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 adduction 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
Policy and Rules Division
Mass Media Bureau

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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(a) Counterproposals advanced in this proceeding itself will be considered if advanced in initial comments, so that parties may comment on them in reply comments. They will not be considered if advanced in reply comments. (*See* Section 1.420(d) of the Commission's Rules.)

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4. *Comments and Reply Comments; Service*. Pursuant to applicable procedures set out in Sections 1.415 and 1.4[illegible] of the Commission's Rules and Regulations, interested parties may file comments and reply comments on or before the dates set forth in the *Notice of Proposed Rule Making* [illegible] which this Appendix is attached. All submissions by parties to this proceeding or by persons acting on behalf of [illegible] parties must be made in written comments, reply comments, or other appropriate pleadings. Comments shall be served on the petitioner by the person filing the comments. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. Such comments and reply comments shall be accompanied by a certificate of service. (*See* Section 1.420(a), (b) and (c) of the Commission's Rules.) Comments should be filed with the Secretary, Federal Communications Commission, Washington, D.C. 20554.

5. *Number of Copies*. In accordance with the provisions of Section 1.420 of the Commission's Rules and Regulations, an original and four copies of all comments, reply comments, pleadings, briefs, or other documents shall be furnished the Commission.

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KMGE
167.4
188
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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-9408291C

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 to KMGE under the contour protection rule.[2] Although [illegible] provides the contour protection to KMGE [illegible] 73.215(a), the proposed site falls 8.6 km [illegible] km minimum spacing required by [illegible] quently, PNBC has requested that the [illegible] table be waived in this instance.

In support of its request for waiver, [illegible] finding suitable sites from which KNRK [illegible] C2 operation while still providing [illegible] signal to the station's community of license. [illegible] difficult, hills around the city limits [illegible] master sites from which KNRK would [illegible] line-of-sight operation to Camas. Potential [illegible] be further restricted by the Bull Run [illegible] ment Unit, which prohibits most [illegible] Another site on Pepper Mountain [illegible] determined to be unsuitable due to [illegible] Columbia River Gorge National Scenic [illegible] make construction difficult if not im[illegible] area would also arouse public opp[illegible] Powell Butte, and Walters Hill were [illegible] found to have land use and zon[illegible] would be unlikely to permit construc[illegible] Mountain was evaluated but found [illegible] a ridge which would cause shadowing [illegible] Camas. Mt. Zion, an existing com[illegible] microwave service and utility site, [illegible] lumbia River National Scenic Area [illegible] construction of a tower unlikely.[6] [illegible] tery Hill was evaluated but rejected [illegible] effects and likely local opposition [illegible] cluded that its only option is to [illegible] licensed transmitter site.

In addition, PNBC contends that [illegible] waiver of § 73.215(e) sought [illegible] precedent." PNBC cites *St. Croix* [illegible] FCC Rcd 7329 (MMB 1993), where [illegible] 73.215 (a)(4) to afford the station [illegible] consider short-spaced transmitter [illegible] er stations from interference in [illegible] occur under the Commission's [illegible] that its showings clearly demonstrate [illegible] transmitter sites available to KNRK [illegible] threshold criteria required under [illegible]

[1] KNRK's Class C3 operation is already licensed as a contour protection station under § 73.215 with respect to KMGE, Eugene, OR and KUKN, Kelso, WA.

[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, predicted 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 a 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 [illegible] Carolyn Coons and Klaus Heyne, [illegible] Guardians of Larch Mountain, in[illegible] posed PNBC's earlier request to [illegible] would also oppose any request of [illegible] Mountain or in the Columbia [illegible] Area.

[5] A letter dated August 25, 199[illegible] Premble, Planning Director of M[illegible] dicates that local ordinances prom[illegible] ty. In addition, a letter is provided [illegible] Consultant, outlining the difficul[illegible] the documentation necessary to [illegible] in Multnomah County, and its sli[illegible]

[6] A letter is provided from Rob[illegible] indicating that any effort to con[illegible] River Gorge National Scenic Area [illegible] and money" and would probably [illegible]

NBC also notes that the Commission
d in MM Docket 92-241 that the
o Class C2 would serve the public
allow KNRK to expand its coverage
C posits that the Commission chose
s in § 73.215(e) only because the
Docket 87-121 proceeding (which
not indicate the fullest extent to
anas could be utilized.[9] Here, how-
that a directional antenna can be
the Commission's rules. Finally,
ote 27 of the *Memorandum Opinion*
ket 87-121, *supra*, where the Com-
vers of § 73.215 may be warranted
of cases if the waiver request is in
ccordingly, PNBC believes that its
73.215(e) is warranted.

