

line in CBR 2 so that all existing United States licensees could be accommodated within the limited available 800 MHz spectrum. Thus, the *800 MHz Second Report and Order*⁸ directed the TA to:

separate non-ESMR from ESMR licensees by assigning non-ESMR licensees replacement channels in the lower portion of the upper block of U.S. primary spectrum below 821/866 MHz. Once all B/ILT and high site SMR licensees have been assigned replacement channels, the remaining U.S. primary channels in the higher portion of the band will be available for ESMR operations. * * *. Since the number of channels occupied by B/ILT and high site SMR licensees will vary from region to region, the dividing line between the ESMR and non-ESMR portions of the band [the ESMR line] will also vary by region.⁹

3. In Genesee's region (CBR 2), the TA assigned relocating non-ESMR stations to U.S. primary spectrum at channels 621-653. This made channels 654 through 830 available for Sprint's use after band reconfiguration and established channel 654 as the ESMR line—the first channel in the ESMR segment of the band that Sprint is permitted (but not required) to use in the region.¹⁰ Sprint's operations on Channels 654-830, however, are strictly prohibited from causing interference to non-ESMR systems:

[U]pon completion of rebanding in each border region, licensees operating in the non-ESMR portion of the band (as determined by the TA) will be entitled to full interference protection from Sprint's ESMR operations under the same post-rebanding interference standard that applies outside the border regions. * * * We agree with commenters that applying the full interference standard is key to alleviating the interference situation that necessitated rebanding in the first instance. * * * We believe the steps we have taken above to protect non-ESMR systems from harmful interference are sufficient to address [a commenting party's] concerns regarding spectral separation.¹¹

4. Also, because of the limited number of channels primary to the United States in the CBR, the Bureau determined that it was not feasible to maintain an Expansion Band or Guard Band in the CBR.¹² Notwithstanding the lack of the Expansion or Guard Bands in the CBR, however, public safety and other non-ESMR licensees are afforded absolute protection against unacceptable interference from Sprint's ESMR stations, even if that necessitates Sprint not using the first channel(s) in the ESMR band.¹³

⁸ Improving Public Safety Communications in the 800 MHz Band, *Second Report and Order*, 23 FCC Rcd 7605 (PSHSB 2008)(*Second Report and Order*).

⁹ *Id.* at 7613 (footnote omitted).

¹⁰ Although the TA has yet to formally announce the location of the ESMR line in CBR 2, it has represented to the Bureau that the line will not fall below channel 654 under any circumstances.

¹¹ *Second Report and Order*, 23 FCC Rcd at 7613-14 ¶ 18.

¹² These bands in the non-border area of the United States provide a 2 MHz buffer that separates non-ESMR systems from ESMR systems in the non-border regions.

¹³ *Second Report and Order*, 23 FCC Rcd at 7613-7614.

5. Sprint, however, also has certain facilities that operate below the ESMR line in the CBR on Canada primary frequencies pursuant to Special Coordination Procedures (SCP). The *Second Report and Order* provides that these Sprint stations must maintain a minimum 1 MHz “buffer” separation from public safety stations.¹⁴

6. Thus, in terms of interference protection, the Commission established two categories of Sprint stations. The first category of Sprint stations, operating above the ESMR line, is prohibited from causing objectionable interference to public safety stations, even if this means avoiding the use of channels near the ESMR line. The second category of Sprint stations, located below the ESMR line, on Canada primary spectrum, must maintain a minimum of 1 MHz separation from public safety stations, thereby minimizing the potential for causing unacceptable interference.

B. Genesee’s “FRED” Channels.

7. Genesee operates a six channel 800 MHz simulcast system. All channels in the system are located in the new National Public Safety Planning Advisory Committee (NPSPAC) band at 806-809/851-854 MHz. Rebanding of four of the channels in Genesee’s system involves only a slight reduction in transmitter deviation so that those channels conform to the applicable emission mask for NPSPAC channels.¹⁵ Two of Genesee’s channels, however, employ the Four-level Recovery for Extended Distance (FRED) encryption system, which will not operate properly when the transmitter deviation is reduced in order to meet the applicable emission mask.¹⁶

8. Because Genesee’s two existing FRED channels would not operate properly with reduced deviation, the TA identified two channels in the General Category portion of the 800 band – Channels 638 and 648¹⁷ – where a less restrictive emission mask applies and there is thus no need to reduce deviation. Genesee, however, objected that these channels were too close to the ESMR line, and contended that Sprint stations operating above the ESMR line would interfere with Genesee’s stations if Genesee operated on channels 638 and 648. Genesee claimed that it was entitled to a minimum of 1 MHz of separation between its replacement channels and the ESMR line at Channel 654.

