Aaron Read
Brighton / Boston Massachusetts
(founder of the **LPFM Boston '99** group)
http://listen.to/lpfm (all this info is available at this web address)
lpfm@iname.com

My comments are organized to deal with specific paragraphs within the FCC's NPRM 99-25 (LPFM). The format is as follows: a brief summary of point in the NPRM, then the specific paragraph number is given, followed by my comments. A row of asterisks separates each comment. My comments are in order corresponding to the order of the specific paragraphs in the NPRM (meaning that a comment on Paragraph 1 would be first, then a comment on Paragraph 2, etc).

If there's no reference to paragraph in my comments, that means I either agree with the FCC's proposal or the paragraph does not contain any material that can be commented on.

****

Regarding the claim that the diversity in radio formats has not decreased recently (notably since the Telecommunications Act of 1996) and NPR's claim that niche programming will not develop in LPFM in anything but large markets as their aren't sufficient enough people with common interests to do so.

PARAGRAPH 09 I challenge the NAB's assertion (point 23 in paragraph 9) in that while perhaps the number of station formats is NOT decreasing…however, the diversity WITHIN these formats has dropped considerably. For example, in a major metropolitan market, you might find three or four alternative-rock stations. ALL of which are playing from essentially the same rotation of 30-40 songs. In addition, these rotations are near-universally based on the premise that a listener never listens for more than 2 or 3 hours…a premise that is still hotly contested. As such, not only are all the stations playing the same limited base of songs, but they are all replaying the same groups of songs over and over during the broadcast day. This practice has been widely shunned by smaller broadcasters and public radio stations - the exact type of stations that LPFM will largely be. And it is unlikely that LPFM broadcasters will switch to the "bigger stations'" formats as if a listener can hear the same programming on a bigger/stronger signal…they'll listen to the bigger/stronger signal. As such, the LPFM broadcasters MUST diversify their programming in order to survive.

****

Regarding the claim of those against LPFM that webcasting is a sufficient alternative to LPFM

PARAGRAPH 12 In regards to points 27 - 30 in paragraph 12 - I challenge anyone who proposes internet webcasting is an equal alternative to radio broadcasting to find a listener who can have a computer complete with an internet connection and whatever equipment is necessary to receive an internet broadcast…and can have them for the same $10 cost of a FM Walkman stereo.

****

Regarding considering using the AM band for Low Power broadcasting instead of or in addition to the FM band.

PARAGRAPH 15 The AM band should not be used for Low Power broadcasting due to the immense difficulty in designing, constructing, and maintaining an AM transmission system. Construction of an AM transmission element and the tower needed to support it, along with daytime/nighttime broadcasting issues, the distinct lack of signal quality, and having a substantially crowded AM market nationwide essentially make AM an unsuitable band for low power broadcasting.

****

Regarding allowing all LPFM stations to use auxillary broadcast frequencies, where available.
For example - studio-to-transmitter (STL) links, or remote broadcasts.

PARAGRAPH 20 Certainly LPFM stations should be allowed to do so, even smaller LPFM stations will limited area coverage may wish to do remote broadcasts, even from areas that while on the fringe of their coverage may still be an area of interest to the listeners (such as a LPFM in Brighton, MA...approx. 3 or 4 miles from the Beacon Hill, Boston...may wish to do a remote broadcast from the State House on Beacon Hill). However, these stations must follow the same rules and regulations (regarding auxillary broadcast frequencies) as full-power stations do.

****

Regarding spectrum priority and whether LPFM should be a "primary" or "secondary" broadcast service in reference to translators and Class D stations.

My comments apply to both the "LP-100" and "microradio" proposals. I am not addressing the "LP-1000" proposals as I believe the LP-1000 proposal should be dropped entirely as it is essentially a Class-A station and not appropriate for LPFM. See Paragraphs 23-29.

PARAGRAPH 21 The designation of LPFM as either primary or secondary status raises concerns about translator services, which are currently a secondary service. In effect, a translator is merely a rebroadcast of another station…whereas a LPFM actually IS a station. I feel a station in and of itself has greater intrinsic value than a translator and therefore should be treated as such.

In addition, the explosion of translator growth has gotten completely out of control from the original purpose of translators: to provide service to a specific listening audience within your protected signal contour that could not receive your signal due to terrain problems or similar blockage. Beyond that, a translator should not be used: if you have a need to provide a signal there, then set up a full-fledged station.

As such, even though both translators and LPFM are to be considered "secondary" services - translators should NOT be protected from LPFM stations (i.e. translators are secondary to LPFM). By default, if a LPFM applies for a license on a frequency where a translator is (or near enough that interference laws apply) and the license is granted, then the translator must then change to protect the LPFM (i.e. move, reduce power, or be shut down). During the application process, the owner of the translator(s) in question may file an appeal. The appeal will be granted and the LPFM service blocked ONLY if the translator is serving an area within the primary station's protected service contour and the protected signal is blocked from the area in question by terrain or another station's non-protected signal. If this restriction is met the LPFM's application will be denied. If not met, the translator's appeal will be denied and the translator must shut down, etc. The appeal window shall be the duration of the application process, or four weeks, whichever is longer.

In addition, no existing translators may be "grandfathered in". All frequencies that translators reside on may be applied for by LPFM applicants.
(see also Paragraph 33 of the NPRM)

(see also Other People's Comments - Paragraph 33 for an alternate idea regarding protecting translators)

NOTE: these rules DO NOT apply unless the stations' protected signal contours are going to interfere with each other…if ONLY the unprotected signal contours interfere, then the LPFM has no claim to force the translator to shut down or change, and neither does the translator have any similar claim against the LPFM. NO OTHER CRITERIA APPLY THAN PROTECTED SIGNAL CONTOURS.

NOTE: For this point: "LPFM" may be interpreted to mean both the "microradio" and "LP100" subclasses of LPFM.

****

PARAGRAPH 21 B Also a concern is the relation between Class D stations and LPFM. I propose that Class D's be considered secondary to LP100 stations, but that Microradio stations be considered secondary to Class D.