DISCUSSION

understand our decision in this
provide some background on the
sent rule. We will then discuss the
aiver request.

s. The minimum distance separa-
CFR § 73.207 determine how close
one FM station can be to another
same or adjacent channels, or on
cy (IF) channel. Prior to the effec-
June 26, 1989, applicants which
paced transmitter site could request

or permittee of an existing station
mitter site to a short-spaced trans-
to make a three part threshold
that (1) the present site was no
t alternative non-short-spaced sites
(3) that the proposed transmitter
aced site available.[12] After meeting
e applicant was then required to
spacing requirements would serve
showings generally consisted of an
ons why the spacing waiver was
by affidavits from engineering con-
overnmental officials, aeronautical
nd realtors as appropriate to the
amounts of short-spacing required
tation to demonstrate compliance
public interest showing require-

CO

that the threshold criteria under the
ocess may not be strictly applicable to
ey contend that such criteria "may be
ing whether a waiver is warranted."
M Docket 92-241, 8 FCC Rcd 1796 at

M Docket 87-121, *supra* at Paragraph

Hill, 70 FCC 2d 153 (Rev. Bd. 1978).
on Broadcasting, Inc., 62 FCC 2d 45,

The preparation and processing of requests for waiver
§ 73.207 proved to be increasingly burdensome and
consuming for both applicants and the staff. When con-
ering a spacing waiver request, it was necessary for the
to compare (and contrast) the threshold and public in
showings against prior precedents for the same degree
short-spacing and to make judgements regarding the
and deficiencies of each waiver request. In some instan
the validity and accuracy of the information submitted
called into question by the staff or a petitioner, requir
additional justification by the applicant and additional
view by the staff. Grant or denial of waiver requests
quired that the staff explain in detail the reasons why it
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 alt
native procedure by which an applicant could apply to
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 re-
strictive 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
eliminates the need to gather and present documentation
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 sys-
tem. It also allowed the Commission to discontinue pro-
cessing 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

1 DOT

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).

of 28 possible combinations between the various classes of stations, none receives less than 10 km additional short-spacing from the minimum distance separation require-
ments of § 73.207. These maximum limits are at least 4 km
(and in many instances much greater) than the 6
limit under the former spacing waiver process which
necessitated referral of the application to the Commission
de novo. Moreover, these short-spacings can now be ob-
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 re-
quests 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 waiv-
er of the § 73.215(e) spacing table. While both rules con-
tain 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 Commis-
sion 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 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.

Spacing Waiver *precedents*. PNBC has cited no cases in
which the Commission has granted an applicant seeking
upgrade its operation to the next higher class a spacing
waiver comparable to this request. Nor is the staff aware of
any such case approved by the Commission. Indeed, in a
situation involving a case requesting somewhat greater
short-spacing (19 miles = 27 km), the Commission denied
the application on the grounds that the proposed short-
spacing was excessive and that "strict enforcement of the
mileage separation rules is of paramount importance to the
integrity of the entire FM assignment plan." *Boone Biblical College*, 15 FCC 2d 861 (1969), *recon. denied*, 19 FCC 2d 511 (1978), 155 (1969).[18] Even in *Megamedia*, 67 FCC 2d 1527 (1972), where the short-spacing was necessitated by health and safety concerns, the short-spacing under § 73.207 approved by the Commission was 8 miles (13 km) – a far cry from the 20.6 short-spacing proposed by PNBC.[19] Therefore, we conclude that Commission precedent does not support grant of the waiver request.

The purpose underlying § 73.215 is to afford applicants greater flexibility in specifying transmitter sites. The rule was indeed adopted for this purpose, as the Commission has stated.[20] That flexibility was limited by the Commission through the minimum separation table § 73.215(e). PNBC is correct in that these spacings were chosen "because the technical record in this proceeding does not clearly indicate the fullest extent to which FM directional antennas could be employed."[21] However, technical matters are not the only issue here.

The present § 73.207 spacing table was adopted in part to insure a fair distribution of FM service across the country, avoiding concentrations of stations in specific locations.[22] Each waiver of a spacing rule undermines this policy objective to some extent by increasing the spectral crowding of stations in the FM band. Thus, although an individual waiver may be appealing because the area and population served by a particular station is increased, waiver of the spacing rules lose their appeal when considered in light of the larger policy objectives of maintaining a fair distribution of stations while protecting the service areas of stations.[23]

Grant of a waiver to PNBC would undermine these policy objectives by serving as precedent for additional waivers of the § 73.215(e) table by cochannel and first-adjacent channel applicants. Contrary to PNBC's assertion, the waiver request does not appear to be unique: the staff has received numerous telephone inquiries concerning the possibility of waiver of § 73.215(e) for cochannel and first-adjacent channel stations. Over time, such waivers would effectively eliminate §§ 73.207 and 73.215(e) as a tool for achieving a fair distribution of stations.

4 HERE CASE 27 Km

[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 of a rulemaking to delete the deficient allotment.

[19] Additionally, *Megamedia* involved a *third*-adjacent channel waiver, not first-adjacent as proposed by PNBC.

[20] *Report and Order* in Docket 87-121, *supra* at Paragraph 33.

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

[22] *First Report and Order* in MM Docket 14185, 23 RR at 1817, Paragraph 37.