9. Sprint and Genesee were unable to resolve the issue of entitlement to interference protection in mediation, and the matter was referred to the Bureau for *de novo* review. In its *Memorandum Opinion and Order*, the Bureau’s Policy and Licensing Division (Division) found that Genesee was mistaken in its contention that it was entitled to 1 MHz separation between its channels and Sprint’s operations above the ESMR line. It explained that the requirement to maintain 1 MHz separation with respect to Sprint

¹⁴ *Id.* at 7616.

¹⁵ NPSPAC channels operate with a 12.5 KHz separation between channel centers, whereas the rest of the 800 MHz band operates with 25 KHz channel spacing. As a consequence, there is a greater potential for adjacent channel interference between NPSPAC stations unless the stations’ emissions in the adjacent channel are attenuated. The emission masks specified in Section 90.210 of the Commission’s rules contain the allowable amount of signal in the adjacent channel and beyond. In order to meet the emission mask requirements, the transmitter deviation must be reduced, typically from 5 KHz to 4 KHz.

¹⁶ Four-level Recovery for Extended Distance (FRED) is a modulation scheme used within certain Motorola simulcast systems to improve coverage of encrypted channels in a simulcast network. *Memorandum Opinion and Order*, 26 FCC Rcd at 12775-12776.

¹⁷ Channels 638 and 648 correspond, respectively, to 819.1875/864.1875 MHz and 819.4375/864.4375 MHz. The table for conversion from channel number to frequency is contained in 47 C.F.R. § 90.613.

stations applied only to those Sprint stations that operate on Canada primary spectrum on channels 231-620 below the ESMR line, *i.e.*, the Sprint stations operating pursuant to SCPs.¹⁸ The Division went on to explain that the absence of a 1 MHz buffer with respect to Sprint stations operating above the ESMR line did not leave Genesee without interference protection. Despite the fact that the Commission had determined it was infeasible to maintain a 1 MHz Guard Band or 1 MHz Expansion Band in the CBR, Genesee's operations on Channels 638 and 648 were still fully protected against interference from Sprint's operations above the ESMR band, even if that meant that Sprint had to forego operating on channels immediately above the ESMR line:¹⁹

Because of the limited amount of U.S. primary spectrum available in the Canadian border regions, we do not create an Expansion Band or Guard Band in Regions 1-6. However, upon completion of rebanding in each border region, licensees operating in the non-ESMR portion of the band (as determined by the TA) will be entitled to full interference protection from Sprint's ESMR operations under the same post-rebanding interference standard that applies outside the border regions.²⁰

In sum, because Genesee was afforded absolute protection against interference from Sprint's operations above the ESMR line, the Division concluded that the assignment of Channels 638 and 648 would provide Genesee with facilities comparable to its current two FRED channels, thereby satisfying the Commission's "comparable facilities" standard²¹ for 800 MHz rebanding.

II. GENESEE'S CONTENTIONS

10. Genesee argues that the Division's decision "ignores the entire record of the Commission's [Docket 02-55] proceeding."²² It claims that what it characterizes as "reactive interference mitigation" does not satisfy the Commission's goal of "elimination of interference from cellular-like configuration systems to public safety operations."²³ It quotes the *Second Report and Order* for the proposition that the Commission directed Nextel "to maintain at least 1 MHz separation from the highest Canada primary channels used by public safety in the region."²⁴ It faults the Division's *Memorandum Opinion and Order* for not "having Nextel's operations moved higher in the band as required by [the *Second Report and*

¹⁸ Sprint facilities operating below the ESMR line on these Canada primary channels must employ a Guard Band or similar buffer for all non-ESMR licensees, maintain at least 1 MHz separation from the highest Canada primary channel used by U.S. public safety licensees in the region, and pre-coordinate any new or modified operations. *Second Report and Order*, 23 FCC Rcd at 7616 ¶ 25.

