Rules. See Certification That Sections 603 and 604 of the Regulatory Flexibility Act Do Not Apply to Rule Making to Amend Sections 73.202(b), 73.504 and 73.606(b) of the Commission's Rules, 46 FR 11549, February 9, 1981.

9. For further information concerning this proceeding, contact Leslie K. Shapiro, Mass Media Bureau, (202) 418-2180. For purposes of this restricted notice and comment rule making proceeding, members of the public are advised that no *ex parte* presentations are permitted from the time the Commission adopts a Notice of Proposed Rule Making until the proceeding has been decided and such decision is no longer subject to reconsideration by the Commission or review by any court. An *ex parte* presentation is not prohibited if specifically requested by the Commission or staff for the clarification or addduction of evidence or resolution of issues in the proceeding. However, any new written information elicited from such a request or a summary of any new oral information shall be served by the person making the presentation upon the other parties to the proceeding unless the Commission specifically waives this service requirement. Any comment which has not been served on the petitioner constitutes an *ex parte* presentation and shall not be considered in the proceeding. Any reply comment which has not been served on the person(s) who filed the comment, to which the reply is directed, constitutes an *ex parte* presentation and shall not be considered in the proceeding.

FEDERAL COMMUNICATIONS COMMISSION

John A. Karousos
Chief, Allocations Branch
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APPENDIX

1. Pursuant to authority found in Sections 4(i), 5(c)(1), 303(g) and (r) and 307(b) of the Communications Act of 1934, as amended, and Sections 0.61 0.204(b) and 0.283 of the Commission's Rules, IT IS PROPOSED TO AMEND the Television Table of Allotments, Section 73.606(b) of the Commission's Rules and Regulations, as set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached.

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

LETTER
January 31, 1996

Released: February 13, 1996

In reply refer to:
1800B3-DEB

ECI License Company, Inc.
Suite 409
401 City Avenue
Bala Cynwyd, PA 19004

In re: KNRK, Camas, WA
ECI License Company, LP
BPH-940829IC

Gentlemen:

This letter is in reference to the above-captioned minor change application for station KNRK (formerly KMUZ-FM), Camas, WA, which was filed by the former licensee of KNRK, Pacific Northwest Broadcasting Corp. ("PNBC"). The application proposes to upgrade from Class C3 to Class C2 on Channel 234 as authorized by the *Report and Order* in MM Docket 92-241, 8 FCC Rcd 1796 (1993). To accomplish this upgrade at the proposed transmitter site, the application requests that a waiver of the minimum distance separation table in the contour protection rule (47 CFR § 73.215(e)) be granted. For the reasons set forth below, we deny the request the waiver and dismiss the application as unacceptable for filing.

PNBC's Waiver Request

The site proposed in the application is that presently used by KNRK for its licensed Class C3 operation.[1] This site is spaced 167.4 km from first-adjacent channel Class C station KMGE, Eugene, OR, whereas § 73.207 requires a minimum separation of 188 km. Recognizing this 20.6 km short-spacing, PNBC has requested protection under the contour protection rule.[2] Although § 73.215 provides the opportunity for protection to KMGE, the proposed site fails by 6.6 km to meet minimum spacing requirements, and consequently, PNBC has requested that the [illegible] table be waived in this instance.

In support of its request for waiver and finding suitable sites from which KNRK could provide C2 operation while still providing the signal to the station's community of license difficult. Hills around the city limit site [illegible] sites from which KNRK would [illegible] operation to Camas. Potential sites would be further restricted by the Bull Run Management Unit, which prohibits most co[illegible]. Another site on Pepper Mountain was determined to be unsuitable due to its proximity to the Columbia River Gorge National Scenic Area would make construction difficult if not impossible. Powell Butte, and Walters Hill were also found to have land use and zoning [illegible] would be unlikely to permit construction. Mount Zion was evaluated but found to be behind a ridge which would cause shadowing in Camas. Mt. Zion, an existing commercial microwave service and utility site, is within the Columbia River National Scenic Area, and construction of a tower unlikely.[3] Finally, Tery Hill was evaluated but rejected due to effects and likely local opposition. The concluded that its only option is to relocate licensed transmitter site.

In addition, PNBC contends that a waiver of § 73.215(e) sought is without precedent." PNBC cites *St. Croix Wireless*, FCC Rcd 7329 (MMB 1993), where § 73.215 (a)(4) to afford the station the consider short-spaced transmitter sites [illegible] er stations from interference in excess of occur under the Commission's spacing that its showings clearly demonstrate that transmitter sites available to KNRK threshold criteria required under the

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[3] The Class C2 site originally sought in the rulemaking proceeding (East Larch Mountain) was located within this area.

[4] A copy of a letter dated August 9, [illegible] Carolyn Coons and Klaus Heyne, Coo[illegible] Guardians of Larch Mountain, indicati[illegible] posed PNBC's earlier request to use [illegible] would also oppose any request of PNBC [illegible] Mountain or in the Columbia River [illegible] Area.

[5] A letter dated August 25, 1994 is [illegible] Premble, Planning Director of Multnom[illegible] dicates that local ordinances promote fe[illegible]ty. In addition, a letter is provided from [illegible] Consultant, outlining the difficulties in [illegible] the documentation necessary to justify [illegible] in Multnomah County, and its slim cha[illegible]

[6] A letter is provided from Robert K. [illegible] indicating that any effort to construct [illegible] River Gorge National Scenic Area wo[illegible] and money" and would probably result

ing waiver process.[7] PNBC also notes that the Commission has already determined in MM Docket 92-241 that the upgrading of KNRK to Class C2 would serve the public interest since it would allow KNRK to expand its coverage area.[8] Moreover, PNBC posits that the Commission chose the minimum spacings in § 73.215(e) only because the technical record in the Docket 87-121 proceeding (which adopted § 73.215) did not indicate the fullest extent to which directional antennas could be utilized.[9] Here, however, PNBC has shown that a directional antenna can be made to comply with the Commission's rules. Finally, PNBC references Footnote 27 of the *Memorandum Opinion and Order* in MM Docket 87-121, *supra*, where the Commission stated that waivers of § 73.215 may be warranted in a very small number of cases if the waiver request is in the public interest. Accordingly, PNBC believes that its request for waiver of § 73.215(e) is warranted.

DISCUSSION

In order to properly understand our decision in this matter, we will first provide some background on the development of the present rule. We will then discuss the specifics of the PNBC waiver request.

Origins of § 73.215(e)

Former Waiver Process. The minimum distance separation requirements of 47 CFR § 73.207 determine how close the transmitter site of one FM station can be to another station operating on the same or adjacent channels, or on an intermediate frequency (*IF*) channel. Prior to the effective date of § 73.215 on June 26, 1989, applicants which did not specify a fully spaced transmitter site could request waiver of this rule.

Typically, the licensee or permittee of an existing station seeking to change transmitter site to a short-spaced transmitter site was required to make a three part threshold showing, demonstrating that (1) the present site was no longer suitable,[10] (2) that alternative non-short-spaced sites were unavailable,[11] and (3) that the proposed transmitter site was the least short-spaced site available.[12] After meeting these threshold tests the applicant was then required to show that waiver of the spacing requirements would serve the public interest. Such showings generally consisted of an explanation of the reasons why the spacing waiver was being sought, supported by affidavits from engineering consultants, state and local governmental officials, aeronautical consultants, the FAA, and realtors as appropriate to the case at hand.[13] Greater amounts of short-spacing required more extensive documentation to demonstrate compliance with the threshold and public interest showing requirements.

The preparation and processing of requests for waiver of § 73.207 proved to be increasingly burdensome and time consuming for both applicants and the staff. When considering a spacing waiver request, it was necessary for the staff to compare (and contrast) the threshold and public interest showings against prior precedents for the same degree of short-spacing and to make judgements regarding the merits and deficiencies of each waiver request. In some instances the validity and accuracy of the information submitted was called into question by the staff or a petitioner, requiring additional justification by the applicant and additional review by the staff. Grant or denial of waiver requests required that the staff explain in detail the reasons why it was taking that action.

Moreover, the staff was empowered to grant spacing waiver requests of § 73.207 only up to a maximum of 6 km (3.7 miles). Requests for greater amounts of short-spacing (in excess of 6 km) which met the threshold and public interest requirements generally necessitated a referral to the Commission for consideration.

Spacing Waiver Requests Discontinued. On June 26, 1989 the current contour protection rules (contained in 47 CFR § 73.215) went into effect.[14] These rules specified an alternative procedure by which an applicant could apply to use a site which did not meet the minimum distance separation requirements of § 73.207. No threshold or public interest showings were required; rather, an applicant was required to demonstrate that no prohibited contour overlap (and hence interference), would be created with the short-spaced station. To limit the amount of short-spacing which might be proposed, the Commission established a new, less restrictive minimum separation table (contained in § 73.215(e)) for sole use with the contour protection rule.

Contour Protection. The contour protection rule contains distinct advantages over the earlier waiver request system. It eliminates the need to gather and present documentation to meet the threshold and public interest criteria, replacing those procedures with a simple go/no-go analysis. The new procedure also insures that neither of the short-spaced stations would receive increased interference, a factor not normally considered under the former spacing waiver system. It also allowed the Commission to discontinue processing of more burdensome and less technically sound spacing waiver requests (including *de minimis* requests).[15]

In addition, the contour protection rule affords cochannel and first-adjacent channel applicants far greater latitude in specifying a transmitter site than did the earlier spacing waiver process. For cochannel stations, only one out of 28 possible combinations between the various classes of stations receives less than 11 km additional short-spacing from the minimum distance separation required by § 73.207.[16] Similarly for first-adjacent channel stations, out of

[7] While PNBC concedes that the threshold criteria under the former § 73.207 waiver process may not be strictly applicable to a waiver of § 73.215(e), they contend that such criteria "may be nonetheless useful in assessing whether a waiver is warranted."

[8] *Report and Order* in MM Docket 92-241, 8 FCC Rcd 1796 at Paragraph 4.

[9] *Report and Order* in MM Docket 87-121, *supra* at Paragraph 32.

[10] *See, e.g., John Lamarr Hill*, 70 FCC 2d 153 (Rev. Bd. 1978).

[11] *See, e.g., Carroll-Harrison Broadcasting, Inc.*, 62 FCC 2d 45, 46 (1976).

[12] *See, e.g., Musicasa of the South*, 45 RR 2d 1213 (1979); also *Megamedia*, 67 FCC 2d 1527, 1528 (1972).

[13] An exception to these requirements was made for *de minimis* short-spacings of 1.6 km or less.

[14] *Report and Order* in MM Docket 87-121, 4 FCC Rcd 1681 (1989); *recon. granted in part and denied in part*, 6 FCC Rcd 5356 (1991).

[15] *Report and Order, supra* at Paragraph 33; *Memorandum Opinion and Order* in MM Docket 87-121, 6 FCC Rcd 5356 (1991) at Paragraphs 24-27.

[16] Cochannel Class B to Class C stations receive only 4 km additional short-spacing under § 73.215(e).

28 possible combinations between the various classes of stations, none receives less than 10 km additional short-spacing from the minimum distance separation requirements of § 73.207. These maximum limits are at least 4 km greater (and in many instances much greater) than the 6 km limit under the former spacing waiver process which necessitated referral of the application to the Commission for action. Moreover, these short-spacings can now be obtained through routine processing of applications.

The PNBC Request for Waiver of § 73.215(e)

After review, for the reasons stated below, we find that waiver of § 73.215(e) is not warranted in this instance. *The former § 73.207 threshold criteria are not applicable to requests for waiver of § 73.215(e).* As indicated earlier, the KNRK application fails to meet the minimum spacing requirements of §§ 73.207 and 73.215 by 20.6 km and 8.6 km, respectively. We do not believe that the old § 73.207 spacing waiver procedures are relevant to requests for waivers of the § 73.215(e) spacing table. While both rules contain minimum required spacing between stations, it must be noted that the latter rule section already incorporates 12 km of relief from the § 73.207 required spacing, an amount double that which would have triggered Commission review under the old system. To this, PNBC proposes to add an additional 8.6 km of short-spacing.[17]

PNBC's request and the threshold showing. The former spacing waiver threshold showing consisted of three parts, all of which had to be met:

(1). *The present site is no longer suitable.* Here, PNBC is arguing the converse, that there is no other site from which KNRK can operate with Class C2 facilities. Moreover, the present site is suitable for PNBC's present Class C3 operation and fully complies with the rules for Class C3 stations, including city coverage pursuant to § 73.315.

(2). *Alternative non-short-spaced sites are not available.*

(3). *The proposed transmitter site is the least short-spaced site available.*

PNBC's submission clearly demonstrates that alternative fully spaced sites are not available within the 8.6 km shortfall from § 73.215(e). However, little consideration seems to have been given to sites which fall in the 12 km between § 73.215(e) and § 73.207. Consequently, we cannot find that PNBC has provided sufficient information to show that the proposed transmitter site is the least short spaced site available.

[17] We believe that it would make more sense to apply the former threshold criteria to the *total* amount of short-spacing proposed under § 73.207, not simply the additional amount under § 73.215(e). Otherwise, precedent cochannel and first-adjacent channel short spacing waiver cases are not valid for comparison, since such § 73.215 applicants already are eligible for short-spacing from § 73.207 greatly in excess of most precedent cases. Consequently, we hold that PNBC's waiver request must be compared against precedent cases in which the short-spacing from § 73.207 is 20.6 km, not 8.6 km.

[18] We note that *Boone Biblical College* ordered the institution

In addition, if the former threshold criteria are to be revived for requests for waiver of § 73.215(e), we will have defeated a primary purpose for the adoption of the contour protection rule -- to provide for increased flexibility in site location while eliminating the need to evaluate complex, time-consuming, and less technically sound spacing waiver requests.

Dockets 87-121 indicated that waivers of the rule may be in the public interest in some instances. PNBC's referral to Footnote 27 of the *Memorandum Opinion and Order* in MM Docket 87-121, *supra* does not support the present waiver request. The footnote clearly refers to a [redacted] seeking [redacted] In that context, a [redacted] apply for [redacted], not § 73.215(e), since it is difficult to multiplex a directional FM station with other nondirectional FM stations.[24] In any event, for the reasons explained below, we do not find that a grant of the requested waiver would serve the public interest.

While Docket 92-214, which adopted KNRK's Class C2 allotment, indicated that upgraded operation for that station would serve the public interest, that observation was general in nature since a larger station will almost always serve more people and there was nothing in the record to suggest there would be any adverse consequences. The rulemaking did not anticipate PNBC seeking a short-spacing of the magnitude proposed here. Since it has, we are compelled to consider the impact of the present waiver request (and future requests which invariably will cite this case as precedent) on our FM allocations scheme. The operation proposed for KNRK is a good example of what can be expected to occur when cochannel and first-adjacent channel stations are crowded together. To attain Class C2 operation, KNRK must significantly suppress radiation in two large arcs to the northwest and south-southeast, to the point that greater suppression is required than is presently the case for KNRK's Class C3 operation.[25] Nor does KNRK gain any significant service in these directions as compared to the present directional Class C3 operation. Thus, we observe that permitting such waivers would encourage other applicants to seek operations which do not comply with our rules in exchange for marginal gains in service.[26] Finally, we note that the Commission has elsewhere denied a request for waiver of the spacing rules where increased coverage was the primary justification.[27] Therefore, we do not believe that the public interest is satisfied by the present PNBC proposal.

CONCLUSIONS

In these times of shrinking government resources, it is not an efficient use of the Commission's limited staff resources to allow new filings based on an inherently inefficient spacing waiver process. As we noted above, the contour protection rule was adopted in part to eliminate the inefficiencies associated with the former spacing waiver process. With the Audio Services Division currently processing in excess of [redacted] FM construction permit applications per year, and with these applications steadily increasing in difficulty as the FM band fills up, we see no justification in needlessly complicating and slowing the application process for substandard operations.

PNBC's showings have amply demonstrated that there is no fully spaced transmitter site (including the reference coordinate site) which complies with the minimum separation requirements of §73.207 and at which a Class C operation could be constructed. It also appears that PNBC has been unable to find a suitable site which complies with the separation requirements of § 73.215(e), [redacted] additional 12 km of service that § 73.215(e) affords when compared to § 73.207. These facts suggest that the Channel [redacted] adopted [redacted] that a short-spaced transmitter site is necessary before the allotment can be used.[28] A substandard allotment is not a compelling basis for waiver of the Commission's technical rules covering construction permit applications. *Cf Chesw and Wedgefield, SC, recon. denied*, 4 FCC Rcd 4503 (1989); *review denied*, 5 FCC Rcd 5572 (1990). Nor do we find that the other factors cited by PNBC (additional population served, reduction in existing prohibited contour overlap with KMGE) serve the public interest more than adherence to our technical rules. Consequently, the appropriate action under these circumstances is deletion of the substandard allotment. *See Pinckneyville, Illinois*, 41 RR 2d 6[illegible] (1977); *Natchitoches, Louisiana*, 52 RR 2d 1588 (1983); *Pine Knoll Shores, NC*, 60 Fed. Reg. 64348 (December 15, 1995). Accordingly, this matter is being referred to the Bureau's Allocations Branch for appropriate action.

FINAL ACTIONS

We have afforded the requests for waiver of §73.215(e) the "hard look" called for under *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), but find that the facts and circumstances presented in the applicants' justifications are insufficient to establish that grant of the requested waiver would be in the public interest. Accordingly, the request for waiver of 47 CFR § 73.215(e) made by Pacific Northwest Broadcasting Corporation (KNRK) IS HEREBY DENIED. In addition, pursuant to Paragraph 22 of the *Report and Order* in MM Docket 91-347, 7 FCC Rcd 5074 (1992), since the applications requested waiver of a rule but the waivers were denied, these applications may not be amended to rectify the deficiencies. Therefore, application BPH-940829IC IS HEREBY DISMISSED as unacceptable for filing.

[24] Were a nondirectional contour protection station to locate on a multiplexed antenna located at the minimum cochannel or first adjacent channel separation prescribed by § 73.215(e), that station would be limited to approximately the maximum facilities for the next lower class of station.

[25] Thus, where a nondirectional maximum Class C2 60 dBu service area is approximately 78% larger than a maximum Class C3 operation, KMUZ would increase its proposed service area by only 29%.

[26] For example, PNBC referred in its difficulties in obtaining a suitable site for Class C3 operations in its previous applications BPH-880310MB, BMPH-920206ID, and BMPH-920831IH. [redacted] not have been unaware that the Class C2 operation proposed in Docket 92-214 could face similar problems.

[27] *Musicast of the South, Inc.*, 45 RR 2d 1232 (1979) (six miles [illegible] short-spacing requested and denied).

[28] Not only was the proposed allotment site unsuitable for broadcast operation at the time this application was filed, it appears that the allotment reference site was unsuitable even prior to the adoption of the upgraded allotment.

Sincerely,

Dennis Williams
Assistant Chief,
Audio Services Division
Mass Media Bureau

cc: Radio Station KNRK
McClanathan and Associates, Inc.
John Karousos, Chief, Allocations Branch

1000 FM PERMIT REQUESTS

Rules. *See Certification That Sections 603 and 604 of the Regulatory Flexibility Act Do Not Apply to Rule Making to Amend Sections 73.202(b), 73.504 and 73.606(b) of the Commission's Rules*, 46 FR 11549, February 9, 1981.

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John A. Karousos
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Before the
Federal Communications Commission
Washington, D.C. 20554

LETTER
January 31, 1996

Released: February 13, 1996

In reply refer to:
1800B3-DEB

ECI License Company, Inc.
Suite 409
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In re: KNRK, Camas, WA
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[2] PNBC's proposal uses a directional antenna to afford contour protection to KMGE, which lies to the northwest of KNRK. Because of anomalous terrain between KMGE and KNRK, prohibited contour overlap already exists from KNRK's licensed Class C3 operation. By using a directional antenna to suppress radiation toward KMGE, this proposal would slightly reduce the existing overlap. This is permitted pursuant to Paragraph 54 of the *Memorandum Opinion and Order* in MM Docket 87-121, 6 FCC Rcd 5356 (1991). In addition, the directional operation proposed by PNBC would afford contour protection (and meet the § 73.215(e) minimum separation requirements) with respect to first-adjacent channel Class A station KUKN, Kelso, WA, which lies to the south-southeast of KNRK.

[3] The Class C2 site originally sought in the rulemaking proceeding (East Larch Mountain) was located within this area.

[4] A copy of a letter dated August 9, ... Carolyn Coons and Klaus Heyne, Coor... Guardians of Larch Mountain, indicati... posed PNBC's earlier request to use ... would also oppose any request of PNBC ... Mountain or in the Columbia River ... Area.

[5] A letter dated August 25, 1994 is p... Premble, Planning Director of Multnom... dicates that local ordinances promote fe... ty. In addition, a letter is provided from ... Consultant, outlining the difficulties in ... the documentation necessary to justify ... in Multnomah County, and its slim cha...

[6] A letter is provided from Robert K. ... indicating that any effort to construct a ... River Gorge National Scenic Area wo... and money" and would probably result

ing waiver process.[7] PNBC also notes that the Commission has already determined in MM Docket 92-241 that the upgrading of KNRK to Class C2 would serve the public interest since it would allow KNRK to expand its coverage area.[8] Moreover, PNBC posits that the Commission chose the minimum spacings in § 73.215(e) only because the technical record in the Docket 87-121 proceeding (which adopted § 73.215) did not indicate the fullest extent to which directional antennas could be utilized.[9] Here, however, PNBC has shown that a directional antenna can be made to comply with the Commission's rules. Finally, PNBC references Footnote 27 of the *Memorandum Opinion and Order* in MM Docket 87-121, *supra*, where the Commission stated that waivers of § 73.215 may be warranted in a very small number of cases if the waiver request is in the public interest. Accordingly, PNBC believes that its request for waiver of § 73.215(e) is warranted.

DISCUSSION

In order to properly understand our decision in this matter, we will first provide some background on the development of the present rule. We will then discuss the specifics of the PNBC waiver request.

Origins of § 73.215(e)

Former Waiver Process. The minimum distance separation requirements of 47 CFR § 73.207 determine how close the transmitter site of one FM station can be to another station operating on the same or adjacent channels, or on an intermediate frequency (IF) channel. Prior to the effective date of § 73.215 on June 26, 1989, applicants which did not specify a fully spaced transmitter site could request waiver of this rule.

