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To: Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O'Rielly
William T. Lake, Chief, Media Bureau
Peter Doyle, Chief, Media Bureau, Audio Division
James Bradshaw, Deputy Chief, Media Bureau, Audio Division
Tom Hutton, Deputy Chief, Media Bureau, Audio Division

In the matter of: RM-11749 & MB Docket 13-249

Commissioners and Media Bureau staff:

It has been just over one year since I filed a *Petition for Rulemaking* that has resulted in RM-11749 which, among various things, would allow many LPFM stations to upgrade from the equivalent of 100 watts at 30 meters height above average terrain (HAAT) to 250 watts at 30 meters HAAT (LP-250). Today, I want to give an update on the number of LPFM stations eligible for a potential upgrade to LP-250 as proposed by REC last year as well as share some more stories from LPFM stations that are continuing to experience performance issues within their hyperlocal 3 mile service areas due to the low power. These revised numbers will also demonstrate the ability to upgrade LPFM stations even in light of the recent opportunity for Class C and D AM stations to relocate an FM translator into their service area as well as the impact of these recently relocated translators on the existing LPFM service.

Impacts to LPFM by recent window FM translator grants

I would like to quickly touch on that last issue first. The potential impact of interference to existing established LPFM stations has been a grave concern has been addressed to me by LPFM stakeholders. A part of this is the polar differences between the way that FM translators are required to protect LPFM and vice-versa. An FM translator is permitted to use a directional antenna to "wrap" its interference contour around an existing LPFM station. An LPFM station in Colorado recently stated that their service contour was recently wrapped around by a move-in translator application where a considerable amount of the LPFM's service contour is now abutted by the interfering contour of a co-channel translator. The LPFM is now experiencing interference and reduced coverage as a result of the translator. The current rules (§74.1203(a)(3)) do not include LPFM stations as being protected from interference to direct-

reception.¹ As a result, LPFM stations have no codified recourse. REC has gone on record in supporting of FM translators to supplement Class D and C AM stations, especially those with limited nighttime coverage but not at the expense of original hyperlocal services provided by LPFM stations. We need, at the minimum, assurances that LPFM stations have recourse when actual interference from FM translators takes place. Even though we use the field strength contours for determining protection that a translator must give a full power or LPFM station², those contours can be deceiving, especially for services with service contours of less than 10 miles (16 km). With the upcoming window opening the door to the Class B and A AM stations and next year's "drop in" windows, I fear this problem is going to get much worse.

I would also like to note that because of the differences between LPFM and FM translator protection rules, a translator moving into a community is considered "non-directional" in the eyes of LPFM. What this means is that an LPFM station must protect an FM translator as a non-directional facility even if the translator is highly directional and is nowhere near the service contour of the LPFM. This puts the LPFM in a situation where they are deadlocked at their location and while they can move further away, they can't move closer to that translator even if it can be shown that there would be no actual contour overlap. LPFM stations that have tried to address this issue in the past and attempted to obtain waivers of co-channel and first-adjacent channels towards FM translators have been denied by the Audio Division based on their misapplication of the Local Community Radio Act (LCRA)³ in this case⁴. As an example, in the *Power One* case, the FCC asserted the LCRA as a reason to deny a deadlocked LPFM the ability to move despite the fact that there is no predicted interference as demonstrated through a lack of contour overlap.⁵ The truth is that the LCRA, in section 3(b) states that minimum distance separations are only in effect between low-power FM stations

¹ - See 47 C.F.R. §74.1203(a)(3) ("The direct reception by the public of the off-the-air signals of any authorized broadcast station including TV Channel 6 stations, Class D (secondary) noncommercial educational FM stations, and previously authorized and operating FM translators and FM booster stations. Interference will be considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the FM translator or booster station, regardless of the quality of such reception, the strength of the signal so used, or the channel on which the protected signal is transmitted.")

² - See 47 C.F.R. §74.1204(a).

³ - Pub L. No. 111-371, 124 Stat. 4072 (2011).

⁴ - See *Power One Ministries, Inc.*, BMPL-20151223AZM, letter (dismissed January 7, 2016, finalized, "Power One") ("Please note that the "Making Appropriations for the Government of the District of Columbia for FY 2001" (Pub L. No. 106-553, 114 Stat. 2762A-111 (2001)), was signed into law on December 21, 2000. Section 632(a) of the act requires LPFM applicants to protect co-channel and adjacent-channel stations by way of spacing separations. There is a significant potential for interference from short-spaced co- and first-adjacent channel LPFM operations. The Act indicates that the Commission can't eliminate this requirement without prior Congressional approval. Therefore, the FCC lacks authority to waive the co- and first- adjacent channel spacing separation requirements. This prohibition was again re-affirmed in the Local Community Radio Act of 2010.") Our mention of the *Power One* case is not intended to be a request for reconsideration in that case.