LP100 stations are, by their power definition, a more powerful class than Class D and therefore should have greater protection. However, it is somewhat unfair for a full-fledged (albeit low powered) station to simply be shoved aside in favor of LPFM. As such, ALL Class D stations may choose to upgrade to LP100 (even if their ERP and HAAT do not change) and will be given preference over ALL other applications for the Class D's current frequency and for their first adjacent and second adjacent.

For example, WXXX, a fictional Class D 10 watt station is on 89.3FM. Someone applies for a LP100 station on 89.3 or 89.5/89.1 or 89.7/88.9. WXXX can choose to upgrade to LP100 status on their current frequency and may choose to leave their ERP and HAAT the same, or may choose to take advantage of LP100's looser adjacency laws to increase their power or shift their frequency. However, WXXX will have preference over all other applicants. WXXX may also choose to NOT become a LP100 and stay a Class D instead…however, they will then risk being shut down to protect the LP100 that will come up on their channel (or a near enough channel to invoke adjacency protection).

(see also Paragraph 33 for more related info about primary/secondary service)

****

Regarding the creation of a "LP-1000" class of LPFM (with an maximum Effective Radiated Power (ERP) of 1000 watts at a Height Above Average Terrain (HAAT) of 60 meters)

PARAGRAPHS 23 thru 29 Eliminate the entire LP-1000 service from the LPFM proposal. Essentially the LP-1000 is a Class A station…a service that already exists and has proven itself a viable medium. The major difference is the removal of third and second-adjacent protection…which is engineeringly unsound when dealing with power levels as described in the LP1000 service.

If a station can afford the engineering study necessary and the technical equipment required to generate a LP-1000 signal, they can certainly afford the same equipment/study needed for a Class A. In addition, this proposal essentially makes the LP-1000 conform to the same rules regarding Class A and above stations (EAS, Legal Ids, etc etc). As such, the creation of a entirely new class that is essentially a duplicate of an existing class is only unnecessary paperwork that also holds two identical stations to different standards - an unfair practice that goes against the LPFM spirit of leveling the playing field

****
****

Regarding the creation of a "LP-100" class of LPFM (with a maximum ERP of 100 watts and 30 meters HAAT).

PARAGRAPH 30 I emphasize that the maximum ERP not be defined by the arbitrary limit of 100 watts at 30 meters…that instead it be 1 mV/m (60 dBu) signal contour at a distance of 5.6km from the transmitter. Many LPFM stations are going to not going to have the resources available to them that "full-power" stations have…although in site of this they must still conform to some rules that will affect them financially (such as FCC-certified equipment), many LPFM station will make use of surrounding structures to use as antenna towers instead of the enourmous difficulty and cost of constructing their own, new towers. By surrounding structures I include: buildings, billboards, dormitories, water towers, existing communications towers and other such structures. These structure may or may not conform perfectly to these measurements (usually not). As such, should a college want to place their transmitter on the roof of a 15-story dorm, this will surely exceed 30 meters…but they can still lower their wattage to achieve a 1 mV/m at 5.6km

This also applies to the "microradio" subclass, except the maximum limit be 1 mV/m (60 dBu) at 3.2km...which is created by a 10 watt transmitter at 30m HAAT.

In addition, all LP100 transmitter equipment must be FCC certified...see Paragraph 35

****

Regarding the relaxing of third- and second-adjacent protection both for and against LP100 stations and also Microradio stations.

PARAGRAPH 31 Third-adjacent protection can and should be eliminated, but second-adjacent should only be provisially eliminated. If the LPFM applicant can produce a legitimate engineering study showing that a LPFM station will not cause interference while on second-adjacent AND can provide written acknowledgement by the stations' license holders and chief engineer(s) that the LPFM will be second-adjacent to them and that they understand and accept any interference that might result.

This holds true for both LP100 and microradio stations…I do not address LP1000 as I have already stated that LP1000 should be discarded entirely from this proposal. (see Paragraphs 23-29)

For example, WYYY on 88.9 is a 4kW station. WZZZ on 89.7 is a 98kW station. WXXX is a LPFM who wants a 10 watt on 89.3. While WXXX is sitting on the second adjacent of both WYYY and WZZZ, WXXX produces an engineering study stating that the interference created will be minimal and both WYYY and WZZZ find the interference acceptable and produce written documentation stating they will allow WXXX on 89.3 at 10 watts.

However, WXXX must still take into consideration any other stations that might be co-channel or first-adjacent but not necessarily close by in distance.

The relaxing of these interference protections apply ONLY to LPFM stations…full power stations must still follow the standard interference protection rules. They need not follow them in regards to LPFM stations of course, since LPFM stations are a secondary broadcast service (according to these comments)

****

****

Regarding whether LP100 should be a primary or secondary broadcast service in general.

PARAGRAPH 33 LP100 should be a secondary service in order to prevent potential interference hassles in the future regarding primary service stations. In addition, LPFM should be viewed as a secondary service in general; if a station owner has the resources to be a primary broadcaster, then he/she/they should be applying for a primary service station, not an LPFM. The goal of LPFM is to be means of broadcasting when normal means are not available, either due to cost or a lack of spectrum available…it should not be viewed as a "back door" means of getting a full-power station.

In addition, in crowded radio markets it is assured that some conflicts will arise between current, full-power stations and new LPFM stations. In order to prevent costly and draining legal battles, it is necessary to establish from the start that LPFM cannot supercede primary stations…and that should a interference conflict arise the LPFM must defer to the primary stations' authority.

In addition, these same beliefs hold true for Microradio (see Paragraph 36). Also, LP100 and Microradio stations must protect each other equally.

****

Regarding the creation of a "Microradio" class of LPFM with a maximum ERP of 10 watts at 30 meters HAAT.

PARAGRAPH 34 see Paragraph 37.

****

Regarding whether Microradio would be required to have FCC certified transmitter equipment.

PARAGRAPH 35 All transmission equipment must be FCC certified, period. Tight control over ALL stations' emissions is essential to making LPFM work - otherwise spurious emissions can and will cause undesired interference. The added cost of FCC certified equipment is nominal and actually beneficial. If a station cannot raise the capital to invest in proper equipment, then it likely will not have the capital needed for any small business to survive beyond the first few years (or months, perhaps). This simple method should prove effective at "weeding out" those applicants who are completely unsuitable for creating a radio station and will likely not end up serving their community to acceptable standards as currently outlined by the FCC.

