

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

In the Matter of)	
)	
STATE OF WYOMING)	File Nos. 0002947551, 0002947644,
)	0002947635, 0002947650, 0002947658,
Request for Waiver of Sections 90.20(g)(2)(i),)	0002947664, 0002949245, 0002951308,
90.20(g)(5)(ii) and 90.20(g)(5)(v) of the)	0002951309, 0002951310, 0002951659,
Commission's Rules)	0002951665, 0002951672, 0002951679

ORDER

Adopted: June 30, 2008

Released: June 30, 2008

By the Chief, Public Safety and Homeland Security Bureau:

I. INTRODUCTION

1. The State of Wyoming (Wyoming) filed fourteen applications for authority to operate several channel pairs in the 150 MHz band as part of its statewide narrowband digital trunked P-25 radio communication systems called "WyoLink."¹ As part of these applications, Wyoming also seeks waiver of Sections 90.20(g)(2)(i) and 90.20(g)(5)(ii) of the Commission's rules,² pursuant to Section 1.925(b)(3).³ For the reasons discussed below, we grant Wyoming's request as conditioned herein.⁴

II. BACKGROUND

2. Wyoming seeks to construct a statewide narrowband digital trunked radio communications system, which it states would be "used by participating local, state and federal agencies to support critical public safety and homeland security activities benefiting Wyoming's population of over 500,000 and its more than 11 million annual visitors and tourists."⁵ Wyoming determined that the

¹ File Nos. 0002947551, 0002947644, 0002947635, 0002947650, 0002947658, 0002947664, 0002949245, 0002951308, 0002951309, 0002951310, 0002951659, 2951665, 0002951672, 0002951679 (collectively, the Applications) and associated Waiver Request (filed Mar. 13, 2007; amended May 17, 2007 (First Waiver Amendment); Nov. 21, 2007 (Second Waiver Amendment); Jan. 18, 2008 (Third Waiver Amendment); May 8, 2008 (Fourth Waiver Amendment); May 21, 2008 (Fifth Waiver Amendment)). The instant Applications and Waiver Request are part of twenty-nine applications filed by Wyoming to use certain frequencies governed under Parts 22, 80, and 90 of the Commission's rules as part of its proposed WyoLink system. *See, e.g.,* State of Wyoming, *Order*, DA 08-1448 (rel. June 19, 2008) (granting request for waiver to use Part 22 frequencies associated with File No. 0002910742).

² 47 C.F.R. §§ 90.20(g)(2)(i) and 90.20(g)(2)(ii).

³ 47 C.F.R. § 1.925(b)(3).

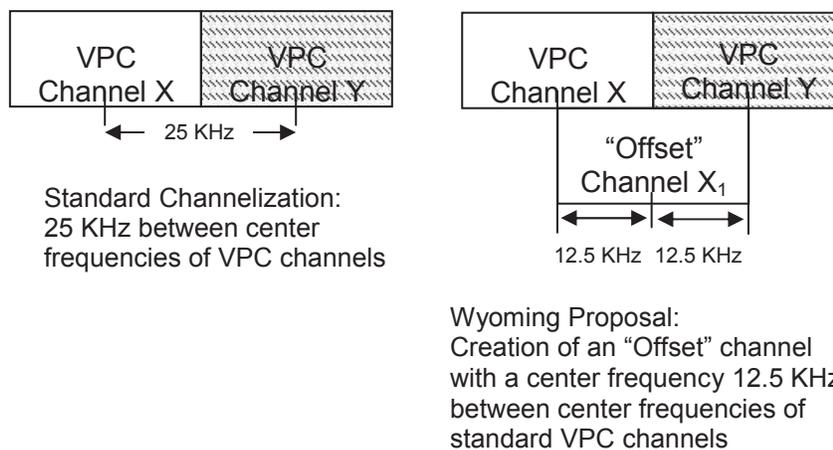
⁴ Wyoming also sought waiver of Section 90.20(g)(5)(v) to operate mobile units outside the radio range of an associated base station. *See* Waiver Request at 11. This rule specifies, in relevant part, that "[m]obile stations must be operated only within radio range of their associated base stations." 47 C.F.R. § 90.20(g)(5)(v). After discussions with Wyoming, however, it was determined that all Wyoming mobile units will remain within the radio range of an associated base station when transmitting. Consequently, waiver of Section 90.20(g)(5)(v) is not required. Therefore, Wyoming's request with respect to this rule is moot.