[23] *St. Croix Wireless Company, Inc.*, *supra* did not violate any of these policy objectives since the matter did not involve the spacing table, but rather the protected and interfering contours to be used for stations in Puerto Rico and the Virgin Islands.

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.

Doubts 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 suggest the general waiver request. The footnote clearly refers to a [redacted] seeking [redacted] In that context, a [redacted], not [redacted] a directional [redacted] § 73.215(e), since it is difficult to multiplex 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 areas 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 C3 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] compared to § 73.207. These facts suggest that the Channel [redacted] adopted [redacted] A substandard allotment is not a compelling basis for waiver of the Commission's technical rules covering construction permit applications. *Cf Chesapeake and Wedgefield*, 5C, *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 1588 (1983); *Pur* (1977); *Natchitoches, Louisiana*, 52 RR 2d 1588 (1983); *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-9408291C IS HEREBY DISMISSED as unacceptable for filing.

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[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. [redacted] 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 (69.6 km) 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 REQUE

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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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 proce[illegible] the contour protection rule.[2] Although [illegible] provides the contour protection to KMG[illegible] 73.215(a), the proposed site falls 8.6 km [illegible] km minimum spacing required by § [illegible] quently, PNBC has requested that the § [illegible] table be waived in this instance.

In support of its request for waiver, [illegible] finding suitable sites from which KNRK [illegible] C2 operation while still providing the [illegible] signal to the station's community of licen[illegible] difficult. Hills around the city limit the [illegible] mitter sites from which KNRK would [illegible] line-of-sight operation to Camas. Potent[illegible] be further restricted by the Bull Run [illegible] ment Unit, which prohibits most co[illegible] Another site on Pepper Mountain w[illegible] determined to be unsuitable due to its [illegible] Columbia River Gorge National Scenic [illegible] make construction difficult if not impo[illegible] area would also arouse public opposi[illegible] Powell Butte, and Walters Hill were [illegible] found to have land use and zoning [illegible] would be unlikely to permit constructio[illegible] Mountain was evaluated but found to b[illegible] a ridge which would cause shadowing [illegible] Camas. Mt. Zion, an existing comm[illegible] microwave service and utility site, is [illegible] lumbia River National Scenic Area, [illegible] construction of a tower unlikely.[6] Fin[illegible] tery Hill was evaluated but rejected [illegible] effects and likely local opposition. T[illegible] cluded that its only option is to re[illegible] licensed transmitter site.

In addition, PNBC contends that [illegible] waiver of § 73.215(e) sought is [illegible] precedent." PNBC cites *St. Croix Wir[illegible]* FCC Rcd 7329 (MMB 1993), where [illegible] 73.215 (a)(4) to afford the station the [illegible] consider short-spaced transmitter sites [illegible] er stations from interference in exce[illegible] occur under the Commission's spaci[illegible] that its showings clearly demonstrate [illegible] transmitter sites available to KNR[illegible] threshold criteria required under the [illegible]

[1] KNRK's Class C3 operation is already licensed as a contour protection station under § 73.215 with respect to KMGE, Eugene, OR and KUKN, Kelso, WA.

[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 station 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 a 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, [illegible] Carolyn Coons and Klaus Heyne, Co[illegible] Guardians of Larch Mountain, indicat[illegible] posed PNBC's earlier request to use [illegible] would also oppose any request of PNB[illegible] Mountain or in the Columbia River [illegible] Area.

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

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

also notes that the Commission
MM Docket 92-241 that the
ss C2 would serve the public
KNRK to expand its coverage
its that the Commission chose
§ 73.215(e) only because the
cket 87-121 proceeding (which
indicate the fullest extent to
could be utilized.[9] Here, how-
a directional antenna can be
Commission's rules. Finally,
7 of the *Memorandum Opinion*
87-121, *supra*, where the Com-
of § 73.215 may be warranted
ases if the waiver request is in
ingly, PNBC believes that its
5(e) is warranted.

USSION

derstand our decision in this
de some background on the
rule. We will then discuss the
request.

he minimum distance separa-
§ 73.207 determine how close
FM station can be to another
ne or adjacent channels, or on
IF) channel. Prior to the effec-
ne 26, 1989, applicants which
d transmitter site could request

permittee of an existing station
er site to a short-spaced trans-
make a three part threshold
t (1) the present site was no
ternative non-short-spaced sites
that the proposed transmitter
d site available.[12] After meeting
pplicant was then required to
cing requirements would serve
owings generally consisted of an
why the spacing waiver was
affidavits from engineering con-
ernmental officials, aeronautical
realtors as appropriate to the
ounts of short-spacing required
ion to demonstrate compliance
blic interest showing require-

CO

the threshold criteria under the
s may not be strictly applicable to
contend that such criteria "may be
whether a waiver is warranted."
Docket 92-241, 8 FCC Rcd 1796 at

