

Association of Federal Communications Consulting Engineers

Before The  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Revitalization of the AM Radio Service ) MB Docket No. 13-249

**REPLY COMMENTS OF THE**  
**ASSOCIATION OF FEDERAL COMMUNICATIONS**  
**CONSULTING ENGINEERS (AFCCE)**

The Association of Federal Communications Consulting Engineers (“AFCCE”), celebrating over 65 years in existence, is an organization that includes approximately 60 full members who are Registered Professional Engineers engaged in the practice of consulting engineering and over 100 members in allied fields of endeavor before the Federal Communications Commission (“FCC”).

It was noted in the AFCCE Comments in this proceeding that the AFCCE membership base includes engineers and firms with an extensive history of innovation and development in AM broadcasting, and these comments are not necessarily inclusive of their opinions on this matter. Some of those members and/or their firms have or will submit their own comments on this Notice, and in those cases where they disagree with those below, those separately filed comments represent those commenters’ views and opinions.

The AFCCE hereby submits these reply comments in response to the Commission’s October 31, 2013 Notice of Proposed Rulemaking in the above-captioned proceeding.

As stated in its comments, AFCCE strongly supports the FCC goal of revitalizing the AM radio service. AFCCE, has through its Rules and Standards Committee, formed a group of individuals whose firms have decades of experience in all facets of AM radio broadcast engineering. This experience includes the filing for the commissioning of new and upgraded facilities, designing and adjusting of AM directional arrays, performing AM field measurements and performing adjustments and associated measurements to demonstrate compliance with FCC requirements of non-directional and directional AM facilities.

The Rules and Standards Committee has reviewed a number of the comments which include but are not limited to those of the National Association of Broadcasters, National Public Radio, Inc., Minnesota Broadcasters Association, National Religious Broadcasters, Durand Broadcasting, LLC, Society of Broadcast Engineers, Incorporated and Georgia-Carolina Radiocasting Companies. All the above commenters desire to improve AM radio service and AFCCE believes there is a common thread on the various proposals which the FCC should consider. AFCCE urges the FCC to consider in this Proposed Rulemaking enactment of those proposals which can result in immediate regulatory relief. Those proposals that are meant for intermediate or long-term regulatory relief and may require further study should be proffered in further Notices of Proposed Rulemaking.

Immediate Action

AFCCE believes that the proposals for immediate regulatory relief are as follows:

AM Ratchet Rule

There is widespread belief among those who design antenna systems that the AM nighttime ratchet rule, which is noble in its intent, places the heaviest burden on older full-time facilities. The majority of the AM full-service stations was designed under prior non-ratchet rules. For these older full-time stations, the ratchet rule restricts or hampers the ability to make improvements in signal or to relocate to a more desirable site with little or no interference reduction benefit, therefore the AFCCE supports the deletion of the AM ratchet rules.

Determination of Nighttime Interference Limits

The method for determining a station's nighttime interference limits should be changed to the 50% RSS exclusion criteria and only co-channel stations should be included in the calculation. Therefore, the consideration of adjacent-channel protection ratio for Class B and Class C stations and the 25% exclusion requirement must be eliminated. The consideration of adjacent-channel nighttime skywave protection for Class B and Class C stations must be eliminated. This will restore the determination of nighttime interference to the rule prior to the adoption of the current rules in 1991<sup>1</sup>. The AFCCE supports this rule revision.

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<sup>1</sup>Report and Order, MM Docket No. 87-267, *In the Matter of Review of the Technical Assignment Criteria for the AM Broadcast Service*, Adopted: September 26, 1991, Released: October 25, 1991

Daytime AM First-Adjacent Protection Ratio

The daytime AM first-adjacent protection ratio should be returned to 0 dB (1:1), from 6 dB (0.5:1) for Class B and C stations. This 0 dB protection ratio was in effect for the bulk of daytime Class B and C facilities authorized prior to the adoption of the current rules in 1991<sup>2</sup>. AFCCE affirms that this needs rule revision.