⁵ - *Id.*

and *full-service FM stations*. In section 3(a) of the LCRA that addresses third-adjacent channel protections, the LCRA specifically calls out a difference between “full-service” FM stations and FM translator stations.⁶ **REC is asking that the Audio Division discontinue the practice of misapplying the LCRA as it relates to LPFM protecting FM translators** not carrying an radio reading service and to **permit waivers of §73.807 as it relates to “short-spaced” (by distance separation) co-channel and first-adjacent channel translators** on a case by case basis **where the LPFM applicant makes a showing of a lack of contour overlap.**

The recent influx of FM translators is starting to encroach into the established LPFM service including some stations that have been on the air for nearly a decade. The public interest not only dictates the improvement of lower powered AM stations but also the preservation of these original hyperlocal LPFM services. The “phenomenal success story” of diversity, new viewpoints and hyper-local content that Commissioner Clyburn recently spoke of is now in danger of being pushed to the side or out the window as a result the inconsistent rules between LPFM and translators and the Audio Division’s misapplication of statute in the cases of LPFM stations seeking relief. The public interest must prevail and we feel that it is in the Commission’s statutory authority to accommodate issues between LPFMs and FM translators that may arise including the ability for LPFMs to relocate if a showing of no contour overlap can be demonstrated. Co-existence is possible if LPFM and translators are on a level playing field in this arena. It can be done per current statute.

Update on LP-250 upgradability

The recent migration of FM translators has also brought into question of whether existing LPFM stations would be permitted to upgrade to LP-250 as proposed in RM-11749. In the RM-11749 petition, REC had determined that as many as 73% of LPFM stations may be able to upgrade on their existing channel with or without a new second-adjacent channel waiver determination and up to 88% of LPFM stations can upgrade even if it requires a channel change that would normally be considered a “major” change. REC did an evaluation based on information current as of the close of business on April 26, 2016 and despite the FM translators for Class C and D AM stations that have been migrated since late January, the 73% of on-channel upgrades only fell to 72% and the 88% of LPFM stations upgradable on any channel statistic has fell to 86%.

⁶ - LCRA §3(a) (“In General- The Federal Communications Commission shall modify its rules to eliminate third-adjacent minimum distance separation requirements between-

(1) low-power FM stations; and

(2) full-service FM stations, FM translator stations, and FM booster stations.”). The distinction is also made in LCRA §4 that states that “The Federal Communications Commission shall comply with its existing minimum distance separation requirements for full-service FM stations, FM translator stations and FM booster stations that broadcast radio services via an analog subcarrier frequency to avoid potential interference by low-power FM stations”.

	April 2015		April 2016	
	Stations	%	Stations	%
Meets the proposed requirements for REC's proposed "Automatic Upgrade Authority" to upgrade on their current channel.	840	33.1	767	30.8
Upgrade is available on their current channel but can't be "automatically" upgraded (normally due to location near border)	501	19.7	493	19.8
Upgrade is available on channel only if higher powered facility not cause interference to second-adjacent channel short spaced facilities	510	20.1	534	21.4
Upgrade is not available on current channel but would require a "minor" channel change (+/- 1, 2, 3, 53 or 54 channels)	57	2.2	50	2.0
Upgrade is not available on current channel but would require a "major" channel change (other than +/- 1, 2, 3, 53 or 54 channels)	324	12.8	299	12.0
Stations within 125 km of Mexico limited to 50 watts where LP-250 would serve no benefit	47	1.8	50	2.0
Upgrade is not available on channel and there are no alternate channels where the upgrade would be available	262	10.3	300	12.0
Total Authorized LPFM Facilities	2541	100.0	2493	100.0

LPFM stations upgradable on channel without a second adjacent channel waiver	1341	52.8	1260	50.5
LPFM stations potentially upgradable on channel if second adjacent can be met	1851	72.8	1794	72.0
LPFM stations upgradable in any manner	2232	87.8	2143	86.0

NOTE: Statistics are based on CDBS raw data release downloaded April 27, 2016 reflecting close of business on April 26. LPFM station count includes all licenses and granted construction permits and does not include pending applications. Channel availability is based on proposed rules outlined in the REC Networks petition for rulemaking, later known as RM-11749. Full raw data for each LPFM station evaluated will be filed in ECFS. A public access search of this data for specific stations can be accessed at <http://check.lp250.com>.