Docket 87-121, *supra* at Paragraph

, 70 FCC 2d 153 (Rev. Bd. 1978).
Broadcasting, Inc., 62 FCC 2d 45,

South, 45 RR 2d 1213 (1979); also

The preparation and processing of requests for waiver
§ 73.207 proved to be increasingly burdensome and
consuming for both applicants and the staff. When con
ering a spacing waiver request, it was necessary for the
to compare (and contrast) the threshold and public int
showings against prior precedents for the same degre
short-spacing and to make judgements regarding the
and deficiencies of each waiver request. In some instan
the validity and accuracy of the information submitted
called into question by the staff or a petitioner, requir
additional justification by the applicant and additional
view by the staff. Grant or denial of waiver requests
quired that the staff explain in detail the reasons why it
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 alter-
native 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 re-
strictive 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 sys-
tem. It also allowed the Commission to discontinue pro-
cessing of more burdensome and less technically sound
spacing waiver requests (including *de minimis* requests).[15]

In addition, the contour protection rule afforded
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

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Megamedia, 67 FCC 2d 1527, 1528 (1972).

[11] 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 1601 (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 require-
ment of § 73.207. These maximum limits are at least 4 km
shorter (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
en banc. Moreover, these short-spacings can now be ob-
tained 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 re-*
quests 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 waiv-
er of the § 73.215(e) spacing table. While both rules con-
tain 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 Commis-
sion 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 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-
posal transmitter site is the least short spaced site
available.

Spacing Waiver *precedents.* PNBC has cited no cases in
which the Commission has granted an applicant seeking the
upgrade the operation to the next higher class a spacing
waiver complying only with the minimum. Nor is the staff aware of
any such case approved by the Commission. Indeed, in a
situation involving a case requesting somewhat greater
short-spacing (6 km vs. 25 km), the Commission denied
the application on the grounds that the proposed short-
spacing was reasonable and that "strict enforcement of the
mileage separation rules is of paramount importance to the
integrity of the entire FM assignment plan." *Boone Biblical*
College, 15 FCC 2d 861 (1969), *recon. denied*, 19 FCC 2d
155 (1969).[18] Even in *Megamedia*, 67 FCC 2d 511 (1978),
where the short-spacing was necessitated by health and
safety concerns, the short-spacing under § 73.207 approved
by the Commission was 8 miles (13 km) – a far cry from
the 20.6 short-spacing proposed by PNBC.[19] Therefore, we
conclude that Commission precedent does not support
grant of the waiver request.

The purpose underlying § 73.215 is to afford applicants
greater flexibility in specifying transmitter sites. The rule was
indeed adopted for this purpose, as the Commission has
stated.[20] That flexibility was limited by the Commission
through the minimum separation table § 73.215(e). PNBC
is correct in that these spacings were chosen "because the
technical record in this proceeding does not clearly in-
dicate the fullest extent to which FM directional antennas
could be employed."[21] However, technical matters are not
the only issue here.

The present § 73.207 spacing table was adopted in part to
insure a fair distribution of FM service across the country.[22]
avoiding concentrations of stations in specific locations.
Each waiver of a spacing rule undermines this policy
objective to some extent by increasing the spectral
crowding of stations in the FM band. Thus, although an
individual waiver may be appealing because the area and
population served by a particular station is increased, waiv-
er of the spacing rules lose their appeal when considered
in light of the larger policy objectives of maintaining a fair
distribution of stations while protecting the service areas of
stations.[23]

Grant of a waiver to PNBC would undermine these
policy objectives by serving as precedent for additional
waivers of the § 73.215(e) table by cochannel and first-
adjacent channel applicants. Contrary to PNBC's assertion,
the waiver request does not appear to be unique: the staff
has received numerous telephone inquiries concerning the
possibility of waiver of § 73.215(e) for cochannel and
first-adjacent channel stations. Over time, such waivers
would effectively eliminate §§ 73.207 and 73.215(e) as a tool
for achieving a fair distribution of stations.

[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 of a rulemaking to delete the deficient allotment.

[19] Additionally, *Megamedia* involved a third-adjacent channel waiver, not first-adjacent as proposed by PNBC.

[20] *Report and Order* in Docket 87-121, *supra* at Paragraph 33.

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

[22] *First Report and Order* in MM Docket 14185, 23 RR at 1817, Paragraph 37.

[23] *St. Croix Wireless Company, Inc.*, *supra* did not violate any of these policy objectives since the matter did not involve the spacing table, but rather the protected and interfering contours to be used for stations in Puerto Rico and the Virgin Islands.

4 HKR CASE 27 Km

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] probably be nothing a waiver of [illegible], 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 areas 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 C2 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 [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 Chesterfield 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.