Typically, the licensee or permittee of an existing station seeking to change transmitter site to a short-spaced transmitter site was required to make a three part threshold showing, demonstrating that (1) the present site was no longer suitable,[10] (2) that alternative non-short-spaced sites were unavailable,[11] and (3) that the proposed transmitter site was the least short-spaced site available.[12] After meeting these threshold tests, the applicant was then required to show that waiver of the spacing requirements would serve the public interest. Such showings generally consisted of an explanation of the reasons why the spacing waiver was being sought, supported by affidavits from engineering consultants, state and local governmental officials, aeronautical consultants, the FAA, and realtors as appropriate to the case at hand.[13] Greater amounts of short-spacing required more extensive documentation to demonstrate compliance with the threshold and public interest showing requirements.

The preparation and processing of requests for waiver of § 73.207 proved to be increasingly burdensome and time consuming for both applicants and the staff. When considering a spacing waiver request, it was necessary for the staff to compare (and contrast) the threshold and public interest showings against prior precedents for the same degree of short-spacing and to make judgements regarding the merits and deficiencies of each waiver request. In some instances, the validity and accuracy of the information submitted was called into question by the staff or a petitioner, requiring additional justification by the applicant and additional staff review by the staff. Grant or denial of waiver requests required that the staff explain in detail the reasons why it was taking that action.

Moreover, the staff was empowered to grant spacing waiver requests of § 73.207 only up to a maximum of 6 km (3.7 miles). Requests for greater amounts of short-spacing (in excess of 6 km) which met the threshold and public interest requirements generally necessitated a referral to the Commission for consideration.

Spacing Waiver Requests Discontinued. On June 26, 1989 the current contour protection rules (contained in 47 CFR § 73.215) went into effect.[14] These rules specified an alternative procedure by which an applicant could apply to use a site which did not meet the minimum distance separation requirements of § 73.207. No threshold or public interest showings were required; rather, an applicant was required to demonstrate that no prohibited contour overlap (and hence interference), would be created with the short-spaced station. To limit the amount of short-spacing which might be proposed, the Commission established a new, less restrictive minimum separation table (contained in § 73.215(e)) for sole use with the contour protection rule.

Contour Protection. The contour protection rule contains distinct advantages over the earlier waiver request system. It eliminates the need to gather and present documentation to meet the threshold and public interest criteria, replacing those procedures with a simple go/no-go analysis. The new procedure also insures that neither of the short-spaced stations would receive increased interference, a factor not normally considered under the former spacing waiver system. It also allowed the Commission to discontinue processing of more burdensome and less technically sound spacing waiver requests (including *de minimis* requests).[15]

In addition, the contour protection rule affords cochannel and first-adjacent channel applicants far greater latitude in specifying a transmitter site than did the earlier spacing waiver process. For cochannel stations, only one out of 28 possible combinations between the various classes of stations receives less than 11 km additional short-spacing from the minimum distance separation required by § 73.207.[16] Similarly for first-adjacent channel stations, out of

[7] While PNBC concedes that the threshold criteria under the former § 73.207 waiver process may not be strictly applicable to a waiver of § 73.215(e), they contend that such criteria "may be nonetheless useful in assessing whether a waiver is warranted."

[8] *Report and Order* in MM Docket 92-241, 8 FCC Rcd 1796 at Paragraph 4.

[9] *Report and Order* in MM Docket 87-121, *supra* at Paragraph 32.

[10] *See, e.g., John Lamarr Hill*, 70 FCC 2d 153 (Rev. Bd. 1978).

[11] *See, e.g., Carroll-Harrison Broadcasting, Inc.*, 62 FCC 2d 45, 46 (1976).

[12] *See, e.g., Muscatine of the South*, 45 RR 2d 1213 (1979); also *Megamedia*, 67 FCC 2d 1527, 1528 (1972).

[13] An exception to these requirements was made for *de minimis* short-spacings of 1.6 km or less.

[14] *Report and Order* in MM Docket 87-121, 4 FCC Rcd 1681 (1989); *recon. granted in part and denied in part*, 6 FCC Rcd 5356 (1991).

[15] *Report and Order, supra* at Paragraph 33; *Memorandum Opinion and Order* in MM Docket 87-121, 6 FCC Rcd 5356 (1991) at Paragraphs 24-27.

[16] Cochannel Class B to Class C stations receive only 4 km additional short-spacing under § 73.215(e).

...28 possible combinations between the various classes of ...ons, none receives less than 10 km additional short-...cing from the minimum distance separation require-...nts of § 73.207. These maximum limits are at least 4 km ...ater (and in many instances much greater) than the 6 ...m limit under the former spacing waiver process which ...essitated referral of the application to the Commission ...e banc. Moreover, these short-spacings can now be ob-...ned through routine processing of applications.

The PNBC Request for Waiver of § 73.215(e)

After review, for the reasons stated below, we find that ...ver of § 73.215(e) is not warranted in this instance. *The ...mer § 73.207 threshold criteria are not applicable to re-...ests for waiver of § 73.215(e).* As indicated earlier, the ...RK application fails to meet the minimum spacing ...irements of §§ 73.207 and 73.215 by 20.6 km and 8.6 ...m, respectively. We do not believe that the old § 73.207 ...cing waiver procedures are relevant to requests for waiv-... of the § 73.215(e) spacing table. While both rules con-...n minimum required spacing between stations, it must ...noted that the latter rule section already incorporates 12 ...m of relief from the § 73.207 required spacing, an ...mount double that which would have triggered Commis-...n review under the old system. To this, PNBC proposes ...o add an additional 8.6 km of short-spacing.[17]

PNBC's request and the threshold showing. The former ...pacing waiver threshold showing consisted of three parts, ...l of which had to be met:

(1). *The present site is no longer suitable.* Here, PNBC ...is arguing the converse, that there is no other site ...from which KNRK can operate with Class C2 facili-...ties. Moreover, the present site is suitable for PNBC's ...present Class C3 operation and fully complies with ...the rules for Class C3 stations, including city cov-...erage pursuant to § 73.315.

(2). *Alternative non-short-spaced sites are not available.*

(3). *The proposed transmitter site is the least short-spaced site available.*

PNBC's submission clearly demonstrates that ...alternative fully spaced sites are not available within ...the 8.6 km shortfall from § 73.215(e). However, little ...consideration seems to have been given to sites which ...fall in the 12 km between § 73.215(e) and § 73.207. ...Consequently, we cannot find that PNBC has pro-...vided sufficient information to show that the pro-...posed transmitter site is the least short spaced site ...available.

[17] We believe that it would make more sense to apply the former threshold criteria to the *total* amount of short-spacing proposed under § 73.207, not simply the additional amount under § 73.215(e). Otherwise, precedent cochannel and first-adjacent channel short-spacing waiver cases are not valid for comparison, since such § 73.215 applicants already are eligible for short-spacing from § 73.207 greatly in excess of most pre-1989 precedent cases. Consequently, we hold that PNBC's waiver request must be compared against precedent cases in which the short-spacing from § 73.207 is 20.6 km, not 8.6 km.

[18] We note that *Boone Biblical College* ordered the institution

In addition, if the former threshold criteria are to be revived for requests for waiver of § 73.215(e), we will have defeated a primary purpose for the adoption of the contour protection rule -- to provide for increased flexibility in site location while eliminating the need to evaluate complex, time-consuming, and less technically sound spacing waiver requests.

Docket 87-121 indicated that waivers of the rule may be in the public interest in some instances. PNBC's referral to Footnote 27 of the *Memorandum Opinion and Order* in MM Docket 87-121, *supra* does not support the present waiver request. The footnote clearly refers to a station seeking use of a multiplexed antenna shared by other FM stations. In that context, a [illegible] would probably be making a waiver of prohibited [illegible]p, not § 73.215(e), since it is difficult to multiplex a directional FM station with other nondirectional FM stations.[24] In any event, for the reasons explained below, we do not find that a grant of the requested waiver would serve the public interest.

While Docket 92-214, which adopted KNRK's Class C2 allotment, indicated that upgraded operation for that station would serve the public interest, that observation was general in nature since a larger station will almost always serve more people and there was nothing in the record to suggest there would be any adverse consequences. The rulemaking did not anticipate PNBC seeking a short-spacing of the magnitude proposed here. Since it has, we are compelled to consider the impact of the present waiver request (and future requests which invariably will cite this case as precedent) on our FM allocations scheme. The operation proposed for KNRK is a good example of what can be expected to occur when cochannel and first-adjacent channel stations are crowded together. To attain Class C2 operation, KNRK must significantly suppress radiation in two large arcs to the northwest and south-southeast, to the point that greater suppression is required than is presently the case for KNRK's Class C3 operation.[25] Nor does KNRK gain any significant service in these directions as compared to the present directional Class C3 operation. Thus, we observe that permitting such waivers would encourage other applicants to seek operations which do not comply with our rules in exchange for marginal gains in service.[26] Finally, we note that the Commission has elsewhere denied a request for waiver of the spacing rules where increased coverage was the primary justification.[27] Therefore, we do not believe that the public interest is satisfied by the present PNBC proposal.

CONCLUSIONS

In these times of shrinking government resources, it is not an efficient use of the Commission's limited staff resources to allow new filings based on an inherently inefficient spacing waiver process. As we noted above, the contour protection rule was adopted in part to eliminate the inefficiencies associated with the former spacing waiver process. With the Audio Services Division currently processing in excess of 1000 FM construction permit applications per year, and with these applications steadily increasing in difficulty as the FM band fills up, we see no justification in needlessly complicating and slowing the application process for substandard operations.

PNBC's showings have amply demonstrated that there is no fully spaced transmitter site (including the reference coordinate site) which complies with the minimum separation requirements of §73.207 and at which a Class C1 operation could be constructed. It also appears that PNBC has been unable to find a suitable site which complies with the separation requirements of § 73.215(e), [illegible] additional 12 km of leeway that § 73.215(e) affords when compared to § 73.207. These facts suggest that the Channel [illegible] adopted by Docket 92-[illegible] was [illegible] that a short-spaced transmitter site is necessary before the allotment can be used.[28] A substandard allotment is not a compelling basis for waiver of the Commission's technical rules covering construction permit applications. *Cf Chesnee and Wedgefield, SC, recon. denied*, 4 FCC Rcd 4503 (1989); *review denied*, 5 FCC Rcd 5572 (1990). Nor do we find that the other factors cited by PNBC (additional population served, reduction in existing prohibited contour overlap with KMGE) serve the public interest more than adherence to our technical rules. Consequently, the appropriate action under these circumstances is deletion of the substandard allotment. *See Pinckneyville, Illinois*, 41 RR 2d 69 (1977); *Natchitoches, Louisiana*, 52 RR 2d 1588 (1983); *Pine Knoll Shores, NC*, 60 Fed. Reg. 64348 (December 15, 1995). Accordingly, this matter is being referred to the Bureau's Allocations Branch for appropriate action.

FINAL ACTIONS

We have afforded the requests for waiver of §73.215(e) the "hard look" called for under *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), but find that the facts and circumstances presented in the applicants' justifications are insufficient to establish that grant of the requested waiver would be in the public interest. Accordingly, the request for waiver of 47 CFR § 73.215(e) made by Pacific Northwest Broadcasting Corporation (KNRK) IS HEREBY DENIED. In addition, pursuant to Paragraph 22 of the *Report and Order* in MM Docket 91-347, 7 FCC Rcd 5074 (1992), since the applications requested waiver of a rule but the waivers were denied, these applications may not be amended to rectify the deficiencies. Therefore, application BPH-940829IC IS HEREBY DISMISSED as unacceptable for filing.

[24] Were a nondirectional contour protection station to locate on a multiplexed antenna located at the minimum cochannel or first adjacent channel separation prescribed by § 73.215(e), that station would be limited to approximately the maximum facilities for the next lower class of station.

[25] Thus, where a nondirectional maximum Class C2 60 dBu service area is approximately 78% larger than a maximum Class C3 operation, KMUZ would increase its proposed service area by only 29%.

[26] For example, PNBC referred to its difficulties in obtaining a suitable site for Class C3 operations in its previous applications BPH-880310MB, BMPH-920206ID, and BMPH-920831IH. Thus, PNBC could not have been unaware that the Class C2 operation proposed in Docket 92-214 could face similar problems.

[27] *Musicast of the South, Inc.*, 45 RR 2d 1232 (1979) (six miles [illegible] short-spacing requested and denied).

[28] Not only was the proposed allotment site unsuitable for broadcast operation at the time this application was filed, it appears that the allotment reference site was unsuitable even prior to the adoption of the upgraded allotment.

Sincerely,

Dennis Williams
Assistant Chief,
Audio Services Division
Mass Media Bureau

cc: Radio Station KNRK
McClanathan and Associates, Inc.
John Karousos, Chief, Allocations Branch

1000 FM PERMIT REQUESTS

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

MM Docket No. 86-144

In the Matter of

Review of Technical Parameters for
FM Allocation Rules of Part 73,
Subpart B, FM Broadcast Stations

MEMORANDUM OPINION AND ORDER

Adopted: April 19, 1988; **Released: April 29, 1988**

By the Commission:

INTRODUCTION

1. The Commission has before it two petitions for reconsideration of the *Second Report and Order* (*Second Report*) [1] in this proceeding. One petition, filed by Brown Broadcasting Service, Inc. on November 5, 1987, requests that the Commission reconsider and modify its action that amended Section 73.213 of the rules, which governs relocations and modifications of grandfathered short-spaced FM stations. The other petition, filed by Eric R. Hilding on November 6, 1987, requests that the Commission reconsider and modify its action that amended Section 73.211 of the rules, which sets forth power and antenna height requirements for each of the six classes of FM stations. No comments were filed in response to either petition.

BACKGROUND

2. We initiated this proceeding with a *Notice of Proposed Rule Making* (*Notice*) [2] that proposed minor adjustments to certain rules that were affected by our actions in BC Docket No. 80-90 [3], but were not given detailed consideration in that proceeding. In the *Notice*, we also proposed a new method for classifying FM stations and revision of certain technical rules that needed updating.

3. More than 400 parties filed comments or reply comments in response to the *Notice*. In January 1987, we adopted a *First Report and Order* [4] resolving two of the issues in the *Notice*. Subsequently, in September 1987, we adopted the *Second Report* addressing the remaining issues. In the *Second Report*, we set forth a definitive method for classifying FM stations according to their effective radiated power (ERP) and antenna height above average terrain (HAAT). **Also, we amended our rules to limit relocations and modifications of grandfathered short-spaced FM stations, allowing only those that would not increase the potential for interference.**

ISSUES

4. *The Brown Petition*. Brown Broadcasting Service, Inc. (Brown) is the licensee of station WBRU, Channel 238, Providence, Rhode Island. WBRU is a commercial station staffed primarily by students at Brown University. WBRU is also a grandfathered short-spaced station,[5] and thus is subject to Section 73.213 of the Commission's rules, which governs modifications and relocations for these stations. Brown claims that WBRU would be adversely affected by the Commission's revision of that section of the rules.

5. Brown states that it is in the middle of an extended process to obtain a new tower site. At the new site, Brown believes that WBRU would be able to operate with 50,000 watts effective radiated power. Brown fears that newly amended Section 73.213 will prevent WBRU from moving to this new site because, in effect, the amended rule limits each grandfathered short-spaced station to the predicted coverage (in the direction of other grandfathered short-spaced stations) which that station actually had on the "effective date" of the *Second Report*.[7] On this date, WBRU was operating with a lower power (20,000 watts) at what it considers to be a temporary site.[8] Brown does not want WBRU's coverage to be limited in the future to that provided by the lower power at the temporary site. As a remedy, Brown requests that the Commission's action that amended Section 73.213 be modified to permit any grandfathered short-spaced station to be authorized for facilities that would produce predicted coverage equivalent to either: (1) the maximum predicted coverage that could have been authorized under the old rule; or alternatively, (2) the maximum predicted coverage from a site that is not short-spaced.

6. *Discussion*. Prior to the *Second Report*, Section 73.213 allowed licensees to routinely modify or relocate grandfathered short-spaced stations, even if the potential for interference were increased as a result. In the *Second Report* we affirmed our contention that licensees of grandfathered short-spaced stations have had sufficient time (2½ years) to relocate and optimize their facilities under the relatively liberal provisions of the old rule. We found that continuing to allow relocations and modifications that increase the risk of interference is not in the public interest and is counter to our objective of promoting efficiency in the use of the spectrum. We therefore amended the rule to allow only relocations and modifications that will not increase predicted interference. We also reaffirmed and expanded our policy of accepting for consideration agreements between grandfathered short-spaced stations that would permit increases in both facilities.[9]

7. Brown did not present any evidence to demonstrate that any grandfathered short-spaced station other than WBRU has or anticipates a similar problem; that is, operation at an interim location on the effective date of our action. No comments were filed by other grandfathered short-spaced stations in support of Brown's petition. We are not aware of any grandfathered short-spaced station other than WBRU that would be significantly affected by our action in the *Second Report*. Therefore, we must conclude that Brown's situation, if not unique, is rather uncommon.

8. Tailoring Section 73.213, which affects all grandfathered short-spaced stations, to fit circumstances peculiar to one particular grandfathered short-spaced station would not be good public policy.[10] Because Brown's situation with regard to the site for WBRU appears to be an individual problem, any relief that may be necessary would be more appropriately considered in the context of a request for a waiver of Section 73.213, rather than through any further amendment of that rule.[11]

9. Even if additional grandfathered short-spaced stations were affected in a manner similar to WBRU, we would not amend Section 73.213 of our rules in either of the ways that Brown suggests. The **first alternative**[12] that Brown offers would, in effect, **reinstate the old rule** and **undermine our purpose in changing the rule in the *Second Report***, namely, to **prevent further increases in interference** resulting **from modifications** and **relocations** of grandfathered short-spaced stations. The other alternative suggested by Brown[13], if made a rule, would be implemented by licensees largely through the use of **directional antennas**. As we are currently considering in a broader context the possibility of permitting short-spaced operation through the use of directional antennas,[14] we will not entertain Brown's less comprehensive suggestion here. For all of the foregoing reasons we will deny Brown's petition.

10. *The Hilding Petition*. Eric R. Hilding (Hilding), in his petition, states that Section 73.211, as amended by the *Second Report*, excludes Class A FM stations from "the benefit of certain reference distance considerations", and claims that this exclusion prevents Class A FM stations from utilizing relatively high (and therefore desirable) antenna locations. To illustrate this, Hilding provides a hypothetical account of a Class A FM station with access to a site that would provide an antenna HAAT of 639.5 meters. He states that the hypothetical Class A station would need to operate with an ERP of 65 watts at this site in order to provide full Class A coverage, but that "such operation would *not* be permitted pursuant to Section 73.211(a)(3)."[15] Hilding concludes that the hypothetical Class A station could not use the site.

11. For relief, Hilding requests that the Commission modify its action that amended Section 73.211 by adding another paragraph to that section. The additional paragraph Hilding provides would expressly permit any Class A station, regardless of its HAAT, to operate with less than 100 watts, provided that the resulting reference distance equals or exceeds that of a Class A station operating with minimum facilities.[16] Hilding further requests that a reference to this additional paragraph be added to paragraph 73.211(b)(2).

12. *Discussion*. Section 73.211 does not preclude a Class A FM station from using any desired antenna site, regardless of the elevation or the resulting antenna HAAT.[17] Therefore, the hypothetical station in Hilding's example would not be prevented by Section 73.211 from using the 639.5 meter HAAT antenna site.

13. Hilding does raise a good point, however. Section 73.211 as it now stands does treat Class A stations differently than stations of the other classes in this respect -- Class A stations at very high antenna sites must provide the full maximum Class A coverage,[18] whereas Class B1, B, C2, C1 and C stations need only provide more coverage than the full maximum coverage of the *next lower class*.[19] In the particular paragraph (§73.211(a)(3)) that states this Class A stations were excluded because there is no lower class to establish a minimum coverage requirement for Class A stations.

14. We find that Hilding's suggestion to use Class A minimum facilities as the lower boundary for Class A coverage is reasonable and appropriate. Accordingly, we will amend Section 73.211 to permit any Class A station to have an ERP less than 100 watts, provided that the

exceeds the distance to the class contour for the next lower class. Class A stations may have an ERP less than 100 watts provided that the reference distance, determined in accordance with paragraph (b)(1)(i) of this section, equals or exceeds 6 kilometers.

* * * * *

FOOTNOTES

[1] 2 FCC Rcd 5693 (1987), released September 25, 1987.

[2] 104 FCC 2d 160 (1986).

[3] *Report and Order*, 94 FCC 2d 152 (1983); *recon. granted in part and denied in part*, 97 FCC 2d 279 (1984). The Commission amended the FM broadcasting rules to accommodate more stations by increasing the number of station classes.

[4] 2 FCC Rcd 660 (1987). The Commission amended the rules to permit any class of station to be allotted on 20 channels that were previously reserved for Class A operation. Also, the Commission declined to remove a rule section that provides for the classification of stations by zone based on transmitter location rather than the location of the community of license.

[5] Grandfathered short-spaced stations are FM stations at locations authorized prior to November 16, 1964 (when the Commission began using the distance-based allotment and assignment method) that did not meet the separation distances required by §73.207 and have remained short-spaced since that time. These stations are allowed to continue to operate at or near their 1964 locations even though these locations do not comply with current interstation distance separation requirements.

[6] The effective date of the *Second Report* was November 9, 1987.

[7] §73.213, as amended, permits modification or relocation of any grandfathered short-spaced station provided that the station's predicted 1 mV/m field strength contour is not extended toward the predicted 1 mV/m field strength contour of any other grandfathered short-spaced station.

[8] WBRU has been operating at this site with an ERP of 20,000 watts for more than 10 years.

[9] If the Commission finds that the public interest would be served by a mutual increase in the facilities of two or more grandfathered short-spaced stations pursuant to the terms of such an agreement, Section 73.213 may be waived to permit the increase. However, this policy does not apply to site relocations. *See Public Notice*, FCC 75-1367, dated December 15, 1975, 57 FCC 2d 1263 (1975); 40 Fed. Reg. 58893, December 19, 1975, codified in §73.4235 of the Commission's rules. *See also Public Notice*, released September 25, 1987, 2 FCC Rcd 5701 (1987), which extended the policy to encompass agreements with grandfathered short-spaced stations on the second and third adjacent channels.

