

Antenna, Directional
Contour, Measurements
Coverage
Site Availability

Commission eliminated premium signal coverage requirements for business and factory areas within the community of license of AM stations. Also, permittees of directional AM facilities are no longer required to take field strength measurements in connection with their covering license application. Both of these requirements were deemed outmoded and burdensome on AM licensees and Commission staff.
—*Amendment of Part 73*

MM Docket No. 83-15

FCC 84-243

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION**

WASHINGTON, D.C. 20554

In the Matter of

Amendment of the AM Broadcast Station
Rules With Respect to Signal Coverage Re-
quirements Over Community Business and
Factory Areas.

MM Docket
No. 83-15
RM-4061

REPORT AND ORDER

Adopted: May 24, 1984; Released: June 1, 1984

BY THE COMMISSION:

Introduction

1. In this *Report and Order*, we are amending Part 73 of the Commission's rules with regard to signal coverage requirements for AM broadcasters. In general, these amendments reduce the coverage requirements for signal intensity over business and factory areas to 5 mV/m. In addition, the requirement for permittees of directional AM facilities to take field strength measurements in connection with their covering license application is deleted.

Background

2. On January 13, 1983, the Commission adopted a *Notice of Proposed Rule Making (Notice)* which set forth proposed amendments of Part 73 of the Commission's Rules concerning signal coverage requirements for AM broadcasters.¹ This *Notice* was initiated in response to a petition for rulemaking filed by the law firm of Miller and Fields, P.C. seeking deletion of the requirement in Section 73.24(j) of the Commission's rules that AM broadcast stations place a 25 mV/m signal over a community's business district.²

3. Specifically, Section 73.24(j) requires AM radio stations to provide 25 mV/m contour over the business district and a 5 mV/m contour (or, at night, the interference-free contour, if of a higher value) over all residential areas of the community of license. These signal coverage requirements are intended to guarantee that the principal community served by the AM facility receives premium reception service.³ In particular, the 25 mV/m business coverage standard was established as a result of the propagation characteristics of the frequencies used by AM broadcasters. The higher signal level was chosen to overcome "noise" caused by electrical machinery and equipment generally associated with business districts. Also, AM frequencies tend to be absorbed by large steel-girded buildings, many of which are clustered in a community's business district. As stated in the *Notice*, however, the vast majority of AM grants today are for small communities outside metropolitan areas. Consequently, large buildings and man-made noise are no longer the problems they were when this rule was first established. In addition, growth patterns in many American cities have given rise to extensive suburban retail areas making it difficult to determine the community's principal business and factory areas.⁴

4. In addition to Section 73.24(j), signal strength standards for AM broadcasters are also found in Sections 73.182(f) and 73.188(b)(1) of the rules. Section 73.182(f) specifies the signal levels necessary to render primary service to different types of service areas. For example, primary service to business and factory areas established a field strength of 10 to 50 mV/m and primary service to residential areas requires a field

¹ 48 FR 3385 (Published January 25, 1983).

² Public notice of the petition was given March 9, 1982, Report No. 138.

³ Premium service which is required over an AM station's principal community, should not be confused with primary service as defined in Section 73.182 of the Rules. The obligation to provide premium service imposes a higher standard than that required for primary service. *Greenwich Broadcasting Corp.*, 36 FCC 1294 (Rev. Bd. 1964).

⁴ The signal coverage requirement is met if the requisite signal is put over the "principal" business and factory areas. *See, H-B-K Enterprises*, 13 RR 2d 1135 (Rev. Bd. 1968).

strength of 2 to 10 mV/m.⁵ Section 73.188(b)(1) states that transmitters be located such that a minimum field strength of 25 to 50 mV/m will be obtained over the business or factory areas of the city. In the *Notice*, it was suggested that all of these signal requirements be reduced to 5 mV/m or less.

5. The Commission also sought comment in the *Notice* on the appropriateness of Section 73.151(a)(3) and its suggested deletion. In essence, this rule requires permittees of directional AM facilities to take field strength measurements in connection with their license applications to determine that the 25 vV/m contour covers the main business district and that the 5 mV/m and nighttime interference-free contours encompass the community of license. This rule, in effect, duplicates the intent of Section 73.24(j) which requires a showing from construction permit applicants that the specified contours will cover the community of license.

Summary of the Comments

6. Of the sixteen initial comments received, thirteen were in favor of the proposed modifications.⁶ Many commenters reiterate the problems associated with these particular rules that were posited in the *Notice*. They state that it has become increasingly difficult to identify "major business areas." They note that due to urban sprawl, business areas are no longer concentrated. They also note that suburban malls, following population shifts, have sprung up outside central business areas. Further, several commenters point out that most AM allocations are being made outside metropolitan areas that have no large industrial centers with intensive man-made "noise" that causes interference to AM reception. Some commenters point out that strict application of the 25 mV/m standard could actually serve to prevent new AM service by severely limiting transmitter site locations.

