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July 19, 1999

Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Creation of a Low Power Radio Service
MM Docket No. 99-25

RM-9208
RM-9242

Dear Ms. Salas:

On behalf of myself, Alan W. Jurison, enclosed the original and ten copies of my comments in response to the Commission's *Notice of Proposed Rule Making* in the aforementioned proceedings.

Please contact the undersigned if any questions should arise.

Respectfully Submitted,

Alan W. Jurison

Enclosures

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

In the Matter of	)	MM Docket No. 99-25
Creation of a Low Power Radio Service	)	RM-9208 RM-9242

Comments from Alan W. Jurison

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I. Introduction

This reply comment is in response to the Notice of Proposed Rule Making 99-25, proposing Low Power FM ("LPFM") services on the FM Broadcast Band.

II. Personal Background

I, Alan W. Jurison, have been involved in the technical aspect of the broadcast industry for over four and a half years. I have prepared or helped prepare engineering applications before the Commission for the purposes of updating and upgrading, of both FM and AM broadcast stations in the Northeast. In addition to the preparation of applications, I have physically installed, upgraded and/or maintained broadcast facilities and related systems.

Currently I am a Chief Operator of six broadcast stations in Central New York State and involved in the technical aspects of eight stations in the state of Maine. I am also a member of the Society of Broadcast Engineers (SBE) and Coordinator for the Emergency Alert System ("EAS") for Cortland County, New York. Additionally, I am involved in EAS operations within the Central New York State, and have had input to both the state and national plans. I have held an Amateur Radio License for seven years, and have been a member of the American Radio Relay League (ARRL) for six years.

III. Reasons to Deny New Services

It is my opinion that the Commission should not initiate any new service classes on the FM broadcast band at this time. Discussion on this opinion follows.

1. **Existing Interference.** The FM broadcast band already undergoes interference in both the Commercial and Non-Commercial sections of the band. This is very apparent in Zone I (47 CFR § 73.205) and near larger metropolitan areas. The band is already congested, and interference within the protected contour of FM broadcast stations already occurs. Relaxation of traditional spacing rules, increase in coverage of Class A stations, frivolous translator licenses and other rule changes have degraded FM service to a point where many radios cannot receive stations within their protected (F(50,50) 54, 57, or 60 dBu) contours. Each relaxation of the rules has increased interference, supposedly for better service for the community. This occurs today even with better receiver technology. I have experienced existing interference in several areas of Zone I, where my primary experience lies.

   Due to natural phenomena of terrain, water, and other properties of nature, it has been known for some time that some stations do better than the standard contours. A Longley-Rice or similar terrain-based study of FM broadcast stations, typically shows that the station outperforms standard FCC protected contours. The Commission has

recognized this fact and has proposed a new model in MM Docket 98-93 (PTP) to determine more accurate coverage contours, primarily used to show coverage to the community of license.

The importance of this is that if you look at current stations, their traditional FCC curves, and then a Longley-Rice, PTP, or similar study, you will notice the service area, many times, is significantly better. This also means the interference contours are also significantly further than the traditional method. This supports my claim that interference already exists on the FM broadcast band. It should be understood that a station is protected to the standard FCC protection contours, and anything else outside of this is an extra service, which may be interfered with. I have noted many stations in Zone I that do receive a mixture of co-channel, first, and second adjacent interference several miles inside their protected contours. The traditional interference contour of another station may not cross the protected contour, however the PTP or Longley-Rice method shows that it does happen. Do we want to add additional services to a band that already has interference?

2. **Increased Interference.** Initiating new services on the FM broadcast band will degrade the band even more. Even with new receiver technology, since interference already exists, it would be only logical to conclude that additional stations will only congest the band further. If the Commission adopts other proposals that I do not support such as reduced second and third adjacent spacings and negotiated interference of existing broadcasters (as proposed in MM Docket 98-93), what would be the combined effects? Proponents of this matter and 98-93 often refer to new receiver technology. However, most people don't have these newer receivers. In addition, I maintain that these new receivers do not reject as much interference as people may think. Many new receivers do not perform any better than older ones. In fact, I have observed newer "high quality" receivers that perform worse than older ones. While very good receivers are available, most people don't have them.