¹⁹ *Memorandum Opinion and Order*, 26 FCC Rcd at 12781 ¶ 31.

²⁰ *Second Report and Order*, 23 FCC Rcd at 7613-14 ¶ 18.

²¹ Comparable facilities are those that will provide the same level of service as the incumbent's existing facilities, with transition to the new facilities as transparent as possible to the end user. Specifically, (1) equivalent channel capacity; (2) equivalent signaling capability, baud rate and access time; (3) coextensive geographic coverage; and (4) operating costs." Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55, *Report and Order*, 19 FCC Rcd 14969,15077 ¶ 201 (footnotes omitted), 19 FCC Rcd at 15077 ¶ 201 (footnotes omitted).

²² Petition at 1.

²³ *Id.* at 1-2.

²⁴ *Id.* at 2, quoting *Second Report and Order* at 7616 ¶ 25.

Order].”²⁵ Genesee denies seeking untimely reconsideration of the *Second Report and Order* and claims that requiring Sprint to maintain 1 MHz separation from Genesee’s operations on channels 638 and 648 is consistent with the *Second Report and Order*.

11. Genesee contends that Section 90.619(c)(10), Table C10, of the Commission’s rules²⁶ establishes that the ESMR line is at Channel 711 in CBR 2, and that Table 7 in that rule section allows high density cellular systems to operate on Channels 621-710.²⁷ Accordingly, Genesee argues, its operations on Channels 638 and 648 would be “entirely encompassed within the block where High Density Cellular operations (whether by an SMR operator or any Part 90 eligible licensee) are permitted.”²⁸

12. Genesee also argues that Tables C10 and C7, *supra*, “remain in full force and effect” and that, consequently, “Nextel’s use of frequencies listed in [Table 7] must be at least 1 MHz separated from Genesee’s public safety operations pursuant to the [Division’s *Memorandum Opinion and Order*].”²⁹ Genesee also argues that allowing the TA to set the ESMR line was tantamount to amending Tables C10 and C7 and that the Commission “is without authority to permit a private party contractor to amend the Commission’s rules.”³⁰

13. Genesee claims that the Division “suggested” that only public safety licensees operating on Canada primary spectrum are entitled to 1 MHz frequency separation from Sprint’s operations.³¹ It characterizes this “suggestion” as a “very narrow reading of the Commission’s Order.”³²

III. SPRINT’S OPPOSITION

14. Sprint claims that Genesee is relying on “some nonexistent guarantee made by the Commission”³³ when Genesee asserts a right to at least 1 MHz separation from the ESMR line. Sprint points out that the decision that a Guard Band in the CBR was infeasible was made in the *Second Report and Order*, and that Genesee’s claim that it should be afforded a 1 MHz Guard Band between its replacement channels and the ESMR line is, therefore, an untimely petition for reconsideration of the *Second Report and Order*.³⁴ Sprint also argues that this matter should be decided based on the rules established in the *Second Report and Order* and not, as Genesee urges, on “individual or joint comments

²⁵ *Id.* at 2.

²⁶ 47 C.F.R. § 90.619(c)(10), Table C 10.

²⁷ Petition at 7.

²⁸ *Id.*

²⁹ Reply at 3.

³⁰ *Id.*

³¹ *Id.* at 3-4.

³² *Id.* at 4 *citing* County of Genesee, New York and Sprint Nextel, *Order*, 26 FCC Rcd 15208, 15209 n.9 (PSSB 2011).

³³ Sprint Opposition at 2.