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[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. [illegible] should 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) (mix with 60.6 km) 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 REQUES

WBRU

Before the
Communications Commission
ashington, D.C. 20554

M Docket No. 86-144

cal Parameters for
ules of Part 73,
roadcast Stations

NDUM OPINION AND ORDER

1988; Released: April 29, 1988

on:

INTRODUCTION

ion has before it two petitions for re-
he *Second Report and Order* (*Second*
roceeding. One petition, filed by Brown
ce, Inc. on November 5, 1987, requests
on reconsider and modify its action that
73.213 of the rules, which governs re-
ifications of grandfathered short-spaced
other petition, filed by Eric R. Hilding
1987, requests that the Commission re-
dify its action that amended Section
s, which sets forth power and antenna
nts for each of the six classes of FM
ments were filed in response to either

BACKGROUND

this proceeding with a *Notice of Pro-*
g (*Notice*)[2] that proposed minor adjust-
rules that were affected by our actions in
80-90[3], but were not given detailed
that proceeding. In the *Notice*, we also
method for classifying FM stations and
technical rules that needed updating.

00 parties filed comments or reply com-
se to the *Notice*. In January 1987, we
Report and Order[4] resolving two of the
ice. Subsequently, in September 1987, we
ond Report addressing the remaining is-
nd Report, we set forth a definitive meth-
FM stations according to their effective
ERP) and antenna height above average
Also, we amended our rules to limit
modifications of grandfathered short-
ons, allowing only those that would not
ntial for interference.

ISSUES

4. *The Brown Petition*. Brown Broadcasting Service, Inc. (Brown) is the licensee of station WBRU, Channel 23[illegible] 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 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[6] 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 (2[illegible] 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 of 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 reference distance equals or exceeds 6 kilometers. *See* footnote 16 *supra*. Rather than adding a new paragraph, we are appending the appropriate language to paragraph 73.211(a)(3). *See* Appendix.

OTHER MATTERS

15. The rule amendment contained herein has 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 it will not increase or decrease burden hours imposed on the public.

16. Because the rule amendment we are adopting herein is a substantive rule which grants an exemption and relieves a restriction, we are designating that it shall become effective immediately upon publication in the Federal Register.[20] Applications pending or received on or after September 25, 1987 (the release date of the *Second Report*) may be processed in accordance with the newly amended rule.[21]

ORDERING CLAUSES

17. Accordingly, IT IS ORDERED, That the Petition for Reconsideration filed by Brown Broadcasting Service, Inc. IS DENIED, and That the Petition for Reconsideration filed by Eric R. Hilding IS GRANTED.

18. IT IS FURTHER ORDERED That Part 73 of the Commission's Rules and Regulations IS AMENDED, as set forth in the Appendix below, effective upon publication in the Federal Register. Authority for this action is contained in Sections 4(i) and 303(r) of the Communications Act of 1934, as amended.

FEDERAL COMMUNICATIONS COMMISSION

H. Walker Feaster, III.
Acting Secretary

APPENDIX

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. Section 73.211 is amended by revising paragraph (a)(3) to read as follows:

§ 73.211 Power and antenna height requirements.

(a) * * *

(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 in accordance with paragraph (b)(1)(i) of this section,

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 87-12[illegible] (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 6 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 19[illegible] 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 migh
only programming of news, weather, ti
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 overu
service by augmenting their program day
or video bulletin board-like informational
of normal programming during regular o
Thus, the Commission specified the hour
12 midnight until 6 A.M. because these
common "dark" or unused hours for stat
ing 24 hours per day.[3] Recognizing, how
stations sign-on after 6 A.M., particul
commercial educational stations, the Com
ted these stations to broadcast a
informational service for no more than 15
diately prior to the start of the station's sc

3. The essence of the Commission's act
to allow an additional service to be offer
hours where no "regular" television servic
by the station. However, by specifying the
of-day and the 15-minute limit for stations
than 6 A.M., the Commission restricted
flexibility of using the informational ser
course of regular broadcast hours. We n
the public interest would be better served
licensee maximum flexibility to establish
time of day that is most appropriate for tr
rate audio or video services. For instance,
communities where certain news or spe
ports, *e. g.*, farm crops index reports, may
public benefit at certain times of the re
day. Rather than broadcasting such infor
on-air announcer, stations could elect to
reports more cost effectively via a vide
board-like service. In general, we believe
pressures from competing stations and fr
create incentives for broadcasters to dec
transmit regular integrated sound and vi
gramming or to transmit non-associated a
informational services, depending upon t
desires of their viewers. In our analysis w
for not allowing licensees to make this j
the competitive limits of their individual b
areas. Therefore, we propose to amend
73.653 to eliminate all time restrictions fo
sion of video informational services.

Power meter calibration.

4. In operating a television broadcast sta
must have the capability of determining a
the appropriate level of authorized transm

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 it believes is the most appropriate balance between the consumers' demands for the highest quality signal and its 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 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 specifi equipment and the electrical properties c Many of these requirements are also no for the reasons mentioned above. Also, and safety specifications do not pertain of, or limits on, adjacent and co-char which are of paramount Commission cor fications are analogous to those eliminate in similar proceedings for AM and FM is our view that these requirements per ment installation and safety are redunda other state or federal requirements.[17] Th that the installation and safety requiren 73.687(d),(e), (f), and (h) may be unwar fore, propose their removal.