7. Many commenters also state that market forces will encourage broadcasters to provide the most extensive and highest quality service permitted. These commenters believe that market forces will adjust deficiencies in service better than regulatory enforcement efforts. The law firm of Putbrese and Hunsaker, for example, states that the constant flow of applications to the Commission for major and minor facility changes document the fact that licensees try to improve service and coverage to remain competitive. "[T]hus inadequate signal intensity to a given area within the licensee's principal community is self-correcting," according to this commenter.

⁵ When a range of values is given, the Commission has held that the lowest or minimum figure given is controlling. The Commission does not employ a sliding scale approach based on the size of a community. *S&W Enterprises, Inc.*, 37 FCC 220 (1964).

⁶ The list of commenters appears as Appendix B. There were 16 comments and four reply comments filed in response to the *Notice*.

8. Regulatory burden was cited as another reason to eliminate these rules. The commenters believe that the 25 mV/m standard is a limitation not necessarily related to the actual needs or realities of the community. In this regard, United Broadcasting states that AM applicants and broadcasters are forced to make subjective, speculative judgments about what constitutes the major business district of the city. Therefore, they believe that the rule is very difficult to comply with and that elimination of the rules would lessen the regulatory burdens imposed on AM applicants, especially those building new facilities.

9. Commenters also point out that requiring a 25 mV/m signal over today's business center is outmoded. The original intent of the rule when adopted was to ensure that heavy industrial areas received premium service. These industrial areas are now well served by older AM stations and FM stations. Some believe that the newer industrial areas do not create as much "noise" as older industrial areas. The commenters state that Part 15 and Part 18 insures against excessive radio frequency emissions created in industrial areas. Therefore, unlike the 1930's when the standards were originally adopted, higher signal levels are no longer necessary.

10. With regard to Sections 73.182(f) and 73.188(b)(1), the commenters insist that there is no need to retain the higher signal level requirements. They believe a single 5 mV/m coverage standard is adequate for both the business and factory districts and the residential areas of a community. Similarly, with regard to Section 73.151(a)(3) which requires licensees of AM directional facilities to take field strength measurements that certify compliance with specified contours, the commenters feel that this rule is also not necessary. The commenters state that this testing is duplicative of the construction permit measurement requirements and is thus an unnecessary expense borne only by licensees of directional facilities. Further, the commenters state that the field strength measurements are approximate due to seasonal variations in soil conductivity and are therefore reliable only at the actual time tested.

11. Three commenters opposed deletion of the 25 mV/m standard (ABC, Radio Broadcast Licensees and Robert A. Jones, P.E.). Mr. Jones believes that deletion of this requirement would benefit those applicants in large cities where higher "noise" levels prevail. Mr. Jones points out that smaller cities have transmitter sites available to meet the 25 mV/m requirements and would therefore not be affected by deleting the rule. ABC and Radio Broadcast Licensees claim that noise intensity continues to be a problem. ABC suggests that high man-made noise devices (e.g., fluorescent lighting and computers) make necessary high signal levels over the core of the city. Radio Broadcast Licensees points out that the 25 mV/m requirement applies to the "principal" business area only, not all

business areas and is therefore easier to comply with than implied by the Commission in the *Notice*.

12. ABC and Radio Broadcast Licensees also state that the rules the Commission are proposing to eliminate or modify are needed to uphold the thrust of Section 307(b) which assures a fair, efficient and equitable distribution of radio service. They believe that the retention of the premium business area coverage standards are critical in view of the proposed elimination of Suburban Community, Berwick and de facto reallocation policies.⁷ The Radio Broadcast Licensees claim that a 5 mV/m standard would permit stations to move their transmitting facilities toward larger nearby markets. Likewise, ABC believes that the 25 mV/m standard is necessary so that a station will not abandon its community.

13. Both ABC and Radio Broadcast Licensees suggest that perhaps coverage requirements should be redefined rather than deleted. Both suggest a requirement of a 15 mV/m signal over an Arbitron metro area or a 10-15 mV/m signal over a 5 mile radius around the main post office of the community of license. Robert A. Jones suggests a 12.5 mV/m standard as a compromise. ABC and Radio Broadcast Licensees propose retaining the waiver process and Radio Broadcast Licensees recommends that licensed stations should have grandfathered rights as to *new* business districts within the community of license.