This also holds true for LP100 transmitter equipment.

****

Regarding what Microradio would be a secondary service to.

PARAGRAPH 36 (see also Paragraphs 33) Microradio should be secondary to all other FM radio services including Class D stations…EXCEPT FM translators (see Paragraph 21) I believe third adjacent protection can be eliminated and second adjacent provisionally eliminated (see Paragraph 30) I do not believe Microradio, if properly engineered and implemented, will cause any problems for digital radio (IBOC).

****

****

Regarding the reasoning behind a Microradio class of LPFM and its merits.

PARAGRAPH 37 The micropower radio is the true heart of LPFM…it has the lowest potential for interference with other stations and therefore is ideal for urban markets, which are typically have very limited spectrum available. I believe the greatest potential lies with educational institutions that while they may lack the greater funds of many instutions, the lower level of funding is more consistent and reliable (while most schools are reluctant to heavily fund a student radio station, once they have some money invested they are loathe to let the station die out completely). A micropower station can easily cover a college or high-school campus (and perhaps a little of the surrounding community where a high concentration of students may be living) and provide an excellent training facility while still giving the students a chance to serve their own community (and with some schools having 20-30,000 students, the school itself is a community!).

Local community groups in urban environments also stand much to gain from micropower radio as even a 10 watt station can sufficiently cover a local urban neighborhood effectively…thus providing an outlet for local events and schedules, and especially a voice for minority groups. A larger station is simply not equipped to deal with such a diverse range of programming as they must serve a greater community and therefore must make their programming more generic…whereas a microradio station could effectively serve a community of several hundred (if not a few thousand) people with programming that is default what they want to hear as they are locally tied to the station.

I also propose that Microradio stations would be referred to as "LP10" stations in official listings (much like "Class A" or "Class C", or "LP100"). For the sake of clarity in these comments, I will continue to refer to them as "Microradio" stations.

****

Regarding interference protection criteria and "minimum distance" requirements.

PARAGRAPHS 40-42 LPFM is a secondary broadcast service and therefore obligated to accept any and all interference from other, primary, stations. Realistically speaking, most LPFM stations won't and shouldn't care very much about receiving interference…they're likely going to be happy just get SOME form of open-air broadcasting and be legal about it. For the interference received to be so severe that the LPFM would no longer be a viable broadcaster would mean their frequency and location were so poorly chosen that they surely must be causing interference to another station…a far more serious problem.

As such - LPFM stations should be, by default, exempt from any and all rules about receiving interference. However, they must be entirely concerned about the rules regarding causing interference.

Minimum distance requirements are a good idea in theory but useless in practice. These distance requirements go somewhat beyond providing an easy reference for stations to determine whether or not a viable frequency is available...they totally nullify any and all relaxing of interference protection that is key to the viability of LPFM being able to be created in any sort of medium or major market. I should note that minimum distance requirements are SEVERELY biased against the Northeast / New England area of the country where some of these minimum distances are nearly the width of an entire state!

Many points are raised that if third-adjacent or second-adjacent interference criteria are revised then so many LPFM stations can exist in a given major market…but with these minimum-distance requirements, not a single station can exist, period.

The point is: I believe that second-adjacent protection can be provisionally relaxed on a case-by-case basis (essentially: negotiated interference)...and minimum-distance requirements effectively block that.

However, the rules of physics dictate that co-channel and first-adjacent protection must be totally inviolable. LPFM proposes that third-adjacent is unnecessary. Both of these are reasonable. The debatable point is second-adjacent. As such, I propose that second-adjacent minimum-distance requirements be waived completely, and for second-adjacent concerns the signal contour be the defining factor. However, the minimum distance tables may serve as a handy reference, but they are not necessarily iron-clad like the co-channel and first-adjacent minimum-distance requirements. For co-channel and first-adjacent, the minimum-distance requirements stand as detailed in the NPRM. For third-adjacent they are eliminated entirely.

After all, should LPFM be a noncommercial broadcast service, why apply a double-standard? Full-power noncommercial stations are determined solely by their signal contours (with certain extra rules imposed on stations on frequencies 91.9, 91.7 and 91.5 as they're so close to the commerical band).

In regards to the signal contour being the defining factor for second adjacent...the LPFM may work with the full-power it is second-adjacent to in order to "negotiate interference". In essence, even though the LPFM will interfere with the full-power's signal around the LPFM's transmitter site...the full-power decides it is inconsequencial enough to allow the LPFM to operate. Interference may be negotiated for second-adjacent concerns only (in both the non-commercial and commercial bands). Co-channel and first-adjacent interference may NOT be negotiated. Obviously, since third-adjacent protection is not required their is no need for negotiation on it.

In such cases the consent of all the following parties is required in writing: the owner and/or general manager of both the full-power station(s) involved and the LPFM station's, and both stations' chief engineers (or closest equivalent). This consent much be included with any and all applications at the time of application. Full names, mailing addresses, and daytime phone numbers of all parties listed above must be included as well.

****

Regarding the potential for LPFM to interfere with IBOC (digital radio).

PARAGRAPH 47 When it is decided exactly how IBOC will be implemented...THEN arguments can be made about LPFM interfering with IBOC. Currently no specific rules, equipment, physics, or plan is in place (or near to being in place) regarding exactly how IBOC will be created. In fact, their is still debate over whether IBOC can actually work AT ALL...much less how it can. As such, debating against LPFM to protect IBOC is an unfair and groundless argument.

To digress a little - one must consider that a FM signal has 200kHz of bandwidth...which is pretty substantial. The only threat LPFM presents to IBOC is that the potential interference (note: I say potential...not absolute) may reduce available bandwidth. Considering with most stations (even with subcarriers) there's still about 50-100KHz available to insert an IBOC (In-Band On Channel) signal...I'd say LPFM isn't much of a problem. The real problem with IBOC is figuring out a way to have a compressed digital signal signal be compressed, reach a digital radio, and then be properly uncompressed in real time and in sync with the analog signal. That's a toughy.