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

16. Table I of Rule Section 73.698 cor for minutes-to-decimal and seconds-to-de degree. These values may be used in t geographical distance separations betwee nel assignment locations. Such convers established in the Rules to provide the m and accurate calculations long before the spread availability of electronic calculato At that time, approximations and estimat made in determining such values using sl other manual method. On occasion, yielded imprecise and inconsistent result electronic calculators and computers are today for calculating coordinate distance increased accuracy and speed of compu no longer needed. Therefore, we propose of Section 73.698 from the Rules.[18]

CONCLUSION

17. In this proceeding, we have revie rules that we believe to be unnecessary, anachronistic. We encourage all intereste ment not only on the specific proposals d also to comment on other related techn are within the scope of this proceeding.

18. Authority for this proposed rule ma in Sections 1.3, 4(i) and (j), 303, 308, 30 Communications Act of 1934, as amen applicable procedures set forth in Section of the Commission's Rules, interested comments on or before **June 20, 1988,** ments on or before **July 5, 1988.** All rel comments will be considered by the Co final action is taken in this proceeding. decision, the Commission may take into formation and ideas not contained in the vided that such information or a writin nature and source of such information 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 c 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

hen the Commission (1) releases the text order in the matter; (2) issues a public at the matter has been deleted from the ; or (3) issues a public notice stating that been returned to the staff for further hichever occurs first. Section 1.1202(f). hine Agenda period, no presentations, ex se, are permitted unless specifically re- mission or staff for the clarification or dence or the resolution of issues in the on 1.1203.

an ex parte presentation is any presenta- the merits or outcome of the proceeding -making personnel which (1) if written, is e parties to the proceeding, or (2), if oral, opportunity for them to be present. Sec- ny person who submits a written ex parte st provide, on the same day it is submit- same to the Commission's Secretary for public record. Any person who makes an sentation that presents data or arguments cted in that person's previously-filed writ- must provide, on the day of the oral pre- norandum to the Secretary (with a copy to er or staff member involved) which sum- and arguments. Each ex parte presenta- above must state on its face that the een served, and must also state by docket ceeding to which it relates. Section 1.1206.

ed by Section 603 of the Regulatory Flexi- Commission had prepared an initial regula- nalysis (IRFA) of the expected impact of policies and rules on small entities. The rth in Appendix A. Written public com- ested on the IRFA. These comments must ordance with the same filing deadlines as e rest of the Notice, but they must have a distinct heading designating them as re- egulatory flexibility analysis. The Secretary copy of this Notice, including the initial bility analysis to be sent to the Chief Coun- cy of the Small Business Administration in Section 603(a) of the Regulatory Flexibil- No. 96-354, 94 Stat. 1164 5 U.S.C. Section 2)

posals contained herein have been analyzed the Paperwork Reduction Act of 1980 and in no new or modified form, information or record keeping, labeling, disclosure, or n requirements; and will not increase or n hours imposed on the public.

ormally in this proceeding, participants must l five copies of all comments, reply com- upporting documents. If participants want ioner to receive a personal copy of their original plus eleven copies must be filed. d reply comments should be sent to Office ry, Federal Communications, Commission. D.C. 20554. Comments and reply comments le for public inspection during regular busi- the Dockets Reference Room (Room 239) of ommunications Commission, 1919 M Street, gton, D.C. 20554

ther information on this proceeding, contact en, 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 relevance of current Commission rules concerning television broadcast transmission quality in light of expanding marketplace competition and to consider whether these rules should be revised or eliminated. This review also considers the elimination of television broadcast facility safety rules which may be enforced more appropriately by other agencies.

II. The objective

This action is proposed to delete unnecessary or outdated rules and policies and allow television broadcast licensees to operate their stations with increased flexibility and less burdensome technical regulations.

III. Legal basis

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

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

There are 1,005 commercial television stations, and 3[illegible] noncommercial television stations in the United States. All of these stations should benefit from this proposal by being allowed increased flexibility and being relieved of burdensome regulations. We expect no negative impact on these stations, small entities or large, as we are not mandating any new requirements or showings. Interference should not increase as a result.

V. Recording, Recordkeeping, and Other Compliance Requirements

There is no additional impact.

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

There is no overlap, duplication, or conflict.

VII. Any Significant Alternatives Minimizing Impact On 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 reference point from degree-minute-second format to degree-decimal format by dividing minutes by 60 and seconds by 3600, then adding the results to degrees.

* * * * *

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

§ 73.653 Operation of TV aural and visual transmitters.

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

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

(2) Equipment tests or experimentation pursuant to §73.1510 (Experimental authorizations) and §73.1520 (Operation for tests and maintenance).

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

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

§ 73.663 Determining operating power.