[10] Rules adopted in a generic rule making are of general applicability and do not consider the special circumstances of individual parties. The rule making process contemplates the subsequent consideration and possible grant of rule waivers for good cause shown in specific cases where unique or unusual circumstances obtain, or to remedy unintended hardships occasioned by our rules. *See WAIT Radio v FCC*, 418 F.C. 2d 1153, 1157 (D.C. Cir. 1969).

[11] Brown has pending an application (BPH871106IU) that requests an increase in power to 50,000 watts and a site relocation. This application was filed three days before the effective date of the *Second Report*, and therefore can be processed in accordance with the old §73.213. If this application is granted, Brown will gain the relief it seeks in the instant petition. If the application is not granted, Brown has the option of requesting, with the appropriate public interest showing, a waiver of the newly amended §73.213. The Commission does not here evaluate or rule on the merits of any future relocation of WBRU. Rather, the Commission's decision in this *Memorandum Opinion and Order* is based primarily on the inappropriateness of amending a rule affecting an entire group of licensees solely in response to the concerns of one licensee in that group.

[12] Under this alternative, grandfathered short-spaced FM stations could be modified or relocated in any way that would produce a predicted contour matching the predicted contour of a short-spaced facility that could have been authorized under the old rule.

[13] The second alternative suggested by Brown is to permit a modification or relocation of a grandfathered short-spaced FM station that would produce a predicted contour that matches the predicted contour of hypothetical facility at a non-short-spaced site. This is essentially the concept of "equivalent protection".

[14] *See Notice of Proposed Rule Making* in MM Docket 87-121 (FCC 88-73, released March 30, 1988). For additional background, *see Notice of Inquiry* in MM Docket 87-121, 2 FCC Rcd 3141 (1987). The Commission has requested comment as to the feasibility of the use of directional antennas to permit short-spaced operation by any FM broadcast station, not just the grandfathered ones affected by §73.213.

[15] Hilding implies (although he does not explicitly state) that paragraph 73.211(a)(3), which was added to the rule in the *Second Report*, prevents Class A stations from reducing power below 100 watts pursuant to paragraph 73.211(b)(2), in effect limiting Class A stations to a maximum HAAT of 525 meters (1722 feet).

[16] The minimum facilities for a Class A FM station are considered to be 100 watts ERP with an antenna HAAT of 30 meters. This combination produces a reference distance of 6 kilometers.

[17] The rules permit operation of a Class A FM broadcast station with any antenna HAAT. However, with an antenna HAAT greater than the Class A reference HAAT (100 meters), the station's ERP must be lower than the 3,000 watt class maximum such that the resulting reference distance does not exceed 24 kilometers. For a HAAT of 639.5 meters, the example Hilding uses, §73.211(b)(2) does indeed limit a Class A station to 65 watts ERP, but such operation is not prohibited by §73.211(a)(3), as Hilding claims.

[18] A reference distance of 24 kilometers constitutes full coverage for a Class A FM broadcast station. As of January 1988 there are 10 Class A stations that have an antenna HAAT greater than 525 meters. Eight of these are providing full coverage. See footnote 15 *supra*.

[19] Before the *Second Report*, all FM stations at very high antenna sites were required to provide the full maximum coverage for their class. However, the Commission found it necessary to allow stations the option to provide less than full coverage in order to facilitate classification of FM stations and to provide a continuous range of permissible facilities. *See* paragraph 14 in the *Second Report*.

[20] *See* 5 U.S.C. 553(d).

[21] The restriction removed herein was an unintended effect of the Commission's action in the *Second Report*. Applying the newly amended rule to the processing of applications pending or received on or after the release date of that decision will eliminate any hardship that may have resulted.

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

MM Docket No. 88-114

In the Matter of

Review of Technical and Operational Regulations of Part 73, Subpart E, Television Broadcast Stations

NOTICE OF PROPOSED RULE MAKING

Adopted: March 9, 1988; Released: April 29, 1988

By the Commission: Commissioner Dennis issuing a separate statement.

INTRODUCTION

1. The Commission is initiating this proceeding to review technical and operational requirements of Subpart E of Part 73 of the Commission's Rules for television broadcast stations. The intent of this proceeding is to delete such regulations that may be unduly burdensome or outdated, and may no longer be needed. This *Notice of Proposed Rule Making* (*Notice*) considers only the elimination of rules relating to the technical operation of television broadcast facilities. This action continues the Commission's deregulatory review of technical regulations as initiated by General Docket No. 83-114, *A Re-Examination of Technical Regulations*, 99 FCC 2nd 903(1984). As a result of that proceeding, the Commission conducted a series of Rule Making actions in which many of the technical regulations were deleted if they were determined to be prescriptive of outdated or unwarranted specifications.[1] Also, regulations that required stations to meet certain signal quality performance levels were eliminated in favor of allowing competitive marketplace incentives to influence the quality of the signal to the listening and viewing public. However, those regulations which act to control interference among stations have been appropriately maintained. Rules in the following areas are considered in this proceeding:

(1) Separate operation of TV aural and visual transmitters.

(2) Power meter calibration.

(3) Color burst signal requirement.

(4) Antenna radiation pattern limitations.

(5) Equipment installation and safety specifications.

(6) Reference table for conversion of minutes and seconds to decimal parts of a degree.

ISSUES

Separate operation of TV aural and visu

2. Television program signal transmissi component and its associated or "integra produced with separate visual and aural spectively.[2] However, licensees may also non-associated video and audio program lows for the broadcasting of aural progr without visual displays, or visual infor with or without sound. Such service mig only programming of news, weather, t other reports. Prior to 1980, the separate audio and video transmitters had been pr permitted only in certain situations, suc pattern transmissions, equipment testing tion, etc. In 1980 the Commission pe audio or video service. At that time, the concerned that broadcasters might over service by augmenting their program da or video bulletin board-like informationa of normal programming during regular Thus, the Commission specified the hou 12 midnight until 6 A.M. because thes common "dark" or unused hours for st ing 24 hours per day.[3] Recognizing, ho stations sign-on after 6 A.M., partic commercial educational stations, the Co ted these stations to broadcast informational service for no more than diately prior to the start of the station's

3. The essence of the Commission's a to allow an additional service to be offe hours where no "regular" television ser by the station. However, by specifying t of-day and the 15-minute limit for statio than 6 A.M., the Commission restricted flexibility of using the informational course of regular broadcast hours. We the public interest would be better serv licensee maximum flexibility to establis time of day that is most appropriate for rate audio or video services. For instan communities where certain news or sports, *e. g.*, farm crops index reports, m public benefit at certain times of the day. Rather than broadcasting such in on-air announcer, stations could elect reports more cost effectively via a board-like service. In general, we belie pressures from competing stations and create incentives for broadcasters to transmit regular integrated sound and gramming or to transmit non-associate informational services, depending upo desires of their viewers. In our analys for not allowing licensees to make th the competitive limits of their individu areas. Therefore, we propose to am 73.653 to eliminate all time restriction sion of video informational services.

Power meter calibration.

4. In operating a television broadcas must have the capability of determini the appropriate level of authorized tr

all times. In using the "direct method" for determining the station's visual power level under Section 73.663(b)(3), a transmission line meter that must be calibrated at least once every six months should be used.[4] The Rule also states, however, that such meter calibrations should be done as often as may be necessary to insure compliance with the power limitations.

5. The Commission believes that the 6-month calibration requirement may be excessive for some stations and may be inadequate for others, depending on the age of a station's equipment. For example, the newer state-of-the-art test equipment maintains its accuracy over long periods and does not require as frequent recalibration. For stations using such equipment, a 6-month calibration requirement may be excessive and unwarranted. Even for stations using older test equipment, which may need more frequent calibration, the requirement also may not be necessary in view of the overriding requirement to perform calibrations as often as necessary to ensure compliance with the power limitation. In view of this overriding requirement, we believe that we can rely on the broadcaster to ensure proper technical operation of its station. When this is insufficient, Commission enforcement of the necessary calibrations is available. Therefore, we propose to delete the requirement in Section 73.663(b)(3) that the transmission line meter be calibrated at intervals not to exceed 6 months.[5]

Color burst signal requirement.

6. The TV transmission standards in our Rules describe the specific characteristics of the broadcast television signal to be transmitted within the assigned 6 MHz channel. Among this body of standards, Section 73.682(a)(9)(ii) states that color transmission shall comply with the synchronizing waveform specifications in Figure 6 of Section 73.699. Note 8 of Figure 6 specifies that "color burst" signals are to be omitted during monochrome (black and white) transmission.[6] In 1976, the Commission reaffirmed and clarified the application of this requirement.[7] Since that time, however, broadcasters and cablecasters have found certain video tape processing equipment to have operational disadvantages in omitting the color burst signal when transmitting a black-and-white video signal. Modern video equipment technology now utilizes the color burst signal for more than its original purpose of transmitting color reference information. The popular types of video processing equipment, used almost universally, rely on the color burst for timing and synchronization information to correct video signal stability or timing errors. And thus, some units are designed so as to require the color burst signal for proper operation, *e. g.*, in the video tape editing process. Consequently, some broadcasters on some occasions have requested and received waivers of this requirement.[8]

7. The requirement to omit the color burst signal was adopted in 1953 when color television receivers had relatively unsophisticated circuitry (compared to today's state-of-the-art receiver), which sometimes resulted in an inferior picture when receiving a black-and-white transmission containing color burst signals.[9] If not working properly, the color circuitry in these older model receivers was sometimes activated during the reception of a black-and-white transmission containing color burst signals. The activated circuits would cause picture degradation in the form of "colored snow or confetti" (visual random noise), or other distortion effects. It is our understanding that modern receiver design has minimized this problem, and that, other than on older model sets (prior 1980 vintage), it only occurs on those sets in fringe areas receiving weak signals.[10] Even so, some of the current literature indicates that the color burst signal level must be significantly reduced or suppressed, so that the "color killer" circuitry in today's receivers might be activated to cut off the color circuitry during the reception of black-and-white transmissions.[11] That observation notwithstanding, it has nevertheless been suggested that current technology has largely obviated the need for the color burst omission standard, as referenced above, and that compliance with the requirement has become increasingly burdensome.

8. It also has been suggested that the current rule creates production problems and expenses in corrective video editing. For instance, the design of some videotape machines requires that a color burst signal, if absent, first be added to a program tape before the machine will be able to properly edit the tape. Then, in order to broadcast the material in accordance with the current rule, the inserted color burst signal must be deleted after editing is completed. Thus, two additional steps and, in most cases, an additional piece of equipment are required to comply with the color burst omission rule. In addition, this two-step process can degrade the quality of the picture as a result of unavoidable timing signal errors.

9. It is also noted that broadcast programs with no color burst can cause serious video signal timing and synchronization problems in cable television retransmissions. The cable television industry in retransmitting broadcast programming is using more frequently equipment known as frame synchronizers that rely on the presence of color burst for timing. If not properly adjusted via the color burst signal, these frame sychronizers will sometimes treat a transmission without such color burst as defective. The apparent result to the cable operator is the functional equivalent of a transmitter failure at the broadcast station. This is an undesirable condition for those broadcasters that are providing their signal for cable TV distribution.

10. We note that the color burst omission requirement is a quality control regulation and does not pertain to adjacent or co-channel interference control. Thus, the elimination of this rule would be consistent with the Commission's regulatory policy that decisions concerning picture quality should properly be left to the broadcast licensee.[12] Although elimination of the requirement may lead to some measure of picture degradation for some viewers, particularly in older model receivers or in areas where reception is marginal, we believe that in instances in which the broadcaster chooses to retain the color burst signal during black-and-white programming, and this results in audience complaints, the broadcaster will be responsive to its audience in the station's best interest. Thus we are confident that the broadcaster would strike what he believes is the most appropriate balance between the consumers' demands for the highest quality signal and the demands to operate its video tape processing and other equipment in the most efficient manner. Therefore, we propose to delete the requirement of Note 8 of Figure 6 of Section 73.699 that the color burst signal be omitted during the transmission of monochrome programming.[13]

Antenna radiation pattern limitations.

11. Depending on the location of a television station's transmitter, use of a directional antenna system may be more beneficial to the station and to viewers, than a nondirectional antenna. While not authorized routinely, directional antennas may be used for the purpose of improving service upon an appropriate showing of need. *See* Rule Section 73.685 (e).

12. When television broadcasters use directional antenna systems, one of our regulations restricts the ratio of the maximum radiated power at any point in the horizontal radiation pattern to the minimum radiated power at any other point in that pattern. This regulation was intended to prevent the use of antennas whose patterns had areas of extreme suppression (or nulls), and were unpredictable and unstable. Use of such antennas would have led to ghosting problems within the null areas. Rule Section 73.685(e) specifies that directional antenna horizontal radiation patterns for stations operating on VHF channels must not have nulls that exceed a 10 dB maximum-to-minimum ratio. It also specifies that UHF stations operating with more than 1.0 kW of video transmitter output power must not employ a directional antenna whose radiation pattern has nulls that exceed 15 dB. (UHF stations operating with 1 kW or less are not so limited.) The Commission adopted these limits because it concluded that nulls greater than -10 dB and -15 dB for VHF and UHF, respectively, may not be practicable because of signal reflections from the strong main lobe into the weaker null areas.[14] On many occasions, however, broadcasters have requested waivers to exceed the specified maximum-to-minimum ratio for their radiation patterns. In several instances, the Commission has granted such waiver requests. For example, broadcasters have been allowed to adjust their signal radiation patterns exceeding these limits so as not to waste power over large bodies of water within their coverage areas. In other instances, we have granted waivers to avoid excessive signal radiation toward the face of a hill or mountain, which could reflect the signal and cause picture "ghosting" image degradation. We are not aware of significant problems as a result of our granting such waivers.

13. We now believe the maximum-to-minimum requirement can be eliminated. The state-of-the-art in antenna design has progressed since the time when the current limits were originally proposed in a *Notice* on July 11, 1949 (*see* para. 215 in the *Sixth Report and Order*). By now, advances in antenna design have provided for increased accuracy in predicting and attaining the desired suppression in directional antennas. Therefore, we propose to delete the maximum-to-minimum ratio limitations described in Rule Section 73.685(e).[15]

Equipment installation safety specification

14. Rule Sections 73.687(d),(e),(f), and (h) contain requirements for the construction and installation of transmission systems and studio equipment, and other safety procedures. The Commission's safety requirements were written years ago when many broadcasters designed and built their own facilities. Today, nearly all broadcasters acquire their transmission system equipment from manufacturers that must meet the safety requirements such as the National Electrical Code imposed by other regulatory agencies. In addition, much of this equipment is tested for safety by independent laboratories, *e. g.*, Underwriters Laboratories (UL). Moreover, we believe that broadcasters have strong incentives to install safe equipment in order to minimize the possibility of any harm to their employees.

15. Section 73.687 also contains specificati equipment and the electrical properties of t Many of these requirements are also no lo for the reasons mentioned above. Also, the and safety specifications do not pertain to of, or limits on, adjacent and co-channe which are of paramount Commission concer fications are analogous to those eliminated in similar proceedings for AM and FM rad is our view that these requirements pertai ment installation and safety are redundant other state or federal requirements.[17] Thus that the installation and safety requiremer 73.687(d),(e), (f), and (h) may be unwarrar fore, propose their removal.

Reference table of minutes and seconds co mal parts of a degree.

16. Table I of Rule Section 73.698 conta for minutes-to-decimal and seconds-to-deci degree. These values may be used in the geographical distance separations between nel assignment locations. Such conversio established in the Rules to provide the mea and accurate calculations long before the ac spread availability of electronic calculators. At that time, approximations and estimatio made in determining such values using slid other manual method. On occasion, su yielded imprecise and inconsistent results. electronic calculators and computers are t today for calculating coordinate distance s increased accuracy and speed of computa no longer needed. Therefore, we propose t of Section 73.698 from the Rules.[18]

CONCLUSION

17. In this proceeding, we have reviewe rules that we believe to be unnecessary, b anachronistic. We encourage all interested ment not only on the specific proposals de also to comment on other related technic are within the scope of this proceeding.

18. Authority for this proposed rule mak in Sections 1.3, 4(i) and (j), 303 308, 309 Communications Act of 1934, as amend applicable procedures set forth in Sections of the Commission's Rules, interested p comments on or before **June 20, 1988,** ments on or before **July 5, 1988.** All rele comments will be considered by the Cor final action is taken in this proceeding. decision, the Commission may take into c formation and ideas not contained in the vided that such information or a writin nature and source of such information i public file, and provided that the fact of t reliance on such information is noted.

19. For purposes of this non-restricted ment rule making proceeding, members o advised that *ex parte* presentations are p during the Sunshine Agenda period. *See* 1.1206(a). The Sunshine Agenda period time which commences with the release o that a matter has been placed on the Su

and terminates when the Commission (1) releases the text of a decision or order in the matter; (2) issues a public notice stating that the matter has been deleted from the Sunshine Agenda; or (3) issues a public notice stating that the matter has been returned to the staff for further consideration, whichever occurs first. Section 1.1202(f). During the Sunshine Agenda period, no presentations, *ex parte* or otherwise, are permitted unless specifically requested by Commission or staff for the clarification or adduction of evidence or the resolution of issues in the proceeding. Section 1.1203.

20. In general, an *ex parte* presentation is any presentation directed to the merits or outcome of the proceeding made to decision-making personnel which (1) if written, is not served on the parties to the proceeding, or (2), if oral, is made without opportunity for them to be present. Section 1.1202(b). Any person who submits a written *ex parte* presentation must provide, on the same day it is submitted, a copy of same to the Commission's Secretary for inclusion in the public record. Any person who makes an oral *ex parte* presentation that presents data or arguments not already reflected in that person's previously-filed written comments, must provide, on the day of the oral presentation, a memorandum to the Secretary (with a copy to the commissioner or staff member involved) which summarizes the data and arguments. Each *ex parte* presentation described above must state on its face that the Secretary has been served, and must also state by docket number the proceeding to which it relates. Section 1.1206.

21. As required by Section 603 of the Regulatory Flexibility Act, the Commission had prepared an initial regulatory flexibility analysis (IRFA) of the expected impact of these proposed policies and rules on small entities. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice, but they must have a separate and distinct heading designating them as responses to the regulatory flexibility analysis. The Secretary shall cause a copy of this Notice, including the initial 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, 5 U.S.C. Section 601 et seq. (1982).

22. The proposals contained herein have been analyzed with respect to the Paperwork Reduction Act of 1980 and found to contain no new or modified form, information collection and/or record keeping, labeling, disclosure, or record retention requirements; and will not increase or decrease burden hours imposed on the public.

23. To file formally in this proceeding, participants must file an original five copies of all comments, reply comments, and supporting documents. If participants want each Commissioner to receive a personal copy of their comments, an original plus eleven copies must be filed. Comments and reply comments should be sent to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Dockets Reference Room (Room 239) of the Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554.

24. For further information on this proceeding, contact Bernard Gorden, Mass Media Bureau, (202) 632-9660.

FEDERAL COMMUNICATIONS COMMISSION

H. Walker Feaster, III
Acting Secretary

APPENDIX A

INITIAL REGULATORY FLEXIBILITY ANALYSIS

I. Reason for action

The reason for this review is to determine the relevanc of current Commission rules concerning television broad cast transmission quality in light of expanding marketpla competition and to consider whether these rules should b revised or eliminated. This review also considers the elim nation of television broadcast facility safety rules whic may be enforced more appropriately by other agencies.

II. The objective

This action is proposed to delete unnecessary or ou dated rules and policies and allow television broadca licensees to operate their stations with increased flexibili and less burdensome technical regulations.

III. Legal basis

The legal basis for the Commission's engaging in ru making is contained in Sections 4(i) and (j) and 303(r) o the Communications Act of 1934, as amended.

IV. Description, potential impact, and number of sma entities affected

There are 1,005 commercial television stations, and 3 noncommercial television stations in the United States. A of these stations should benefit from this proposal b being allowed increased flexibility and being relieved burdensome regulations. We expect no negative impact these stations, small entities or large, as we are not ma dating any new requirements or showings. Interferenc should not increase as a result.

V. Recording, Recordkeeping, and Other Compliance R quirements

There is no additional impact.

VI. Federal Rules which Overlap, Duplicate, or Conf with the Proposed Rules

There is no overlap, duplication, or conflict.

VII. Any Significant Alternatives Minimizing Impact o Small Entities And Consistent With Stated Objective

There are no alternatives available.

APPENDIX B

Part 73 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

1. The authority citation for Part 73 would continue to read as follows:

Authority: 47 U.S.C. 154 and 303.

2. Section 73.208 is proposed to be amended by removing paragraphs (c)(1)(i) and (ii) and revising paragraph (c)(1) to read as follows:

§ 73. 208 Reference points and distance computations.

* * * * *

(c) ***

(1) Convert the latitudes and longitudes of each refer ence point from degree-minute-second format to degree decimal format by dividing minutes by 60 and seconds b 3600, then adding the results to degrees.

* * * * *

3. Section 73.653 is proposed to be revised to read follows:

§ 73. 653 Operation of TV aural and visual transmitters

(a) The aural and visual transmitters may be operat separately to present different or unrelated program m terial for the following purposes:

(1) Emergency fills due to either visual or aural equ ment failures leaving the licensees with only the audio video programming to announce the equipment failures the audience;

(2) Equipment tests or experimentation pursuant §73.1510 (Experimental authorizations) and §73.1 (Operation for tests and maintenance).

(3) To present visual transmissions of a test pattern, pictures or slides with aural transmission consisting o single tone or series of variable tones, a presentation the upcoming program schedule, aural news broadcasts music.

4. Section 73.663 is proposed to be amended by revi paragraph (b)(3) to read as follows:

§ 73. 663 Determining operating power.

[2] "Integrated sound" pertains to the simultaneous transmission of video and aural signals representing a displayed scene and its related sound.