   If areas inside current protected contours receive interference, what will stop additional services and streamlining from making that worse? Will we find that stations can't be heard outside of the 70 dBu contour? How much more interference do we want to submit the FM band to? How much money will consumers have to spend on new receivers that reject interference? Are we really acting in the best interest of the community?

3. **Degradation of Emergency Alert System.** One area that has been quickly overlooked is the fact that increased interference directly degrades the effectiveness of the Emergency Alert System. Many states rely on monitoring distant stations to operate the EAS. In some states, Local Primary ("LP") stations are assigned to monitors that are virtually impossible to obtain.

   My experiences line mostly within Maine and New York State. In both cases, you have to monitor sources from cities spread out further than the protected coverage. In New York State, one of the National Primary ("NP") stations is WHAM(AM), 50 kW

on 1180 kHz. Due to the increase in interference of the AM band from electronic devices, this signal is unintelligible. This has caused stations maintaining the links of the EAS to build higher quality FM reception systems to receive a distant EAS monitor. The signal that is easiest to receive, WVOR-FM a full Class B station is 64 miles from Syracuse, NY. It has been a struggle to get that link to work, and will soon be lost due to a Class A station 15 miles from town that will sign on the first adjacent. All of the LP stations in Rochester are near the frequencies of other local stations or translators, and cannot be received. No stations exist between Syracuse and Rochester to act as an intermediary link. Syracuse is not the only exception. The problem also exists in Cortland, NY, trying to receive signals from Binghamton, NY (40 Miles, heavy terrain). If not for a pair of Grandfathered "Superpowered" Class B stations in Syracuse (40 miles, heavy terrain), Cortland would have no EAS monitors. From my experience, this EAS reception problem is more widespread than one might think. Looking at the New York State and Maine plans, weak signal reception is required to make EAS work. I would imagine many other states have similar problems. Increasing interference on the band will tear away a very important system and make it useless in some areas. Does this serve the public interest?

4. **Excess Burden to Commission.** The addition of new services on the FM band will require time and attention from the Commission. I argue that the Commission is not in the position to support this burden. While the Commission has improved its turnaround time for applications in the past six months, the fact of the matter is that existing services already burden the Commission. For example, the Commission took two years to approve an application for minor correction coordinates for a station. For a simple power upgrade, the Construction Permit ("CP") took over six months for approval. When it was, it took fourteen months for the license to be approved. These cases involved typical applications, and were delayed within the Commission.

   In the past few years, the Commission has closed or reduced staffing at many of its field offices throughout the country. These field offices have been responsible for inspections and dealing with emergency interference issues (i.e.: aircraft band). With hundreds of new stations, how will the rules be enforced? How will they be able respond to other critical issues?

   As I stated, the Commission has recently improved its efficiency on application processing. I am in no way trying to diminish the status of the Commission, I am merely pointing out and defending its workload. In fact, in a few applications for Special Temporary Authority ("STA"), the Commission replied within a few days. This, however, is a rare exception. How can the Commission take on this potential floodgate of applications without hiring additional staff?

5. **Future Implementation of Digital Transmission Methods.** The Commission has stated its preference for a conversion from analog to digital radio broadcasting. However, at the same time it is proposing to add additional interference on the FM band. Currently, an In-Band-On-Channel ("IBOC") transmission method seems most probable for the future of radio broadcasting. However, several developers have

indicated that in order to accommodate IBOC, second adjacent interference may occur and/or reception of interference may degrade IBOC reception. While USA Digital Radio ("USADR") has stated that second adjacent interference may not be as much of a problem as originally thought, USADR is not the only company developing IBOC transmission methods. Further, it should be noted that testing of the USADR system (and others) has only begun. If we rely on what USADR states, what guarantees their system will be adopted? What if a better IBOC solution is implemented, and it is susceptible to second adjacent interference? What if USADR, after significant testing, retracts their statement?