³⁴ *Id.* at 7.

in a rulemaking.”³⁵ Further, Sprint characterizes Genesee’s position as one of rejecting “absolute” interference protection in favor of “proactive” interference protection which, to Genesee, means a Guard Band “created now for its individual benefit.”³⁶ Finally, Sprint characterizes as “plainly incorrect” Genesee’s claim that its replacement channels would be “entirely encompassed within the block where High Density Cellular operations (whether by an SMR operator or any Part 90 eligible licensee) are permitted.”³⁷ Sprint claims that Genesee fails to recognize the distinction between the rules applicable to General Category licensees and those applicable to ESMR licensees. Further, Sprint notes that the Commission has directed the TA to “determine, for each Canadian border region, where the non-ESMR and ESMR portions of the band start and stop,” thus assuring that “Genesee and other similarly situated licensees have the benefit of full interference protection once the region is fully reconfigured from Nextel’s operations in the ESMR band in U.S.-Canadian border areas and in every other circumstance as well.”³⁸

IV. DISCUSSION

15. In the *Second Report and Order*, the Bureau noted that Sprint stations operating on Canada primary spectrum below the ESMR line “provide Sprint with important spectrum capacity and also facilitate cross-border roaming on the Sprint and TELUS networks.”³⁹ The Bureau also noted, however, its expectation “that Sprint’s continued operation on Canada primary channels below the ESMR/non-ESMR line will not cause harmful interference to public safety B/ILT or high-site SMR licensees.”⁴⁰ Accordingly, for this limited category of Sprint stations – those operating on Canada primary spectrum below the ESMR line – the Bureau directed “Sprint in each border region to maintain at least 1 MHz separation from the highest Canada primary channel used by public safety in the region.”⁴¹ The *Second Report and Order* also explicitly stated that a Guard Band was not feasible in the CBR 2 because of the limited amount of U.S. primary spectrum available in the region.⁴²

16. Genesee’s claim that Table C7 in Section 90.619(c)(7) of the Commission’s rules allows high density cellular systems to operate on Channels 621-710, thereby subjecting Genesee to interference on its Channel 638 and 648 replacement channels, is irreconcilable with the fact that, as directed by the *Second Report and Order*, the TA set the ESMR line at Channel 654. Thus, with the exception of Sprint stations operating pursuant to SCPs on Canada primary spectrum below Channel 621, high-density cellular systems, *i.e.*, ESMR systems, may not operate below the ESMR line at Channel 654. Therefore Genesee’s fears of interference from high density cellular systems operating below the ESMR line are speculative, indeed groundless. Genesee’s claim that “Nextel’s use of frequencies listed in [Table 7] must be at least 1 MHz separated from Genesee’s public safety operations pursuant to the [Division’s

³⁵ *Id.*

³⁶ *Id.* at 3.

³⁷ *Id.* at 7, quoting Petition at 7.

³⁸ *Id.* at 8.

³⁹ Second Report and Order, 23 FCC Rcd at 7616.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.* at 7613-14 ¶ 18.

Memorandum Opinion and Order]⁴³ is likewise groundless because, as developed *infra*, the requirement for 1 MHz separation between Sprint and public safety stations applies only to Sprint stations operating pursuant to SCPs on Canada primary spectrum below Channel 621. Finally, Genesee’s argument that the Commission impermissibly authorized the TA to set the ESMR line is not cognizable here because it seeks untimely reconsideration of the *Second Report and Order* in which the TA was instructed how to apportion non-ESMR and ESMR channels in the 800 MHz band.⁴⁴

17. The Division’s *Memorandum Opinion and Order* did more than “suggest” that the *Second Report and Order* provided for a 1 MHz buffer with respect to Sprint stations that operate on Canada primary spectrum pursuant to SCPs. Rather, the *Memorandum Opinion and Order* explicitly stated that “The Bureau established a 1 MHz buffer only for Sprint operations that remain in the non-ESMR segment of the band, post-rebanding, where Sprint will continue to operate in an interleaved environment with public safety and other non-cellular licensees.”⁴⁵ Notwithstanding the lack of a Guard Band or Expansion Band in CBR 2, the Division noted that Genesee is entitled to “full interference protection from Sprint’s ESMR operations under the same post-rebanding interference standard that applies outside the border region.”⁴⁶ As stated in the *Memorandum Opinion and Order*, “[t]o discharge this responsibility [providing full interference protection to non-ESMR licensees], Sprint may have to avoid using channels at the lower end of the ESMR band, thus creating a *de facto* guard band.”⁴⁷