[3] *See* §73.653, and *Report & Order*, BC Docket No. 80-10, 45 FR 63857, September 26, 1980, concerning *Operation of Visual and Aural Transmitters of TV Stations*.

[4] The "direct method" of power determination for a television visual transmitter involves the measurement of power by direct measurement of the RF (radio frequency) output terminals of the transmitter.

[5] The Commission deleted a similar mandatory 6-month equipment calibration requirement from the FM broadcasting rules for similar reasons. *See Report and Order*, BC Docket No. 82-537, 48 FR 38473, August 24, 1983, concerning *Operating and maintenance logs for broadcast and broadcast auxiliary stations*.

[6] The "color burst" is a short series of 8 to 11 cycles of the color subcarrier frequency (3.576545 MHz). For color TV transmission, it is superimposed on a portion of each horizontal blanking signal. It is used to synchronize the receiver's color subcarrier oscillator with that of the transmitter so that the colors will be properly decoded by the receiver.

[7] See Omission of the color burst, *Memorandum Opinion and Order*, 58 FCC 2d 385, adopted March 9, 1976. The Commission stated in paragraph 4, ". By its terms, Section 73.699, Figure 6, Note 8, requires that the color burst be omitted when any monochrome program material is broadcast. Because some receivers are slow to 'lock in' when the color burst is restored following a monochrome transmission, it is the Commission's policy that the color subcarrier need not be deleted during transmission of limited monochrome segments within a program which is fundamentally designed and intended to be broadcast in color. In no event should the color burst be transmitted during a program which is basically monochrome, such as a full length black and white motion picture, except during the actual time when it is desired to transmit local inserts, station identifications, or commercials in color."

[8] On August 31, 1987, the Commission received a request by the Public Broadcasting Service (PBS) and the National Association of Public Television Stations (NAPTS) for a blanket waiver of the rules requiring omission of the color burst reference signal during monochrome television transmissions for all noncommercial educational stations. PBS/NAPTS further suggested that the Commission may wish to consider whether this requirement should be applied to any broadcaster, and consider issuing a declaratory order that eliminates the requirement for all broadcasters. Thus, in lieu of granting a blanket waiver as requested by PBS/NAPTS or issuing a declaratory order, we will address their concerns in this proceeding, thereby rendering their request moot.

[9] See Report And Order, Rules Governing Color Television Transmission, in Docket No. 10637, 18 FR 8649, December 23, 1953.

[10] The Electronic Industries Association (EIA) also has informally reported that, generally, receiver manufacturers prefer that the color burst omission requirement remain in the rules because it is an interoperability standard. That is, it is a standard to which manufacturers can design and build universal domestic receivers. They indicate that color receivers are not necessarily designed to be immune to monochrome picture degradation if the color burst signal is not omitted or at least significantly suppressed. On the other hand, the EIA and Association of Maximum Service Telecasters, Inc. (MST) have informally reported that broadcasters generally prefer the option of not omitting the color burst signal.

[11] For example, Television Engineering Handbook by K.B. Benson, 1985, states that "Most receivers . . . cut off the chroma channel transmission when the received burst level goes below approximately 5 to 7 percent." This may suggest that a suppression of the color burst to a level of approximately 6 percent of its signal may accomplish what a signal omission would. We solicit comments on the appropriateness of suppression to 6 percent of the level of the color burst signal during monchrome transmissions. Comments are also requested as to whether such suppression would be sufficient to accommodate the signalling function of the video tape processing equipment discussed in paragraph 9.

[12] See A Re-examination of Technical Regulations, *supra*. While the Rules have generally regulated the technical quality of the broadcast transmission signal, the Commission noted in that proceeding that it had never regulated the technical quality of the broadcast program signal. The Commission further recognized that the competition among broadcasters and certain other service providers was sufficient to regulate picture and sound quality. It noted that competitive market forces would create incentives for television stations to produce pictures and sound of a technical quality acceptable to viewers. The fear of losing audience to other stations would create strong incentives for stations to maintain the technical quality of their sound and video in the absence of any government regulation.

[13] We also seek comments as to what percentage of television receivers fall in the "older set" category and what percentage of the audience is located in areas with marginal reception. However, as suggested above, if the received picture signal is degraded as a result of continued color burst signal during the transmission of black and white programming, it should be reported to, and resolved by the particular broadcast station transmitting that signal, without Commission intervention.

[14] Radio wave signal reflections in television systems can cause ghost images (picture degradation) on the receiver screen. See Engineering Standards concerning Television Broadcast Service, Sixth Report and Order in Docket No. 9175, 17 FR 3905, May 2, 1952 and Expanded Use of UHF Television channels, Second Report and Order in Docket No. 14229, 28 FR 3394, April 5, 1963.

[15] While proposing to delete the maximum-to-minimum antenna radiation restrictions, we also seek comments as to whether these restrictions should be relaxed rather than eliminated. If so, we seek further comments as to what level of radiation suppression should be permitted.

[16] See Reports and Order in MM Docket Numbers 85-125, and 85-325, *supra* note 1.

[17] These functions may be performed more appropriately by the Department of Labor's Occupational Safety and Health Administration (OSHA) or by local agencies. For instance, OSHA safety standards for high voltage equipment are detailed in Title 29, Part 1910 of the Code of Federal Regulations.

[18] Section 73.208(c)(1) refers to Table I of 73.698 for calculating FM assignment distance separations. For the same reasons as given above, the conversion data in Table I is not needed for FM assignment distance calculations. Consequently, we also propose that the reference in Section 73.208(c)(1) to Table I in 73.698 be deleted.

SEPARATE STATEMENT OF COMMISSIONER PATRICIA DIAZ DENNIS

In Re: Review of Technical and Operational Regulations of Part 73, Subpart E, Television Broadcast Stations

The proposal to eliminate rules (Sections 73.687(d), (e), (f) and (h)) related to safety procedures and requirements for constructing and installing transmission systems and studio equipment troubles me. The commenters should focus upon the extent to which other agency regulations, state or federal, actually address the safety concerns our rules currently contemplate. Are these rules, in fact, "redundant" as the Notice of Proposed Rulemaking states, or do they provide necessary, additional safety guidelines? If these rules are outdated because they were written "years ago",[1] should we update them rather than totally eliminate them?

FOOTNOTE FOR STATEMENT

[1] *Notice of Proposed Rulemaking* at paragraph 14.

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

MM Docket No. 86-144

In the Matter of

Review of Technical Parameters
for FM Allocation Rules of Part 73,
Subpart B, FM Broadcast Stations

THIRD REPORT AND ORDER
(Proceeding Terminated)

Adopted: February 15, 1989; Released: April 10, 1989

By the Commission: Commissioner Quello dissenting and issuing a statement; Commissioner Dennis issuing a separate statement at a later date.

INTRODUCTION

1. The Commission has under consideration the last of a number of proposed FM Broadcast technical rule revisions that became necessary as a result of the creation of three new station classes in BC Docket 80-90. This *Third Report and Order (Third Report)* amends Part 73 of the Commission's Rules to provide a uniform level of protection for FM receivers from intermediate frequency (IF) interference.[1] Specifically, we are adjusting the minimum distance separation requirements for **IF-related FM stations**[2] to **prevent overlap** of their **predicted 36 mV/m median field strength contours, regardless of the classes of the two stations.** Also, we are adding a new minimum distance separation requirement applicable only to FM **Channel 253 (98.5 MHz) and TV Channel 6,** based on this same protection criterion.[3] We believe that these requirements constitute a reasonable standard that will preclude only those channel allocations and station assignments likely to result in IF interference.

BACKGROUND

2. The Commission initiated this proceeding in 1986 by adopting a *Notice of Proposed Rule Making (Notice)*[4] proposing to refine certain rules that were affected by its previous action in BC Docket No. 80-90,[5] but were not given detailed consideration in that proceeding.[6] In 1987, we adopted a *First Report and Order*[7] resolving two of the issues raised in the *Notice*. The five remaining proposals were addressed in a *Second Report and Order*.[8] Four of these were resolved in the *Second Report*, but action on the fifth, concerning IF distance separation requirements for the newly created station classes, was deferred pending procurement of additional information necessary to assist us in making a decision.

3. IF distance separation requirements are contained in Section 73.207 of the Commission's Rules. This section specifies, by station class, the minimum distance that each FM station must be spaced from other FM stations [illegible] operate on frequencies separated by 10.6 or 10.8 MHz [illegible] or 54 channels apart). The required spacings are int[illegible] to reduce the likelihood of IF interference ocurri[illegible] broadcast FM receivers that employ 10.7 MHz as [illegible] first IF.[9] Requiring such stations to be located at le[illegible] far apart as the specified distances limits the geogra[illegible] area within which a receiver would be likely to enc[illegible] two relatively strong FM broadcast signals from IF-re[illegible] stations. The current spacings specified for Classes A[illegible] and C (the original classes) were intended to avoid[illegible] overlap of 20 mV/m field strength contours.[10] Howev[illegible] we recognized in the *Notice*, the specified distance[illegible] insufficient to prevent such overlap. Nevertheless, [illegible] dence of IF interference is limited to allegations ma[illegible] several parties to this proceeding, which is contradicte[illegible] the experiences of others. We are not aware of comp[illegible] by the public or broadcasters which can be attribute[illegible] IF interference. This suggests that the existing [illegible] spacings are adequate.

4. In BC Docket 80-90, the Commission simply [illegible] the existing IF distance separation requirements for [illegible] large Class B and C stations and applied them to the [illegible] intermediate size classes B1, C2, and C1. Consequen[illegible] stations in these new classes must currently meet the [illegible] requirements as the largest stations, even though [illegible] generally operate with lower ERP and HAAT. For [illegible] new classes, it seems that some reduction in IF spacing[illegible] appropriate. Therefore, in the *Notice* we proposed to [illegible] duce the spacings for the new classes to those necessary [illegible] prevent the overlap of the 30 mV/m field strength [illegible] tours.[11] We based this proposal on the current rules [illegible] the old classes, which prevent the overlap of field stre[illegible] contours varying approximately from 24 mV/m to [illegible] mV/m (30 being halfway between 24 and 36). Our [illegible] pose in proposing the reduced spacings for Class B1, [illegible] and C2 stations was simply to adjust the rules to pro[illegible] approximately the same protection for these new class[illegible] has existed for Class A, B and C stations since 1965.

5. However, in the *Second Report*, we found the rec[illegible] developed in response to the *Notice* with regard to t[illegible] issue of IF spacings to be inconclusive. Several of [illegible] commenters had indicated that there is no interfere[illegible] problem and that IF spacing requirements should be [illegible] ished or relaxed for all of the station classes, new and e[illegible] Others stated that IF interference is a serious problem [illegible] that we should not change any of these requirement[illegible] **Although IF interference results primarily from recei[illegible] inadequacies, we had received no comments or infor[illegible] tion from receiver manufacturers or trade organizati[illegible] representing receiver manufacturers.** Additionally, [illegible] laboratory was then in the process of evaluating IF int[illegible] ference susceptibility in various categories of consu[illegible] FM broadcast receivers, and had not yet reported i[illegible] findings.

6. Considering these factors, we concluded in the S[illegible] *ond Report* that adoption at that time of minimum d[illegible] tance separation requirements based on the 30 mV[illegible] protection level would have been premature. However, [illegible] stated our belief that we should not indefinitely hold [illegible] new station classes to a stricter standard than the one th[illegible] has produced no public complaints over a period of [illegible] years. We also stated that a more complete record m[illegible] enable us to determine an appropriate standard that co[illegible]

[illegible] used to develop minimum distance separation require[illegible] for all of the various class relationships, providing [illegible] consistent level of protection.

7. Thus, in March of 1988, we issued a *Further Notice of [illegible] Rule Making (Further Notice)*[12] with the goal of [illegible] developing a more comprehensive record concerning the [illegible] issue. The *Further Notice* also expanded the scope of [illegible] proposal to include consideration of existing IF dis[illegible] separation requirements applicable to the pre-BC [illegible] 80-90 FM station classes (A, B and C) and possi[illegible] apply IF minimum distance separation requirements [illegible] applicable to TV Channel 6 allotments and assignments in [illegible] vicinity of FM Channel 253 allotments and assign[illegible] (and vice versa).

8. In the *Further Notice* we proposed IF minimum [illegible] distance separation requirements for all FM station classes [illegible] for TV Channel 6 and FM Channel 253 stations [illegible] on a uniform protection level of 36 mV/m. Noting [illegible] the available test reports and the existing record in [illegible] proceeding did not support the choice of any particu[illegible] protection level, we selected 36 mV/m because it is the [illegible] restrictive level with which we have satisfactory long[illegible] operating experience. We invited interested parties, [illegible] particularly receiver manufacturers or organizations re[illegible] senting receiver manufacturers, to submit further data [illegible] test results that support or oppose on technical [illegible] grounds our choice of 36 mV/m, or to suggest an alter[illegible] protection level.

9. The comment period for the *Further Notice* was [illegible] extended (pursuant to requests filed by interested par[illegible])[13] to provide sufficient time for commenters to exam[illegible] the technical data in a report prepared by our [illegible] laboratory (OET Report) on the susceptibility of commer[illegible] FM receivers to IF interference.[14] The period for [illegible] reply comments was also extended in order to permit a [illegible] complete and full record to be developed.[15]

COMMENTS

10. Fourteen parties filed formal comments in response [illegible] the *Further Notice* and five submitted replies to these [illegible] initial comments.[16] The majority of the commenters sup[illegible] our proposal generally, but several oppose it or [illegible] suggest modifications. Three commenters, Educational [illegible] Associates (EdFM), Edens Broadcasting, Inc. (Edens) [illegible] WEDR, Inc. (WEDR) suggest that the Commission [illegible] abandon IF distance separation requirements in favor of a [illegible] case or rule waiver policy allowing station locations that [illegible] would not cause overlap of the predicted median 36 mV/m [illegible] contours of IF-related stations, taking into account aver[illegible] terrain and directional antenna characteristics. Doing [illegible] so, they claim, would provide greater site location flexibil[illegible], particularly for non-commercial educational stations [illegible] which EdFM alleges do not usually operate at the com[illegible] mercial class maximums. Chapman S. Root Revocable [illegible] Trust (Root) filed a reply opposing Edens' comments. [illegible] Root argues that IF minimum distance separation require[illegible] ments should be strictly adhered to rather than using a [illegible] contour overlap method.

11. Key Broadcasting, Inc. (Key), although supporting [illegible] the Commission's proposal, suggests that it does not go far [illegible] enough. Key states that it has operated a Baltimore, Mary[illegible] land station (WQSR) short-spaced to an IF-related station [illegible] for many years and has never received a complaint attrib[illegible]table to IF interference. Key believes that IF distance [illegible] separation requirements should be abolished entirely, but that if the Commission retains them, the protecti[illegible] should be no more restrictive than 40 mV/m.[17] C. Cutforth, P.E. (Cutforth), a consulting engin[illegible] the Association of Federal Communications Co[illegible] Engineers (AFCCE) both support the concept o[illegible] form protection level for all station class relati[illegible] These commenters believe that the level propo[illegible] mV/m, seems about right, however, AFCCE sta[illegible] additional laboratory testing should be conducted [illegible] to verify this.

12. Greater Media, Inc. (Greater Media) oppo[illegible] change in the current IF rule on the grounds [illegible] would cause "new IF interference to millions of [illegible] currently in use and likely to remain in use fo[illegible] many years." To support this contention, Greate[illegible] supplied a statement by it's Vice President of Ra[illegible] gineering, Mr. Milford K. Smith, Jr., which rel[illegible] experiences with IF interference while serving [illegible] Engineer (1967-1970) of [illegible]MP-FM, Northampto[illegible] sachusetts. Mr. Smith recalls receiving [illegible] of IF interference during that time, resulting fr[illegible] operation of a nearby IF-related station, WFC[illegible] Smith further states that he returned to the area [illegible] 8, 1988 with ten consumer grade FM receivers [illegible] that he feels are likely to be used by the general [illegible] At eight locations, Mr. Smith measured and recor[illegible] field strengths of the two aforementioned IF-rela[illegible] tions and noted, for each of the receivers, whether [illegible] interference was experienced. Because abou[illegible] [illegible]ge, Mr. Smi[illegible] cludes that IF interference continues to be a probl[illegible] that the Commission would therefore be ill adv[illegible] change the current IF distance separation requir[illegible] Key, in reply, asserts that the Greater Media (Smith[illegible] is flawed because, among other things, the measu[illegible] nal strengths from the two stations were not e[illegible] nearly equal at the locations where the trials we[illegible] ducted, suggesting that the interference reported by[illegible] was not IF interference, but interference of some[illegible] type.

13. The Association for Broadcast Engineering [illegible] dards (ABES) and Greater Media believe that th[illegible] Study underestimates the IF interference susceptib[illegible] FM receivers typically used by consumers, and th[illegible] should not serve as a basis for the proposed 36 [illegible] protection level. ABES also submitted an engi[illegible] statement that contains histograms showing the nun[illegible] IF-related licensed FM station pairs as a function o[illegible] ration distance. ABES notes that, according to thi[illegible] there are relatively few IF-related pairs separated [illegible] tances near the current minimums. From this [illegible] cludes that there is little benefit (in terms of site l[illegible] flexibility) to be realized if the Commission's pu[illegible] were to be adopted. The ABES engineering sta[illegible] postulates that the current disparity in protection [illegible] between the various class combinations is a result o[illegible] rounding of the originally calculated distance[illegible] changes in the class maximum facilities over the int[illegible] ing two decades.

14. The National Association of Broadcasters [illegible] recommends that the Commission "go slow" in adj[illegible] the IF distance separation requirements. NAB state[illegible] the problem of IF interference rests in "current re[illegible] design practice," and that "the receiver industry sho[illegible] allowed time to embark upon a standardization pr[illegible] the outcome of which would determine the proc[illegible]

level to be used.[18] NAB claims that no specific protection level is likely to protect all receivers currently in use, and urges the Commission to retain the current IF spacing requirements pending receiver industry efforts to establish standards that would allow determination of an appropriate protection level.

15. The Electronics Industries Association/Consumer Electronics Group (EIA/CEG) in its comments supplied manufacturers' test data for FM receivers described as "small inexpensive receivers without an antenna connection." This data, according to EIA/CEG, shows that receivers of this type would be "severly penalized" if the Commission's proposal were implemented. EIA/CEG states that there is a technical basis for the disparate protection levels, but does not explain this contention. EIA/CEG recommends that the Commission retain the current IF distance separation requirements.

16. The matter of IF interference resulting from proximity of an FM Channel 253 station and a TV Channel 6 station was addressed in five comments and two replies. 222 Corporation (222), licensee of FM station [redacted] in **Laplace, Louisiana**, reports that it has experienced interference problems within its service area for years as a result of the assignment of both a TV 6 and FM 253 in the New Orleans area. 222 suggests that the Commission solve this particular situation by moving the FM station to a different channel. EIA/CEG comments that its manufacturers have reported no interference to TV 6 reception caused by FM 253 operations.[19] NAB supports the proposed TV 6-FM 253 requirement but suggests a tighter standard -- preventing overlap of the 30 mV/m contours -- until the receiver industry develops its standard. ABES recommends that the Commission study the matter further before taking action. AFCCE states that there is no documented need for the proposed TV 6-FM 253 requirement. The Association of Maximum Service Telecasters (MSTV), in reply, comments that although the TV 6-FM 253 proposal is a "welcome demonstration of Commission concern over maintaining the quality of over-the-air broadcast services", it believes that the record does not show a need for the proposed requirement.

DISCUSSION

17. Currently, our rules and policies with regard to FM IF interference result in arbitrarily varying levels of protection and thus are technically inconsistent. As noted earlier, **the minimum spacings now required in Section 73.207 of our rules for IF-related stations provide different protection levels for various FM station class combinations.**[20] **The distances for Classes B1 and C1 were not** based on any calculated standard but were simply taken from the next larger classes (Class B and C, respectively) as a temporary measure in BC Docket 80-90. Licensees of grandfathered short-spaced stations and other applicants requesting a waiver of the IF distance separation requirements currently must show, among other things, that a proposed modification would not cause the overlap of the 20 mV/m predicted median field strength contours of IF-related stations. Finally, **there are currently no requirements at all for the TV Channel 6-FM Channel 253 IF relationship, which presents at least as much potential for IF interference as do the pure FM requirements.**

18. We stated in the *Further Notice* that there is no technical justification for the disparate treatment of these similar situations. We have seen nothing in the record in this proceeding to persuade us otherwise. An FM receiver does not need more protection from two IF-related Class B1 stations than from two IF-related Class A stations. Nor does this same receiver need less protection from TV 6-Channel 253 IF interference than it does from two IF-related Class C1 stations. We believe that it is good public policy for our technical allotment and assignment requirements to be based upon reasonably derived and consistently applied technical standards. As some commenters mentioned, we may consider waivers of our technical rules in cases wherein special unique or unusual circumstances may so dictate, however, even in these cases we believe that a clear understanding by all parties of the technical principles underlying the rule for which the waiver is sought is essential to the proper disposition of such requests.[21] In view of the foregoing, we conclude that *one specific protection level for IF interference should be selected and applied uniformly*.

19. In the *Further Notice*, we requested data or test results, particularly from receiver manufacturers or organizations representing them, that would quantitatively support or oppose our choice of a uniform 36 mV/m protection level, or would suggest an alternative level. EIA/CEG did submit some data bearing on this matter, **but we received no separate comments from receiver manufacturers**. In spite of the helpful reports submitted by Greater Media, 222, ABES and others, the record still does not point to any one particular protection level as an optimum choice.