I strongly urge the Commission not to permit Low-Power FM Broadcasting stations until after a final IBOC proposal has been approved and a majority of existing broadcasters convert to it. Regardless of which IBOC method is used, since testing is not complete and existing stations have not implemented such methods, we do not fully understand the total effects of IBOC and its relation to interference. I fear that many LPFM stations in addition to IBOC could result in the death of the FM broadcasting service. I fear that LPFM is a bridge too far today and that excessive interference to analog, hybrid, and digital signals of all classes is possible.

We have had the advantage to develop our FM technical rules over time, eliminating many unnecessary requirements that were at one time very crucial to the survival of the band. With increased FM technology, we were able to reduce spacings, lower IF problems, and relax other rules, with successful results and minor interference issues. I fear rushing to a conclusion and implementing LPFM before IBOC is implemented on a wide scale is the equation for disaster. Do we want to destroy and devalue the FM band like we have with the AM band? I urge the Commission to delay this decision.

Perhaps once IBOC is fully understood and implemented we can revisit LPFM. We may find out that the adopted IBOC method may reject more interference than anticipated, and LPFM may become more feasible that it is now. However, we should not rush this decision, potentially ruining opportunities for existing broadcasters, potential LPFM operators, and the public.

IV. Reply to Specific Commission Requests

1. **Introduction.** As stated in Section III, I *do not* support the creation of LPFM services. However, I would like to comment on specific questions the Commission has asked, in case the Commission decides to implement such services. Parts of this section will be terse compared to Section III.

2. **Evaluation of FM Band for Low-Power Service (Reply to Paragraph 17).** I believe the Commission is correct to only evaluate Low-Power services on the FM band. The calculation of AM band interference is too complex for a low power service. Additionally, the AM band already is heavily congested. While focusing on the FM band, I stated in Section III that I believe the FM band is already showing

signs of congestion, especially in Zone I. I suggest the Commission delay any decisions on the creation of LPFM services until after IBOC has been successfully implemented.

3. **Non-Commercial Nature of LPFM (Reply to Paragraph 19).** LPFM services should not be viewed as non-commercial in nature, but not-for-profit. Since LPFM is designed to represent the needs of the community, they should be established and supported by the community. However, if implemented, LPFM stations should be allowed to raise funds through commercials. These funds should be used to perpetuate the station by paying for equipment, maintenance, staffing, etc. LPFM stations would be registered as not-for-profit, and closely regulated by existing not-for-profit laws. The Commission may want to place a cap on salaries to individuals to ensure benefits for the station, not any particular individual. This is important to make LPFM stations work.

4. **Auxiliary Broadcast Frequencies (Reply to Paragraph 20).** All LPFM stations should be able to use auxiliary broadcast frequencies only with secondary status. The existing spectrum dedicated to broadcasters is already congested to the point where some broadcasters have to resort to expensive alternatives for studio-to-transmitter links, remote broadcasting, etc. In many larger areas, commercial operators already "time share" remote pickup frequencies due to their scarcity. In my own experience, some stations do not want to cooperate in these "time shares" and abuse the spectrum. In the past, I have heard that broadcasters may lose spectrum to satellite services. We should encourage all LPFM stations to locate their studio with their transmitter site. Broadcast Auxiliary frequencies are too scarce to lose.

5. **Secondary Nature of LPFM (Reply to Paragraph 21).** All LPFM classes should also be secondary in status. LPFM stations, if made primary, have the potential to congest the band so much that existing stations could not make improvements at all. Even today there is little room to improve coverage or perhaps re-locate to a community site. While this reduces the stability of an LPFM station, it should be kept in mind that existing broadcasters assume this risk with translator stations, too. LPFM stations are to help represent the community and should not be elaborate, profit-centered institutions.