As shown, while the migration of FM translators has impacted some LPFM stations, it has barely put a dent in the benefits of allowing LPFM stations to be able to upgrade in order to offer improved signal strength and a higher quality of service in their core 3-mile zone and in some cases, help stations reach out to outlying communities that would otherwise not be covered.

LP-250 will improve stations in the core service area by addressing the issue of building penetration

REC continues to hear from LPFM stations in regard to issues that they are experiencing:

We have heard from WDFC-LP in Greensboro, NC which currently operates at 13 watts with a radiation center 76 meters (250 feet) above ground and even about 1¼ miles from the transmitter, the station can be received but fades when someone walks in front of the radio. Modern buildings normally have difficulty receiving the station unless the antenna is in a window towards the tower. There is not a problem with mobile listening. If allowed to upgrade, WDFC-LP would be up increase from 13 to 32 watts ERP.

WDPE in Dover, Ohio is operating at a full 100 watts at 19 meters (62 feet) above ground level. They report that while receivers work fine within one mile, those located past one mile away can be adversely affected depending on the structure's material. Typically frame buildings are less susceptible to the problem than brick and steel. If LP-250 is approved, WDPE would be able to upgrade to a full 250 watts. WDPE has also been identified as a station eligible for REC's proposed "automatic upgrade authority". This station would be able to upgrade with minimal work on the Commission's part.

KGCE is a 100 watt LPFM station in Modesto, California. Their antenna is 25 feet above ground level. KGCE experiences co-channel interference from two directions and the power increase would help fight this interference and deal with inconsistent building penetration issues. In some areas, the station can't be received within 1½ miles. KGCE is the perfect example of a low-level station that is faced with restrictions that many LPFM stations face. Many LPFMs do not have the resources to go to mountaintops or leased facilities and in spectrum crowded areas, going to a mountaintop means lower ERP which means decreased coverage. Like with WDPE, KGCE can upgrade on their channel, has no second adjacent channel issue and could even upgrade automatically if the Commission would allow for that.

Finally, we hear from WSWO-LP, a 100-watt LPFM station in Huber Heights, Ohio. WSWO operates at 43 meters (141 feet) above ground level. They state that they have difficulty hearing their station at their studio just over 2 miles away:

The WSWO-LP studio is located in a storefront in the Huber Center shopping center, about 2.25 miles from the transmitter site for our current 97.3 FM facility. The shopping center is a strip mall type building with concrete and block walls and a flat metal roof covered with several layers of roofing material.

Since the construction of the 97.3 facility in fall of 2013, I have tried several combinations of tuners and antennas inside the building in an attempt to get good quality reception for the air monitor system to feed the studio speakers and headphones. This has included standard dipole antennas that one might find included with a home stereo system, "rabbit ear" style indoor TV antennas, and even a large outdoor style TV antenna hung above the drop ceiling in the building and aimed toward the tower site. The tuners tried have been a Rolls RS80 professional rack mount receiver and a Denon TU1500RD high end consumer level tuner. Currently the Denon tuner paired with a carefully adjusted rabbit ear antenna sitting in the space above the drop ceiling tiles has provided the most usable results.

For comparison, a standard boom box style radio with a metal whip antenna is located in our production studio and can barely receive a noisy signal after trying multiple locations in the room and multiple antenna orientations.

The measures taken to get our air monitor system working are far and above (in equipment cost and quality, and time investment) what we can expect the average listener to use to receive our station. While the average house may not be as heavily built as our studio building, most homes in Huber Heights were built as single-story brick ranch houses, with brick construction on all four sides as opposed to current practice of only placing brick on the front face of the home. We are concerned that many of our listeners may have the same reception issues inside their homes when using typical consumer grade indoor radios. We have received some listener comments that indicate they can pick us up on their car radios but have had trouble getting a good signal at home or at work in locations within 3 miles of our tower. We can't realistically expect our listeners to install outdoor antennas or buy \$100+ tuners to pick up our signal.

As long as WSWO-LP can make a second-adjacent channel study, they would be permitted to upgrade to a full 250 watts to better serve their community and hopefully be able to be heard on a radio in their storefront studio.

