

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

In the Matter of)
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Revitalization of the AM Radio Service) MB Docket No. 13-249
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COMMENTS OF UNIVERSITY OF NORTHWESTERN – ST. PAUL

University of Northwestern - St. Paul, dba Northwestern Media (“NWM”) is the owner of fifteen (15) noncommercial religious AM and FM radio stations licensed to various communities in the States of Iowa, Minnesota, Missouri, North Dakota, South Dakota and Wisconsin. The NWM Stations broadcast contemporary Christian music and talk programming to their listeners in the areas served. Among NWM’s radio stations are five AM directional stations that serve important markets for NWM, as follows: KTIS, Minneapolis, MN, KNWS, Waterloo, IA, KFNV, Fargo, ND, KNWC, Sioux Falls, SD and WNWC, Sun Prairie (Madison), WI.

I. Introduction

The Commission’s proposals revolving around AM revitalization are very important to NWM and its future in AM broadcasting. Efforts and investments are consistently made to improve NWM’s program content to enhance the listening experience. It would only seem appropriate to also improve the delivery systems to make AM more competitive to FM broadcasting. Below are NWM’s comments in response to the Notice of Proposed Rulemaking in this critical proceeding. It should be noted, however, that it is NWM’s opinion that while the topics raised by the Commission are contributing factors to the quality of AM listening, it is NWM’s belief they should be looked upon as intermediate steps to a solution that will stand the test of time, removing obstacles and improving the AM band to a desired radio service.

The AM broadcasting industry has not done enough to compete with the digital listening habits of our respective audiences. As the roadblocks are removed, and FCC rules are changed to be less restrictive creating less interference issues, longer broadcasting hours with potentially more power and the important question still remains: Will listeners chose analog over digital?

II. Discussion

A. Open FM translator filing window exclusively for AM licensee and permittees

The ability to use an FM translator as a cross service does serve the public interest. Those licensees restricted with no nighttime coverage and those patterns that benefit by use of fill-in translators in nulls in the AM patterns do see gains. Moving the AM listeners to the FM band will, however, further limit the number of listeners on the AM band. At some point in time, the AM band may be completely vacated by broadcasters, as has occurred in several countries.

However, there may be unintended consequences should this proposal be implemented. The concerns are that the FM band is already congested in critical markets. Low-power FM stations and translators are being continually added to the band. These limited-coverage stations often prevent the reception of other already-existing full-service FM stations in the community because of the listener's proximity to the low-power transmitter in comparison to the greater distance to the existing station. This is further exacerbated by the variety of transmitting locations proposed for the low-power installations such as high-rise buildings, water towers, and other elevated locations closer to or immersed in populated areas. Existing stations most often are co-located with other FM broadcasters at tower sites removed from heavily populated areas. Adding AM broadcasters to this FM congestion through implementation of this proposal may provide relief for limited

AM operations, but it will also contribute to the overcrowded FM broadcast spectrum conditions in many communities.

Summary: This proposal will have positive impact on increasing coverage of those AM broadcasters needing nighttime coverage in those cases where the licensed AM is required to go off air or used as a fill in where there are nulls of service. Short term this makes sense, but NWM still asks a question, is the Commission asking FM to solve an AM problem? If it is, does access to FM translators really solve the long term problems of AM?

B. Modify daytime coverage standards for existing AM stations

It is not consistent to decry the quality of AM transmissions while at the same time proposing modification of daytime coverage standards that would in effect downgrade the quality. These standards are in place to ensure minimum received signal strength throughout a defined coverage area. As long as the method of modulation remains analog, these standards must be retained to reduce any further deterioration of the received signal and the listening experience. From the listener's standpoint, the most fundamental contributor to listening enjoyment to any analog transmission is the received signal-to-noise ratio (S/N). If the noise floor remains the same, or increases over time as the NPRM forecasts, any reduction in signal strength will reduce the S/N ratio and thus the listening experience. Relaxing or eliminating the existing rule and allowing sub-standard coverage applications to be submitted and approved would seriously degrade the listening experience to the community being served.

Summary: NWM believes the purpose of this NPRM is, in effect, to improve the listener experience. This proposed rule change could actually make that problem worse in the end; therefore, NWM does not support this proposal.

C. Modify nighttime community coverage standards for existing AM stations

Reducing the nighttime coverage requirement from 80 percent to 50 percent of the population in the coverage area would again have the effect in downgrading the AM service to the community of license. Currently, the nighttime service contour must cover at least 80 percent of the area or population as that served by the daytime contour. If, as the NPRM suggests, that coverage is reduced to 50 percent of the area or population, there will be a quantifiable degrading in the service to the community of license. This certainly cannot come under any definition of revitalization that factors in the listening experience. The physics of skywave propagation at AM frequencies introduces other interfering sources into the mix that are not experienced in other frequency bands. Furthermore, the characteristics of AM modulation and the selective fading between the carrier and sidebands further degrades the listening experience for distant stations as the signal interacts with the ionosphere during skywave propagation. This makes it even more important to maximize both day and nighttime coverage on each allocated channel to obtain the best listening experience throughout the broadcast day.