Discussion

14. Most of the commenters support the Commission's position as explained in the *Notice*. The initial reason for the 25 mV/m signal requirement was to overcome "noise" created in the industrial centers of cities. However, as stated in the *Notice*, growth patterns in many older established cities have given rise to extensive and widely scattered suburban retail and industrial areas with a subsequent decline in central business districts. These newer suburban retail and industrial areas generally do not have the signal problems (such as, many large steel-girded buildings and intensive man-made noise) associated with older industrial centers. Furthermore, newer AM allocations are generally going to smaller communities whose central or principal business centers in all likelihood do not create the man-made noise typically generated by older industrial centers. Accordingly, a 25 mV/m coverage requirement is not necessary to provide adequate service to these business districts. Therefore, strict interpretation of the rule requiring 25 mV/m signal over every widely scattered principal business district could in effect require 25 mV/m signal coverage for the entire community.

⁷ See *Report and Order*, BC Docket No. 82-320, (48 FR 12094), March 23, 1983. This *Report and Order* is under reconsideration.

15. In addition, broadcasters' revenues are determined in large part by the size of their audience. Thus, we believe that licensees have strong market incentives to cover the greatest potential audience with the most effective signal. Should a certain signal level be needed to reach a potential area or particular audience, the licensee may produce such a signal level without the urging of Commission requirements. In this regard, we believe that broadcasters will not reduce transmitter power. Furthermore, a 5 mV/m standard for the principal community of license would appear to be adequate to meet the basic needs of a community without overburdening a licensee with essentially a tiered service requirement.

16. A 5 mV/m minimum coverage standard also alleviates some problems of finding suitable transmitter sites. Obviously, a 25 mV/m standard over certain sections of the community either eliminates some potential locations for transmitters or in effect requires 25 mV/m over the entire community if there are many widely scattered business and factory areas to cover. In either case, the licensee may be forced to choose a site which is unnecessarily costly. Further, to the extent that a licensee wishes to put a 25 mV/m signal over any or all of the community, he or she may do so at his or her own discretion.

17. A few commenters expressed concern over the possibility that licensees may move their transmitter away from the community of license toward larger nearby communities if the 25 mV/m standard is eliminated. According to ABC and Radio Broadcast Licensees, this would, in effect, subvert the intent of Section 307(b) of the Communications Act which assures the "fair, efficient, and equitable distribution of radio service among the several states and communities." The Commission does not foresee wholesale movement of transmitter sites by reducing the standard to 5 mV/m. Licensees will still have to serve the entire community with a 5 mV/m standard as before. Reducing the standard will however allow licensees more discretion in selecting transmitter sites. Several commenters stated that they had problems in finding and obtaining transmitter sites to comply with the rules and that the premium service standards were particularly onerous. A 5 mV/m standard relieves licensees of the burden of providing higher signal service to areas that may not be well defined. As stated previously, it is in the licensees' own best interests to serve as many people and as wide an area as the rules allow with adequate signal strength. Marketplace forces should serve to have the best signal exist wherever possible without artificial mandates regarding differing levels of signal coverage within a community. The Commission has already accepted a 5 mV/m coverage standard for the entire community of license. The Commission now feels that this standard is an adequate minimum for all areas within the community of license

whether business, industrial or residential and that having higher signal levels in any area within the community of license is a decision best left to the licensee.

18. The Commission therefore amends Section 73.24(j) and 73.188(b)(1), as described in the attached Appendix, to eliminate the separate signal coverage requirements for business and factory areas and adopt a single minimum premium coverage standard of 5 mV/m for all areas within the principal community of license for AM broadcasters. In addition, changes have been made to Section 73.188 to modify or remove language referring to out-dated engineering practices. These changes are strictly editorial in nature and therefore the prior notice and comment requirement of the Administrative Procedures Act does not apply.

19. With regard to Section 73.151(a)(3) which requires permittees of directional AM facilities to make field strength measurements in connection with their covering application, we find that this requirement is duplicative of showings required by Section 73.24(j) and exacts an unnecessary burden on both the permittee and the Commission's staff. Accordingly, we are deleting this rule section. As stated in the *Notice*, this requirement only applies to directional AM facilities. The absence of a similar requirement with respect to nondirectional AM facilities has resulted in no significant public interest problems.

20. In the *Notice*, we proposed that Section 73.182(f) be amended to delete the signal requirement for business and factory areas and to reduce the city residential area requirement to 2 mV/m. The *Notice* also proposed a reduction of the signal strength requirement in rural areas. However, in this last regard, Section 73.182(f) specifies signal requirements for primary service based on population that would be in conflict with the values proposed in the *Notice*. Accordingly, we will amend our rules to combine the requirements contained in Sections 73.182(f) and (g) into a new Section 73.182(f) and make certain other editorial changes. The primary service requirements will be as follows: 2 mV/m for communities with populations of 2,500 or more; and, 0.5 mV/m for communities with populations less than 2,500. This change is editorial in nature and is consistent with past Commission interpretations of the primary service requirement.⁸

21. Pursuant to the Regulatory Flexibility Act of 1980, the Commission's final analysis is as follows:

I. Need for and purpose of the rules.

The Commission has determined that the 25 mV/m coverage requirement for business areas within the community of license is outmoded and vague in its application and should no longer be required. A reduction to a

⁸ See, for example, 63 FCC 2d 824 (1977).