6. **Restriction of LP1000 in Zone I (Reply to Paragraph 24).** LP1000 stations, while effective in some communities, should not be permitted in Zone 1. These stations will cause a tremendous amount of interference, and will not cover a substantial area compared to existing broadcasters. Because of this, they may not be able to maintain an advertising base to cover the considerably larger startup expense. Combined with the congestion of the FM band in these areas, LP1000 stations should not be permitted in Zone 1. Lower power services would be better suited in Zone 1.

   LPFM should be designed for areas with very little or no radio programming. The Commission should reserve this spectrum for rural communities and not be concerned with adding additional services to large metropolitan areas.

7. **Secondary Nature of LP1000 (Reply to Paragraph 29).** LP1000 stations should also be held as a secondary frequency status so that existing broadcasters can improve their services. If the Commission gives LP1000 stations primary status, existing secondary stations should be grandfathered and not taken off to make room for an LP1000 service.

8. **Translators and Boosters for LPFM Stations (Reply to Paragraph 33).** All LPFM stations should not be allowed to have translator stations. They should be located within the community they want to represent and maintain efficient spectrum space. Since booster stations are meant to provide a signal to an area that is within its service contour but is blocked by a mountain, etc, they should be prohibited for LPFM stations because the service contours are so small. Booster applications are virtually useless for a low-power station, and will cause more interference to the main signal than help.

9. **Type Acceptance of Transmitters (Reply to Paragraph 35).** If LPFM services are to be implemented, it is imperative that all LPFM broadcasters use FCC type-accepted equipment to reduce the chances of unwanted interference.

10. **Restriction of Contour Protection (Reply to Paragraph 41).** To keep the LPFM process simple (not to burden the Commission), LPFM allocations should be proved by minimum separation requirements and not contour protection. Contour protection is time consuming, but may not be relevant for a station with small coverage. Also contour protection would eliminate a "buffer zone" often created by a distance separation table and could cause additional interference.

11. **Maintaining 2nd and 3rd Adjacency Protections (Reply to Paragraphs 42-48).** Second and Third Adjacent channel protections *should be maintained.* I strongly urge the Commission to keep this buffer zone intact. Most receivers will receive interference from adjacent channels. My experience shows even with a very good receiver, second and third adjacent interference does effect reception. I have observed a good receiver going into "mono blending" on a Class B station within its protected contour while within a few miles of a second or third adjacent Class A station. Other radios degrade the Class B's signal to a point where it cannot be listened. Additionally, a digital transmission method may need these separations in order to function. We cannot decide that a digital system will not need the separations, because we do not know what system we will implement.

    The Commission seems to be concerned about fitting LPFM stations in metropolitan areas and therefore wants to reduce these spacings to allow more stations to fit. I feel that the purpose for LPFM is to represent communities that do not get served by existing broadcasters. In a large metropolitan area, I would argue that the public is well served by many different facets of programming. LPFM station spectrum should be restricted to areas that have very little or no radio coverage, therefore eliminating

the need to evaluate second and third adjacent spacings to "shoehorn" LPFM stations in large metro areas.

12. **Maintaining 2nd and 3rd Adjacent Spacing (Reply to Paragraph 50).** The Commission *should not* reduce second or third adjacent spacing requirements for existing or future services. At this time, many receivers need this protection. It is one of the few restrictions keeping the FM band from becoming like AM band. If the Commission were to waive these requirements for LPFM stations, it would be unfair for existing broadcasters not to have the same privileges. Spacing requirements need to be maintained!

13. **Technical Monitoring and Maintenance (Reply to Paragraphs 51-54).** I applaud the Commission for proposing certification, emission, and modulation limits. The Commission should pursue limiting emissions lower than existing requirements for LPFM stations so long as they are not cost prohibitive. While LPFM stations may not need to have a modulation monitor, their exciter should have very detailed and accurate modulation metering and perhaps modulation limiting at the very least, to preserve good engineering practice.