Realistically, many engineers believe that IBOC may very well be impossible to effectively implement. Unfortunately, there's sort of an "egg on the face" effect as many enthusiastically signed on to IBOC without really taking a long hard look at how it would be done...and now it's looking very difficult if not impossible to do, but people are reluctant to just reverse-face on the issue. My hope is that it'll die off quickly and the entire industry will agree on it's death...then go back to Congress and demand new spectrum space, much like Digital TV. Congress'll hate 'em for it, and it won't happen unless EVERYone agrees that IBOC is dead, but it's ultimately the best thing for LPFM as it would

eventually open up a whole block of potential LPFM spectrum.

****

Regarding bandwidth limits proposed for LPFM. Also regarding subcarrier usage by LPFM.

PARAGRAPH 56 Reduced bandwidth broadcasting has potential in theory - but unfortunately it introduces too many negative factors to be a viable issue. The issue of creating an entirely new line of equipment to supply these broadcasters...a totally separate class of engineering that will require a greater degree of engineering skill than is required of full-power stations...the problems inherent in introducing a double-standard, weaker, quieter-sounding audio from a lack of modulation...and questions regarding the viability of stereo broadcasting in a reduced-bandwidth environment...these all indicate that reduced-bandwidth broadcasting is more trouble than it's worth. I propose that LPFM's broadcast using the same bandwidth as full-power stations.

A subsection - LPFM stations may choose to broadcast in stereo according to their own programming choices. However, that means they accept the fact that most radios are two to three times as sensitive to mono broadcasts as to stereo. As such, they accept the coverage penalty inherent to stereo broadcasting, just like full-power stations.

Subcarriers are NOT a relevant issue to LPFM...but LPFM stations may use them in accordance with the current rules for subcarriers if they choose to do so.

****

Regarding ownership and eligibility restrictions for LPFM.

PARAGRAPHS 57-59 No organization, company or individual who owns or has attributable interest in ANY "full-power" station in ANY market may be allowed to own or have attributable interest in ANY LPFM station in ANY market.

The only exception is for an accredited educational institution (such as a college, high school, or university) may own one and only one LPFM station in addition to however many "full-power" or Class D stations they may already own or own in the future.

In addition, should a educational institution own an LPFM station and additional "full-power" stations, the LPFM station may simulcast or rebroadcast no more than 4 hours of any of the "full-power" stations' programming daily and vice versa regarding the "full-power" stations broadcasting the LPFM's programming. This 4 hour allotment is reset every day at midnight and may not carry over from day to day. This is to allow stations that may want to carry news programming or special programming (sports games, local concerts, etc) or LPFM stations that may want to "fill" a programming "hole" during hours traditionally difficult to get staff for (such as midnight to 4am).

Also in addition, no more than 50% of the staff at either station may simultaneously work, volunteer, or be considered "on-staff" at the other. For example, a university owns a professionally-staffed Class B news station and also has a student-run LPFM station. No more than 50% of the Class-B's station's staff may be on-staff at the LPFM station at the same time.

These two restrictions are to prevent universities from using a LPFM station to augment an already sufficient full-power network and to ensure that the LPFM station keeps a healthy student population involved with the station.

It should also be made known to educational owners of LPFM stations that it is the desire of the FCC to see students involved at an educational LPFM…as such, even though "community" volunteers or

workers are permitted, students should remain an integral part of the station. Good examples of this can be found at WERS (Emerson College, Boston,MA) and WBRU (Brown University, Providence,RI).

An educational institution is defined as any accredited college, university, or secondary ("high") school...either for-profit or non-profit. Other "educational institutions" than these do NOT qualify. The institution may be publicly owned by a state or town, or privately owned.

****

Regarding national ownership of LPFM stations.

PARAGRAPH 60 No organization, company or individual may own or have attributable interest in more than ONE LPFM station, period. No exceptions will be granted. That's one station for the entire nation, NOT one station per market. See also restrictions on programming to prevent "dummy corporations" being used to purchase multiple LPFM stations.

Despite the FCC's assurances that the nature of LPFM will discourage national ownership, national owners have consistently shown (since the TeleComm Act of '96) that without restrictions, EVERY available station will be bought and turned into a network if possible. Consider the Class D station scenario: where scores of Class D's have been bought and used as primary stations for translator networks nationwide. An ownership limit is the most expedient way of ensuring that the locality of LPFM is not destroyed.

****

Regarding residency requirements of LPFM station owners.

PARAGRAPH 61 The potentially small coverage area of Microradio and even LP100 stations would present a potentially daunting and unnecessary challenge to LPFM owners. In addition, for educational institutions like larger universities, sometimes the "owner" of the station would be the school's Trustees, who may even not live in the same state as the school!

As there is a great potential for hardship and little realistic gain by residency requirements (after all, even if the owner is not local, the staff most likely will be)...I concur with the FCC and propose that NO residency requirements be imposed on LPFM station owners.

****

Regarding alien ownership of LPFM stations.

PARAGRAPH 63 I concur with the FCC that no alien or representative of a foreign government may own or have attributable interest in a LPFM station. However, I wish to emphasize that this part of the NPRM should NOT be used in any way to prevent nationalized immigrants who are US Citizens or even just American-born minorities from owning LPFM stations.

****

****

Regarding unlicensed broadcasters ("pirates") who may be applicants for LPFM licenses.

PARAGRAPH 67 Any station that illegally broadcasts between the date of this NPRM's posting (2/3/99) and the beginning of accepting for LPFM applications (should that occur) should automatically be disqualified from applying for an LPFM license for a period no shorter than one year.

These stations have such demonstrated a blatant disregard for the law (especially in the face of a direct implication that "good" pirate radio stations who shut down during these comments will be viewed more favorably) that they are likely to not stay within the bounds of their license and are equally not likely to serve their community as their community dictates. The one year "penalty" period ensures that qualified applicants get an entirely fair shot at obtaining a LPFM license. Ignorance of the rulings is no excuse - a responsible broadcaster would have little trouble ascetaining information on LPFM from the FCC (via e-mail or via their web page).