20. A few of the commenters made considerable effort to interpret the OET Report in various, sometimes contradictory, ways. Others challenged or criticized its methodology or conclusions. Boiled down to its essentials, however, the OET Report says only that given two undesired IF-related FM signals of a given equal strength, the "average" commercial FM receiver[22] will provide satisfactory reception (free of objectionable IF interference) of a desired signal only if that desired signal has a certain minimum strength. Expressed another way, if the desired signal is strong enough, it can override the interference.[23] Converting the signal levels from dBm at the antenna terminals of the "average" receiver to corresponding field strength values in mV/m (which involves certain assumptions about the antenna that would be used), the approximate quantitative results are as follows:

Undesired Strength (Protection level)	Minimum necessary desired signal strength for satisfactory reception
36 mV/m	3 to 25 mV/m depending on frequency
20 mV/m	1 to 8 mV/m depending on frequency

21. Obviously, there is a trade-off between protection level (risk of interference) and site flexibility. That is, a lower level of protection permits shorter separation distances, which in turn allow a greater number of potential transmitter sites. Greater Media states in its comments that such a trade-off "should never favor the latter policy consideration unless it can be proven that restrictions on licensees have in fact substantially reduced opportunities for service to the public." ABES in its comments states that the vast majority of FM stations are now separated from IF-related stations by much more than the current minimum distance separation requirements, and therefore the benefits to be gained, in terms of site flexibility, are limited.[24]

22. We believe, however, that licensees of certain classes of FM stations should not be unnecessarily constrained by an inconsistent technical standard, while others, operating under a less restrictive standard, do not appear to have experienced any significant problems over the years. Class A stations are the most numerous and therefore most likely to be involved in an IF situation. Class C stations are the most powerful and thus are the stations that would cause the largest overlap area. Yet the current IF distance separation requirements for both the Class A to A and Class C to C combinations produce a protection level of 36 mV/m. No commenter suggested tightening the requirements for these station combinations. Furthermore, we find no justification in the record for setting or maintaining a more restrictive protection level for the other station class combinations.

23. In summary, because we consider it important that our assignment rules have a consistent technical foundation, we believe that our IF separation requirements should be based on a uniform protection level. In view of years of actual operation by some classes of FM stations under requirements resulting in a protection level of 36 mV/m, we believe that this level is sufficient to protect FM broadcast receivers currently in use. We encourage receiver manufacturers to attempt to design receivers that are immune to IF interference, as the record indicates this can be done without making such receivers significantly more expensive. We reject the contention of Greater Media and others that increased interference will result from this minor revision of our rules. Although NAB and EIA/CEG recommend that we retain the current distances, we see no public benefit to retaining the technically inconsistent distances. Accordingly, we are revising the required minimum FM IF spacings as we proposed in the *Further Notice*. Furthermore, because the aural transmitter of a TV station operating on Channel 6 is similar to an FM station with regard to potential for IF interference, we are adding a new requirement to address this interference potential.[25]

24. Some of the commenters suggested that we abandon distance separation requirements in favor of a prohibition on overlap of the predicted median field strength contours at the selected protection level. This approach could be useful in short-spaced cases, where the intent is to provide the required protection by using a directional antenna.[26] In fact, it is our long-standing policy to use contour overlap procedure in cases involving IF-related stations that are already short-spaced. However, we believe we should not expand on this policy at this time, since we did not contemplate doing so in the *Further Notice*.

25. In view of our recent proposal to increase the maximum permitted effective radiated power of Class A FM stations[27], licensees of these stations should be aware that, although we are not herein increasing the minimum IF distance separation requirements for Class A stations, we will do so in order to maintain the 36 mV/m protection level if the proposed power increase is ultimately adopted.

26. An analysis of our FM licensing records reveals that there are currently 22 pairs of IF-related licensed FM stations that are short-spaced under the current rule. Under the revised rule, 12 of these 22 station pairs will no longer be short-spaced, and will be subject to applicable IF distance separation requirements. The remaining short-spaced stations may continue to operate as authorized, however, applications to modify these stations that increase the area of overlap of the station's median field strength contours will not be accepted.

27. A similar analysis using both the TV and engineering databases reveals 7 locations where Channel 6 and and FM Channel 253 are short-spaced under the new requirement. (*See* Appendix B.) These may continue to operate as authorized, however applications to modify these stations in ways that increase the area of overlap of the FM station's 36 mV/m and strength contour and the 36 mV/m contour of the station's aural transmitter will not be accepted.

CONCLUSION

28. Some of the comments in this proceeding expressed a concern that the Commission has embraced a policy generally promoting toleration of increased IF interference in the FM service simply to increase the number of FM stations, and that these FM IF spacing requirements are merely part of that philosophy. This is not the case. Although we do seek to remove unnecessary regulatory barriers that stand in the way of opportunities for the expanded service to the public, we remain committed to preserving or improving the quality of all of the existing services.

29. In this *Third Report and Order*, we are establishing a uniform protection level to serve as a basis for IF separation requirements, adjusting some of the separation requirements to meet the uniform protection level, establishing a new requirement to address a previously unidentified potential source of IF interference. The uniform protection level is not an untried standard, but rather it is one that has been in use for some FM classes for many years without significant problems. The expansion to include the other classes of FM stations will result in more reasonable and consistent treatment of FM station applications, with no significant likelihood of additional interference.

30. We have previously determined that Section 604 of the Regulatory Flexibility Act of 1980 (Pub. L. 96-354) does not apply to this rule making proceeding because it will not have a significant economic impact on a substantial number of small entities.

31. The actions contained herein have been analyzed with respect to the Paperwork Reduction Act of 1980 and found to contain no new or modified form, information collection and/or record keeping, labeling, disclosure, or record retention requirements, and they will not increase or decrease burden hours imposed on the public.

ORDERING CLAUSES

32. Authority for the action taken herein is contained in Sections 4(i), 303(f) and 303(r) of the Communications Act of 1934, as amended.

33. Accordingly, IT IS ORDERED That Part 73 of the Commission's Rules and Regulations ARE AMENDED effective **May 17, 1989,** as set forth in Appendix A. IT IS FURTHER ORDERED That this proceeding is TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX A

47 CFR Part 73 is amended as follows:

1. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154 and 303.

2. 47 CFR 73.207 is amended by revising TABLE A in paragraph (b)(1), and by adding a new paragraph (c). In TABLE A, the first three columns, entitled "Co-channel", "200 kHz", and "400/600 kHz" remain unchanged. The fourth column, entitled "10.6/10.8 MHz", is revised to read as follows:

§ 73.207 Minimum distance separation between stations.

* * * * *

(b) * * *

(1) * * *

TABLE A - MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS (MILES)

Relation	Co-channel	200 kHz	400/600 kHz	10.6/10.8 MHz
A to A	* * *	* * *	* * *	8 (5)
A to B1	* * *	* * *	* * *	11 (6)
A to B	* * *	* * *	* * *	14 (9)
A to C2	* * *	* * *	* * *	14 (9)
A to C1	* * *	* * *	* * *	21 (13)
A to C	* * *	* * *	* * *	28 (17)
B1 to B1	* * *	* * *	* * *	14 (9)
B1 to B	* * *	* * *	* * *	17 (11)
B1 to C2	* * *	* * *	* * *	17 (11)
B1 to C1	* * *	* * *	* * *	24 (15)
B1 to C	* * *	* * *	* * *	31 (19)
B to B	* * *	* * *	* * *	20 (12)
B to C2	* * *	* * *	* * *	20 (12)
B to C1	* * *	* * *	* * *	27 (17)
B to C	* * *	* * *	* * *	35 (22)
C2 to C2	* * *	* * *	* * *	20 (12)
C2 to C1	* * *	* * *	* * *	27 (17)
C2 to C	* * *	* * *	* * *	35 (22)
C1 to C1	* * *	* * *	* * *	34 (21)
C1 to C	* * *	* * *	* * *	41 (25)
C to C	* * *	* * *	* * *	48 (30)

* * * * *

(c) The distances listed below apply only to allotments and assignments on Channel 253 (98.5 MHz). The Commission will not accept petitions to amend the Table of Allotments, applications for new stations, or applications to change the channel or location of existing assignments where the following minimum distances (between transmitter sites, in kilometers) from any TV Channel 6 allotment or assignment are not met:

MINIMUM DISTANCE SEPARATION FROM TV CHANNEL 6 (82-88 MHz)

FM Class	TV Zone I	TV Zones II & III
A	16	20
B1	19	23
B	22	26
C2	22	26
C1	29	33
C	36	41

3. 47 CFR 73.213 is amended by redesignating the existing text as paragraph (a) and adding a new paragraph (b) to read as follows:

§ 73.213 Grandfathered short-spaced stations.

* * * * *

(b) Stations at locations authorized prior to [insert date 30 days after date of publication in the Federal Register] that did not meet the IF separation distances required by §73.207 and have remained short-spaced since that time may be modified or relocated provided that the overlap area of the two stations' 36 mV/m field strength contours is not increased.

4. 47 CFR 73.610 is amended by adding a new paragraph (f) to read as follows:

§ 73.610 Minimum distance separations between stations.

* * * * *

(f) The distances listed below apply only to allotments and assignments on Channel 6 (82-88 MHz). The Commission will not accept petitions to amend the Table of Allotments, applications for new stations, or applications to change the channel or location of existing assignments where the following minimum distances (between transmitter sites, in kilometers) from any FM Channel 253 allotment or assignment are not met:

MINIMUM DISTANCE SEPARATION FROM FM CHANNEL 253 (98.5 MHz)

FM Class	TV Zone I	TV Zones II & III
A	16	20
B1	19	23
B	22	26
C2	22	26
C1	29	33
C	36	41

APPENDIX B

CHANNEL 6 TV STATIONS AND CHANNEL 253 FM STATIONS LICENSED IN THE SAME AREA

KRMA-TV	Denver, Colorado
KYGO-FM	Denver, Colorado
WDSU-TV	New Orleans, Louisiana
WYLD-FM	New Orleans, Louisiana
WOWT	Omaha, Nebraska
KQKQ-FM	Council Bluffs, Iowa
KOTV	Tulsa, Oklahoma
KVOO-FM	Tulsa, Oklahoma
KOIN-TV	Portland, Oregon
KUPL-FM	Portland, Oregon
WIPR-TV	San Juan, Puerto Rico
WPRM-FM	San Juan, Puerto Rico
KFDM-TV	Beaumont, Texas
KHYS	Port Arthur, Texas

APPENDIX C

In response to the *Further Notice of Proposed Rule Making* in MM Docket 86-144, comments were filed by:

Department of Aeronautics, State of Nebraska

Timothy C. Cutforth, P.E.

Educational FM Associates

Key Broadcasting Corporation

WEDR, Inc.

Peter and John Radio Fellowship, Inc. (withdrawn)

Association for Broadcast Engineering Standards, Inc.

Edens Broadcasting, Inc.

Greater Media, Inc.

National Association of Broadcasters

Consumer Electronics Group/Electronic Industries Association

Association of Federal Communications Consulting Engineers

222 Corporation

Bromo Communications, Inc.

Replies were filed by:

Association of Maximum Service Telecasters

Chapman S. Root Revocable Trust

Greater Media, Inc.

Key Broadcasting Corporation

Peter and John Radio Fellowship, Inc. (withdrawn)

FOOTNOTES

[1] IF interference to FM broadcast receivers caus background noise which degrades reception of a de In more severe cases, it is characterized by recep audio, often distorted, of one or both of two station of the position of the receiver's tuner dial. Thu occurs, this phenomenon can prevent reception by receiver of most or all of the FM stations in the area.

[2] Two FM stations are considered to be IF-related assigned frequencies are separated by 10.6 or 10.8 MH channels).

[3] The **aural carrier** (at 87.75 MHz) from a TV **Channel 6 is IF-related to FM channel 253 (98.5 MHz**

[4] *See Notice of Proposed Rule Making* in MM Doc 104 FCC 2d 160 (1986), 51 Fed. Reg. 15927, publishe 1986.

[5] *See Report and Order*, 94 FCC 2d 152 (1983); *rec in part and denied in part*, 97 FCC 2d 279 (1984).

[6] In BC Docket 80-90, the Commission amended expand FM service to the public by **[illegible] the station classes** thereby providing new opportunitie tional stations and upgrading of existing stations. Th sion now authorizes six classes of commercial FM stations: A, B1, B, C2, C1, and C. Three of these clas **and C1, were created in BC Docket 80-90.** At that ti existing rules were modified merely to accomodat classes. In general, the approach was to apply existi new Classes B1 and C2 as if they were Class B, and treat new Class C1 as though it was Class C. The C indicated that these rules could be refined later, ba record addressing them in greater detail.

[7] *See First Report and Order* in MM Docket 86-144, 660 (1987), 52 Fed. Reg. 8259, published March 17, Commission amended the rules to permit any class o be allotted on 20 channels which were previously re Class A operation. Also, the Commission declined to rule which provides for the classification of station based on transmitter location rather than the locat community of license.

[8] *See Second Report and Order* in MM Docket 86- Rcd 5693 (1987), *recon. granted in part and denied in p* Rcd 2477 (1988). The Commission (1) adopted a speci for classifying FM stations according to their effective ting power and antenna height, (2) modified the requ dures for predicting FM station coverage to a beam-tilt transmitting antennas, (3) modified the for for calculating the distance between FM stations to i accuracy, and (4) restricted modifications to gra short-spaced stations to those which will not increase tial for interference.

[9] Most consumer FM broadcast receivers use 10.7 MH first IF.

[10] *See Report and Order* in Docket No. 15934, FCC Fed. Reg. 8680, July 9, 1965, 5 RR 2d 1679 (adopted 1965).

[11] For the sake of brevity, the Commission refe document to the criterion of preventing overlap of contours of IF-related stations as a particular "protecti For example, preventing overlap of two stations' 30 m tours is referred to as a "30 mV/m protection level."

[12] *See Further Notice of Proposed Rule Making* in M 86-144, 3 FCC Rcd 1661 (1988).

[13] *See Order Granting Motion for Extension of Time Comments*, DA 88-704, 3 FCC Rcd 2818 (1988).

[14] *See* **"Laboratory Test Results of the FM-IF Interference in Broadcast Receivers, Project EEB-86-8", OET Technical Memorandum, FCC/OET TM87-4, June 1987, prepared by J. Ray Hallman and Kenneth R. Nichols.**

[15] *See Order Granting Request for Extension of Time to File Reply Comments*, DA 88-1184, 3 FCC Rcd 4773 (1988).

[16] A list of the parties filing comments and replies is attached as Appendix C.

[17] When viewed in the context of protection levels, higher signal strengths correspond to less protection from interference but greater site flexibility. This is because the higher signal strengths are found closer to the transmitting site, therefore the required separation distances can be shorter.

[18] NAB indicates that the National Radio Systems Committee (NRSC) is currently forming a subgroup to consider and make recommendations on issues such as the IF susceptibility of receivers.

[19] IF interference that is the subject of this proceeding is interference to FM receivers only. Channel 253 FM stations do not cause IF interference to television reception.

[20] The following are examples of the protection levels that result if maximum facility IF-related FM stations are located at the current minimum spacings contained in §73.207:

CLASS RELATIONSHIP	PROTECTION LEVEL
A to A	35.6 mV/m
B1 to B1	11.5 mV/m
B to B	24.6 mV/m
C1 to C1	17.5 mV/m
C to C	36.7 mV/m

[21] Notwithstanding our use, in this proceeding, of contour overlap calculations to define protection levels, meeting or exceeding the required separation distances continues to constitute the only measure of compliance with §73.207. Applicants seeking a waiver of §73.207 are advised that alleged discrepancies between the separation distances in the revised rule and the contour overlap calculations presumed to underlie them, do not in themselves constitute sufficient grounds for such a waiver. Other factors germane to each individual case (*e.g.*, lack of an alternative antenna site) must be considered when such waiver requests are evaluated.

[22] By average performance with 90% confidence, the OET Report means that if a receiver is selected at random from the universe of all FM receivers, one can be 90% sure that it will perform at least as well as the data indicates.

[23] This information is expressed graphically as Figure 5 in the OET Report. Note however that the lines drawn between the points probably do not express the true curve of the susceptibility characteristic of the "average" receiver because measurements were made at only four "desired" frequencies.

[24] If few FM stations have chosen locations where the IF minimum distance separation requirements are an important factor, there is no reason to expect many to decide to do so in the future simply because the Commission revises §73.207. Furthermore, assuming that only a few stations relocate as a result of our application of a uniform standard, the already unlikely possibility of IF interference occuring as a result of such relocations is even less probable.

[25] The new and revised distances are calculated to prevent overlap of the predicted median 36 mV/m contours, based upon the FM F(50,50) field strength curves (*see* §73.333, Figure 1) and assuming the use of maximum facilities by both stations. Consistent with the practice employed for the other minimum distance separation requirements in §73.207, all distances are rounded to the nearest kilometer.

[26] *See Report and Order* in MM Docket 87-121, FCC 88-40, adopted December 12, 1988. The Commission adopted rules to permit applicants for commercial FM broadcast stations to request authorization of antenna sites that are nominally short-spaced to other co-channel and first, second, and third adjacent channel facilities, provided that the service of these other facilities is protected in accordance with well established criteria. However, those rules do not allow short-spacing for IF-related stations. The Commission indicated that the technical matters underlying IF distance separation requirements are different from those considered in MM Docket 87-121, in that reception of signals from other nearby FM stations (as well as the two IF-related stations) may be affected. *See also* footnote 21, *supra*.

[27] *See Notice of Proposed Rule Making* in MM Docket 88-375, FCC 88-251, released September 12, 1988.

DISSENTING STATEMENT OF COMMISSIONER JAMES H. QUELLO

In re: Review of Technical Parameters for FM Allocation Rules of Part 73, Subpart B, FM Broadcast Stations (Minimum Distance Separations for IF Related Stations)

I dissent of the majority's adopting a uniform IF interference standard. The record does *not* demonstrate that the 36 mV/m standard is sufficient to prevent additional interference in the FM band. On the contrary, data in the record compel a more cautious approach. The burden in the instant proceeding should be placed squarely on those parties seeking to change our current IF separation requirements. Indeed there is presumption against changing existing policies unless the modifications are supported by record evidence.[1]

Data submitted in this proceeding examining various types of receivers demonstrate that the Commission should not relax its IF spacing requirements. The Consumer Electronics Group of the Electronics Industry Association studied inexpensive Class I type receivers and concluded that "adoption of the proposed uniform level of protection from IF interference would result in increased interference and a consequent reduction in the quality of the FM broadcast service."[2] Similarly, data submitted by NAB argues against relaxing our IF interference standards.[3] A significant number of parties suggested that the Commission retain its existing rules until further study is conducted or standards for receiver design are improved.[4] Even the OET report, which examined the potential interference on higher quality Class II-IV receivers, concluded that relaxing current IF separations may lead to increased interference in the band.[5] OET's analysis concerned an increase from a 20 mV/m to a 30 mV/m protection criterion. The study noted that such an increase may be feasible, depending on the policy trade-off of the additional degradation versus additional FM broadcast service.[6] It should be noted however, that OET's report examined the potential for interference using a 30 mV/m protection standard. The majority's disregard for the potential adverse interference is, therefore, exacerbated by the fact that the item adopts a more relaxed standard -- 36 mV/m -- than that employed in OET's policy analysis.

Despite the evidence in the record, the majority supports a more relaxed standard on three principal grounds: (1) there is a trade off between IF interference protection and site flexibility; (2) the existing rules are inconsistent, restricting Class B1, B and C1 stations more than Class A or Class C stations; and (3) lack of complaints concerning separations between Class A and Class C stations that currently employ the 36 mV/m IF protection standard.

I agree there are inconsistencies in the present rules. Generally, the commission should endeavor to develop consistent uniform rules whenever possible. However, the desire to create a uniform set of rules should not override countervailing public interest concerns, especially where interference is involved.

The policy trade off between interference protection and site flexibility does not justify a uniform relation of the rules. Given the potential increase in interference, I believe we should treat site problems on a specific case-by-case basis. Such an approach would minimize the risk of additional interference that is associated with a blanket relaxation of the IF protection rules. Moreover, a study submitted by the Association for Broadcast Engineering Standards, Inc. demonstrates that existing IF separation standards do not seriously impact stations in their choice of transmitter sites.[8] Accordingly, there is little or no benefit to offset the harm of increased interference.

The inconsistencies in IF spacing between Class B1, B, C1 stations and Class A and C stations is neither contrary to the public interest nor arbitrary. The IF standards were established at the time each service was created. Basic administrative law requires that the Commission provide reasoned analysis for changing its position.[9] The data demonstrate that IF interference occurs in a variety of situations and at different protection levels, depending on the quality of receiver. In this regard, lack of a uniform receiver standard makes the selection of a uniform IF standard even more arbitrary than the status quo. At least we have real world experience with our existing rules. Given the uncertainty in this area, maintenance of the status quo is justified if the Commission is to avoid the risk of increased interference across the FM bank. I submit that the administrative need for uniformity is not sufficient to justify changing the present rules.

Finally, assuming *arguendo*, that a uniform standard is in the public interest, there is no reason to adopt the more relaxed 36 mV/m protection standard. The majority states that stations operating under this standard (Class A and Class C stations) "do not appear to have experienced any significant problems over the years."[10] I believe it is bad policy to make interference decisions on the ground that no one has complained. Most radio listeners that encounter interference will simply switch stations without reporting the problem. Moreover, because interference varies depending on receiver quality, the majority has no idea whether the 36 mV/m standard is appropriate. The Commission has the responsibility to avoid policies that merely create additional interference. We should not delegate our responsibility by establishing a "public grumbling" standard for frequency management. It is worth remembering that the majority's decision for the first time adopts a more relaxed standard for all stations, thereby increasing the potential for IF interference across the entire band. In this regard, the problem may be exacerbated depending on the outcome of our pending proceeding concerning increases in power for Class A stations. On balance, I do not believe that the lack of complaints affords sufficient assurance that degradation will not occur. This is especially true where on the record demonstrating that relaxed sta create additional IF interference. In any event does not justify lessening the protections for of FM stations. Simply stated, the Commissi hard data that is necessary to justify a chan status quo.

Of course, the perfect solution lies with im design of FM receivers. The data demonstrat ference problems will vary considerably, de the quality of receiver. Most commenters ag proved design will significantly reduce the IF problem. Accordingly, I support the idea tha cast and consumer electronics industries sh new receiver performance standards. In this Commission should take the lead by endor dustry developed standard that will balance additional IF protection against increased c sumers from higher quality radio receivers. A in time, however, we should craft our interf to be consistent with the realities of the ra marketplace. Our decision today runs the creased interference to a significant number receivers.

On balance, there is little or no evidenc relaxing the IF interference standard to 36 m tion level. The record in this proceeding sup tious approach to this problem, perhaps a examination of each potential IF interferenc The blanket, uniform protection standard ado proceeding is anything but cautious. I agr majority's decision will provide a consistent ali classes of FM facilities. However, our pu concerns should encompass far more than an five uniformity. Given the lack of evidence ceeding that would justify such a change, I mu the majority's decision.