14. **Reduction of Bandwidth and SCAs (Reply to Paragraphs 55-56).** While I applaud the Commission's innovation in this area, I am hesitant to support the reduction of bandwidth for LPFM stations without substantial testing with existing receivers. My fear is that they might allow other artifacts or interference to degrade reception quality. I do however support the elimination of subcarriers ("SCAs"). Most SCA receivers need a very good signal level in order for them to function well, and for LPFM stations the area where it would be useful would be very small.

15. **LPFM Ownership Requirements (Reply to Paragraphs 57-58).** Very strict ownership requirements should be implemented with any LPFM service to make sure that the station does not associate with any other broadcasters. Entities owning LPFM stations should be limited to one per community. For basis of "community", I suggest they cannot own any station within a fifty-mile radius. This would allow diversity in LPFM station control in a given area. This should not however limit those with expertise in engineering to provide contracting services to LPFM stations.

16. **Restrictions on National Ownership (Reply to Paragraph 60).** National ownership should not be allowed for LPFM stations. As stated above, LPFM services should be used to diversify programming and reflect the local community, especially in areas with little or no radio programming. People who want LPFM services often refer to commercial stations being owned by too few companies nationwide, and they often state that national ownership makes radio stale. The Commission, through this proceeding, wants to see if LPFM services would work. If LPFM is implemented, national ownership is the last thing you would want, because in the words of LPFM proponents "commercial radio does not represent what the people want." If the Commission truly believes this than we should limit national ownership of LPFM stations.

17. **Residency Requirements (Reply to Paragraph 61).** Since LPFM services are supposed to help serve communities 'under served' by existing broadcasters, the entity should be based in or near the community the station is in. I strongly support residency requirements, as it would make LPFM more community oriented. If an individual owns the station, he or she should live within 50 miles of the station. If a group of individuals or an entity owns the station, fifty to seventy-five percent of the members or trustees should live within 50 miles of the station.

18. **Character Requirements (Reply to Paragraph 64).** All existing character requirements (such as anti-drug abuse certification, etc) should be placed on LPFM broadcasters.

19. **Enforcement of Licensing Standards (Reply to Paragraphs 65-66).** The Commission needs to enforce licensing standards and laws related to radio broadcasting. Unlicensed operators should be dealt with in a swift, vigorous manner to the fullest extent of the law. My fear is that LPFM may fuel renewed interest from unlicensed operators. The Commission will have to deal with this problem, and its aggravated effects from LPFM, which will prove to be difficult considering all of the cutbacks.

20. **Disqualification of Illegal Broadcasters (Reply to Paragraph 67).** All parties who have continued to participate in illegal broadcasting in the past, present, or future after the first notification from the Commission should be ineligible to own or control any broadcast station.

21. **Local Programming Requirements (Reply to Paragraph 68).** LPFM stations should be required to offer local programming more than existing broadcasters. If LPFM is being implemented to serve communities that have been somehow 'neglected' by existing stations, they should have more requirements than high-powered stations in this regard. This should be strictly enforced. LPFM needs to represent the community, not re-broadcast something 24 hours a day from somewhere else similar to frivolous existing religious translators the Commission allows to re-broadcast stations hundreds of miles away from their coverage area. *That* is a waste of spectrum. Don't make LPFM the same way.

22. **Commercial Advertising (Reply to Paragraph 69).** LPFM stations should be allowed to air commercials, but as stated above, should be registered as not-for-profit stations to keep the money invested in the station. See Section IV, Paragraph 3.

23. **Increased Local Programming Requirements (Reply to Paragraph 70).** As stated in Section IV, Paragraph 20, I feel that more local programming should be required from LPFM stations than existing broadcast stations. Additionally, the public interest requirements should be at least double than those of existing broadcasters. LPFM should be a local facet, not part of a national franchise.