Those stations who have illegally broadcast in the past but who shut down on or prior to 2/13/99 may be judged according to their past behavior: those who have repeatedly (i.e. more than once) attempted to broadcast even after being informed by FCC officials to shut down will receive lower priority whenever conflicting applications occur, but they will be able to apply at the same time as everyone else. Those who shut down and stayed shut down after being informed by the FCC will receive higher priority than repeat offenders. All pirate radio broadcasters will be put under higher scruntiny than most other applicants by default due to their past transgressions...however, some pirates may be able to put this to their advantage: for example, Radio Free Allston (106.1, Allston/Boston, MA) garnished support from many local media outlets, local politicians (including the Mayor's Office) and other notable persons. This support can be brought forward at the time of application in favor of Radio Free Allston to be granted a license.

****

Regarding local programming requirements and LPFM serving as a translator.

PARAGRAPH 68 No LPFM station may rebroadcast any other station's programming (see exception below). In addition, no LPFM station may use any satellite programming, or be permitted to rebroadcast programming from any nationwide source. Put succictly, all LPFM programming must be of local origination. No LPFM station may be used to feed any translators, nor may they feed their programming to any other broadcast service.

The SOLE exception to this rule is for educational institutions who own one or more full-power or Class D stations and wish to own an additional LPFM station as a "student" station. See Paragraph 57-59 for details.

While the nature of LPFM encourages local programming, the unfortunate truth is that without strict restrictions to ensure locality, the monetary allure of national networks will allow national programmers to obtain LPFM licenses and simply use them as rebroadcasts of the national source, thereby eliminating any new (or local) voices. The greater financial and legal resources of these national programmers will easily allow them to obtain licenses over smaller, more local community groups unless the law prevents it. Frankly, these national programmers already have an outlet in "full-power" stations; LPFM is meant to be for "the little guy" and it must be spelled out in the rules with no possible loopholes in order to make sure "the little guy" gets a shot.

****

****

Regarding LPFM stations being commerical or non-commercial in nature and programming.

PARAGRAPH 69 All LPFM stations are to be non-commercial, regardless of their location in the FM band. LPFM stations are encouraged to local themselves in the NCE band (88.1 to 91.9FM), and circumstances regarding available frequencies will likely ensure that by default (except in the most major markets). However, crowded radio markets may have more suitable frequencies in the commercial band (92.1 to 107.9FM). Also, the generally greater ERP's of stations in such markets makes LPFM's less likely to cause interference except on a very limited scale.

Current broadcasters who are concerned that 100 watt (LP100) stations will suddenly start marching into said crowded market need not worry...the interference protection and minimum distance requirements will ensure that by default...at most only Microradio stations will exist in major markets, usually at the lower power end (1 to 5 watts).

Generally speaking, non-commercial stations have historically had programming that most emulates the ideal of LPFM. It also stands to reason (and there is historical evidence) that a commercial station must restrict its programming to at least some degree in order to appease advertisers - whereas non-commercial stations historically have been free to offer the best programming possible without concern of what sponsors feel is “appropriate” as they are less dependant on advertising and more dependant on listener support....thus tying a non-commercial station closer to its listeners - a habit that definitely embodies the spirit of locality in LPFM.

In regards to LPFM's needing advertising/commercials as a means of financial survival are worrying needlessly. Several non-commercial stations have used underwriting and fundraising as means of raising budgets that reach millions of dollars. Granted the content of underwriting is more restrictive than simple commercials, but the level of revenue raised by underwriting is not restricted in any way.

I also propose that the non-commercial status of an LPFM be determined by its owner - that is, a non-commercial station may not be owned by a commercial, for-profit, entity. The sole exception to this is accredited educational institutions (see Paragraph 57-59 for the definition of an accredited educational institution)...they may be for-profit or non-profit. However, even in this case the LPFM station itself must be run as a non-profit entity, even though the school may be for-profit.

****

Regarding LPFM stations and Public Interest Programming Requirements.

PARAGRAPH 71-72 (remember, these comments disregard the LP1000 subclass entirely) LPFM stations must serve their assigned community of license just as "full-power" stations do. If a LPFM station's protected service contour does not cover all of their community, they will be required to make station announcements as if they do and be required to serve the entire community to the best of their ability anyways. And they will assigned to whatever community the simple majority of their protected service contour covers. Communities are defined by Postal ZIP codes. For example, Allston, MA is a local area of the city of Boston, MA. A station within Allston's ZIP code (02134) would identify itself as serving Allston, MA. Although, if desired the LPFM may identify itself as being from Allston first, then other nearby communities second. For example - a potential legal ID for such a station might read as "WXXX, Allston / Boston."

As more specific examples regarding programming, that LPFM stations are required to comply with programming-related rules regarding the broadcasting of: (1) taped, filmed, or recorded material; (2) lottery information; (3) sponsorship identification; (4) personal attacks; and (5) periodic call sign announcements.

Although the FCC is disclined to enforce such rules on smaller LPFM stations...the simple fact is that these stations cannot be held to a double-standard. They must be responsible to and answerable to, the

same high standards of quality that "full-power" stations are (NOTE - those "full-power" stations may routinely break these same rules, I'm not saying hold LPFM to the same standards "full-power" actually gets away with, I mean hold it to the same standards that're supposed to be there).

In addition...it should be realized that no matter how much LPFM proponents enjoy the vision of a $500 radio station, it simply isn't going to happen. To start an LPFM station from the ground up is realistically going to cost at least $10,000 to $20,000. Probably significantly more than that in crowded urban markets. While still drastically less expensive than the $1 million to $10 million common for full-power stations, it's not going to be something the average Joe can pay for "out-of-pocket". Nor should it be. The creation and operation of a radio station is not something to be taken lightly - and the more realistic five-figure cost is one major way of ensuring that only serious applicants receive licenses. This is not to say that money should determine who gets a license, far from it...after all, a well organized small business usually costs around that much to start...thousands are funded every week from small business loans from banks and other lenders. These avenues are just as open to LPFM applicants.

My point here is twofold - the higher standards are likely to cost a little more than without them, but not so much that it's unreasonable....and that the type of applicants who demonstrate the savvy, the will, and the organization to obtain said needed funds are the same types more likely to comply with such rules. It's a win-win situation.

