

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Amendment of Certain Part 90 Subpart S)
800 MHz Rules (809-816/854-861 MHz) to) RM _____
Promote More Efficient Use of Spectrum)
Within that Band Segment)

To: The Commission

**PETITION FOR RULEMAKING
OF THE
ENTERPRISE WIRELESS ALLIANCE**

Respectfully submitted,

ENTERPRISE WIRELESS ALLIANCE

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EXECUTIVE SUMMARY

Designating individual frequencies in the 809-816/854-861 MHz¹ portion of the Part 90 Subpart S 800 MHz band for use by certain classes of eligible entities and continuing to protect so-called “Sprint-vacated” spectrum no longer serves the public interest or the FCC’s policy objectives. Both result in the balkanization, and therefore underutilization, of valuable spectrum unless overcome through unnecessary demonstrations of frequency depletion or, in some instances, waiver requests. Since all 800 MHz frequencies in this range are subject to identical technical and operational rules, EWA urges that they be classified as General Category and made available to all qualified Subpart S applicants. Eliminating the multi-decade hyper-subclassification of entirely fungible frequencies will promote optimal utilization of this spectrum while also doing away with unnecessary application review responsibilities for FCC staff and the associated processing delays, as well as cost and administrative burdens on applicants. The FCC should also terminate the rule reserving Sprint-vacated spectrum for use by certain classes of entities so those frequencies can be placed into productive use as demand dictates without further delay. The changes recommended would be consistent with the Commission’s general policy of promoting flexibility in its licensing processes and its preference for modifying outdated rules rather than relying on waiver relief.

¹ 809-813.5/854-858.5 MHz in the southeastern United States and Atlanta, Georgia as defined in §90.617.

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The Enterprise Wireless Alliance (“EWA”), pursuant to Section 1.401 of the Federal Communications Commission (“FCC” or “Commission”) rules and regulations, respectfully requests that the Commission initiate a rulemaking proceeding modifying Part 90 Subpart S rules to eliminate the provisions assigning frequencies within the 809-816/854-861 MHz portion of the band (“800 MHz Band Segment”) to specific “pools” of eligible entities.² Despite being subject to identical technical and operational rules, frequencies within the 800 MHz Band Segment are assigned to either the Public Safety Pool, the Business/Industrial/Land Transportation (“B/ILT”) Pool, the Specialized Mobile Radio (“SMR”) Category, or the General Category. As discussed herein, EWA urges that all channels within the 800 MHz Band Segment be classified instead as General Category and made available to all qualified Subpart S applicants. Eliminating this outdated hyper-subclassification of entirely fungible frequencies will promote optimal utilization of this spectrum, while also doing away with unnecessary application review responsibilities for FCC staff and the associated processing delays, as well as cost and administrative burdens on applicants. For the reasons detailed *infra*, the FCC should also terminate the rule reserving so-

² Excluding the southeastern United States and Atlanta, Georgia as defined in FCC Rule Section §90.617. In these two regions, the proposed elimination of the pool allocation is only applicable to 809-813.5/854-858.5 MHz.

called “Sprint-vacated” spectrum for use by certain classes of entities so those frequencies can be placed into productive use as demand dictates without further delay. The changes recommended would be consistent with the Commission’s general policy of promoting flexibility in its licensing processes and its preference for modifying outdated rules rather than relying on waiver relief.

I. BACKGROUND

The 800 MHz spectrum in Subpart S of the Part 90 FCC rules was allocated for land mobile use in the mid-1970s.³ The initial allocation was subdivided by technology, with a portion designated for single-channel conventional operations and a portion for more advanced multi-channel trunked systems.⁴ The FCC did not make all the allocated spectrum available immediately, but held some in reserve while the Commission evaluated market developments.