New translators for LPFM stations

First of all, I want to commend Commissioner Pai's overall initiative in an effort to improving AM broadcast stations, especially to Class C and D AM stations with limited nighttime coverage. While the concept of translators can be considered a good short to medium term solution, it is still REC's belief that the implementation of a 2017 filing window for new translator stations that is limited to AM licensees is a violation of section 5(2) of the LCRA. As mentioned in our timely filed *petition for reconsideration* on MB Docket 13-249, Section 5(2) states that the decision to license new FM translator stations must be made based on the needs of the local community. This can be interpreted to state that the Commission needs to determine such needs of the local community. This has not been done. In our *petition for reconsideration*, REC is asking that in the second 2017 FM translator window that licensees and permittees of LPFM stations also be able to file for one translator. Since LPFM is non-commercial, any application will still be trumped by a commercial applications and that the non-commercial application will need to find another channel or be dismissed. Therefore under the REC petition, **no AM station would be prejudiced**. Translators will help some LPFMs, especially in rural areas better serve unusual geographies and other communities within their counties. We are asking that the Commission act on our *petition* and permit local LPFM stations the opportunity to serve their unique communities.

A timeline to the next new LPFM filing window

Despite the increase of translators and the upgrade of existing LPFM stations to LP-250, we do feel that there will be plenty of opportunities, especially in rural and suburban areas for new LPFM stations. REC continues to receive regular inquiries from organizations in rural and urban areas that are expressing an interest to construct and operate an LPFM station. REC supports a regular schedule that toggles between new LPFM stations and new translators based on spectrum availability. As we mentioned in our RM-11749 petition, the filing window would be for LP-100 facilities, which, based on spectrum demand, can be upgraded to LP-250 at a later time. Here is how we can envision the timeline based on the various FCC initiatives:

	LPFM	AM Revitalization	TV Repacking	FM Translators
4Q15		R&O Released FNPRM/NOI Period	Form 177 Filing Period	Auction 83 MX settlement window for NCE translators.
1Q16		Outreach to AM stations Class C & D 250 mile move window	Initial commitment deadline 3-26-16	
2Q16	NPRM for RM-11749 REC filing second LPFM petition.	Class C & D 250 mile move window	Initial band clearing target and band plan announcement (May)	Awarding of MX CPs for auction 83 NCE translators.
3Q16		Class A & B 250 mile move window	Reverse auction	
4Q16				
1Q17	R&O for RM-11749 (LPFM filing freeze for the translator windows)	Auction filing windows for new AM translators, filing window for LPFM translators		Auction 83 for remaining MX translators (4 groups, 8 applicants)
2Q17	NPRM on REC second petition.	Singleton public notice and grants. MX public notice and window for settlements.		
3Q17	Orders on reconsideration			
4Q17	Upgrade opportunity for existing LPFM stations to upgrade to LP-250.	Auction for new AM translators.		
1Q18	R&O for second petition.			
2Q18				
3Q18	Orders on reconsideration			
4Q18				
1Q19	Filing window for new LP- 100 stations	(FX application filing freeze during window)		
2Q19	Singleton public notice and grants. MX public notice and settlement window.			
3Q19				
4Q19	MX major change settlement window and comparative review.			
1Q20				
2Q20				
3Q20	Upgrade opportunity for LPFM stations			

As noted, I would like to target for the ability for existing LPFM stations to be able to upgrade to LP-250 in 2018 and then an opportunity for new LPFM stations in 2019. Following an LCRA-compliant toggling between services, we can target for another FM translator filing window in 2021.

In conclusion

First of all, I want to thank each and every one of you for your time and your ambition towards the LPFM service. The LPFM service still has some shortcomings. RM-11749 addresses some of those shortcomings. REC plans to file a second *Petition for Rulemaking* in the near future. This petition will address various issues that came up in the 2013 LPFM filing window and will include recommendations to improve the qualification guidelines for new applicants in the next LPFM filing window. This petition will also include a technical proposal to embrace community-based single frequency networks.

If anyone wishes to extend this conversation, I am only a phone call away or I can come to DC to meet with you personally. We really need to move forward with a *Notice of Proposed Rulemaking* for LP-250 and we need to address the ancillary issues that are being created as a result of the FM translator filing windows. On an immediate basis, we need the Audio Division to not apply the LCRA to co-channel and first-adjacent channel FM translator protections in the event of displacement and other interference issues that may come up as the LCRA does not protect FM translators like it does full-power stations. We also need to make sure that LPFM stations, like full-power FM stations, FM translators, FM boosters and even Class D FM stations (the original LPFM) have a method of recourse in the event of actual interference to direct reception within their protected contours by FM translator stations.

Let's work together to make hyperlocal radio great again!

/s/
Michelle Bradley
Founder
REC Networks

April 27, 2016

Additional attachments related to LP-250 availability will be filed electronically in ECFS.