⁵ First Waiver Amendment at 1; Fifth Waiver Amendment at 1.

WyoLink network “will require up to seven channel pairs at each of its 57 high-level and 23 low-level transmitter sites.”⁶ With respect to the instant Applications, Wyoming identified for use in its system the following VHF Public Coast (VPC) channel pairs, which are allocated for public safety use in Wyoming: (i) channel 84 (157.225/161.825 MHz) and channel 25 (157.250/161.850 MHz) at most of the proposed sites in Wyoming; and (ii) channel 25 and channel 85 (157.275/161.875 MHz) at proposed sites in Teton County.⁷ Wyoming states that these channels “are an essential component of [its] effort to upgrade aging and limited radio communications facilities.”⁸

3. Wyoming notes that, because its system “has been designed to operate on a narrowband basis, the State applied for 12.5 kHz channels derived from these 25 kHz channels.”⁹ Consequently, Wyoming proposes not only to operate on the standard VPC channels but also to operate on channels offset 12.5 kHz between the standard 25 kHz VPC channels.¹⁰ See Figure 1 below.

Figure 1



4. Because Wyoming proposes to operate on offset channels between the standard VPC channels, it requires waiver of Section 90.20(g)(2)(i).¹¹ This rule provides that the center frequencies for VPC channels available for licensing to public safety be separated by 25 kHz.¹² In reply to the Commission’s return of its application,¹³ Wyoming asserts that its operation on offset channels would promote “the Commission’s goal of encouraging efficient use of spectrum” by allowing Wyoming to

⁶ First Waiver Amendment at 1; Second Waiver Amendment at 1.

⁷ See Third Waiver Amendment at 1.

⁸ First Waiver Amendment at 3.

⁹ Third Waiver Amendment at 1.

¹⁰ See *Id.* at 1-2.

¹¹ See Third Waiver Amendment at 3.

¹² See 47 C.F.R. § 90.20(g)(2)(i).

¹³ See Notice of Return, dated September 25, 2007, from FCC to Larry E. Sheridan, State of Wyoming. The Notice of Return informed Wyoming that it did not provide adequate justification to grant waiver of Section 90.20(g)(2)(i) to use center frequency 157.2375 MHz/161.8375 MHz. *Id.*

operate on three narrowband 12.5 kHz bandwidth channels in the same amount of spectrum which would support only two 25 kHz bandwidth channels.¹⁴

5. Wyoming also requires waiver of Section 90.20(g)(5)(ii) governing the output power and antenna height limits for base stations and associate mobiles to be operated on the requested channel pairs.¹⁵ This rule provides that the transmitter output power is limited to 50 watts for base stations and 20 watts for mobile units while the antenna height for base stations is limited to 122 meters (HAAT).¹⁶ Wyoming notes that the base station equipment proposed for use in the WyoLink system would operate with a maximum of 125 watts transmitter output power at various antenna heights, while the mobile units would operate with 100 watts transmitter output power.¹⁷ Wyoming states that a grant of the waiver will not undermine the purpose of this rule because its proposed operations will provide the required level of interference protection to all incumbent licensees.¹⁸ Wyoming reiterates that it has obtained frequency coordination for the application and notes that it plans to use the frequencies proposed in its applications “only when necessary to alleviate congestion during times of heavy use, such as when emergency service providers are responding to crisis, and it will not use these channels to control trunked operations.”¹⁹ Lastly, Wyoming states that it “will immediately address and resolve any instances of harmful interference” and that “it has designated a single point-of-contact to handle interference complaints and will provide all potentially affected licensees with the contact information for that person.”²⁰

III. DISCUSSION

6. 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;²¹ or (ii) in 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.²² An applicant seeking a waiver faces a high hurdle and must plead with particularity the facts and circumstances that warrant a waiver.²³ Based on the information before us, we conclude that a grant of the Waiver Request is warranted.