FOOTNOTES FOR STATEMENT

[1] *See Motor Vehicle Manufacturers Association v Automobile Insurance Co.*, 463 U.S. 29, 41, 42 (1983

[2] *Comments of the Consumer Electronics Group tronic Industries Association*, filed in MM Docket July 12, 1988, at 1. The test primarily involved receivers without an antenna connection. These re stitute a large segment of the existing radio market indicated the level of interference expected with pr tions would increase with 30 mV/m. However, adopted by the Commission, 36 mV/m is even m thereby increasing the potential for interference.

[3] National Association of Broadcasters, Departmen and Technology, *A Review of the FM IF Taboo in C FM Broadcast Receivers in Laboratory Tests*, filed i of the National Association of Broadcasters, filed in No. 86-144, August 26, 1986. The study found th amply evidence from these tests that the IF taboo ex rules to control such station configurations that cor occurrence must be maintained." *Id.* 1. The repo that further tests are warranted because of the wi receiver models and general lack of information. *Id.*

[4] *See, e.g.*, Comments of the Association of Fede nications Consulting Engineers, filed in MM Docket July 12, 1988 at 3 (more definitive test data necessar relaxation of IF relaxation); Reply Comments of the

of Maximum Service Telecasters, filed in MM Docket No. 86-144, July 27, 1988 at 3 (further studies necessary before adopting new standard); Comments of the National Association of Broadcasters, filed in MM Docket No. 86-144, July 12, 1988 at 6 (retain existing protection until receiver industry establishes standard); Comments of Greater Media, Inc., filed in MM Docket No. 86-144, July 12, 1988 at 9-10 (test data and real world experience support retaining existing separations); Comments of Association for Broadcast Engineering Standards, Inc., filed in MM Docket No. 86-144, July 12, 1988 at 5, Appendix 1 (engineering report by Moffet, Larson & Johnson, Inc. supports retaining existing separations); Comments of National Public Radio filed in MM docket 86-144, August 26, 1986 at 11 (relaxation of rule would cause significant increase in interference); Reply Comments of A.D. Ring & Associates, P.C., filed in MM docket No. 86-144, September 9, 1986 at 7 (separation requirements should be changed only after receiver performance standards adopted).

[5] "Laboratory Test Results of the FM-IF Interference in Broadcast Receivers, Project I.EB-86-8," FCC/OET TM 87-4, June 1987.

[6] *Id.* at 7.

[7] *Third Report and Order* in MM Docket No. 86-144, FCC 89-62 adopted February 15, 1989 at para. 21.

[8] Comments of American Association for Broadcast Engineering Standards, *supra* note 4 at 2.

[9] *See Greater Boston Television Corporation v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970) *clarified* 463 F.2d 268 (D.C. Cir. 1971).

[10] *Third Report and Order*, *supra* note 7 at para. 21.

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

CC Docket No. 88-136

In the Matter of

AMERITECH SERVICES — Transmittal No. 246
Revisions to Tariff F.C.C. No. 2

NATIONAL EXCHANGE CARRIER ASSOCIATION — Transmittal No. 338
Revisions to Tariff F.C.C. No. 5

NEW YORK TELEPHONE COMPANY — Transmittal No. 949
Revisions to Tariff F.C.C. No. 41

SOUTHWESTERN BELL TELEPHONE COMPANY — Transmittal No. 1748
Revisions to Tariff F.C.C. No. 68

US WEST — Transmittal Nos. 214 and 218
Revisions to Tariff F.C.C. No. 1

ORDER

Adopted: January 5, 1989; Released: January 5, 1989

By the Chief, Common Carrier Bureau:

1. By the above-referenced transmittals, various local exchange carriers (LECs) have proposed revisions to their tariffs for access services to establish rates and charges for Special Access Individual Case Basis (ICB) High Capacity DS3 offerings.[1] The revisions are scheduled to become effective on dates ranging from January 6, 1989, to January 29, 1989.[2]

2. On March 28, 1988, the Bureau released an Order initiating an investigation of a number of LECs' proposed ICB rates, designating for investigation issues concerning the LECs' continued use of ICB rates for DS3 offerings, and establishing a pleading cycle.[3] The above-referenced transmittals raise the same issues as those transmittals subject to our *Designation Order*. Therefore, the instant transmittals will be subject to the outcome of that investigation. We also grant the LECs listed above special permission to advance the effective dates of these transmittals.

3. Accordingly, IT IS ORDERED that Ameritech Services, Tariff F.C.C. No. 2, Transmittal No. 246, National Exchange Carrier Association, Tariff F.C.C. No. 5, Transmittal No. 338, New York Telephone Company, Tariff F.C.C. No. 41, Transmittal No. 949, Southwestern Bell Telephone Company, Tariff F.C.C. No. 68, Transmittal No. 1748, and US West, Tariff F.C.C. No. 1, Transmittal Nos. 214 and 218, are subject to the investigation instituted in CC Docket No. 88-136.

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

MM Docket No. 86-144

In the Matter of

Review of Technical Parameters
for FM Allocation Rules of Part 73,
Subpart B, FM Broadcast Stations

SECOND REPORT AND ORDER

Adopted: September 10, 1987;Released: September 25, 1987

By the Commission.

INTRODUCTION

1. The Commission herein amends Part 73 of its rules to promote efficiency in the allocation, licensing, and use of the FM broadcast spectrum. The amendments include a specific method for **classifying FM stations** according to their **effective transmitting power** and **antenna height**, and increased accuracy in the required procedures **for predicting FM station coverage and calculating distances between** FM stations. Additionally, we amend Section 73.213 of our Rules, which allows routine technical modifications to certain short-spaced FM stations, to permit only modifications that do not increase the potential for interference.

BACKGROUND

2. The Commission now authorizes **six** [6]**classes** of commercial FM broadcast stations: **A, B1, B, C2, C1,** and C. Three of these classes, **B1, C2, and C1, were created** in **BC Docket 80-90**[1]. The six classes of stations are intended to provide different ranges of service, and stations in each class are allowed appropriate facilities and required to be separated from other stations by various distances in order to meet this goal. Class A stations operate with modest transmitting power and effective antenna height, and are intended to provide local service. Class B and C stations are afforded much greater power and effective antenna height, and are intended to serve much larger areas. The new classes are intermediate sizes that provide more range than Class A facilities, but less than Class B or C.

3. In Docket 80-90, we focused on the issue of expanding FM service to the public by increasing the number of station classes, thereby providing new opportunities for additional stations and upgrading of existing stations. At that time, we amended certain existing rules merely to accomodate the new classes.[2] We indicated that we could adjust these affected rules later based on a record addressing them in greater detail.

4. Although it was intended that the new station classes created in Docket 80-90 and the existing classes, together, would provide a continuous range of permissible FM facilities, it soon became apparent that many feasible combinations of power and antenna height do not fall within the limits for any of the six classes. This occurs because the minimum power requirements adopted in Docket 80-90 do not make allowance for existing or proposed stations that have relatively large effective antenna heights. Such stations can operate below the minimum power for their class, yet have a range greater than the maximum that could be obtained by a station in the next lower class.[3] This results in gaps in the range of allowable facilities. Consequently, our procedures for station classification by power and antenna height need some revision.

5. The Commission initiated this proceeding by adopting a ***Notice of Proposed Rule Making (Notice)*** [4] proposing to amend rules that were affected by Docket No. 80-90, but were not given detailed consideration in that proceeding. We also proposed a new method for classifying stations which would allow a continuous range of permissible **FM facilities. Finally, we proposed to review certain technical** rules which need updating.

6. More than 400 parties filed comments or reply comments in response to the *Notice*.[5] Earlier this year we adopted a *First Report and Order* [6] resolving two of the matters we considered[7] in the *Notice*. The Commission **amended the rules to permit any class of station to be allotted on 20 channels which were previously restricted to Class A operation.** Also, the Commission declined to remove a rule section which provides for the classification of stations by zone based on transmitter location rather than the location of the community of license. This *Second Report and Order* addresses the remaining proposals.

ISSUES

Power and Antenna Height Requirements

7. *Proposal*. In the *Notice*, we listed examples that illustrate how some reasonable combinations of antenna height above average terrain **(HAAT)** and effective radiated power **(ERP) do not conform to the maximum and minimum requirements of any station class.** We stated that this problem becomes particularly acute with Class C1 and Class C facilities, and that the current station classification scheme may impose unnecessary operating restrictions on licensees.

8. To rectify this problem, we proposed a new parameter that we termed the **"index" for each class of station.** This index is a function of both the HAAT and ERP of a station and it relates generally to the coverage of the station. Use of the index would replace the "equivalence method currently mandated for overheight power reduction[8] and serve as an alternative to the minimum power requirements for each class. Principally, we would use it to determine the class of stations with HAAT/ERP combinations that do not fall within the current rules. We proposed a specific formula based on maintaining as a constant the maximum predicted distance to the 1 mV/m field strength contour for each class of station. Index maxima were adjusted to permit the largest number of existing stations to be unaffected by the proposed change.

9. *Comments*. The National Association of Broadcasters (NAB), in its comments, does not object to the index method for new stations, but requests that it not be used **to downgrade existing stations.** NAB characterizes the index proposal as an "ironic return to similar procedures required prior to the current coverage matching method, and compares the proposed formula's effect to that of a graphical depiction of the permissible facilities in each class formerly contained in the engineering charts of our rules.

10. The Association for Broadcast Engineering Standards, Inc. (ABES) supports the concept of replacing the tables of power and height requirements and the equivalence method with a table of maxima, a formula, and an index table. ABES dissents, however, to the specific formula and index table proposed, stating that the proposed method using a single formula is flawed. ABES compares the results obtained using the proposed method versus those obtained using the equivalence method, and suggests an alternative method that employs five slope values (essentially five equations). ABES claims that the single formula we proposed is too simplified and leads to excessive inaccuracy. Also, ABES identifies incorrect height limits resulting from round-off error in our proposed method. ABES believes that its substitute method is not unduly complicated and would result in greater accuracy.

11. Eight commenters are opposed to our proposed index method of classification. Generally, these commenters find the method to be cumbersome, inaccurate, and too complex. It was apparent that some commenters were also unsure of how to use the method. Doug C. McDonell (McDonell), an engineering consultant, describes the index method proposal as a "backdoor approach to implementation of a minimum height [requirement] for all classes of stations." McDonell said that the description of the index method in the *Notice* was "confusing." A.D. Ring & Associates, P.C. (Ring), an engineering consulting firm, agrees with those opposing the index proposal, and recommends that a table showing maximum power limits and maximum and minimum distances to the 1 mV/m field strength contour for each class be adopted instead.

12. A number of commenters suggest that the Commission classify FM stations using a method based on the predicted distance to the 1 mV/m field strength contour instead of the proposed index method. They point out that such contour-distances are read from the propagation curves,[9] and consequently track the curves exactly, whereas the index method only approximates the curves. Three commenters, noting the difficulty of obtaining consistent visual readings, urge the Commission to publish an **"official digitization and interpolating formula"** that would facilitate the use of computers to produce consistent values. Hammett and Edison, Inc. (H&E), consulting engineers, submitted extensive comments explaining its digitization and interpolation method, and recommends that the Commission adopt its interpolation algorithms and digitized values as the preferred method of reading the F(50,50) and F(50,10) curves. Ring also believes the Commission should consider the establishment of uniform propagation curve definition point tabulations and interpolation algorithms in order to consistently simulate the FM and TV curves, but within the context of a new proceeding. Several commenters suggested that the gaps in allowable facilities be filled by creating more classes of FM stations.

13. *Discussion*. In order to license FM stations efficiently, we must be able to classify them rapidly and accurately. Our principal goal in proposing the index method was to provide a clear-cut means of classifying FM stations according to their antenna HAAT and ERP. However, the commenters are primarily concerned with how accurately the power reduction formulas derived from the proposed index numbers track the propagation curves in the rules. Although the index me certainly from our station classifi not track the propagation curve current equivalence method or an method. Furthermore, it is appare the index method could easily b correctly applied. In some situatio ing procedure required by the unexpectedly large departures fro limits in the rules. Thus by adoptin might be allowing round-off error design or operating parameters o lieve that these drawbacks outwei index method would provide in t tion classification problem.

14. Having considered the conc ments, and reassessed the benefits not adopt the index method. Instea rules to provide a detailed explan have used to classify stations sin Docket 80-90. This method looks and minimum ERP and HAAT then, for only those stations tha limits, it relies on a comparison of distance with six "class contour listing in the rules.[11] Exceptions requirements are allowed for stati effective antenna height and for s distance exceeds the class contou lower class. We believe that follo station classification is the best time.[12] *See* Rule Sections 73.210 B.

15. On March 2, 1987, we recla **suant to our decision in Docket** the reclassification, we decided, p this proceeding, to refrain from d C stations that do not meet the ments, provided that the predict mV/m field strength contour exce dicted distance to the 1 mV/m c km).[13] Had we adopted the index stations would have been reclassifi method we are adopting instead, remain Class C.

16. **Several commenters request tions solely by field strength co** reluctant to do so at this time be variations that may occur when values from the propagation chart interest of improving the consiste volving values normally read fro that the commenters' requests fo and interpolating formula for thes able merit. Accordingly, we plan ceeding addressing this proposal in

Prediction of Coverage

17. *Proposal*. We proposed, in th calculations for prediction of cov maximum ERP of the main radiat antenna, regardless of orientatio require the use of the ERP in th purpose of the proposed change is to account for the increased use the FM service.[14] In 1970, we revis

tion procedure for TV broadcast stations to improve accuracy. In 1985, we received a Petition for Rule Making requesting similar revision to the FM rules.[17]

18. *Comments.* Eight commenters addressed this issue. All but one concur with or support the Commission's proposal. Edward A. Schober (Schober) opposes it, stating that errors resulting from beam-tilt antennas are negligible, that the rules already provide for supplemental showings, and that a deregulatory philosophy should permit the engineer to use good judgement to determine if deviation from the horizontal plane ERP is necessary for accuracy. NAB, Ring, and two other commenters suggested minor changes to the proposed wording.

19. *Discussion.* The purpose of this rule is to insure that when coverage is predicted for our application processing purposes, all applicants will employ the same method. It is our intention that our rules neither interfere with the proper design of FM stations, nor impede our licensees' technical efforts to provide better service to their audiences. We agree with Schober that good engineering judgment is essential when determining whether an ERP value other than the maximum should be used for coverage prediction, and we are retaining that flexibility in the rule we are adopting here. We also believe, however, that engineers should have the freedom to specify FM antenna designs that optimize coverage for the particular topography involved, without being concerned about maximizing the ERP in the horizontal plane.

20. To promote efficiency in licensing and allocation of the FM service, we believe it is important to bring our rules up-to-date with changing technology and current engineering practices. We are adopting our proposal taking into account the commenters' suggested word changes. This will result in an improvement in accuracy and it will allow the effects of beam-tilt antennas to be reflected in coverage prediction calculations. The rule will now require that prediction of coverage be based on the maximum ERP of the main radiated lobe of the FM station's antenna, regardless of orientation. *See* Rule Section 73.313 in Appendix B.

Intermediate Frequency (IF) Separations

21. *Proposal.* Section 73.207 specifies, by station class, the minimum distance that each FM station must be spaced from other FM stations that operate on frequencies separated by 10.6 or 10.8 MHz (53 or 54 channels apart). This spacing is required to prevent intermodulation interference in FM receivers, which employ 10.7 MHz as their first intermediate frequency (IF).[18] By requiring such stations to be located at least as far apart as the specified distances, the geographical area within which a receiver would be likely to encounter two relatively strong FM broadcast signals separated in frequency by 10.6 or 10.8 MHz is reduced. The current separation distances specified for Classes A, B, and C (the original classes) were intended to avoid the overlap of 20 mV/m field strength contours.[19] Nevertheless, we recognized in the *Notice* that due to an apparent miscalculation, the specified distances are insufficient to prevent such overlap. However, we are not aware of widespread IF interference problems, thereby suggesting that the existing shorter separations are adequate.

22. In Docket 80-90, we simply took the existing IF separation distances for the large Class B and C stations and applied them to the new intermediate size classes B1, C2, and C1. *See* paragraph 3 *supra*. This means that stations in these new classes must meet the same separations as the largest stations, even though they operate with lower ERP and HAAT. Although this further reduces the probability of IF interference due to stations in the new classes, it also limits these stations' flexibility in choice of antenna sites.

23. We assumed that at least some relaxation in the IF separations for the new classes is appropriate, and therefore we proposed to reduce the separations to those necessary to prevent the overlap of the 30 mV/m field strength contours. We based this proposal on the current rules for the old classes, which prevent the overlap of field strength contours varying approximately from 24 mV/m to 36 mV/m.

24. *Comments.* Of the seventeen parties who commented on the IF separations proposal, seven support it, six are opposed, and four recommend taking no action until the matter can be further studied. Edens Broadcasting, Inc. (Edens) licensee of 3 FM stations, prefers that the Commission abandon separation distances and provide IF interference protection by calculation of contour overlap. Edens believes that all station classes should be held to the 30 mV/m field strength contour overlap prevention standard. Fox Broadcasting Company (Fox) reported the results of a field test carried out between two Pennsylvania FM stations which are separated by 7.4 miles, rather than the 10 miles required by the rule. According to Fox, 14 different FM receivers were tried at a location where the theoretical 42 mV/m field strength contours overlap, and no evidence of IF interference was noted. Two commenters support the relaxation of IF separation requirements, but believe that the Commission should prevent overlap of the 36 mV/m field strength contour rather than the 30 mV/m field strength contour as proposed. Key Broadcasting Corporation (KEY), licensee of WQSR, Catonsville, Maryland believes that the IF separation distance rule should be abolished altogether. Key claims that WQSR has been operating short-spaced under the IF separation requirement for 27 years and has never received any complaints of interference which could be attributed to IF short-spacing. In contrast, WDAC Radio Company, Inc. (WDAC), licensee of FM station WDAC, located in Lancaster, Pennsylvania, states that although WDAC and another nearby Class B station meet the current IF separation requirement, it has received numerous complaints from listeners whose FM receivers pick up either WDAC or the other station all across the dial because of the IF problem. WDAC suggests tightening, rather than relaxing the IF separation standards.

25. ABES recommends that the Commission defer action on the IF interference proposal until more extensive laboratory investigation by the Commission and the industry can be carried out. NAB submitted the results of a laboratory test it conducted of thirteen contemporary FM receivers. Their results indicate that susceptibility to IF interference is a function of the particular receiver and varies over a wide range. Noting that even the more expensive receivers it tested are not necessarily immune, NAB believes that the proposed rule should not be amended at this time. National Public Radio (NPR) and Ring both suggest that voluntary receiver performance standards should be developed by manufacturers or the consumer electronics industry before the Commission considers relaxation of the IF separation distance rule.

26. *Discussion.* The record with regard to the issue of IF separations is inconclusive. Several of the commenters believe that there is no problem and that IF separations should be relaxed for all of the station classes new and old. Others state that the IF interference is a serious problem and that we should not relax our requirements. NAB's test results indicate a wide variation in receiver performance, suggesting that there is room for improvement in this area. To this end, we agree with NPR and Ring that voluntary industry receiver performance standards would be helpful.

27. In keeping with our objective to promote efficiency in the allocation and use of the FM broadcast spectrum, we must weigh the benefits of increased site flexibility for our FM licensees against the risk of increased interference for members of the listening public. Unlike co-channel interference, for which our allotment standards are a controlling factor, IF interference results primarily from receiver inadequacies. Although we have not received complaints attributable to IF interference, it is plausible that, as suggested by one of the commenters, our lack of such complaints may result from the inability of those experiencing interference to identify its cause.

28. Our purpose in proposing the reduced separation distances for Class B1, C1 and C2 stations was simply to adjust the rules to provide approximately the same standard for these new classes as has existed for Class A, B and C stations since 1965. The record before us, however, neither clearly supports nor opposes our proposal. Additionally, it raises the larger question of whether an across-the-board relaxation for all station classes, based on fresh data, might be desirable. Such a relaxation, if possible without significant increase in interference, would provide the considerable advantage of greater site location flexibility for all FM licensees.

29. Based on the limited record[20] before us, we must reluctantly conclude that adoption now of the separation distances we proposed for the new classes, based on presenting overlap of the 30 mV/m contours, would be premature. Although we are not now changing the IF minimum distance separations for the new station classes, we believe that we should not continue to hold indefinitely these classes to a stricter standard than the one that has produced no complaints over a period of 22 years. Furthermore, we believe a more complete and comprehensive record would enable us to determine an appropriate standard that would result in reduction of IF separations for all station classes. We are encouraged by evidence in the record that a substantial number of contemporary receivers exhibit a high immunity to IF interference, and would permit a significant relaxation in the required separations. Accordingly, we plan to issue a Further Notice of Proposed Rule Making in this proceeding looking toward such a relaxation.[21]

Short - Spaced Stations

30. *Proposal.* Section 73.213 of our rules provides a table of routinely permissible modifications that apply only to FM stations at locations authorized prior to November 16, 1964 (grandfathered short-spaced stations) that did not then and still do not meet the minimum distances specified in Section 73.207. Some of these grandfathered short-spaced stations were reclassified to Class C1, C2 or B1 as a result of actions taken in Docket 80-90.[22] However, the table of modifications does not contain provisions for the new classes. As a temporary matter, in that docket, we added a NOTE follo states that, for the purposes of C2 stations are considered to be C1 stations are considered to paragraph 3 *supra*.

31. In the *Notice*, we propos by adding the new station classe the table and the entire text paragraph that would permit stations to be modified or reloc mV/m field strength contours ar short-spaced station. We also whether we should retain the ties increases for short-spaced agreement between the station an arrangement is in the public

32. *Comments.* Eight comme primarily for the reasons that w Broadcasting Company, Inc WKDF(FM), Nashville, Tennes rently operating short-spaced. f DBC would restrict itself and fathered short-spaced stations that would further reduce the hand, NAB believes that the practical and that it unduly re spaced licensees. Thirteen com licensees of short-spaced FM st because it would reduce the f upgrade, modify or expand fac will need this flexibility in th their coverage areas in respon and growth.