24. **Need for Clear Definition of Local Programming (Reply to Paragraphs 71-72).** The Commission needs to make these rules strict because, while the very nature of LPFM is to serve the community, thousands of applicants will do the opposite and serve a few people. The last thing we need is LPFM services to simulcast national programming. If LPFM is to help rescue communities from 'mundane' programming options existing broadcasters offer, than LPFM stations should be required to offer what the community wants. The Commission must clearly state service requirements, or few will follow them.

25. **Application of Part 73 Rules (Reply to Paragraph 73).** LPFM stations should also have to follow the same rules in Part 73 that pertain to other stations. The main studio, public file, ownership reports, and other rules (especially technical in nature) should be adhered to.

26. **Radiofrequency Radiation Standards (Reply to Paragraphs 74-77).** LPFM stations should also be required to adhere to existing radiofrequency radiation exposure requirements and other environmental rules. The Commission should require LPFM stations to adhere to current political programming rules. Additionally, LPFM stations should also follow existing hours of operation requirements.

27. **Construction Permits (Reply to Paragraphs 78-81).** Construction Permits issued for LPFM stations should be equal in length and restrictions to those of all other FM stations, 18 months. However, to reduce speculation and increase fairness, they should not be able to be transferred or sold to another group without the Commission's approval. The Commission should instead refer back to whatever process it assigned licensees in the first place to re-assign a construction permit. This would ensure fairness, whether the system be first come first serve, random, or by weighted preference, and add variety in the assignment of LPFM stations.

28. **License Renewal Procedure (Reply to Paragraphs 82-85).** License Renewal terms should be at least the same as current radio stations. The Commission may want to reduce the renewal period to three years to help keep LPFM stations 'in check' with the community. If other parties are interested in contesting the license, the Commission should refer the station's record. If doubt has been raised on the effectiveness of the station to serve it's community in the public interest, then perhaps the license should be reassigned to a group that feels it can. Granted, this is vague, so explicit rules would have to be created to ensure fairness to all parties.

29. **Emergency Alert System Requirements (Reply to Paragraph 87).** Because of the large area of coverage, LP1000 stations should be required to participate in the Emergency Alert System. LP100 and Microradio stations should not be required to participate unless there are no other local stations in the community. If these stations are used to serve communities that are not represented by current broadcasters, and few stations (if any) are available, LPFM stations should be required to participate in

the EAS. To summarize with rule suggestions, all LP1000 stations would be required to follow existing EAS requirements. LP100 and Microradio stations should only be required to follow EAS requirements if the 70 dBu contour of another full class or LP1000 station does not encompass or overlap the service area of the lower powered station. This would ensure a source for emergency messages if no others existed in the community.

30. **Call Sign Identifiers (Reply to Paragraph 88).** Station identification call signs should be similar to regular broadcast stations. A similar "Channel Number" ID used for translators and LPTV stations probably should apply in the case of LPFM simply because LPFM would introduce the need for many new call signs, reducing the existing call sign pool considerably.

31. **Inspection of LPFM Stations (Reply to Paragraph 89).** The Commission should be able to inspect these stations pursuant to rules that are applicable to existing broadcast stations. Furthermore, LPFM stations should be allowed to participate in official voluntary inspection programs. Because many LPFM operators will be inexperienced in the technical aspects of radio, the Commission should consider requiring an inspection of LPFM stations by the voluntary inspection program soon after operation.

    Additionally, the Commission may want to consider allowing stations to be inspected for technical rule adherence soon after operation. This could be done by many competent radio engineers, and would ensure the technical stability and credibility of these applicants. The engineer could test for compliance in the areas of modulation, EAS, and verifying the station was built according to its Construction Permit or License parameters. The engineer would advise the broadcaster of any problems so that they can be rectified.