A. Offset Channels

7. We find that Wyoming’s request for waiver of Section 90.20(g)(2)(i) is warranted because application of this rule in the present case would not serve the underlying purpose of the rule; that

¹⁴ Second Waiver Amendment 4.

¹⁵ 47 C.F.R. § 90.20(g)(5)(ii).

¹⁶ *See id.*

¹⁷ Fifth Waiver Amendment at 11-12.

¹⁸ *See id.* at 12.

¹⁹ *Id.*

²⁰ *Id.*

²¹ 47 C.F.R. § 1.925(b)(3)(i).

²² 47 C.F.R. § 1.925(b)(3)(ii).

²³ *WAIT Radio v. FCC*, 413 F.2d 1153, 1157 (D.C. Cir. 1969) (*WAIT Radio*), *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)); *Birach Broad. Corp., Memorandum Opinion and Order*, 18 FCC Rcd 1414, 1415 (2003).

is, to ensure efficient spectrum use by licensees and to prevent interference.²⁴ Specifically, we find that Wyoming's proposed operation on 12.5 kHz "offset" channels would create no risk of harmful interference to any existing licensee. In reaching this determination, we note that Wyoming proposes to operate on offset channels at locations where it would be the only licensee permitted to operate on each upper and lower-adjacent standard channel.²⁵ Wyoming also demonstrates that it would be the only licensee permitted to operate on the adjacent standard VPC channels within 139 kilometers (86 miles) of any site at which the proposed offset channels will be used.²⁶

8. We also find that Wyoming's proposed operations on the offset channels would be in the public interest. To the extent Wyoming would operate on three narrowband 12.5 kHz bandwidth channels in the same amount of spectrum that would support only two 25 kHz bandwidth channels, Wyoming's proposed use would be consistent with the Commission goals of encouraging spectrum efficiency.²⁷ This spectrum efficiency would enable "participating local, state, and federal agencies to support critical public safety and homeland security activities."²⁸

B. Power and Antenna Height Limits

9. We also find that Wyoming's request for waiver of Section 90.20(g)(5)(ii) is warranted because application of this rule in the present case would not serve the underlying purpose of the rule; that is, to ensure efficient spectrum use by licensees and to prevent interference.²⁹ Based on our own analysis, we are persuaded that Wyoming's proposed operation of base stations at greater than fifty watts with antenna heights greater than 122 meters and mobile units at greater than twenty watts will likely create no risk of harmful interference to incumbent operators on these frequencies. In this regard, our analysis indicates that no site-based public coast³⁰ or public safety incumbents³¹ operate on the requested VPC channels in the State of Wyoming. As noted above, the closest site-based incumbent operating on these VPC channels outside of the State of Wyoming is located more than 139 kilometers (86 miles) from Wyoming's proposed base stations.³²

10. Furthermore, in review of Wyoming's analysis, we also conclude that, despite the increase in power and antenna height, the proposed base stations and mobile units will create no risk of harmful interference to non-public safety licensees operating on an Economic Area (EA) basis in the

²⁴ See, e.g., *2006 Biennial Review Wireless Telecommunications Bureau Staff Report*, 22 FCC Rcd. 3006, 3091 (2006)(*2006 Biennial Review*) ("The purposes of the Part 90 rules are to establish basic ground rules for assignment of spectrum in Part 90 services, to ensure efficient spectrum use by licensees, and to prevent interference.").

²⁵ See Second Waiver Amendment at 4.

²⁶ *Id.* at 5. Wyoming's analysis finds that station KNNN674 is "licensed to operate a repeater on channel 84 in Ogden, Utah," which is more than 139 kilometers (86) miles from the nearest proposed WyoLink station, at Geneva Summit. *Id.*

²⁷ *Id.* at 4. See, e.g., *2006 Biennial Review*, 22 FCC Rcd at 3091.

²⁸ Second Waiver Amendment at 4.

²⁹ See *2006 Biennial Review*, 22 FCC Rcd at 3091.