By the early 1980s, when the FCC proposed to release the 800 MHz reserve spectrum, it was evident that the more spectrally efficient trunked systems had become the preferred mode of operation. Having seen the success of this band as a new spectrum opportunity for private land mobile entities, the FCC wished to ensure that all categories of eligible applicants had a reasonable opportunity to secure channels. Also, at that time, both conventional and trunked 800 MHz systems used analog technology. With rare exceptions, communications were unencrypted analog voice transmissions. Certain conventional systems were required to monitor for co-channel traffic prior to transmitting in something akin to a party-line telephone system. In this environment, the Commission believed it would be preferable to have similar types of users

³ See Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, *First Report and Order and Second Notice of Inquiry*, 19 Rad. Reg. 2d (P&F) 1663 (1970). See also Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz and Amendment of Parts 2, 18, 21, 73, 74, 89, 91, and 93 of the Rules Relative to Operations in the Land Mobile Service Between 806 and 960 MHz, Docket No. 18262, *Second Report and Order*, 46 FCC 2d 752 (1974), *reconsidered*, *Memorandum Opinion and Order*, 51 FCC 2d 945 (1975).

⁴ *Id.*

sharing channels in the same or in adjacent market areas as they likely would be more tolerant of one another's operational needs.

Therefore, rather than maintaining the trunked/conventional delineation, and in response to industry input, the Commission in a series of actions designated four "pools" of channels based on user eligibility: Public Safety, Business, Industrial/Land Transportation,⁵ and Specialized Mobile Radio, (collectively "Pools").⁶ (The FCC later reclassified 150 800 MHz frequencies for General Category use, available to all eligible applicants.)⁷ The FCC explained its decision as follows:

By grouping eligibles into categories of like users who are operationally compatible, and by setting aside some frequencies for each broad category [of] eligibility, we assure that all classes of private land mobile eligibles will have an opportunity to maximize their options in selecting how they wish to satisfy their communications requirements...and will have the time necessary to apply for and implement their systems.⁸

This approach closely resembled the Part 90 licensing system in the VHF and UHF bands with which the FCC and Part 90 applicants were familiar. Channels in those bands are assigned to the Public Safety Pool or the Industrial/Business Pool (which also includes private carriers, the below-800 MHz equivalent of SMR licensees) and applicants are limited to spectrum in the Pool in which they can establish eligibility.⁹

Even in 1982, however, the 800 MHz Pool allocations were not intended as a permanent approach but were to be reviewed at the end of three years:¹⁰

⁵ The Business and ILT Pools were consolidated into a combined B/ILT pool in the 800 MHz Rebanding process. *See* n. 19 *infra*.

⁶ *See* In the Matter of Amendment of Part 90 of the Commission's Rules to Release Spectrum in the 806-821/851-866 MHz Band and to Adopt Rules and Regulations Which Govern Their Use, PR Docket No. 79-191, *Second Report and Order*, 90 FCC2d 1281 (1982) ("800 MHz Second Report and Order").

⁷ In the Matter of Trunking in the Private Land Mobile Radio Services for More Effective and Efficient Use of the Spectrum, PR Docket No. 87-123, *Report and Order* 5 FCC Rcd 4016 (1990).

⁸ 800 MHz Second Report and Order at ¶ 49.

⁹ Applicants may request access to out-of-pool frequencies in those bands through the waiver process.

¹⁰ 800 MHz Second Report and Order at ¶ 52.

The question of sharing other pools' frequencies...of course, will be revisited as part of our general review of frequencies used in each pool after three years. It is our predisposition now to have all of the barriers disappear after three years. However, this is a situation which will require monitoring between now and 1985.¹¹

That re-evaluation did not occur in 1985 or in any subsequent year. Four decades have passed and all user categories have had ample time to apply for and implement 800 MHz systems. EWA submits that time and intervening changes in the 800 MHz Band Segment make retention of the pool allocations not only unnecessary but contrary to sound spectrum management and operational efficiency, while imposing needless costs on certain applicants. They also require the allocation of significant FCC licensing staff resources devoted to confirming that Frequency Advisory Committee ("FAC") certifications comply with the rules governing the 800 MHz regulatory maze.¹²