32. **Resolving Interference Issues (Reply to Paragraph 90).** I feel that all LPFM stations, including LP1000 stations, should be held pursuant to 47 C.F.R. § 74.1203 in regards to impermissible interference. Strict interference guidelines must be adopted, and then adhered to.

33. **Electronic Filing of Applications (Reply to Paragraphs 91-92).** An electronic filing system should be used for LPFM applications, as it reduces some of the burden to the Commission. Additionally, I feel the best way in which to do this is via the Internet. Obtaining Internet access is not very difficult anymore, and is even available in many public libraries and other locations.

34. **Recommendations of Electronic Filing System (Reply to Paragraph 95).** The Commission mentions in its proposal that the system would be based via electronic mail, or e-mail. I *urge* the Commission to re-consider this proposal. E-mail is not an interactive form. Later in the same paragraph you propose to have the ability to have the applicant check power, HAAT, and other technical requirements interactively. This would have to be done via a web-based application, similar to that of the

Commission's Electronic Comment Filing System ("ECFS"). Further, I urge that the Commission adopt an electronic filing system that is highly compatible and requires very little demands on the local system.

I also urge the Commission to ensure the system does not use proprietary programs or network connections to file and/or check on applications. Currently the Commission's Antenna Structure Registration process can be completed electronically. However, it requires an application that must be downloaded and installed. This is not desired, but is acceptable. However, the process in which one submits, modifies, or searches for records requires the computer dial directly to the Commission's private network, via an expensive 1-900 number. This should be avoided, as it will limit some people from filing applications.

35. **Filing Windows and Application Assignment (Reply to Paragraphs 96-108).** Once an application is accepted for filing, a filing window of seven days should exist to allow others to apply for the station. This would allow others in the community to have time to react and build their own station. Mutually Exclusive applications could be ranked easily by software. The system could give preferences, or a higher numerical weight, to preferences the Commission deems proper. For instance, the system could favor those applicants that do not own any other LPFM stations, and then weight those who do differently depending on the amount of stations they have. The system could also weight the distance of where the station is to where the applicant resides. Non-commercial service could be given higher preference than that of Commercial, and minority, women, and community organizations that submit applications could also be weighted higher. Each one of these criteria could be ranked via a mathematical calculation, and than tabulated. The applicant with the highest "preference weighting" would be awarded the license. In the event of a tie, a random generated outcome could be used in deciding what applicant is awarded the license.

V. Additional Rules and Regulations

1. **Introduction.** As stated throughout this document, I *do not* support the creation of LPFM services. I have outlined many policies in Section IV that the Commission should implement if it decides to adopt LPFM. The Commission has done a thorough job in discussing possible rules, and their modifications in regards to LPFM. I however feel that the Commission has overlooked a few areas. I would like to suggest additional rules in this section that should be implemented within the LPFM policy.

2. **Contact Information for LPFM Stations.** LPFM stations should somehow have to publish contact information (phone and address) so that the public can get in contact with the broadcaster. I feel that this is very important also in regards to interference issues. A LPFM broadcaster should be able to be contacted quickly in cases of harmful interference and/or equipment failure.

3. **Control Point and Remote Control of LPFM Stations**. If LPFM studios are not located in the same location as their transmitter, they should follow existing control point guidelines. Additionally, all LPFM stations should be required to have control of its transmitter at all times. This would require a remote control if the studio is not in the same location as the transmitter, or if unattended operation exists.

4. **Competent Engineers and Good Engineering Practices.** LPFM stations should be required to operate under good engineering practices, and have an agreement with an engineer for periodic testing and maintenance of LPFM transmission equipment. Furthermore, a competent engineer should be required to oversee installation of the LPFM station, and his qualifications should be a part of any application for a license to cover a construction permit.

5. **Protection of Grandfathered Stations**. I propose that all LPFM stations be required to protect all stations that are considered "Grandfathered Superpowered Stations." Specifically, as it stands, these rare stations are not protected by the Commission to their predicted F(50, 50) Protected Contour. Instead, these stations are protected to the maximum ERP and HAAT requirements of the class they have been grandfathered to.