18. In light of this clear precedent, we cannot reconcile Genesee’s position that the *Second Report and Order* requires Sprint stations operating above the ESMR line to maintain at least 1 MHz separation from Genesee’s replacement channels⁴⁸ with the plain language of the *Second Report and Order*, which requires a 1 MHz buffer “on Canada primary channels below the ESMR/non-ESMR line.”⁴⁹ Rather, the Division’s decision is consistent with the *Second Report and Order*’s treatment of Sprint stations operating on Canada primary spectrum, pursuant to SCPs, below the ESMR line. As such, we reject Genesee’s attempt to bootstrap the interference limitations applicable to one category of Sprint stations – those operating below the ESMR line – to another category of Sprint stations – those operating above the ESMR line. Had the Bureau intended the 1 MHz buffer requirement to apply to Sprint stations above the ESMR line, it would have said so. Instead, it was careful to distinguish the two categories of Sprint stations, devoting a separate section of the *Second Report and Order* to “Sprint Operations Under Special Coordination Procedures”⁵⁰ and stating, in that section, that the 1 MHz buffer requirement applied to Sprint stations operating below the ESMR line.

19. Genesee also devotes much of its Petition to discussion of the events of 2002 when Sprint proposed a separation of “at least 2 MHz between public safety and ESMR operations,” a

⁴³ Reply at 3.

⁴⁴ See text accompanying n.9 *supra*.

⁴⁵ *Memorandum Opinion and Order*, 26 FCC Rcd at 12781 (emphasis supplied).

⁴⁶ *Second Report and Order*, 23 FCC Rcd at 7613 ¶ 18.

⁴⁷ *Memorandum Opinion and Order*, 26 FCC Rcd at 12781 ¶ 31.

⁴⁸ Petition at 2; Reply at 1-2.

⁴⁹ *Second Report and Order*, 23 FCC Rcd at 7616.

⁵⁰ *Id.* at 7615.

recommendation endorsed by the “Consensus Parties.”⁵¹ We agree with Sprint, however, that the comments filed by parties in the rulemaking proceeding concerning “what the Commission might or should adopt as its final rules”⁵² are not what governs here. Moreover, the time has long passed for Genesee to argue the merits of the rules and orders adopted by the Commission in this proceeding.

V. DECISION

20. In sum, there is no construction of the Commission’s 800 MHz Orders that would support Genesee’s claim of entitlement to a 1 MHz Guard Band between its TA-assigned channels (channels 638 and 648) and Sprint’s operations above the channel 654 ESMR line. The Bureau specifically stated that the configuration of United States and Canada spectrum in the border regions precluded the establishment of a Guard Band or Expansion Band.⁵³ The Bureau also stated that non-ESMR licensees would be afforded “full interference” protection notwithstanding their proximity to Sprint’s operations and lack of a Guard Band.⁵⁴ As noted in the *Memorandum Opinion and Order*, provision of this complete interference protection may necessitate Sprint avoiding operation on or near the ESMR line in CBR 2.⁵⁵ Genesee’s attempt to bootstrap the 1 MHz buffer requirement, applicable only to Sprint’s operations on Canada primary spectrum below the ESMR line pursuant to SCPs, to Sprint’s operations above the ESMR band is unavailing. The *Memorandum Opinion and Order* was correctly decided.

VI. ORDERING CLAUSES

Accordingly, pursuant to the authority of Sections 0.191, 0.392, 1.106 of the Commission's Rules, 47 C.F.R. §§ 0.191, 0.392, and 1.106; and Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i) IT IS ORDERED that the Petition for Reconsideration filed by the County of Genesee IS DENIED.

21. IT IS FURTHER ORDERED, that Sprint Nextel Corporation SHALL PAY the minimum necessary cost of providing the County of Genesee, New York, with the equipment and services necessary to implement FRED⁵⁶ operation on channels 638 and 648 at Genesee’s three simulcast sites.

22. 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

James A. Barnett, Jr., Rear Admiral (Ret.)
Chief, Public Safety and Homeland Security Bureau

⁵¹ Petition at 3.

⁵² Sprint Opposition at 7.

⁵³ *Second Report and Order*, 23 FCC Rcd at 7613-14 ¶ 18.

⁵⁴ *Id.*

⁵⁵ *Memorandum Opinion and Order*, 26 FCC Rcd at 12781 ¶ 31.

⁵⁶ *See supra* n.16.

Attachment
CBR 2 Band Plan