II. THE 800 MHz BAND SEGMENT POOLS ADD COST AND COMPLEXITY TO FREQUENCY ASSIGNMENTS WITH NO COUNTERVAILING PUBLIC INTEREST BENEFIT

Except in the rarest of instances, 800 MHz frequencies are assigned on an exclusive basis. All licenses are subject to the same power, antenna height, loading where applicable, and out-of-band emission rules irrespective of whether the licensee is a Public Safety entity, a utility, an airline, or a commercial SMR operator. Co-channel assignments are determined based on a defined distance between base station locations, with some provisions for closer spacing upon a contour showing.¹³ The rules were modified recently to allow the licensing of systems with maximum 12.5 kHz bandwidths between the original 25 kHz bandwidth channels and the

¹¹ *Id.* at ¶ 86.

¹² The FCC has certified certain organizations, including EWA, to review applications and recommend appropriate frequencies for use before the application is submitted to the FCC. *See* 47 C.F.R. § 90.175

¹³ 47 C.F.R. § 90.621(b).

technical rules governing them are identical as well, irrespective of the eligibility of the parties.¹⁴ The required separation between co-channel and adjacent frequencies, whether determined by distance or contour, is identical if the parties involved are all Public Safety, all B/ILT, all SMR, all General Category, or a combination of some or all of these categories of users.¹⁵ These co-channel separation standards have been in place since the band was first authorized and have a multi-decade history of delivering interference-free operations. Even in urban markets where frequencies are reused as intensively as the rules permit, systems enjoy protected service areas and are unaffected by the operations of co-channel licensees whether they have the same or different eligibility. In sum, frequency assignments at 800 MHz have nothing to do with who will be operating on the frequencies but are determined exclusively by where, at what power and antenna height they will be transmitting, and the proposed emission designator.

The General Category Pool confirms that licensees with different eligibility can coexist on the same frequencies as long as the separation criteria are met. All categories of eligible entities operate on General Category frequencies. There is no evidence that this intermingling has discouraged applicants from requesting these frequencies or that it has resulted in operational incompatibility, interference, or any outcome that might warrant maintaining the Pools.

A. Inter-Category Sharing

The FCC has permitted inter-category sharing between B/ILT entities and Public Safety from the outset.¹⁶ An applicant can request an “out-of-pool” frequency if it can demonstrate that there are no available frequencies in any Pool for which it is eligible. But even that seeming flexibility has a price tag and is not a simple process. A B/ILT applicant requesting a Public

¹⁴ 47 C.F.R. § 90.621(d). Each 12.5 kHz bandwidth frequency is assigned to the eligibility Pool of the lower adjacent 25 kHz frequency and may require out-of-pool concurrence and/or waiver if requested by an applicant with different eligibility.

¹⁵ This intermingling of licensees occurred pursuant to inter-category sharing but has become much more common as a result of 800 MHz Rebanding. *See* n. 19 *infra*.

¹⁶ 47 C.F.R. § 90.621(e) permits inter-category sharing between certain classes of entities under certain conditions.

Safety frequency must pay its “in-pool” FAC for performing the initial analysis and then pay a Public Safety FAC for concurring in the availability of the requested Public Safety frequency. Of course, the Public Safety FAC repeats the same analysis that the B/ILT FAC conducted when identifying the frequency in the first place, since both analyses are based on the FCC’s ULS database and the information about proposed applications that all FACs share on a daily basis. The reverse is also true for Public Safety applicants seeking a B/ILT frequency. Applicants pay two FACs for identifying the same frequency. These costs add no value to the outcome yet can run into the hundreds and sometimes thousands of dollars, depending on the number of frequencies and sites involved.