5 mV/m standard will be sufficient to serve all areas within the community of license. Reducing coverage standards within the community potentially benefits all AM licensees by allowing greater flexibility in locating transmitter sites. In addition, the Commission has deemed irrelevant a rule which in effect requires licensees of directional AM facilities to take field strength measurement that recertify compliance with differing coverage standards within the community of license. Licensees of all new directional AM facilities are therefore benefitted by removing the field strength measurement requirements.

II. Summary of issues raised by public comments in response to the initial regulatory flexibility analysis, Commission assessment, and changes made as a result.

A. Issues Raised

1. No issues or concerns were raised specifically in response to the initial regulatory flexibility analysis. The issue of reducing signal coverage within the community of license from 25 mV/m to 5 mV/m received generally favorable reactions. Some parties expressed concern that a reduction in coverage standards within a community allows stations to move their transmitters toward larger nearby population centers thus subverting the intent of Section 307(b) which mandates a fair, equitable distribution of service.

B. Assessment

1. The Commission views the relative absence of specific claims of adverse impact with respect to reducing signal coverage standards within a community, with the exception of Section 307(b) intentions, as confirmation of our initial analysis in which we suggested that the proposed amendments would lessen the burdens on AM applicants. The amendments are deregulatory in nature and would appear to have no potential for negative effects on small business.

C. Changes made as a result of such comments.

None.

III. Significant alternatives considered and rejected.

1. The Commission's other alternatives were: (1) retain the 25 mV/m signal standard; or (2) adopt a reduced coverage standard between 25 mV/m and 5 mV/m. Neither of these options allow the full potential benefits of a 5 mV/m standard to accrue to AM applicants. These options were deemed too restrictive by the Commission and therefore rejected.

22. Authority for amending the rules is contained in Section 303 of the Communications Act of 1934, as amended.

23. Accordingly, IT IS ORDERED, that Part 73 of the Commission's Rules ARE AMENDED as set forth in Appendix A, effective July 9, 1984.

24. IT IS FURTHER ORDERED, that the Secretary shall cause a copy of the *Report and Order*, including the regulatory flexibility analysis, to be sent to the Chief Counsel for Advocacy of the Small Business Administration in accordance with Section 603(a) of the Regulatory Flexibility Act (Pub. L. No. 96-354, 94 Stat. 1164, 50 U.S.C. § 601 *et seq.*) (1982).

25. IT IS FURTHER ORDERED, that this proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

WILLIAM J. TRICARICO, *Secretary*

*Appendix B may be seen in FCC Dockets Branch, 1919 M Street, N.W. Washington, D.C. 20555.

Appendix A

Part 73 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

Part 73 - Radio Broadcast Services.

1. Section 73.24 is amended by revising paragraph (j) to read as follows:

§ 73.24 Broadcast Facilities; showing required.

* * * * *

(j) That the 5 mV/m contour (or, at night, the interference-free contour, if of a higher field strength) encompasses the entire principal community to be served.

* * * * *

§ 73.151 [Amended]

2. In Section 73.151, subparagraph (a)(3) is removed and designated reserved.

3. Section 73.182 is amended by revising paragraphs (f) and (g) to read as follows:

§ 73.182 Engineering standards of allocation.

* * * * *

(f) The groundwave signal strength required to render primary service is 2 mV/m for communities with populations of 2,500 or more; and 0.5 mV/m for communities with populations of less than 2,500. See § 73.184 for curves showing distance to various groundwave field strength contours for different frequencies and ground conductivities, and also see § 73.183, "Groundwave signals."

(g) The FCC will authorize a directional antenna for a Class IV station for daytime operation only with power in excess of 0.25 kW. In computing the degrees of protection which such antenna will afford, the radiation produced by this antenna will be assumed to be no less, in any direction, than that which would result from non-directional operation using a single element of the directional array, with 0.25 kW.

* * * * *

4. Section 73.188 is amended by revising subparagraphs (a)(1), (b)(1) and (b)(2); removing paragraphs (c) and (d) and marking them reserved to read as follows:

§ 73.188 Location of Transmitters.

(a)***

(1) to adequately serve the community to which the station is to be authorized.

* * * * *

(b)***

(1) A minimum field strength of 5 mV/m will be obtained over the entire principal community to be served.

(2) The population within the blanket contour does not exceed that specified by Section 73.24(g).

* * * * *

(c) [Reserved]

(d) [Reserved]

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