

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC

In the Matter of	)
	)
Amendments of Part 73 and 74 to Improve the Low Power FM Radio Service Technical Rules	) MB Docket 19-193
	)
Modernization of Media Regulation Initiative	) MB Docket 17-105

**COMMENTS OF STEVEN L. WHITE**

Introduction:

I, Steven L. White, hereby submit my comments on MB Docket No. 19-193, “Amendments of Parts 73 and 74 to Improve the Low Power FM Radio Service Technical Rules” and MB Docket No. 17-105, “Modernization of Media Regulation Initiative.” I serve as Director, Triangle Access Broadcasting, Inc., licensee of Low Power FM (LPFM) station WRLY-LP in Raleigh, NC.

When the Commission first authorized the LPFM service in 2000, it designed simple technical rules designed that allowed small nonprofit entities to supplement, where possible, the broadcast services with more diverse content to communities nationwide. The Commission was understandably conservative, authorizing small coverage areas from very low powers and low height as well as imposing strict LPFM transmitter requirements to require “type certification” instead of the more common “type notification” required of other Part 73 and Part 74 services. I support all of the items that the Commission proposes, and I feel the Commission needs to do even more.

Engineering maturity justifies greater flexibility to LPFM:

As Director of a station that was able to begin its service through participation in the first series of staggered LPFM filing windows, I was approached by several organizations seeking information and technical answers after the 2013 LPFM filing window was announced. What was apparent was that, while the LPFM rules are comparatively simple, expert assistance was still required for many organizations that just don't happen to have the right balance of people within themselves. If technical services are required anyway, then it is only proper to make the fullest use of those services and maximize the use of spectrum achieved with directional antennas and TV channel 6 showings. This seems especially important for border regions.

In the Raleigh, NC, area, channel opportunities for simple LPFMs were already nonexistent. All of the proposals for new stations required technical showings for second-adjacent channel spacing waivers. It is a small step from preparing second-adjacent spacing waiver showings to incorporating directional data into engineering studies, and after the successes of many LPFM applicants, including those who could not be granted construction permits because of mutual exclusivity, in making technical showings it is evident that the service is mature enough to be afforded additional placement opportunities from an expanded use of directional antennas.

Directional Antennas and 47 CFR § 73.316(b):

When permitting directional antennas, 47 CFR § 73.316(b) (“directional antenna rule”) is an effective protection to limit actual interference from inexact mounting and real-world differences between predicted service areas and areas actually served. I would support the directional antenna rule is useful to both LPFM and even FM translator stations. The mounting precision required to construct to numerically precise computer-generated interference protection tables that approach within just meters of predicted of interference is not achieved in practice. The effects are significant. Taking a

250 Watt translator at 100 meters HAAT, the F(50,10) interfering contour lies just over 44 km away. With a 1-degree mounting error (less than 0.5 mm on a 2-inch pipe), the interfering contour moves 0.77 km. This distance is 13.7% of the radius to the F(50,50) 60 dB $\mu$  contour of a LPFM (100 Watts at 30 meters HAAT). As stations are packed closer and closer, the directional antenna rule helps to soften the differences observed between actual performance and imperfect coverage estimations, and it is most important for the steep patterns of highly-directional antennas. In the interest of consistency I advocate that LPFMs and translators be treated similarly, but I fear that a bold change to apply the directional antenna rule to translators as part of subjecting LPFMs to the rule is more than the Commission is willing to consider.

#### LPFM Relief from Translator Box-In:

One idea that should be at the forefront of this proceeding is how to maintain the identities of full power commercial, full power NCE, FM translator, and LPFM services while at the same time consolidating the rules to reduce their overall complexity and blend full service to LPFM to translators (prioritization is not implied). Spacing-based full-service FM stations can co-exist with FM translator and LPFM stations due to the designations of the LPFM and FM translator services as secondary services. FM Translators and LPFM stations seem to be at odds because, while they are so similar in construction, they are regulated so much differently. LPFMs becoming boxed in by translators is a serious issue, and LPFMs must be allowed to protect translators in the same way that translators protect LPFMs, including the same interference remediation requirements that come with that flexibility. The Local Community Radio Act of 2010 maintains LPFM distance separations to other LPFM and full-service FM stations. Even with acknowledging now that the LPFMs can handle the engineering via the proposed rule changes to permit directional antennas, the Commission is late in creating a protection for LPFM that puts LPFM and FM translators on equal footings for original siting and modification.

#### Acceptability of FM Transmitters:

Regarding FM transmitters and as alluded to earlier, 47 § CFR 73.1660 (“Section 73.1660”) should be addressed in this proceeding to align LPFM transmitter acceptability with the requirements for FM and FM translator transmitters. The Commission was abundantly conservative when it imposed on LPFM operators that suitable transmitters must be type certified. The same equipment is suitable for both LPFM and FM translator construction, and the rules should be modified to allow that without an unfounded cost penalty. After almost 20 years and a clean record, the fears that led to a Section 73.1660(a)(2) requirement of “type certified” equipment instead of identically specified “type accepted” equipment have been discredited. The rules should be changed to delete Section 73.1660(a)(2) to include all broadcast transmitters in Section 73.1660(a)(1).

#### LP-250 vs. LPFM as FM Translator Primary Station:

Finally, it seems wasteful that an LPFM would need to operate on two different frequencies in order to achieve a maximum predicted coverage. For an LPFM, this happens when the station feeds an FM translator having superior coverage. The Commission should revisit LP-250 to address that LPFM-over-FM translators is essentially an awful substitute for an LP 250.

As a positive side effect, an LP-250 would be able to penetrate building structures. Although coverage area of an LPFM is more suited to indoor listening due to the limited coverage area that mobile radios can travel in without venturing outside the boundary of useful service, 100-watt LPFM stations are unable adequately reach indoor radios even inside the 60 dB $\mu$  contour.

TV 6:

I fully support the Commission's proposal to eliminate Channel 6 protection requirements, and I applaud the Commission's initiative to set a sunset date for the existing requirement that LPFM and other broadcast stations protect television channel 6 as well as the establishment of a waiver process prior to the sunset date allowing demonstrations of no interference.

EAS:

I agree with the Commission that it would be inappropriate at this time to modify EAS requirements for LPFM stations.

Silent LPFM Stations:

Although not addressed in the NPRM, observers and the Commission cannot effectively evaluate LPFM performance without being made aware of silent periods. 47 CFR § 73.850 should be modified to append language similar to 47 CFR § 73.561(d) that prescribes silence notifications and implements the requirement in the Communications Act that the license of any broadcast station that fails to operate for more than 365 days automatically expires.

Conclusion:

I support all the items proposed to be adopted by the Commission in this proceeding. Additionally, I request for additional consideration to universally limiting the acceptability of FM antenna systems to be “realizably” directional to the standards § 73.316(b) already implements for full-service broadcast stations, lessening the burden of transmitter certification requirements on LPFM stations, and implementing silent station notification and automatic license expirations. Finally, I call for reconsideration of the rejected LP-250 from proposal RM-11749 and rejected relief to FM translator

spacing limitations by allowing contour studies to demonstrate a lack of interference to translators. These changes will allow LPFM stations to serve more listeners without impacting other spectrum neighbors, and it will improve the viability of the LPFM service by improving the flexibility of transmitter siting without compromising the core LPFM goals of diversity and localism.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steven L. White". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Steven L. White