³⁰ See 47 C.F.R. § 90.20(g)(5)(iii)(A). This rule requires frequency protection for coast stations licensed prior to July 6, 1998, by specified separations.

³¹ See 47 C.F.R. § 90.20(g)(5)(iii)(C). This rule requires frequency protection for public safety stations granted pursuant to Section 90.20(g), 47 C.F.R. § 90.20(g).

³² See *supra* para. 7.

adjacent geographic area.³³ We find that Wyoming demonstrates that the signal strength from its proposed base stations and mobile units will not exceed 5 dB μ V/m at the boundary of the adjacent EA in accordance with Section 90.20(g)(5)(iii)(D).³⁴ We note that in determining this result, Wyoming calculated the field strengths from its mobiles placed at the edges of the service contours of the State's proposed base stations near the borders of relevant VHF Public Coast Service Area nos. 31 and 35.³⁵

11. We also find that the public interest will be served by allowing Wyoming to add these channels to its statewide system because these additional channels will enable Wyoming to upgrade its aging communications facilities and promote interoperability throughout the state.³⁶ Because Wyoming premised its interference study on mobile units operating within the service contour of associated base stations, we condition its mobile units to remain within the service contour of an associated base station when transmitting on any channel authorized by this Order. Moreover, Wyoming also has indicated that it will immediately address and resolve any instances of harmful interference, and establish a procedure to do so. Accordingly, we also find it appropriate to condition Wyoming's use of its frequencies on fulfilling this obligation.

IV. CONCLUSION

12. Based on the record before us, we conclude that Wyoming's waiver request satisfies the criteria set forth under Section 1.925 of the Commission's rules to warrant waiver of Sections 90.20(g)(2)(i) and 90.20(g)(5)(ii). Grant of the Waiver Request is subject to the following special conditions: (i) Wyoming must take immediate steps to mitigate, address, and otherwise resolve any harmful interference experience by any incumbent licensee as a result of Wyoming's operation on the channels authorized by this Order; and (ii) Wyoming's mobile units must remain within the service contour of an associated base station when transmitting on any channel authorized by this Order.

V. ORDERING CLAUSE

13. Accordingly, IT IS ORDERED pursuant to Sections 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925 of the Commission's rules, 47 C.F.R. § 1.925, that the waiver requests associated with Application File Nos. 0002947551, 0002947644, 0002947635, 0002947650, 0002947658, 0002947664, 0002949245, 0002951308, 0002951309, 0002951310, 0002951659, 0002951665, 0002951672, and 0002951679 filed by the State of Wyoming ARE GRANTED, as conditioned herein.

14. IT IS FURTHER ORDERED that Application File Nos. 0002947551, 0002947644, 0002947635, 0002947650, 0002947658, 0002947664, 0002949245, 0002951308, 0002951309, 0002951310, 0002951659, 0002951665, 0002951672, and 0002951679 SHALL BE PROCESSED consistent with this Order and the Commission's rules.

³³ See 47 C.F.R. § 90.20(g)(5)(iii)(D). This rule states that "[w]here the public safety designated channel is not a public safety designated channel in an adjacent EA: Applicants shall engineer base stations such that the maximum signal strength at the boundary of the adjacent EA does not exceed 5 dB μ V/m." *Id.*

³⁴ See Third Waiver Amendment at 2; Fourth Waiver Amendment at 1-2.

³⁵ See Fourth Waiver Amendment at 1. See also Letter from Fred Campbell, Chief, Wireless Communications Bureau, and Derek Poarch, Chief, Public Safety and Homeland Security Bureau, to Ralph A. Haller, President, Land Mobile Communications Council, 23 FCC Red 4714 (dated March 19, 2008).

³⁶ See Waiver Request at 1, 24-29.

15. This action is taken under delegated authority pursuant to Sections 0.191 and 0.392 of the Commission's rules, 47 C.F.R. §§ 0.191, 0.392.

FEDERAL COMMUNICATIONS COMMISSION

Derek K. Poarch
Chief
Public Safety and Homeland Security Bureau