Setting aside unnecessary cost, inter-category sharing is available only upon a showing of complete depletion of the applicant’s “in-pool” frequencies. Recent experience indicates that the frequency depletion criterion is inviolable. Florida Power & Light Company (“FPL”) submitted an inter-category request to add two Public Safety frequencies to an existing system because there were no B/ILT frequencies available with the required effective radiated power (“ERP”). That request included concurrence from a Public Safety FAC. Although there were no B/ILT frequencies with the requisite ERP, the FCC did not consider the B/ILT Pool to have been depleted and denied the inter-category request stating: “The rule does not provide for exceptions due to equipment or technical limitations.”¹⁷ FPL could have pursued a waiver, but the cost and time involved, as well as the FCC’s rejection of the inter-category request, dictated against that action. Instead, FPL abandoned the two Public Safety frequencies and settled for a B/ILT frequency at significantly reduced power. It was not obvious then, nor is it obvious today how the public interest was served by denying a utility additional capacity while Public Safety frequencies remained unused.

¹⁷ See FCC File No. 0009969013.

Pool limitations also impose barriers on entirely voluntary and publicly beneficial network sharing by licensees in different pools. In particular there has been increased interest in sharing 800 MHz network infrastructure, including spectrum, by Public Safety entities and utilities that seek to work collaboratively. Yet the 800 MHz rules require waivers in each such instance because both entities would be operating on “out-of-pool” frequencies. As explained in a recent decision:

We have previously granted [the State of Michigan Department of Technology, Management, and Budget] several waivers of Section 90.179(a) to allow other [critical infrastructure] CI providers to share the MPSCS's [Michigan Public Safety Communications System] 800 MHz frequencies to achieve enhanced coverage, capacity, and interoperability. Because each waiver is based on the specific facts presented, we require each additional CI provider that seeks shared access to the MPSCS network to file a separate waiver request.¹⁸

The 2021 MPSCS Order goes on to explain that this voluntary sharing of spectrum warranted waiver relief because the sharing arrangement was on a cost-shared, not-for-profit basis and thereby complied with Rule Section 90.179. Of course, if the frequencies were classified as General Category and thereby licensable by both the MPSCS and Consumers Energy, the utility in this instance, no waiver would have been required.

Another barrier that serves no public interest purpose is the exclusion of frequencies in the SMR Pool from the inter-category sharing option. This not only means that SMR applicants cannot request available frequencies from other Pools¹⁹ but produces the nonsensical result that a B/ILT or even Public Safety applicant that can demonstrate depletion of all other Pool options

¹⁸ *State of Michigan Department of Technology, Management, and Budget*, Order, 36 FCC Rcd 14387 (PLD/PSHSB 2021) (“2021 MPSCS Order”); citing *State of Michigan*, Order, 27 FCC Rcd 214 (PSHSB 2012); *State of Michigan*, Order, 30 FCC Rcd 10054 (PSHSB 2015); *State of Michigan*, Order, 32 FCC Rcd 4133 (PSHSB 2017); *State of Michigan*, Order, 32 FCC Rcd 7351 (PSHSB 2017). Each of these requests required a waiver that FCC staff needed to review and staff then had to prepare a document granting waiver relief. Adding these tasks to the normal workloads of the staff means that processing times of months or longer are the norm when waivers are involved.

¹⁹ SMR entities originally were allowed to apply for B/ILT frequencies. The prohibition against inter-category sharing for SMR applicants, even for access into the B/ILT Pool, was due to a concern that their appetite for spectrum would deplete that Pool and cause B/ILT entities to seek Public Safety Pool frequencies. Changes in the commercial wireless marketplace, as well as the fact that most Public Safety Pool frequencies have been assigned in the intervening four decades in markets of any spectrum scarcity, suggest that possibility should no longer be a concern.

cannot secure an unused frequency from the SMR Pool without requesting a waiver, a waiver that, again, requires an additional filing fee for non-Public Safety applicants and review by FCC staff.