33. Beasley Broadcast Grou eral grandfathered short-space Commission should allow suc ond and third adjacent channe to include them in the propose claims that second and thir spacings have little impact. DE lem of loss of service to the lis short-spacing on adjacent chan

34. *Discussion.* Grandfathere had 22 years to take advantag rules to optimize their facilitie ing to allow these stations to ties in ways that increase the the public interest. The FM creasingly occupied, and cor modification requests that incr ference tends to run counter t efficiency in the use of this spe

35. We are therefore adopti modifications routinely permit spaced stations to those that contour toward the 1 mV/m to which the minimum sepa purposes of Section 73.213, w to apply to four of the cate 73.207 – co-channel, first, sec nels.

36. We will continue, ho agreements between grandfat for facilities increases when interest would be served.[23] Wh showings for this purpose, we

additional areas and populations that would receive primary service; the extent of interference that would result, and the availability of other aural services in these areas. If, after careful consideration of these factors, we find that the implementation of such an agreement would serve the public interest, we will waive Section 73.213 to allow the 1 mV/m contour of the grandfathered station to be extended towards the 1 mV/m contour of a short-spaced station.

Distance Calculation

37. *Proposal.* We proposed to increase the precision of the coefficients in the distance calculation equations in Section 73.208 of the rules.[24] Some precision in these coefficients was inadvertantly lost when the equations were converted to metric and truncated. We had received some questions concerning the exact conversion factors used, and we wished to provide the same degree of precision as was provided in the tables formerly in the rules.

38. *Comments.* Several commenters oppose the distance formula proposals because they believe that any error introduced by the current formulas is too small to be significant, and because they expect the corrected formulas to take longer to run in their computers.

39. H&E and Ring support the proposed corrections. Ring states that there is no reason for less accurate formulas to be retained in the Commission's rules. H&E points out the inconvenience of having to use one equation in order to comply with the Commission's rules, then to recalculate using the more accurate full-precision equations in order to match actual topographic maps. H&E submitted an exhaustive analysis of the subject, comparing six different methods for distance calculations, and recommends that the Commission adopt the full-precision, non-truncated trigonometric series. Ring also suggests that use of Table I in Section 73.698, which provides rounded degree decimal equivalents for minutes and seconds, no longer be mandatory as exact conversion factors are easier to use.

40. *Discussion.* We are adopting the more precise coefficients for distance calculation as proposed, and revising the rule section for clarity. There is no reason to maintain a set of imprecise equations in our rules when the loss of precision is an inadvertant result of our prior English-to-metric units conversion. We find the argument of increased computer time unpersuasive. The limiting factor for accuracy in calculations concerning distance should be the geographical coordinates provided, not the Commission's rules, particularly in the FM broadcast service, where commercial allotments and assignments are based on calculated distances. We are also incorporating Ring's suggestion to allow the use of exact conversion factors in lieu of the degree-decimal conversion table in the rules.[25] *See* Section 73.208 in Appendix B.

Editorial Changes

41. Finally, we proposed to (1) specify more clearly the area constituting a quiet zone in Boulder County, Colorado as a box bounded by particular latitude and longitude lines, rather than as the "vicinity" of a specified point; and (2) amend the rule permitting replacement of the transmitting antenna of an FM (or TV) broadcast station without prior Commission authorization in order to clarify that it is intended only for those situations in which there is no change in the coverage characteristics. We are adopting these editorial changes as proposed. *See* Sections 73.1030 and 73.1690 in Appendix B.

OTHER MATTERS

42. At paragraph 17 in the *Notice*, we proposed to simplify the procedure by which an applicant may obtain an unoccupied FM channel at a lower class than is allotted. Specifically, we proposed to allow application directly for the lower class without the currently required rule making, if the filing window period elapsed and the channel was unapplied for. One commenter addressed this issue, supporting our proposal. However, we have decided to address this matter in a separate proceeding that will deal with the larger issue of downgrading existing stations as well as vacant channels. Therefore, we shall not amend our rules with regard to allotment downgrades at this time.

43. Applications received prior to the effective date of these rules will be processed in accordance with the rules most advantageous to the applicant.

44. Pursuant to the requirements of Section 604 of the Regulatory Flexibility Act, 5 U.S.C. Section 604, a Final Regulatory Flexibility Analysis has been prepared as follows:

Final Regulatory Flexibility Analysis

I. Need and Purpose of Rule

To provide more efficient use of the spectrum allocated for FM broadcast stations, the Commission increased the number of FM station classes in 1983, which allows more stations to be assigned. This action, however, caused certain technical inconsistencies in the Commission's rules governing station classification, grandfathered short-spaced stations, and IF interference separation distances. Additionally, the Commission's rules governing coverage predictions and distance calculations needed updating and revision. Classifying stations on the basis of effective radiated power, antenna height above average terrain, and distance to a specified signal strength contour will remove ambiguities caused by the earlier action. Allowing grandfathered short-spaced stations to modify routinely their facilities only in ways that do not increase the risk of interference will promote efficiency in the use of the FM broadcast spectrum. Revising and updating the coverage prediction and distance calculation rules will increase the accuracy of these procedures.

II. Flexibility Issues Raised in the Comments

Commenters suggested that the Commission adopt station classification rules based on distance to signal strength contour rather than a calculated index as the Commission originally proposed. Licensees of grandfathered short-spaced stations requested that the Commission continue to permit them to routinely modify their stations in ways that can increase the risk of interference.

III. Significant Alternatives Considered But Not Adopted

The Commission originally proposed to classify FM stations using a calculated index method. However, this method was found to be cumbersome, inaccurate and too complex by the commenters. Also, the Commission proposed to relax the IF interference separation distances for the new classes of stations it had created in an earlier action. Laboratory data and comments indicate that additional information is needed to determine the appropriate extent of such a relaxation.

45. The proposals contained herein have been analyzed with respect to the Paperwork Reduction Act of 1980 and found to contain no new or modified form, information collection and/or record keeping, labeling, disclosure, or record retention requirements, and they will not increase or decrease burden hours imposed on the public.

46. Authority for the action taken herein is contained in Section 303 of the Communications Act of 1934 as amended.

ORDERING CLAUSES

47. Accordingly, IT IS ORDERED That Part 73 of the Commission's Rules and Regulations ARE AMENDED, as set forth in Appendix B below, effective **November 9, 1987.**

48. IT IS FURTHER ORDERED That those Class C stations that, as of March 2, 1987, were operating with an ERP less than 100 kW, HAAT greater than 300 meters, and distance to the 1 mV/m field strength contour exceeding 72 km, and consequently were not reclassified pending action in this proceeding, ARE DESIGNATED Class C.

49. IT IS FURTHER ORDERED That the Petition for Partial Reconsideration filed by Hudson Group Limited Partnership of Pennsylvania IS DISMISSED.

50. IT IS FURTHER ORDERED That *Public Notice* No. 75-1347, released December 15, 1975 IS AMENDED, as set forth in a revised *Public Notice*, attached as Appendix C.

FEDERAL COMMUNICATIONS COMMISSION

William J. Tricarico
Secretary

APPENDIX A

The following submitted comments addressing our specific proposals in this proceeding:

West Central Broadcasting, Inc.
Callais Broadcasting, Inc.
EJM Broadcasting
Stannard Broadcasting Company, Inc.
WKDZ, Inc.
H R. Williams, Jr (KPSM)
Americom
Capital Broadcasting, Inc.
Enterprise Publishing Company
E.O. Rosten And Associates, Inc.
Garamella Broadcasting Company
Hayco Broadcasting, Inc.
Hudson Broadcasting Corporation
Lakeland Broadcasting, Inc.

Additionally, 310 licensees of Class A broadcast stations and 60 Congressional or State Government officials filed reply comments supporting a suggestion made by Clear Channel Communications, Inc. in their comments, that the ERP and HAAT limits for Class A stations be increased. In the *First Report and Order*, the Commission found that Clear Channel's suggestion is outside the scope of the *Notice* and declined to consider it further in this proceeding.

APPENDIX B

47 CFR Part 73 is amended as follows:

1. The authority citation for Part 73 continues to read as follows:

Authority: 47 U.S.C. 154 and 303.

2. 47 CFR 73.208 is amended by revising paragraph (c) to read as follows:

§ 73. 208 Reference points and distance computation.

* * * * *

(c) The method given in this paragraph shall be used to compute the distance between two reference points, except that, for computation of distance involving stations in Canada and Mexico, the method for distance computation specified in the applicable international agreement shall be used instead. The method set forth in this paragraph is valid only for distances not exceeding 475 km (295 miles).

(1) Convert the latitude and longitude of each reference point from degree-minute-second format to degree-decimal format by:

(i) dividing minutes by 60 and seconds by 3600 then adding the results to degrees; or,

(ii) using Table I of § 73.698.

(2) Calculate the middle latitude between the two reference points by averaging the two latitudes as follows:

MI = (LAT1dd + LAT2dd)/2

(3) Calculate the number of kilometers per degree latitude difference for the middle latitude calculated in paragraph (c)(2) as follows:

KPDlat = 111.13209 - 0.56605 cos(2ML) + 0.00120 cos(4ML)

(4) Calculate the number of kilometers per degree longitude difference for the middle latitude calculated in paragraph (c)(2) as follows:

KPDlon = 111.41513 cos(ML) - 0.09455 cos(3ML) + 0.00012 cos(5ML)

(5) Calculate the North-South distance in kilometers as follows:

NS = KPDlat (LAT1dd - LAT2dd)

(6) Calculate the East-West distance in kilometers as follows:

EW = KPDlon (LON1dd - LON2dd)

(7) Calculate the distance between the two reference points by taking the square root of the sum of the squares of the East-West and North-South distances as follows:

$DIST = (NS^2 + EW^2)^{0.5}$

(8) Round the distance to the nearest kilometer.

(9) Terms used in this section are defined as follows:

(i) LAT1dd and LON1dd = the coordinates of the first reference point in degree-decimal format.

(ii) LAT2dd and LON2dd = the coordinates of the second reference point in degree-decimal format.

(iii) ML = the middle latitude in degree-decimal format.

(iv) KPDlat = the number of kilometers per degree of latitude at a given middle latitude.

(v) KPDlon = the number of kilometers per degree of longitude at a given middle latitude.

(vi) NS = the North-South distance in kilometers.

(vii) EW = the East-West distance in kilometers.

(viii) DIST = the distance between the two reference points, in kilometers.

3. A new section 47 CFR 73.210, Station Classes, is added:

§ 73. 210 Station classes.

(a) The rules applicable to a particular station, including minimum and maximum facilities requirements, are determined by its class. Possible class designations depend upon the zone in which the station's transmitter is located, or proposed to be located. The zones are defined in § 73.205. Allotted station classes are indicated in the Table of Allotments, § 73.202. Class A, B1 and B stations may be authorized in Zones I and I-A. Class A, C2, C1, and C stations may be authorized in Zone II.

(b) The power and antenna height requirements for each class are set forth in § 73.211. If a station has an ERP and an antenna HAAT such that it cannot be classified using the maximum limits and minimum requirements in § 73.211, its class shall be determined using the following procedure:

(1) Determine the reference distance of the station using the procedure in paragraph (b)(1)(i) of § 73.211. If this distance is less than or equal to 24 km, the station is Class A, otherwise,

(2) For a station in Zone I or Zone I-A, except for Puerto Rico and the Virgin Islands:

(i) If this distance is greater than 24 km and less than or equal to 39 km, the station is Class B1.

(ii) If this distance is greater than 39 km and less than or equal to 52 km, the station is Class B.

(3) For a station in Zone II:

(i) If this distance is greater than 24 km and less than or equal to 52 km, the station is Class C2.

(ii) If this distance is greater than 52 km and less than or equal to 72 km, the station is Class C1.

(iii) If this distance is greater than 72 km and less than or equal to 92 km, the station is Class C.

(4) For a station in Puerto Rico or the Virgin Islands:

(i) If this distance is less than or equal to 42 km, the station is Class A.

(ii) If this distance is greater than 42 km and less than or equal to 46 km, the station is Class B1.

(iii) If this distance is greater than 46 km and less than or equal to 78 km, the station is Class B.

3. 47 CFR 73.211, Power and antenna height requirements, is amended by revising the text of paragraph (a) and subparagraphs (b)(1) and (b)(2), and by removing paragraphs (d) and (e).

§ 73. 211 Power and antenna height requirements.

(a) *Minimum requirements.* (1) Except as provided in paragraphs (a)(3) and (b)(2) of this section, the minimum effective radiated power (ERP) for:

Class A stations must equal 0.1 kW (-10.0 dBk);
Class B1 stations must exceed 3 kW (4.8 dBk);
Class B stations must exceed 25 kW (14.0 dBk);
Class C2 stations must exceed 3 kW (4.8 dBk);
Class C1 stations must exceed 50 kW (17.0 dBk);
Class C stations must equal 100 kW (20.0 dBk).

(2) Class C stations must have an antenna height above average terrain (HAAT) of at least 300 meters (984 feet). No minimum HAAT is specified for Classes A, B1, B, C2, or C1 stations.

(3) Stations of any class except Class A may have an ERP less than that specified in paragraph (a)(1) of this section, provided that the reference distance, determined

not extended toward the 1 mV/m field strength contour of any short-spaced station. Mutual increase in the facilities of such stations up to the limits set forth in § 73.211 may be permitted pursuant to an agreement between the affected stations and a showing of public interest. *See* § 73.4235.

5. 47 CFR 73.313 *is amended by revising paragraph* (c)(2) to read as follows:

§ 73. 313 Prediction of Coverage.

* * * * *

(c) * * *

(1) * * *

(2) To use the chart for other ERP values, convert the ordinate scale by the appropriate adjustment in dB. For *example, the ordinate scale for an* ERP of 50 kW (17 dBk) should be adjusted by 17 dB and, therefore, a field strength of 40 dBu would be converted to 57 dBu. When predicting the distance to field strength contours, use the maximum ERP of the main radiated lobe in the pertinent azimuthal direction. When predicting field strengths over areas not in the plane of the maximum main lobe, use the ERP in the direction of such areas, determined by considering the appropriate vertical radiation pattern.

* * * * *

6. 47 CFR 73.1030 is amended by revising the parenthetical phrase "(in the vicinity of coordinates *40°07'50" N Latitude, 105°14' 40" W Longitude)" of* paragraph (b) to read "(within the area bounded by 40°09' 10" N Latitude on the north, 105°13' 31" W Longitude on the east, 40°07' 05" N Latitude on the south, and 105°15'13" W Longitude on the west)"

7. 47 CFR 73.1690 is amended by revising paragraph (c)(1) to read as follows:

§ 73. 1690 Modification of transmission systems.

* * * * *

(c) * * *

(1) Replacement of a non directional antenna with one of the same or different type or number of bays, provided that the height above ground of the center of radiation is within 2 meters of that specified in the station authorization, the parameters are within that permitted by its class designation, and there is no change in the maximum effective radiated power.

* * * * *

APPENDIX C
PUBLIC NOTICE

AGREEMENT POLICY FOR SHORT - SPACED FM BROADCAST STATIONS EXPANDED

The Commission will now consider mutual agreements between grandfathered short-spaced stations for facilities increases on the same channel, and/or the first, second or third adjacent channels.

By its *Public Notice*, No. 75-1347, released December 15, 1975, 57 FCC 2d 1263 (1975), the Commission reaffirmed the policy of considering agreements between grandfathered short-spaced stations (FM broadcast stations at locations authorized prior to November 16, 1964 which did not meet the minimum spacing requirements of § 73.207 of the rules and have remained short-spaced since *that time) to increase their facilities beyond those* routinely permitted for such stations in § 73.213 of the rules. That *Public Notice* set forth the criteria to be used in evaluating whether such an agreement is in the public interest.

This policy, however, has applied only to grandfathered short-spaced stations that were short-spaced on the same channel and/or the first adjacent channels. In order to maintain consistency with § 73.213, as amended in MM Docket 86-144, the agreement policy will now apply also to grandfathered short-spaced stations that are short-spaced on the second and third adjacent channels.

FOOTNOTES

[1] *Report and Order*, 94 FCC 2d 152(1983); *recon., granted in part and denied in part*, 97 FCC 2d 279(1984). The Commission amended the FM broadcasting rules to accommodate more stations by increasing the number of station classes.

[2] In general, our approach was to apply existing rules to new Classes B1 and C2 as if they were Class B, and likewise to treat new Class C1 as though it was Class C. This resulted in no *increased burden for many existing* stations that were reclassified.

[3] For example, consider a Zone I station having facilities of 20 kW power and 140 meters effective antenna height. The power is less than the minimum requirement of 25.1 kW for Class B stations, but exceeds the 16 kW permitted for Class B1 stations using a 140 meter effective antenna height.

[4] 51 Fed. Reg. 15927, published April 29, 1986.

[5] *Commenters* are listed in Appendix A.

[6] 52 Fed. Reg. 8259, published March 17, 1987.

[7] On April 15, 1987, a Petition for Partial Reconsideration was filed by Hudson Group Limited Partnership of Pennsylvania, (Hudson), licensee of Class A FM Station WSFM of Harrisburg, Pa. We will dismiss Hudson's petition. Hudson claims that it is unclear from the *First Report and Order* whether the Commission considered a suggestion it made in its comments -- that Class A stations unable to upgrade to a higher class because of required separations be allowed to increase facilities to the maximum extent technically feasible while still providing full protection to *other stations*. Hudson newly proposes in its petition that we expand the applicability of § 73.213(a) to allow Class A stations to become short-spaced where a mutual agreement exists between the affected stations. Both proposals are outside the scope of this proceeding and will not be considered here.

[8] Overheight power reduction means that stations with antennas that exceed the maximum HAAT for their class must operate at a lower ERP such that the predicted distance to the 1 mV/m field strength contour is not increased beyond that which would result from operating at maximum ERP and HAAT. *See* current § 73.211(b). In this proceeding, we are substituting the term "reference HAAT" in place of "maximum HAAT", because it may be exceeded if ERP is reduced accordingly. By contrast, maximum ERP must not be exceeded under any circumstance.

[9] The F(50,50) and F(50,10) propagation curves for FM stations are contained in § 73.333 of our rules.

[10] At paragraph 11 in the *Notice*, we estimated that 49 stations would be subject to a different classification due to rounding error, under the index method.

[11] We use the term "reference distance" to mean the predicted distance from a station's transmitting antenna to its 1 mV/m field strength contour, rounded to the nearest kilometer. The "class contour distances" listed in new § 73.211(b) of the rules are based on the reference HAAT and maximum ERP for each station class. For stations that cannot be classified using the maximum and minimum HAAT and ERP limits in the rules, we first determine the reference distance using the station's HAAT (as defined in § 73.310(a)) and its maximum proposed or authorized ERP. This reference distance is then compared to the six class contour distances. The class of the station corresponds to the lowest class contour distance that equals or exceeds the station's reference distance. As indicated in the *Notice*, the proposed index method was designed to approximately reflect the predicted distance to the 1 mV/m contour. Thus the method adopted instead is essentially similar to, although more accurate than, the method proposed.

[12] We are not amending at this time the portion of the power and antenna height rule which provides special limits for stations in Puerto Rico and the Virgin Islands. We have received a petition for rule making, (RM 5691, *Public Notice* January 14, 1987), from Carlos Juan Colon Ventura, licensee of WSAN (FM), Viques, Puerto Rico, which requests increased power for stations in Puerto Rico and the Virgin Islands. We may propose adjustments to that portion of the rule, if warranted, after consideration of that petition.

[13] For example, a Class C station with 85 kW ERP and a HAAT of 361 meters would have been downgraded to a Class C1 using the ERP criterion (because the minimum ERP for Class C is 100 kW), but no action was taken because the predicted distance to its 1 mV/m field strength contour is 75 kilometers. This exceeds the maximum predicted distance to the 1 mV/m field strength contour for a Class C1 station, which is 72 kilometers. *See Public Notice* "Reclassification of FM Facilities Pursuant to BC Docket 80-90", FCC 87-93, released March 24, 1987.

[14] Both charts comprise a set of propagation curves drawn on a linear-logarithmic graph. The F(50,50) chart, used for service and coverage contours, contains 40 curves, and the F(50,10) chart, used for interference contours, contains 50 curves. Often, the desired value does not lie on one of the curves, but between two of them. In such cases, graphical or mathmatical interpolation must be used to arrive at result. Because of limitations in printing resolution and human visual acuity, it is not unusual for different persons to obtain slightly different results.

[15] That proceeding would consider which of several possible interpolation methods should be used, as well as the optimum number of data points for each method.

21. This is because, as the Commission recently explained to the Court of Appeals in its July 25, 1988 Brief in *Spectron Broadcasting Corp. v. FCC*, No. 87-1635 (D.C. Cir.):

> The comparative process contemplates that applicants will structure themselves in accordance with the Commission's established criteria so as to achieve the greatest possible likelihood of being found the best qualified applicant. *Alexander S. Klein, Jr.*, 86 FCC 2d [423,] 431 [(1981)]. The Commission is mindful, nonetheless, that an applicant may present a favorable formal structure on paper in order to gain a preference, but in reality that structure is not an accurate depiction of how the licensee's affairs will be managed. Thus, limited partners or non-voting stockholders, although nominally without influence over the applicant, may actually participate in (if not control) the applicant's decision-making process. In those instances, the Commission will disregard the applicant's formal ownership structure and treat the nominal passive owners (*i.e.*, non-voting stockholders or limited partners) as if they were active in the management of the applicant and consider them in any integration analysis. *See, e.g., Signal Ministries, Inc.*, 104 FCC 2d 1188, 1193-1197 (Rev. Bd. 1986), *review denied*, 3 FCC Rcd 3259 (1987), *aff'd by judgment sub nom. Adelphi Broadcasting Corp. v. FCC*, 838 F.2d 521 (D.C. Cir. 1988) (table); *KIST Corp.*, 102 FCC 2d 288 (1985), *aff'd per curiam sub nom. United American Telecasters, Inc. v. FCC*, 801 F.2d 1436 (D.C. Cir. 1986) (table), *cert. denied*, 107 S.Ct. 2182 (1987); *Henderson Broadcasting Co., Inc.*, 63 FCC 2d 419 (Rev. Bd. 1977). *See also Cleveland Television Corp. v. FCC*, 732 F.2d 962, 969 (D.C. Cir. 1984). "[W]here there is a basis in the record for inferring that non-voting shareholders will exercise influence or control of an ongoing business," an applicant's integration proposal will be disregarded. *Victory Media*, 3 FCC Rcd [2073,] 2075 [(1988)].