Finally - educational instution-owned LPFM stations are also further restricted in their main studio requirements...the main studio must be located within one mile (1.6 kilometers) of the designated "center" of the institution's local campus. If the institution does not have a specified campus (i.e. urban center campuses) then the "center" shall be defined as the location closest to the center of the largest cluster of institution-owned buildings.

This is to doubly ensure the LPFM station keeps a local focus (especially regarding its student population) but also makes sure the station is readily accessible to the student workers/volunteers of the station.

****

Regarding LPFM and environmental rules and regulations.

PARAGRAPH 74 LPFM stations, both LP100 and Microradio, must be held to the same rules and regulations as Part 73 stations as specified under the National Environmental Protection Act. If the regulations are dependant on a station's ERP then the restrictions are eased in accordance to the LPFM's lower ERP.

To illustrate (this is an example, not an actual situation), if a Class A station at 100 watts must keep a 50-foot area around it's transmitter clear due to radiation concerns...then a LPFM at 50 watts must keep a 25-foot area clear (or whatever distance is appropriate for its ERP).

I profess a certain level of ignorance regarding these rules and how they apply to power, etc. Therefore, should a Microradio LPFM not have enough power to require certain safety rules, then only by default they are exempt from them. Otherwise, they apply as appropriate to the situation.

****

****

Regarding LPFM operating hours requirements.

PARAGRAPH 76-77 All LPFM stations are held to the same standard of minimum operating hours: 20 hours total weekly, with generally two-thirds of the hours between 6am and 12midnight. Should a station be found or reported to be consistently failing to meet this requirement within any given six-month period, they shall be subject to immediate, full examination by the FCC and, if found to not be in compliance with FCC rules and/or not serving their community of license, their license shall be immediately revoked and placed up for re-application by other parties. The (now ex-) license holder shall not be able to reapply for any license for a duration of not less than one license period (four years).

Any LPFM that stays shut down continuously (no broadcasting at all) for a period of greater than six months will have its license automatically forfeited and placed up for re-applicaion by other parties. Again, the ex-licensee cannot reapply for any license for at least one license period (four years).

These rules do apply to LPFM's operated by educational institutions (i.e. colleges, universities, high schools). Meaning they must continue broadcasting during the typical "Christmas Break" at the end of December and the "Summer Break" between May and September. The reasoning behind this is that most, if not all, college (etc) LPFM's will have community volunteers. If not, then their communications program would be strong enough to have students around during these break periods. Realistically, 20 hours weekly is not difficult to maintain; it's only four hours each weekday. And the alternative is to basically waste valuable spectrum for four months of the year.

While this requires additional effort by the FCC and by broadcasters...it is necessary to ensure efficient usage of the spectrum is achieved. Unfortunately, the option of "revisting the issue" at a later date is not a viable one as the likelihood of such an event can easily be called into question. To put it another way: inertia is a powerful force in broadcasting; it tends to keep non-existing rules (and stations) from coming into existence and it's very powerful in keeping bad or undesirable rules (and stations!) in existenance. In addition, the political delicacy of LPFM mandates that if LPFM is to success - it must be done right and done right the first time.

Fortunately, in regards to "policing" LPFM stations...a large part of the FCC's job can be done for them by proponents and detractors of LPFM; the detractors are going to watch new LPFM stations like hawks for any chance to remove bad LPFM stations from the spectrum, whereas proponents who were unable to receive a license will do the same in the hopes of receiving the license themselves. LPFM stations will likely be the most closely policed stations ever! So for at least the first several years of LPFM, the FCC need not worry about not being able to watch all the LPFM stations - the public will do a lot of that for them. However, channels do need to be made readily available to the public for filing legitimate grievances about LPFM stations (and full-power stations, too!)...be they by phone or by internet/e-mail/world-wide web.

****

Regarding LPFM construction permits and license periods & renewals.

PARAGRAPHS 78-85 LPFM stations are required to be fully broadcasting within twelve (12) months of the issuing of their license. The first license granted to an applicant is a "provisional license" and is for a period of twelve (12) months after the first day of the station's broadcasting (excluding test broadcasts). Within the first week of broadcasting, the station must print an announcement in no fewer than two major newspapers stating their format and their plan to serve the community (through community members being on-air, local remote broadcasts, lobbying efforts, etc). All LPFM services must have a plan to serve their community. This plan must also be announced twice daily (once between 7am and 10am, and once again between 4pm and 8pm) on the LPFM's air signal for at least two weeks after broadcasting begins (not including test broadcasts).

Towards the end of the provisional license (one year), the holder must undergo a examination to determine if a station has fulfilled its charter and served its community. The examination will be done by the FCC and is primarily done by soliciting input from local listeners, although the FCC may use any method it deems appropriate. To augment this process, the LPFM station must announce that it is up for license renewal and that comments from local listeners are being solicited to determine whether a station has served its community of license. The license of community will be then stated, and then means by which a listener may submit comments; at least a mailing address (at the FCC) must be supplied...phone numbers and E-Mail addresses may be provided as well. This announcement must accompany the station's legal ID every other hour between 6am and midnight (therefore being at 6am, 8am, 10am, 12noon, 2pm, 4pm, 6pm, 8pm, 10pm and 12 midinight) for a period of two weeks before the date the provisional license expires.

Should it be decided the station has not served its community sufficiently, the station's license will be immediately forfeited and the station must shut down. The license will be immediately placed up for re-application by other applicants. The (now former) license holder will be barred from applying for (or having an attributable interest in) any new or existing LPFM license for a period of not less than 48 months (four years).

Should it be decided the station has served its community, then the provisional license will be extended for three more years (36 months). After three years, the station will undergo another, identical license examination. The examination will be conducted the same as the first one, and the station must follow the same rules. The same results, positive or negative, will occur depending on the FCC's decision.

After this second examination, a full license will be granted. The full license is valid for a period of four years (48 months). At the end of each four-year license period, the same examination (as for the provisional license) will be conducted, with the station required to follow the same announcing rules.

Licenses may be renewed indefinitely. LPFM licenses may not, under any circumstances, be directly bought or sold (or donated) between any parties. License holders are determined solely by the FCC.