* * * * *

(b) ***

(3) The meter must be calibrated with the transmitter operating at 80%, 100%, and 110% of the authorized power as often as may be necessary to insure compliance with the requirements of this paragraph. In cases where the transmitter is incapable of operating at 110% of the authorized power output, the calibration may be made at a power output between 100% and 110% of the authorized power output. However, where this is done, the output meter must be marked at the point of calibration of maximum power output, and the station will be deemed to be in violation of this rule if that power is exceeded. The upper and lower limits of permissible power deviation as determined by the prescribed calibration, must be shown upon the meter either by means of adjustable red markers incorporated in the meter or by red marks placed upon the meter scale or glass face. These markings must be checked and changed, if necessary, each time the meter is calibrated.

5. Section 73.685 is proposed to be amended by revising paragraph (e) to read as follows:

§ 73.685 Transmitter location and antenna system.

* * * * *

(e) An antenna designed or altered to produce a noncircular radiation pattern in the horizontal plane is considered to be a directional antenna. Antennas purposely installed in such a manner as to result in the mechanical beam tilting of the major vertical radiation lobe are included in this category. Directional antennas may be employed for the purpose of improving service upon an appropriate showing of need.

6. Section 73.687, Transmission system requirements, is proposed to be amended by removing paragraphs (d), (e), (f) and (h), and redesignating paragraph (g) as paragaph (d).

7. Section 73.698, Tables, is proposed to be amended by removing Table I.

8. Section 73.699, Figure 6, is proposed to be amended by removing Note 8, and redesignating Notes 9 through 19 as Notes 8 through 18 respectively.

FOOTNOTES

[1] The Commission has earlier adopted the following similar actions in review of technical facilities and operational requirements: *Review of Technical and Operational Regulation of FM Broadcast Stations, Report & Order* in MM Docket No. 85-325, 51 FR 17027, May 8, 1986; *Review of Technical and Operational Regulations of AM Broadcast Stations, Report & Order* in MM Docket No. 85-125, 51 FR 2704, January 21, 1986; *Review of Technical and Operational Regulations of Cable Television Systems, Report & Order* in MM Docket No. 85-38, 50 FR 52162, December 24, 1985.

[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 monochrome 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 3, 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 [illegible] (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 inte[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 enco[illegible] two relatively strong FM broadcast signals from IF-re[illegible] stations. The current spacings specified for Classes [illegible] and C (the original classes) were intended to avoid [illegible] overlap of 20 mV/m field strength contours.[10] Howe[illegible] we recognized in the *Notice*, the specified distance[illegible] insufficient to prevent such overlap. Nevertheles[illegible] dence of IF interference is limited to allegations ma[illegible] several parties to this proceeding, which is contradic[illegible] the experiences of others. We are not aware of comp[illegible] by the public or broadcasters which can be attribut[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. Conseque[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 spacin[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 p[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 [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 ab[illegible] ished or relaxed for all of the station classes, new and o[illegible] Others stated that IF interference is a serious problem a[illegible] that we should not change any of these requirem[illegible] Although IF interference results primarily from rec[illegible] inadequacies, we had received no comments or infor[illegible] tion from receiver manufacturers or trade organiza[illegible] representing receiver manufacturers. Additionally, o[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 [illegible] findings.

6. Considering these factors, we concluded in the S[illegible] *ond Report* that adoption at that time of minimum di[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 Proposed Rule Making* (*Further Notice*)[12] with the goal of developing a more comprehensive record concerning the issue. The *Further Notice* also expanded the scope of the proposal to include consideration of existing IF distance separation requirements applicable to the pre-BC Docket 80-90 FM station classes (A, B and C) and possible new IF minimum distance separation requirements applicable to TV Channel 6 allotments and assignments in the vicinity of FM Channel 253 allotments and assignments (and vice versa).

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

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

COMMENTS

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

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

12. Greater Media, Inc. (Greater Media) opp[illegible] change in the current IF rule on the ground [illegible] would cause "new IF interference to millions of [illegible] currently in use and likely to remain in use f[illegible] many years." To support this contention, Great[illegible] supplied a statement by it's Vice President of E[illegible] gineering, Mr. Milford K. Smith, Jr., which r[illegible] experiences with IF interference while serving [illegible] Engineer (1967-1970) of WHMP-FM, Northamp[illegible] sachusetts. Mr. Smith recalls receiving many [illegible] of IF interference during that time, resulting [illegible] operation of a nearby IF-related station, WH[illegible] Smith further states that he returned to the are[illegible] 8, 1988 with ten consumer grade FM receivers [illegible] that he feels are likely to be used by the gener[illegible] At eight locations, Mr. Smith measured and rec[illegible] field strengths of the two aforementioned IF-re[illegible] tions and noted, for each of the receivers, wheth[illegible] interference was experienced. Because about [illegible] experienced interference, Mr. Sm[illegible] clude[illegible] that IF interference continues to be a pro[illegible] that the Commission would therefore be ill [illegible] change the current IF distance separation requ[illegible] Key, in reply, asserts that the Greater Media (Sm[illegible] is flawed because, among other things, the mea[illegible] nal strengths from the two stations were not [illegible] nearly equal at the locations where the trials [illegible] ducted, suggesting that the interference reported [illegible] was not IF interference, but interference of s[illegible] type.