Id. at 6-7. The same logic prevails where an "inactive" spouse (here, a spouse who is also a purported *ex* principal) has participated and continues to influence the "active" spouse-principal. *See Mulkey*, 3 FCC Rcd at 592-593 (Mr. Neisler, a "limited" partner, dominates Mrs. Neisler, sole "general" partner; therefore, no integration credit awarded); *see also Magdalene Gunden Partnership*, 3 FCC Rcd 488, 489 (Rev. Bd. 1988) (discussion of "dominance" and *"bona fides"*).

22. During the remand hearing, the ALJ also specified issues regarding Bell County's financial qualifications, the accuracy of its certification of financial qualifications, and the candor of some of the financial representations made by Mrs. Watts. SID, para. 4. After making specific findings regarding these issues, SID, paras. 20-31, the ALJ reached the following conclusions: (a) On the day it filed its application, Bell County was not financially qualified and falsely certified that it was; (b) Bell County presently does not possess the requisite financial qualifications to be a Commission licensee, id., para. 55, and (c) Teresa Watts did not intentionally misrepresent her husband's financial contributions to the venture; instead, she was confused as to the legal status of a money market account. Id., para. 63. However, in view of our conclusion that Bell County's proposal is a sham, tantamount to a fraud, *see Mulkey, supra*, and thus can not prevail in any event, we will not reach these other issues.

23. *Progressive's Comparative Case:* Our remand order also sought additional evidence regarding Progressive's comparative showing because it sought credit for Henry Castillo, a 42.86% stockholder who was proposed as the station's full-time (more than 40 hours per week) general manager. However, Mr. Castillo also intended to retain his position as a full-time Professor of English at a local junior college. *104 FCC 2d at 334. On remand* the ALJ found no evidence challenging the bona fides of this proposal but did conclude that Mr. Castillo was only entitled to part-time integration credit for his proposal. SID, para. 65. The ALJ's ultimate conclusion reducing Castillo's credit to part-time is mandated by the precedent recently discussed in *Stanly Group Broadcasting, Inc.*, FCC 88R-47 released August 16, 1988, para. 18. *See also Religious Broadcasting Network*, 3 FCC Rcd 4085, 4100 (Rev. Bd. 1988). In sum, Professor Castillo "has not demonstrated how he can accommodate his work schedule so that both [full-time] vocations can be fulfilled at once. It is well settled Commission precedent that persons seeking participation credit must make a persuasive showing as to how they will accommodate their outside professional business activities so as to fulfill their specific commitments to the proposed station." *Stanly Group, supra*, para. 18 (citing *Leininger-Geddes Partnership*, 2 FCC Rcd 3199 (Rev. Bd. 1987), *review denied*, 3 FCC Rcd 1181 (Comm'n)). Thus Progressive is entitled to only 42.86% part-time credit for Castillo's proposal. Its combined comparative credit for some 14% full-time and 57% part-time credit (*see Initial Decision*, 104 FCC 2d at 345 para. 27) is more than sufficient to prevail over Bell County's sham proposal. *See Mulkey, supra.* And, as the ALJ previously held, MaryMc can not be compared because it is not basically qualified.

24. ACCORDINGLY, IT IS ORDERED, That the Motion to Strike and the Further Motion to Strike filed March 24 and 28, 1988, respectively, by Progressive Communications, Inc., the Motion to Strike filed April 15, 1988 by Bell County Broadcasting Company, and the Request for Judicial Notice filed June 22, 1988 by MaryMc Broadcasting Co. ARE DISMISSED as moot; and

25. IT IS FURTHER ORDERED, That the applications of Progressive Communications, Inc. (File No. BPH-820512AP) IS GRANTED, and that the applications of MaryMc Broadcasting Co. (File No. BPH-820521HB) and Bell County Broadcasting Company (File No. BPH-820524BJ) ARE DENIED.

FEDERAL COMMUNICATIONS COMMISSION

Joseph A. Marino
Chairman, Review Board

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

MM Docket No. 87-140

In the Matter of

Review of Technical and Operational
Requirements: Part 73-C
Noncommercial Educational FM
Broadcast Stations

MEMORANDUM OPINION AND ORDER

Adopted: July 14, 1988; Released: September 28, 1988

By the Commission.

INTRODUCTION

1. The Commission has before it a *Petition For Reconsideration* (petition)[1], filed by California State University, Long Beach Foundation (CSU or petitioner), licensee of Station KLON(FM), Long Beach, California, requesting reconsideration of the *Report and Order*, 52 Fed. Reg. 43764 (Nov. 16, 1987), adopted in the above-referenced proceeding. No comments were filed in response to the petition. For reasons given below, we will deny the petition.

BACKGROUND

2. Prior to the adoption of the *Report and Order*, noncommercial educational (NCE-FM) stations within 320 kilometers (199 miles) of the United States-Mexican border (border area) were authorized on an allotment-assignment basis identical to that used for commercial FM stations. It was a two-step procedure: First, a petition would be filed to amend the Commission's Rules to provide for a channel allotment for the particular community or city of license. Once this was done, the applicant would apply for a station license. This required the Commission to maintain a table of NCE-FM allotments for the border area. In order to amend the table, the Rules required that minimum distance separations be maintained between the proposed station and Mexican FM stations as set forth in the FM Broadcasting Agreement between the United States and Mexico.[2] Additionally, the Rules required that applicants observe the same distance separations from domestic border area NCE-FM stations as from Mexican FM stations.

3. *In contrast*, NCE-FM applicants outside the border area may apply for a frequency assignment provided the distance from the proposed station to another NCE-FM station is sufficient to prevent overlap of specified, predicted signal-strength contours. The assignment policy is based on what is known as "contour overlap," or "the contour method." The assignment policy based on contour protection is also known as "demand basis," because we do not require that an allotment be granted *before* ap-

8. If the Commission had not dismissed the proceedings in MM Docket No. 85-230, CSU contends that a compromise proposal, the CLC compromise, would have offered a resolution to the Docket 85-230 proceeding that was not dependent upon the outcome of Docket 87-140." The petitioner concedes that our acceptance of CLC's compromise proposal would have required waiver of our *strict polices against permitting short-spaced allotments*. However, the petitioner suggests two options that we could have pursued in lieu of granting all components of the compromise proposal as it was submitted. Both of the suggested alternatives would have required that we grant *all aspects of the CLC compromise except those that* required a waiver. The petitioner states that these options remain open to the Commission, and that we should eliminate the table of allotments prospectively by establishing a window period in which the effective date for *eliminating the table would be set far enough in the future* so that interested applicants would have time to prepare and file applications for the vacant allotments before the table would be eliminated. Finally, CSU requests that the Commission issue an Order to Show Cause why its Station KLON(FM) should not be upgraded on its current channel. CSU then requests that the Commission modify the license of KLON(FM) accordingly.

DISCUSSION

9. The Commission changed its allocations policy in the border area to encourage the development and extension of NCE-FM service. Mainly because contour method assignment is better suited to meet the needs of NCE-FM than the allotment-assignment system, contour method of assignment has been used for NCE-FM stations throughout the rest of the country since the earliest days of the NCE-FM service. Comments to the proceedings in MM Docket No. 87-140 convincingly supported our proposal to base station assignments on contour protection. All commenters except three of the four parties involved in the allotment proceedings in MM Docket No. 85-230 stated that changing to contour method assignment would improve our allocations methods.[7] Some commenters, among them the National Telecommunications and Information Administration, stated that the number of NCE-FMs in the border area should increase under the new allocations policy. In short, contrary to the petitioner's claim, we did not eliminate the table in order to dispose of the allocation proceeding in MM Docket No. 85-230. Rather, we discarded the table because we concluded that the allotment assignment system was not optimally suited to promote the growth of NCE-FM, it was unnecessarily restrictive and made it unnecessarily costly to obtain an NCE-FM station assignment.[8]

10. Rather than grandfather pending NCE-FM allotment proceedings in the border area, the Commission chose to dismiss proceedings that had not yet been resolved. The Commission had determined that the allotment-assignment policy was clearly disadvantageous for NCE-FM, thus, it sought to avoid diluting the good effects of the rule change by continuing to use the inferior assignment policy. As discussed earlier, the contour method allows stations additional flexibility to tailor their coverage, therefore, it is possible that several applicants would now be able to propose and obtain assignments where before they could not. This action could encourage the submission of NCE-FM station assignment requests by parties which may have been precluded from entering pending border area allotment proceedings by the old spacing restrictions. In our view, this expansion of NCE-FM applicant pool is beneficial for the NCE-FM service. Indeed encouraging applicants to apply for stations where before they could not was the express goal of the generic proceeding.

11. CSU argues that we should delay the effective date of the new rules and continue to use the allotment-assignment allocations policy primarily because it has spent considerable time and money attempting to obtain an allotment. While the Commission recognizes the petitioner's frustration resulting from our decision to change the allocations policy immediately, we conclude that the public would best be served by eliminating the allotment-assignment allocations policy without delay.[9] We also note that the petitioner does not contest our authority to make a judgment on the effective date of the new rules. In fact, the petitioner does not allege that the Commission committed any errors in our findings of fact or conclusions of law, any violations of statute, or any policy contradiction in deciding to eliminate the table immediately.[10]

12. The Commission believes that its dismissal of the allotment proceedings is consistent with our goal of promoting efficiency in the use of the broadcast spectrum. It should be noted that our action does not preclude the petitioner from obtaining a station assignment in any way. In fact, by allowing the petitioner to base its spacings on the contour method, the Commission offers CSU greater flexibility than it had before in obtaining a workable allocations arrangement with other parties also interested in obtaining station assignments.[11]

13. Accordingly, *IT IS ORDERED* that the Petition for Reconsideration and the request for issuance of an Order to Show Cause filed by California State University, Long Beach Foundation ARE DENIED.

FEDERAL COMMUNICATIONS COMMISSION

H. Walker Feaster, III
Acting Secretary

FOOTNOTES

[1] Petition appeared *Public Notice*, Report No. 1706, Jan. 13, 1988.

[2] *See* "Agreement Between the United States of America and the United Mexican States Concerning Frequency Modulation in the 88 to 108 MHz band," ratified Nov. 9, 1972.

[3] *See Notice of Proposed Rule Making*, 52 Fed. Reg. 23873 (June 25, 1987).

[4] On the other hand, channels allocated according to a table of allotments are premised on an *assumed* coverage area, based on the maximum effective radiated power and antenna height above average terrain authorized by the Commission for the particular class of station, regardless of actual power and antenna height used. Using the contour method, the protected coverage area is determined using *actual* power and antenna height. Also in contrast to channels allocated by allotment, NCE-FMs may routinely tailor their coverage using directional antennas.

[5] *See* petition, p. 2.

[6] The CLC compromise accommodated all parties, but was submitted after we released the *Notice*, and required that we waive our distance separation requirements for border area NCE-FM stations, as embodied in the now-deleted Section 73.504(c).

The fourth party, CLC, acknowleged that the new policy would serve the public interest by allowing the establishment of NCE-FM stations in many more areas than could be served with the mileage separation method, although it asked that the proceedings in MM Docket No. 85-230 not be held in abeyance while the Commission considered the generic rule change.

[7] Furthermore, *all* proceedings dealing with amending the border area table of allotments have been and will be subjected to the proposals based on contour protection. For example, the pending proposals for MM Docket 86-106 regarding Blythe, California, and for Docket 85-335 regarding Mt. Laguna, California have been dismissed due to the adoption of the *Report and Order* in MM Docket No. 87-140.

[8] With regard to the petitioner's request that we eliminate the use of allotments prospectively, we considered and rejected that idea in the generic proceeding because no demonstrable public benefit was apparent in gradually phasing out the table. As we stated in the *Report and Order*, "the allotment-assignment procedure has been shown to be unnecessary by the adequate handling of frequency assignments for NCE-FM stations in the rest of the country using the demand system."

[9] We also note that the Commission is not precluded from changing existing allocations policy even where *applications* had been filed for such allocations and were pending prior to the adoption of the rule making proceedings that led to such changes. *Channel 16 Public Safety Allocation*, 59 RR 2d 910, 917 (1986), citing *United States v. Storer Broadcasting*, 315 U.S. 192 (1956). In the *Channel 16* proceeding, the Commission reallocated UHF channel 16 from television broadcast use to public safety use notwithstanding the pendency of applications for the channel as a television allotment. The Commission specifically stated that the Communications Act "does not preclude the Commission from utilizing rulemaking for the orderly conduct of its business and from denying applications inconsistent with any rule ultimately adopted." *Id.* at 17. Accordingly, if existing applicants do not have vested rights in a broadcast channel to prevent its reallocation by the Commission, *a fortiori*, the petitioner in the instant case would not have any similar rights to any of the channels at issue here, nor would be able to prevent a change in allocations policy the Commission believes will promote the public interest.

[10] As regards the CLC compromise, which contemplates grandfathering the allotment-assignment policy, we do not deem that proposal worthy of consideration in that *the Commission* believes it is in the public interest, as related above, to discontinue that policy without delay.

by the Commission to the station licensee that such interference is being caused, the operation of the FM translator or FM booster station shall be suspended within three minutes and shall not be resumed until the interference has been eliminated or it can be demonstrated that the interference is not due to spurious emissions by the FM translator or FM booster station; *provided, however*, that short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures.

[55 FR 50693, Dec. 10, 1990, as amended at 60 FR 55484, Nov. 1, 1995]

§74.1204 Protection of FM broadcast stations and FM translators.

(a) An application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field strength contours with any other authorized station, including commercial and noncommercial educational FM broadcast stations, FM translators and Class D (secondary) noncommercial educational FM stations, as set forth below:

(1) Commercial Class B FM Stations (Protected Contour: 0.5 mV/m)

Frequency separation	Interference contour of proposed translator station	Protected contour of commercial Class B station
Co-channel	0.05 mV/m (34 dBu)	0.5 mV/m (54 dBu).
200 kHz	0.25 mV/m (48 dBu)	0.5 mV/m (54 dBu).
400 kHz	5.00 mV/m (74 dBu)	0.5 mV/m (54 dBu).
600 kHz	50.0 mV/m (94 dBu)	0.5 mV/m (54 dBu).

(2) Commercial Class B1 FM Stations (Protected Contour: 0.7 mV/m)

Frequency separation	Interference contour of proposed translator station	Protected contour of commercial Class B1 station
Co-channel	0.07 mV/m (37 dBu)	0.7 mV/m (57 dBu).
200 kHz	0.35 mV/m (51 dBu)	0.7 mV/m (57 dBu).
400 kHz	7.00 mV/m (77 dBu)	0.7 mV/m (57 dBu).
600 kHz	70.0 mV/m (97 dBu)	0.7 mV/m (57 dBu).

(3) All Other Classes of FM Stations (Protected Contour: 1 mV/m

Frequency separation	Interference contour of proposed translator station	Protected contour of any other station
Co-channel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu).
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu).
400 kHz	10 mV/m (80 dBu)	1 mV/m (60 dBu).
600 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu).

(b) The following standards must be used to compute the distances to the pertinent contours:

(1) The distances to the protected contours are computed using Figure 1 of §73.333 [F(50,50) curves] of this chapter.

(2) The distances to the interference contours are computed using Figure 1a of §73.333 [F(50,10) curves] of this chapter. In the event that the distance to the contour is below 16 kilometers (approximately 10 miles), and therefore not covered by Figure 1a, curves in Figure 1 must be used.

(3) The effective radiated power (ERP) to be used is the maximum ERP of the main radiated lobe in the pertinent azimuthal direction. If the transmitting antenna is not horizontally polarized only, either the vertical component or the horizontal component of the ERP should be used, whichever is greater in the pertinent azimuthal direction.

(4) The antenna height to be used is the height of the radiation center above the average terrain along each pertinent radial, determined in accordance with §73.313(d) of this chapter.

(c) An application for a change (other than a change in channel) in the authorized facilities of an FM translator station will be accepted even though overlap of field strength contours would occur with another station in an area where such overlap does not already exist, if:

(1) The total area of overlap with that station would not be increased:

(2) The area of overlap with any other station would not increase;

(3) The area of overlap does not move significantly closer to the station receiving the overlap; and,

(4) No area of overlap would be created with any station with which the overlap does not now exist.

(d) The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

(e) The provisions of this section will not apply to overlap between a proposed fill-in FM translator station and its primary station operating on a first, second or third adjacent channel, *provided* That such operation may not result in interference to the primary station within its principal community.

(f) An application for an FM translator station will not be accepted for filing even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (a) of this section, if the predicted 1 mV/m field strength contour of the FM translator station will overlap a populated area already receiving a regularly used, off-the-air signal of any authorized cochannel, first, second or third adjacent channel broadcast station, including Class D (secondary) noncommercial educational FM stations and grant of the authorization will result in interference to the reception of such signal.

(g) An application for an FM translator or an FM booster station that is 53 or 54 channels removed from an FM radio broadcast station will not be accepted for filing if it fails to meet the required separation distances set out in §73.207 of this chapter. For purposes of determining compliance with §73.207 of this chapter, translator stations will be treated as Class A stations and booster stations will be treated the same as their FM radio broadcast station equivalents. FM radio broadcast station equivalents will be determined in accordance with §§73.210 and 73.211 of this chapter, based on the booster station's ERP and HAAT. Provided, however, that FM translator stations and booster stations operating with less than 100 watts ERP will be treated as class D stations and will not be subject to intermediate frequency separation requirements.

(h) An application for an FM translator station will not be accepted for filing if it specifies a location within 320 kilometers (approximately 199 miles) of either the Canadian or Mexican borders and it does not comply with §74.1235(d) of this part.

(i) FM booster stations shall be subject to the requirement that the signal of any first adjacent channel station must exceed the signal of the booster station by 6 dB at all points within the protected contour of any first adjacent channel station, except that in the case of FM stations on adjacent channels at spacings that do not meet the minimum distance separations specified in §73.207 of this chapter, the signal of any first adjacent channel station must exceed the signal of the booster by 6 dB at any point within the predicted interference free contour of the adjacent channel station.

(j) FM translator stations authorized prior to June 1, 1991 with facilities that do not comply with the predicted interference protection provisions of this section, may continue to operate, provided that operation is in conformance with §74.1203 regarding actual interference. Applications for major changes in FM translator stations must specify facilities that comply with provisions of this section.

[55 FR 50694, Dec. 10, 1990, as amended at 56 FR 56170, Nov. 1, 1991; 58 FR 42026, Aug. 6, 1993]

§74.1205 Protection of channel 6 TV broadcast stations.

The provisions of this section apply to all applications for construction permits for new or modified facilities for a noncommercial educational FM translator station on Channels 201–220, unless the application is accompanied by a written agreement between the NCE–FM translator applicant and each affected TV Channel 6 broadcast station licensee or permittee concurring with the proposed NCE-FM translator facility.

(a) An application for a construction permit for new or modified facilities for a noncommercial educational FM translator station operating on Channels 201–220 must include a showing that demonstrates compliance with paragraph (b), (c) or (d) of this section

CRTC - Broadcast

Ottawa, 5 September 1997
Decision CRTC 97-539
Radio 1540 LimitedToronto, Ontario - 199616348

Licence amendment

1. Following Public Notice CRTC 1997-52 dated 2 May 1997, the Commission approves the application to amend the broadcasting licence for CHIN Toronto, by adding a low-power FM transmitter (LPFM) at Toronto, operating on a frequency of 101.3 MHz (channel 267LP), with an effective radiated power of 22 watts.

2. The applicant requested the addition of the proposed transmitter to improve the night-time coverage of CHIN's signal to certain areas of Woodbridge, East Mississauga and Etobicoke.

3. Dufferin Communications Inc., licensee of CIDC-FM Orangeville, and CKMW Radio Ltd., licensee of CIAO Brampton, jointly submitted an intervention which, while supporting the application, requested that the Commission impose a condition of licence regarding the potential use of the station's SCMO channel for ethnic programming.

4. The Commission notes that the applicant did not indicate in its application that it intends to use SCMO channels to broadcast ethnic programming. Should the applicant wish to do so, it would be required to submit an application to the Commission requesting authorization. Once complete, the application would be announced by public notice and these interveners' comments could be resubmitted at that time.

5. CHRY Community Radio Incorporated (CHRY), licensee of CHRY-FM Downsview/Toronto, and The Mohawk College Radio Corporation (Mohawk College), licensee of the new campus/instructional FM radio station at Hamilton, submitted interventions opposing this application. Both argued that the Commission should issue a call for applications for LPFM undertakings in accordance with Public Notice CRTC 1993-95, which sets out the Commission's licensing policy for low-power radio broadcasting.

6. In response, the applicant stated that it is proposing to operate an LPFM on channel 267, the upper third adjacent channel to the CHIN-FM assignment, and within that station's protected contour. The applicant further stated that Industry Canada does not permit the operation of a third adjacent channel, inside the protected contour of another station, without that station's consent. For this reason, the applicant argued that it alone can use channel 267 and, as a consequence, this frequency is not an unconstrained drop-in LPFM that could be licensed to any applicant, as indicated in Public Notice CRTC 1993-95.

7. In addition, the Commission notes that, in Public Notice CRTC 1996-73 dated 5 June 1996, it did issue a call for applications for a new radio station to serve Toronto. CHRY and Mohawk College had an opportunity, at that time, to apply for the frequency in question, because the call did not specify the frequency that could be used by a prospective applicant.

8. Having considered all the evidence before it, the Commission is satisfied that approval of this application will correct CHIN's technical deficiencies in its AM night-time signal coverage without having an undue impact on other radio stations operating in the area.

9. The Commission acknowledges the intervention submitted by CIRC Radio Inc., licensee of CIRV-FM Toronto, in support of this application.
This decision is to be appended to the licence.

Laura M. Talbot-Allan
Secretary General

This document is available in alternative format upon request.

Doc. #: DEC97-539_0