Should a license-holder fail to meet any deadlines in regards to license renewal or construction permits, their license (or CP) is automatically forfeit and the holder may not reapply for a license (or CP) for a period of not less than four years (i.e. one license renewal period). Strict enforcement is the rule and no exceptions shall be granted unless the delay is due to circumstances beyond the licensee/applicant's control.

The reasoning behind the shorter licensing period is that LPFM stations will often not have the financial backing that larger stations do, and therefore the unfortunate reality is that some LPFM's will be granted licenses and will soon begin broadcasting that is not serving their community as well as other applicants might. The initial one-year period allows a relatively quick turnover for lesser-quality stations to make room for better applicants...as does the comparatively shorter four-year period (keeps 'em on their toes). The eventual four-year period allows higher-quality stations enough time to solidify their position in the community and therefore have little or nothing to worry about at license renewal. Since LPFM stations would be non-commercial there would be no licensing fee so financial hardship is not a concern.

Along these lines, the allowal of licenses to be renewed indefinitely allows good stations to effectively thrive and become a permanent part of their local community. More importantly, setting a limit on license renewals effectively guarantees a constant string of mediocre stations as any station that knows it's going to disappear in a few years no matter what, is never going to really apply itself as much as it could. The theory that license renewal limits could encourage stations to upgrade to Class A or greater is groundless as LPFM is not and should not be viewed as a means of "entering" the radio market...it must be viewed as a means to itself as in more than 50% of the country it would be engineeringly impossible for LPFM stations to upgrade due to crowded radio markets.

"Indefinitely" is a relative term here as with the advent of all radio being forced to switch to all-digital (whenever that date may be)...LPFM may no longer be appropriate or practical to keep in existence. Considering that digital broadcasting may conceivably double the amount of "room" within the FM spectrum (or may not), LPFM may no longer be necessary. The topic shall be revisited when digital broadcasting is required, whenever that is (presumably around 2005 to 2015).

****

Ownership restrictions on LPFM.

PARAGRAPH 86 An ownership restriction I propose is that an owner must hold their license until a period of no less than two years (24 months) after the original purchase date or date of license issue. This is simply to prevent owners from grabbing a LPFM license with no other intention but to turn around and sell it immediately to make a profit. The two-year period, coupled with the requirement that a station be fully-operating within 12 months after the license is issued/purchased, forces an owner to actually create a station - not just make a quick buck.

In the previous comment, Paragraphs 78-85 it is stated that LPFM licenses may not be directly bought, sold or donated between two parties and that license holders are determined solely by the FCC. However, a station could be traded between parties through the FCC (NOT independently) and monetary compensation certainly could be involved. However, the above restriction prevents the "quick buck" mentality from occuring.

See also Paragraphs 57-59 and Paragraph 60.

****

LPFM and EAS (Emergency Alert System)

PARAGRAPHS 87 EAS is required of ALL LPFM stations (LP100 and Microradio - remember LP1000's are discarded in these comments). The costs of EAS are not too heavy a financial burden (average $1600) and in order for the EAS system in general to work - ALL broadcast services (AM, FM and TV, etc) must participate. This requirement is mandated by Congress of all broadcast services, and this by default includes LPFM.

Those who complain that even $1600 is too expensive need to be reminded that LPFM will never be the pirates' "$500 station" dream. The required engineering study for an available frequency will cost at least $2000 to $5000, potentially more. Studio equipment another couple of thousand. FCC-certified equipment another $2500 to $5000. A proper tower or renting tower space can cost several thousand. Virtually all LPFM stations are going to cost roughly ten to twenty thousand dollars to start from scratch. As such, an EAS decoder is not that ridiculous an expense.

I also point out that while $10,000 to $20,000 is not cheap, it's well within the range of your average small business loan. In fact, convention wisdom regarding small business is that any small business needs about $30,000 in start-up capitol to survive. And LPFM is most definitely a small business.

I originally thought some sort of station-by-station contract system could be mandated where LPFM(s) would enter agreements with a full-power EAS station(s) where the full-power would contact the LPFM(s) and inform them of the EAS alert, or even have the full-power station have remote-control programming and transmission control of the LPFM so it could be remotely interrupted or shut down at the full-power's EAS dictated. However, several astute engineers informed me that no full-power station would enter such an agreement due to the horrendous legal liability such an agreement would inherently have.

****

Station Identification.

PARAGRAPH 88 LPFM stations carry the same four-letter call signs as Class D and Part 73 stations. East of the Mississippi River the call signs begin with W, west they begin with K. No two LPFM stations may take the same call sign. Nor may any LPFM take an existing FM call sign. An existing AM or TV call sign make be taken although applicants should be aware that doing so is bad practice as it confuses listeners/viewers and will likely annoy the existing station...especially if the two stations in question serve the same community.

Should multiple LPFM applicants ask for the same call letters, then preference will go to existing Class D or Part 15 stations over applicants with no prior legal broadcasting. Should that not resolve the dispute, then the call letters go to the applicant with prior non-legal or unlicensed broadcasting. After that the call letters go to the applicant who: filed first, with a greater applied-for ERP, or by random assignment (i.e. flipping a coin)...in that order.

****

Inspection by the FCC and compliance with FCC rules.

PARAGRAPHS 89-90 I agree with these provisions entirely. The FCC may inspect any LPFM station during business hours and/or any time they are in operation. Should a LPFM station be found to be causing impermissible interference with any primary service then it must reduce power or shut down immediately (whichever is necessary to cease interference...this is at the discretion of the FCC, not the stations).

Likewise, any tertiary broadcasting service, illegal broadcast, or unlicensed-but-legal broadcast found to be causing impermissible interference to a LPFM station must be shut down (or reduce power) immediately, at the discretion of the FCC.

****

The LPFM application process.

PARAGRAPHS 96-102 LPFM applications should be taken over a three-week window period. However, ONLY ONE APPLICATION WILL BE ACCEPTED PER APPLICANT. Should an applicant submit multiple applications, the first will be accepted for review and ALL subsequent applications will be immediately discarded.

