the Region 7 is not aware of any users intending to deploy large 700 MHz public safety narrowband voice systems beyond what is currently licensed in the region.

The underlying purpose of the rule(s) requiring more efficient uses of spectrum aim to increase the available "talk paths-per-megahertz" to either avoid or resolve spectrum congestion. Spectrum congestion is a clear issue in the bands below 512 MHz, and in that case, Region 7 believes that such rules are prudent, provide benefit the users of that spectrum and thus serve the public's interest. However, in the 700 MHz public safety narrowband voice spectrum, Region 7 believes that there will not be a spectrum congestion issue in this band in the next ten-to-fifteen years. Therefore, we ardently believe that the timeline outlined in §90.535(d)(1), §90.535(d)(2) and §90.535(d)(3) of the Commission's rules neither benefits the users of this spectrum, nor serves the public's interest. In addition, since all Region 7 700 MHz public safety narrowband voice spectrum utilizes the TIA/EIA Project 25 phase one (FDMA) common air interface standard, in order to comply with the Commission's rules we must utilize the TIA/EIA Project 25 phase two (TDMA) common air interface standard. As of this date, the TIA/EIA Project 25 phase two standard is not fully complete with Project 25 Compliance Assessment Program (CAP) tests. Additionally, there are not any Project 25 Compliance Assessment Program labs certified to perform TIA/EIA Project 25 phase two

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[8] 47 C.F.R. § 1.925(b)(3).

[9] *WAIT Radio v. FCC*, 413 F.2d 1153, 1157 (D.C. Cir. 1969), *aff'd*, 459 F.2d 1203 (1973), *cert. denied*, 409 U.S. 1027 (1972) (citing *Rio Grande Family Radio Fellowship, Inc. v. FCC*, 406 F.2d 664 (D.C. Cir. 1968)).

tests. Therefore the Region 7 licensees are left with the decision to purchase equipment from manufacturers which purports to be "Project 25 phase two upgradeable" or "capable". Because the standards and compliance assessment processes are not complete, none of this equipment is demonstrably compatible with this standard to fulfill the Commission's requirements. In order to meet the timeline set forth in the Commission's rules, a migration toward Project 25 phase two will need to begin almost immediately due to the high costs involved, as both mobile and repeater infrastructure equipment purchases will be required. This is a burdensome and risky decision to make with tax dollars, particularly when much of the equipment which will need to be replaced has not met or exceeded the serviceable equipment lifetime anticipated at the time it was purchased.

Within Region 7 the 700 MHz narrowband voice channels are part of LMR systems utilizing both 700 & 800 MHz frequencies. Many of these licenses are part of a statewide interoperable system. The current narrow-banding mandate means that most of the agencies in Region 7, in addition to upgrading their infrastructure, must replace all of their subscriber units. This is proving to cost more than twice the amount necessary to simply upgrade the 700 MHz equipment. The requirement to upgrade the 700 MHz channels results in a requirement to upgrade 800 MHz infrastructure as well so that current 800 MHz users are not isolated from interoperable communications with the 700 MHz users or the coverage provide by 700 MHz infrastructure sites incorporated into the larger 700/800 MHz systems. The largest of these systems is a statewide P25 digital trunked system with 212 sites supporting over 1000 user agencies. The City of Thornton is an infrastructure owner in this system with a 3 site, thirteen channel simulcast cell. The cost to upgrade this system infrastructure to be compatible with 6.25 KHz voice equivalency is over 12 Million plus at least 10 Million to upgrade the individual 700 MHz site infrastructure plus the cost for compatible subscriber units. Currently there is no funding mechanism for this upgrade. If funding can't be found the 700 MHz users will have to abandon their licenses or develop their own P25 systems and connect them to the 800 MHz systems using the P25 ISSI. This will reduce current interoperability, and not serve the public interest.

Finally with the passing of The Middle Class Tax Relief and Job Creation Act of 2012, not only provides for the development of a National Public Safety Broadband

Network Sec. 6303. "Public Safety Wireless Communications Research and Development" of the Act requires NIST to accelerate the development of communications technology and equipment that can facilitate the eventual migration of public safety narrowband communications to the nationwide public safety broadband network; and Sec. 6102. "Flexible Use of Narrowband Spectrum." allows the commission to set rules for flexible use of the narrowband spectrum. This makes the future use of the 700 MHz narrowband spectrum uncertain for existing licenses and therefore increases the financial risk of narrowbanding before a spectrum need is determined. Therefore in view of above noted circumstances the application of the rule(s) would be inequitable, unduly burdensome, and contrary to the public interest.

IV. CONCLUSION

According to the Commission's web site, "In 1998, the Federal Communications Commission (FCC) established a structure to allow Regional Planning Committees (RPCs) optimal flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and unanticipated developments in technology and equipment". The City of Thornton believes that the dates set forth in §90.535(d)(1), §90.535(d)(2) and §90.535(d)(3) of the Commission's rules cross into an area which is best served by the Regional Planning Committees. Once spectrum which is managed by a Regional Planning Committee becomes congested, the public's interest would be best served if that Regional Planning Committee works with the users of this spectrum to tailor the dates for compliance to these rules to the needs of state and local users.

As a result, The City of Thornton believes that the intent of the rules and regulations outlined in §90.535(d)(1), §90.535(d)(2) and §90.535(d)(3) are: contrary to the public interest since spectrum congestion in this band is not a concern for many years; and burdensome to the taxpaying public who would be required to fund the necessary equipment upgrades to comply with these rules.

Accordingly, pursuant to §1.925 of the Commission's rules, The City of Thornton respectfully requests that the Commission waive the dates outlined in §90.535(d)(1), §90.535(d)(2) and §90.535(d)(3), requiring frequencies "which operate in a voice mode to do so at a voice efficiency of at least one voice path per 6.25 kHz of spectrum bandwidth no later than January 31, 2017", indefinitely and place the date for such voice

efficiency requirements in the hands of the Region 7 (Colorado) 700 MHz Regional Planning Committee.

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Respectfully submitted,

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