   Historically, these "Superpowered" stations were the first FM radio stations, and were grandfathered by the Commission when limits were placed. Because of their Superpower status, the coverage areas of these stations is larger than those allowed by their class limitations today. These stations serve the public interest by providing coverage in areas that have few, if any local signals. Superpowered stations are known for their larger coverage area and respectively are used to serve the large region it represents. These stations have been proven to be very important in times of public need, and provide emergency service to significantly larger areas than other stations. Additionally, where they exist, they are very useful in maintaining strong monitoring links for the Emergency Alert System across wide areas.

   Current Commission policy now allows other stations to protect these superpowered stations as the maximum their class allows. The actual protected contours are ignored, which creates interference in areas that have enjoyed service for many years. On the reverse side, interference occurs to the station that does not have to respect the actual interfering and protected contours. This occurs and has reduced coverage and increased interference for all stations involved. The specific case I am referring to has resulted in complaints, a loss of revenues and advertisers, and loss of service to the public (some areas have little other, if any service). It's a shame that one of the first FM broadcast stations in our nation, known for its regional coverage and service, is being interfered by a Class A station. Please don't let this happen anymore than it already has. LPFM, if adopted as proposed will do exactly this.

   I propose that all LPFM stations should respect Grandfathered Superpowered stations to their actual protected contour, and in turn, respect the Superpowered station's

interfering contour when locating a station. This requirement would protect the service areas of both Grandfathered Superpowered stations and LPFM stations, helping provide service to their respective communities. If the Commission feels that LPFM stations will fill a void, it should at least respect the existing voids that Grandfathered Superpowered Stations serve.

VI. Conclusions

LPFM service has merits, but it is not feasible. Unfortunately, radio broadcasting has already had its peak, and already competes with many different types of media. These alternative sources of entertainment have been, and will continue to take away listeners of radio. The survival of broadcasting will rely heavily on interference-free service. If the quality of broadcast signals decrease, people will flock to other forms of media. LPFM services, while they can offer niche programming, will in the overall scheme of things disserve the public, and cause people to find other sources of entertainment outside of radio broadcasting. The Commission should realize the effects of interference firsthand, as the AM broadcast band is a product of many poor decisions in the past. Interference and small signals dominate the AM band, and as listeners have flocked to FM, many stations have become worthless.

Approving LPFM service on the FM band will do the same thing. This time, instead of flocking from AM to FM, people will use alternative sources such as the Internet and satellite radio. Wide-scale interference will make many FM stations worthless, causing loss of jobs, profits, and in turn, service to communities. Only a few of the strongest stations will survive, effectively eliminating the possibility of any small or medium sized operator to survive. LPFM threatens the very fundamentals that keep FM broadcasting alive today.

Furthermore, I argue that FM stations already are subjected to interference that inhibits coverage areas. Adding new services will significantly increase interference to existing and new LPFM stations alike, disserving the public. I also believe that one of the fundamental assumptions of allowing LPFM, that FM receivers manufactured today are of better quality than those of the past, is flatly incorrect. Assuming that they are, most people do not own these newer, more improved receivers. Reducing station protection on this account is a very bad mistake.

Development of digital transmission methods is not complete and their susceptibility to interference is unknown at this time. Furthermore, increased interference will degrade FM signals used for the distribution of the Emergency Alert System, reducing the effectiveness of the system. In addition, at the present moment, I feel that Commission cannot handle the increase in applications and other paperwork that will be required for LPFM services.

In light of these facts, I feel that LPFM should not be implemented. I *strongly urge* the Commission *not* to implement LPFM at this time. Please do not make similar mistakes like those made in AM broadcasting. We are at a critical point in the

evolution of the FM band. LPFM services are very hazardous to the success of a digital transmission method and thus the success of FM broadcasting in the future.

Respectfully Submitted,

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