Critics of this position will likely point out that this is unfair to applicants who get caught up in a MX debate with another applicant and will not receive a license. Frankly, this argument makes little or no sense in light of LPFM: should applications be accepted for LPFM...then any and ALL newly-available frequencies will be likely taken in the first round; it is extremely unlikely any new frequencies will remain after the first round of licenses being granted. As such, there are going to be MX debates for virtually every frequency no matter what happens.

Restricting applicants to one application only forces applicants to conduct a more thorough engineering study to ensure that their application is valid and will stand up to a MX debate. This is a positive point, not a negative one. It also helps eliminate the oft-used tactic of filing hundreds or thousands of applications, many of them blatantly fraudulent, and hoping that the bad ones get through because they aren't noticed in the crush of applications.

If applicants know they only have one shot at getting a license, then they'll make sure their shot is the best one it can be - therefore reducing fraudulent, inaccurate, and/or "questionable" applications. In addition, by default this will reduce the total number of applications to something much more managable for the FCC. In addition, each applicant can only hold one LPFM license, so why should they apply for more than one?

And although a more through engineering study more cost more money, it is significantly less than legal fees that result from a protracted MX debate in the courts.

An applicant is defined as an individual or group who has any attributable interest in owning, operating, or creating a broadcast station.

In addition - applications from individuals or group who already own, operate, or have attributable interest in a broadcast radio station (be it any class of AM or FM, including LPFM) will be immediately rejected...and in addition the owners' other station(s)' licenses will be suspended for a period of not less than seven years (one Part 73 licensing period), starting immediately. It can be virtually guaranteed that no matter how many ownership restrictions are publicly made known, current owners of some stations will attempt to apply for LPFM stations anyway. It should be made known that this action, whether deliberate (likely) or unintentional (unlikely) will have consequences - ignorance of the rules is no excuse!

****

Resolving mutually exclusive LPFM applications.

PARAGRAPHS 103-108 LPFM stations are all non-commercial (in these comments) so they are exempt from the rules of auctions. I propose the following procedure be used in whittling down MX applications. Should all of these conditions in applications fail to resolve the issue, then a random lottery system would be used to settle the dispute.

Conditions are listed in order - as such, use the first criteria here as the first round...if the dispute is not resolved, move to the next. And so forth and so forth. DO NOT apply a criteria later in the list before any criteria earlier in the list.

For all of these conditions, it is assumed that an applicant has provided proof (an engineering study) showing their proposed station will be within the technical parameters set for LPFM...essentially meaning they won't cause interference beyond what, if any, is allowed for LPFM.

LEVEL ONE Applicants who are a Class D station wishing to become a LPFM station are granted the license over other current Part 15, webcasters, past-pirate applicants.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL TWO All applicants must supply an approved engineering study demonstrating their application is valid and will not cause any interference. Those who possess a study demonstrating

less interference and/or an agreement/"letter of support" from stations close on the spectrum get the license over those who do not.
Essentially - whoever's engineering study shows their design to be the better design will get the license.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL THREE Applicants who garnished support from local, recognized organizations, institutions, and (especially) town/city/state government departments are granted the license over those who have not. This applies to educational institutions as well.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL FOUR Applicants who have previously operated a station, pirate, Part 15 or otherwise, are granted the license over those who have not.

EXCEPTION #1 Paragraph 67 unlicensed, "pirate" broadcasters who refused to cease operation between the LPFM NPRM (2.7.99) and their date of application are disqualified from applying for a license for a period not less than one year.

EXCEPTION #2, unlicensed, "pirate" broadcasters who start broadcasting or continue to broadcast illegally after {{whatever date LPFM applications are accepted by the FCC}} are disqualified from applying for a license for a period of not less than four years (in addition to any other penalty periods).

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL FIVE Applicants who are an unlicensed but legal (Part 15 - carrier-current/leaky cable or webcasting) station wishing to become a LPFM station are granted the licence over other applicants who broadcasted illegally in the past.
Jump to HERE if all applicants involved are current unlicensed-but-legal broadcasters

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL SIX Applicants who are serving a community NOT already served by an LPFM station get the license over those who are applying for a community that already has a LPFM station. This is, of course, for LPFM applicants in neighboring communities who want the same frequency.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL SEVEN Applicants from an accredited educational instution get the license over those

who are from an unaccredited institution.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL EIGHT Applicants who broadcasted illegally but complied with a FCC shutdown notice immediately are granted the license over those stations who were repeatedly served shutdown notices.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL NINE If after going through each of these criteria, in order, the mutually exclusive applications are not settled, then the license shall be granted by random selection (i.e. flipping a coin)

THIS IS A SEPARATE SET OF CRITERIA THAT APPLY ONLY AFTER LEVEL FIVE AND ONLY IF ALL APPLICANTS INVOLVED ARE UNLICENSED-BUT-LEGAL (Part 15, webcasters, etc)

LEVEL 15-ONE If applicants are from an educational institution that already has a full-power station with student involvement - that applicant does NOT get the license in favor of the applicant from a school with no station at all OR a school with a professional station that has little or no student involvement.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL 15-TWO Between applicants who are all unlicensed but legal, then the applicant whose station has operated for the longest period (and must have operated continuously...within educational limitations such as summer break, etc) gets the license.

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL 15-THREE If all applicants have operated for longer than 20 years, then the applicant that can serve the larger community, relevant to the broadcaster, gets the license. (for example - a college station's primary community is the school's students, faculty and staff...therefore the larger school gets the license over the smaller school)

IF THAT DOES NOT RESOLVE THE CONFLICT...THEN GO ON TO

LEVEL 15-FOUR If after going through each of these criteria, in order, the mutually exclusive applications are not settled, then the license shall be granted by random selection (i.e. flipping a coin)

****

****

Minimum-distance requirements for LPFM stations.

APPENDIX B See the NPRM's charts for minimum-distance requirements to cause/receive no interference. I propose that:

The LP1000 subclass be dropped and therefore ignored.
The Third-adjacent requirements be dropped for both LP100 and Microradio
The Co-Channel and First-adjacent requirements be considered "inviolate"
Second-adjacent requirements are not mandatory as signal service contour be the defining factor for allowable interference, and that "negotiated interference" be allowed for Second-adjacent ONLY
LPFM station be exempt from restrictions regarding receiving interference
(They must, of course, still follow rules about CAUSING interference)