A waiver is required even if an SMR licensee agrees to assign an SMR frequency to a non-SMR entity. The non-SMR applicant must file one application requesting consent to assignment of the frequency, retaining the SMR designation since eligibility cannot be changed in the assignment process. It then must file a second application requesting modification of the license to its correct regulatory status, which application must be supported by a waiver request and FAC certification that no B/ILT or General Category or Public Safety Pool frequencies are available.²⁰ If there still is a public purpose served by maintaining rules that require qualified licensees to jump through these regulatory hoops when pursuing an entirely voluntary transaction that will keep spectrum in productive use, that purpose eludes EWA.

B. 800 MHz Rebanding

While inflexible Pool allocations presented inter-category sharing issues prior to 800 Rebanding,²¹ that ultimately successful process has muddled the Pools considerably. It has imposed additional limitations and costs on 800 MHz applicants, and requires FCC staff to review waiver requests that serve no public interest. The purpose of that proceeding was to allow Sprint (then Nextel) to move Public Safety licensees away from cellular systems operating above 817/862 MHz. This was accomplished by Sprint assigning its primarily SMR and some B/ILT frequencies below 815/860 MHz to incumbents to replace their frequencies higher in the band, in particular the Public Safety National Public Safety Planning Advisory Committee (“NPSPAC”) spectrum that had been assigned the 821-824/866-869 MHz band. Because many

²⁰ See, e.g., Citgo Petroleum Corporation, WNSM965, FCC File No. 0009855729.

²¹ Improving Public Safety Communications in the 800 MHz Band, WT Docket No. 02-55, *Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order*, 19 FCC Rcd 14969 (2004) (“800 MHz Rebanding”).

Sprint frequencies came from the SMR Pool, the great majority of relocated incumbents, both Public Safety and B/ILT, were assigned at least some replacement SMR frequencies. Additionally, as part of its reshuffling of the 800 MHz band, the FCC reclassified twelve previously SMR frequencies between 811-813/856-858 MHz as Public Safety frequencies. At the same time, it reclassified twelve previously Public Safety frequencies in the 815-816/860-861 MHz band (“Expansion Band”) as SMR frequencies, while allowing Public Safety incumbents to remain on those frequencies.

This scrambling of frequencies means the concept that 800 MHz licensees are assigned spectrum based on compatibility of eligibility has become a fiction. More important, it imposes inequitable, sometimes costly, and often nonsensical limitations on their use of the frequencies on which they now are licensed.

For example, incumbents had little ability to control the frequencies to which they were relocated provided they met the four “comparable facilities” criteria in Rule Section 90.699(d). That analysis looked only at the system as it existed at the time of 800 MHz Rebanding. The result is that any incumbent relocated to Sprint’s geographically licensed SMR spectrum, whether Public Safety or B/ILT, becomes subject to FCC Rule Section 90.693. That rule freezes the incumbent’s contour. It prohibits adding or modifying sites, increasing ERP or antenna height, or taking any other steps dictated by changed operating requirements if those actions result in an extension of their original contour. It even prevents licensees from reducing their overall contour if that involves shifting it and extending it in one direction that falls outside the original contour.

That rule applies only to SMR frequencies that had been licensed on a geographic basis and was intended to prevent site-based incumbents from impinging on the territory of the geographic licensees. However, the majority of Sprint’s replacement frequencies came from

such licenses. By the involuntary process of being relocated to geographic SMR spectrum, incumbents lost the ability to modify their systems according to their needs. That rule still requires them to protect the prior geographic licensee – Sprint – that vacated all 800 MHz spectrum below 818/863 MHz by 2013.²²

Retention of the Pools not only is unnecessary but is costly both in time and resources for the industry and the FCC. Incumbents whose frequencies all had come from the same Pool, and therefore could be coordinated by a single FAC, may need to seek certification from, and pay, multiple FACs when rebanded to frequencies with different Pool classifications. In EWA’s opinion, the only theoretical justification for maintaining these barriers would be a desire to reserve frequencies for “unborn applicants” from a particular Pool category, an argument that cannot be supported in a band as mature as 800 MHz. That rationale simply is not sound spectrum policy forty years after this spectrum was made available.