Summary: This proposed change also has an adverse affect on the listener and therefore NWM recommends against implementing the proposal. By making the proposed nighttime coverage reduction, listeners would be adversely affected, which is not a desired outcome.

D. Eliminate the AM “Ratchet Rule”

The “Ratchet Rule” as it exists should be eliminated. Forcing a station that is seeking to change its transmission system to address the complexities of skywave propagation to distant stations, in lieu of maximizing coverage to the community of license, does little material good to the listening experience in the community of license. Furthermore, it

complicates the change process adding increased legal and consulting costs. Since stations are licensed to a community with both day and night coverage defined and linked to that local community, nighttime has not been the primary consideration for station operation. The primary service area should be the focus for both day and night modes thus maximizing the service to the community of license. The elimination of this rule would reduce the cost to broadcasters when station improvements are considered and would serve to focus the licensee on serving their community of license for the full broadcast day.

Summary: This rule change will positively affect the listener and the broadcaster, and therefore NWM fully supports its elimination.

E. Permit wider implementation of modulation dependent carrier level control technologies

Modulation-dependent carrier level control (MDCL) is not so much related to revitalization of the AM broadcast service as it is to operating expense reduction due to the greater utility savings. While this is certainly an advantage to struggling AM broadcasters, the unintended consequence of implementing MDCL may actually decrease listenership if it is not properly adjusted. If the Commission is to truly revitalize AM, the effect upon the listener must be considered and not only the economic savings. While it is important that every broadcaster take whatever steps necessary to operate as efficiently as possible and contribute to national energy usage objectives, the AM transmitter is not the only energy-consuming device at most stations. The reduction in utility usage due to MDCL techniques needs to be part of a comprehensive management plan for utility cost savings including HVAC (heating, ventilating, and air conditioning), lighting, and other utilities. As proposed, wider implementation of MDCL should be encouraged as long as it does not materially impact the listening experience. If it is implemented, it should be

tied to the transmitter manufacturer to give adoption the greatest chance of success and the least likelihood of detrimental consequences to the listener. Third-party vendors do not have the intimate knowledge of the engineering in today's AM broadcast transmitters. If a third-party product is allowed, the transmitter manufacturer should certify it for compliance.

Summary: This proposal should also be implemented as the broadcaster should have the choice to weigh the effects of the cost savings in the operation and any potential changes in the signal that the MDCL would have on its operation. This should be an operational decision permitted by the FCC through the respective transmitter manufacturer.

F. Modify AM antenna efficiency standards

As in the other proposals above, this proposal begs the question whether the outcome, if implemented, would benefit the listening experience. Antenna efficiency has been an important part of ensuring the best quality signal within a given coverage area. There are approved alternatives to erecting a tall tower that still meet radiation efficiency standards, the Kintronic Labs Kinstar system (<http://www.kintronic.com/resources/brochures/>) being a good example. These modified systems still require an effective ground radial system to deliver the performance objective. This radial system takes up real estate acreage, listed as the other financial burden to broadcasters when seeking flexible solutions; the other cost being the tower itself. If, as this proposal suggests, AM radiators are approved that are not physically or electrically "tall" and do not have a suitable ground radial system, there is no way these systems will produce effective coverage to the community of license. Reducing or eliminating radiation efficiency standards will result in spotty coverage at best when compared to a standard radiator, and in many instances may require multiple installations to obtain the same coverage.

Summary: The physics of AM broadcasting require certain realities in the tower structures and ground systems. Alterations to these rules again may reduce operational costs, but may also hurt frequency integrity to the detriment of the broadcaster.

Conclusion

NWM's comments above speak to questions presented in the NPRM.

“What steps can the commission take so that there will be a vibrant AM radio service 10 or 15 years from now?” Commissioner Pai asked. The length of time to implement change is an important aspect of his question. The question of how much money a station will have to spend to effect an improved change is important, also. To directly answer Commissioner Pai's questions NWM believes the above proposed changes will make minor impact and will have little impact 10-15 years from now and certainly does not speak to being “vibrant”.

Perhaps more thought should be given to the “end result?” Intermediate steps will cost a broadcaster significant dollars. If AM is to compete with FM and deliver a quality sound for the listening ear, NWM believes there are more questions that are being overlooked.

- Will all the proposed rule changes make investors and media groups buy back into AM broadcasting because it is a viable financial model?
- Or will the trend of broadcasters selling out of the AM band continue even with the proposed changes implemented?
- Will listeners have a growing desire to change their listening habits to AM because the listening experience is again competitive/desirable?
- Are these proposed rule changes a first step to a long term solution?

The testing done with digital has shown early stages of solving many of the problems that have typically affected AM broadcasters. *If the proposed rule changes are early steps toward a fully-digital delivery system allowing use of open source platforms that are readily available for broadcaster to choose from, NWM believes significant change will happen and real AM revitalization will take place, transforming that platform.* Furthermore, NWM believes the

most fundamental step needed is the announcement of a sunset date for that full conversion to completely AM digital transmission as was done for the television broadcast industry. Without that firm date in place, it is NWM's belief that the AM and FM bands will continue to languish and eventually fade away.

Respectfully submitted,

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