AM Band Noise Levels

The FCC is urged to implement a program to monitor and enforce existing FCC RF emission limits found in Part 15 of its Rules. RF Noise in the AM band from electric and electronic devices has increased significantly since 1991 and it is believed to reduce AM listenership by the general public. For the general public, an attempt to reduce this interference finds that commercial outlets such as Radio Shack no longer carry RF noise limiting devices for consumer purchase. The Radio Shack representatives confirm they no longer carry or sell such a device. Certainly, Radio Shack, with its announced closing of 1100 stores, will not reintroduce such an AC line filter. Radio Shack was a major outlet for consumers of this type of device.

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<sup>2</sup>Ibid

Therefore, the AFCCE urges the FCC to step up enforcement in this important area.

AFCCE urges immediate adoption of the above rule changes as all of them were rules in effect prior to the 1991 rule change in MM Docket 87-267<sup>3</sup>. Further, the FCC is urged to aggressively enforce Part 15 of the FCC Rules.

#### Near Term Adoption

The enhancement of a station's AM service by an FM translator would be a valuable resource for an AM station to consider. AFCCE supports a special window for AM station owners to apply for FM translators. This consideration for an AM station would be either by acquisition and/or moving an existing FM translator station or filing for a new FM translator station.

#### Interim Term AM Improvement

The FCC should issue further Notices of Proposed Rulemaking on the following:

#### Expanded Band

The AFCCE urges the FCC to unshackle the current restriction of the band from 1605 to 1705 kHz. The term "expanded" should be discarded and the frequencies 1605 to 1705 kHz should be considered part of the AM service and these frequencies part of the AM band.

#### Modify Daytime Protected Contour

If the FCC determines that Part 15 enforcement cannot effectively reduce the interference noise levels in the AM service, the FCC is urged to issue a further Notice of Proposed

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<sup>3</sup>Ibid

Rulemaking to consider changing the daytime protected contour of Class B and Class C stations from 0.5 mV/m to 1.0 mV/m.

Daytime Second and Third Adjacent Protection Ratio

The FCC is urged to review the second and third daytime adjacent-channel protection ratios and if warranted, issue a further Notice of Proposed Rulemaking.

FCC Figure R-3 Estimated Conductivity Map

AFCCE finds that many daytime facilities cannot be improved due to the fact that current conductivity values on FCC Figure R-3 map are not valid. To supersede these values requires extensive field strength data to demonstrate the actual conductivity values. This is an expensive effort.

Therefore the AFCCE urges the FCC to consider and open a Notice of Proposed Rulemaking with the focus to update the estimated conductivity values shown on Figure R-3 map.

Method of Moments

The Method of Moments analysis has proven to be a constructive alternative to performing the standard AM proof-of-performance. Several commenters have directed attention to updating the current Method of Moments procedure based on recent experience.

AFCCE urges the FCC to consider and propose a further notice of rulemaking so that this procedure can receive further scrutiny based on this recent experience.

### AM Demand Based System

The FCC should revisit whether or not the short form, FCC Form 175, for a new station is an efficient approach in terms of FCC staff time. The AFCCE urges the FCC to return to the former demand system applications or in the alternative modify the short form to provide sufficient technical information. Modification of the short form to include technical information would serve to reduce speculative applications in a “mature” service.

### Long Term AM Service Improvement

The AFCCE urges the FCC to consider revising its policy so that daytime contour overlap\ interference to or from foreign stations in U.S. territory should not be recognized in a domestic allocation analysis. Therefore, AFCCE urges the Commission to revise its rules so that overlap of groundwave contours from foreign stations exceeding the normal D/U ratios is not considered in domestic allocation analysis. Further the FCC should not require protection to foreign facilities that have received a U.S. objection.

### Conclusion

AFCC believes the comments above will offer constructive AM band relief. However, AFCCE also believes there are many further worthwhile technical suggestions made in the comment phase. The AFCCE Rules and Standards Committee is no less interested in those additional technical suggestions, but due to their wide scope, AFCCE did not have sufficient time to explore and discuss these technical suggestions and solicit and evaluate membership comment. The FCC is urged to consider some or all of the other technical items in continuing

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rule makings. The AFCCE Rules and Standards Committee believe there are many additional improvements that can enhance the AM service and looks forward to further Notices of Proposed Rulemaking.

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Respectfully Submitted,

/duly signed

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