III. ALL “SPRINT-VACATED” SPECTRUM IN ALL NPSPAC REGIONS SHOULD BE RELEASED AND ALL CONTOUR PROTECTION OF PREVIOUS SPRINT LICENSES SHOULD BE ELIMINATED

The FCC rules adopted in the 2004 800 MHz Rebanding decision included provisions governing what has come to be called “Sprint-vacated” spectrum.²³ Those rules specify that spectrum surrendered by Sprint (then Nextel) as part of the overall frequency exchange would be reserved in each NPSPAC region for three years for Public Safety applicants and for an additional two years for Public Safety and Critical Infrastructure Industry (“CII”) applicants as CII is currently defined in Rule Section 90.7. The three- and five-year periods begin once the FCC releases a Public Notice announcing that band reconfiguration has been completed in a

²² See, e.g., FCC File No. 000938818. Baltimore Gas and Electric Company in 2020 was required to demonstrate that the additional sites at which it proposed to use the SMR frequencies to which it had been Rebanded did not expand its existing contour. Volusia County, Florida elected to remain on frequencies in the Expansion Band that were reclassified from Public Safety to SMR status in the 800 MHz Rebanding decision. That election meant the County was required to demonstrate in 2015 that additional sites on those frequencies did not expand its original contours, although Sprint had vacated those frequencies at least two years earlier. See FCC File No. 0006880421.

²³ 47 C.F.R. §§ 90.617(g), (h).

NPSPAC Region. At the end of five years, the reserved frequencies are considered “released,” revert to their original pool allocation, and may be requested by any eligible 800 MHz applicant.

Whatever the merits of those spectrum set-asides almost twenty years ago, in NPSPAC regions where they still exist they add considerable complexity to the frequency coordination process. Applications for 800 MHz spectrum must be analyzed not only vis-à-vis granted licenses and pending applications in the ULS database, but against the now entirely theoretical contours associated with abandoned Sprint site-based licenses and the contours of no longer operational Sprint geographic licenses. Indeed, the FCC has created a separate database of these ghost licenses for just this purpose. Unfortunately, issues have arisen with that database. Frequencies in some regions are shown with multiple release dates and the FCC licensing staffs consider the most recent release date as determinative for purpose of the three- and five-year clocks. As a result, frequencies remain protected years past the time contemplated in the 800 MHz Rebanding decision. EWA continues to work with the FCC in trying to correct the erroneous, sequential release dates but the issue not only is not resolved but continues, with multiple release dates added to previously released frequencies as recently as 2021.

Extending these timelines beyond the FCC’s original intention and making a complex coordination process even more complicated are reason enough to terminate Sprint-vacated protection almost two decades after it was adopted. But the most unfortunate consequence, the one most contrary to the public interest, is that legitimate applicants are not allowed to make productive use of these frequencies even though they have not been claimed by those for whom they were reserved. Use of a frequency can be prevented, not because a Public Safety or CII entity has placed it into productive use, but because the applicant’s proposed site-based contour has even a *de minimis* overlap with the contour of a geographic license that Sprint may have abandoned a decade ago. That is the case even if Sprint had never deployed the frequency

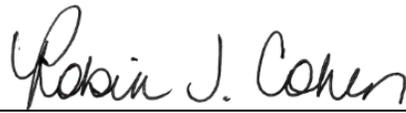
anywhere near the applicant's proposed site. Applicants in NPSPAC regions in growth areas such as California, Arizona, and Nevada are still waiting for the Sprint-vacated clock to expire, nine years after Sprint stopped using this spectrum nationwide. Sprint-vacated spectrum, like all 800 Band Segment spectrum, should be made available to all qualified applicants throughout the country.

IV. CONCLUSION

For the reasons described herein, EWA requests that the FCC initiate a rulemaking proceeding to eliminate the Pools in the 800 MHz Band Segment and to release all Sprint-Vacated spectrum in all NPSPAC Regions of the country.

Respectfully submitted,

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