13. The Association for Broadcast Enginee[illegible] dards (ABES) and Greater Media believe that [illegible] Study underestimates the IF interference susce[illegible] FM receivers typically used by consumers, and [illegible] should not serve as a basis for the proposed [illegible] protection level. ABES also submitted an e[illegible] statement that contains histograms showing the [illegible] IF-related licensed FM station pairs as a functio[illegible] ration distance. ABES notes that, according to [illegible] there are relatively few IF-related pairs separa[illegible] lances near the current minimums. From th[illegible] clude[illegible] that there is little benefit (in terms of s[illegible] flexibility) to be realized if the Commission' [illegible] were to be adopted. The ABES engineering [illegible] postulates that the current disparity in prote[illegible] between the various class combinations is a res[illegible] rounding of the originally calculated disu[illegible] changes in the class maximum facilities over th[illegible] ing two decades.

14. The National Association of Broadcast[illegible] recommends that the Commission "go slow" i[illegible] the IF distance separation requirements. NAB [illegible] the problem of IF interference rests in "curre[illegible] design practice," and that "the receiver industry [illegible] allowed time to embark upon a standardizatio[illegible] the outcome of which would determine the [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 (MST), 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 [redacted] 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 statio that increase the area of overlap of the station median field strength contours will not be acce

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

CONCLUSION

28. Some of the comments in this proceedi a concern that the Commission has embrac generally promoting *toleration of increased* in the FM service simply to increase the stations, and that these FM IF spacing re merely part of that philosophy. This is no Although we do seek to remove unnecessary barriers that stand in the way of opportunities expanded service to the public, we remain co preserving or improving the quality of all of t services.

29. In this *Third Report and Order*, we are e uniform protection level to serve as a basis for separation requirements, adjusting some of requirements to meet the uniform protectio establishing a new requirement to address unidentified potential source of IF interferen uniform protection level is not an untried s rather *it is one that* has been in use for some classes for many years without significant p expansion to include the other classes of FM result in more reasonable and consistent treat station applications, with no significant likelih tional interference.

30. We have previously determined that Se of the Regulatory Flexibility Act of 1980 (Pub *does not* apply to this rule making proceedi will not have a significant economic impact o tial number of small entities.

31. The actions contained herein have be with respect to the Paperwork Reduction Act found to contain no new or modified form, collection and/or record keeping, labeling, d record retention requirements, and they will or *decrease burden hours* imposed on the pub

ORDERING CLAUSES

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

33. Accordingly, IT IS ORDERED That Pa Commission's Rules and *Regulations* ARE effective **May 17, 1989**, as set forth in Appen FURTHER ORDERED That this proceeding NATED.

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
KOKQ-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 background noise which degrades reception of In more severe cases, it is characterized by audio, often distorted, of one or both of two st of the position of the receiver's tuner dial. occurs, this phenomenon can prevent receptio receiver of most or all of the FM stations in the

[2] Two FM stations are considered to be IF-re assigned frequencies are separated by 10.6 or 10 channels).

[3] The aural carrier (at 87.75 MHz) from Channel 6 is IF-related to FM channel 253 (98.

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

[5] *See Report and Order*, 94 FCC 2d 152 (198 *in part and denied in part*, 97 FCC 2d 279 (1984

[6] In BC Docket 80-90, the Commission ame expand FM service to the public by [redacted] station [redacted] thereby providing new opport tional stations and upgrading of existing statio sion now authorizes six classes of commerc stations: A, B1, B, C2, C1, and C. Three of the and C1, were created in BC Docket 80-90. At existing rules were modified merely to acc classes. In general, the approach was to apply new Classes B1 and C2 as if they were Class treat new Class C1 as though it was Class C. indicated that these rules could be refined la record addressing them in greater detail.

[7] *See First Report and Order* in MM Docket 660 (1987), 52 Fed. Reg. 8259, published Ma Commission amended the rules to permit any be allotted on 20 channels which were previ Class A operation. Also, the Commission decl rule which provides for the classification of based on transmitter location rather than th community of license.

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

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

[10] *See Report and Order* in Docket No. 159 Fed. Reg. 8680, July 9, 1965, 5 RR 2d 1679 1965).

[11] For the sake of brevity, the Commiss document to the criterion of preventing ove contours of IF-related stations as a particular For example, preventing overlap of two statio tours is referred to as a "30 mV/m protection

[12] *See Further Notice of Proposed Rule Mak* 86-144, 3 FCC Rcd 1061 (1988).

[13] *See Order Granting Motion for Extension 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 88-80, 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 ot 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 in [illegible] will not occur. This is especially true where the [illegible] on the record demonstrating that relaxed stand[illegible] create additional IF interference. In any event, it [illegible] does not justify lessening the protections for oth[illegible] of FM stations. Simply stated, the Commission [illegible] hard data that is necessary to justify a change [illegible] status quo.

Of course, the perfect solution lies with impr[illegible] design of FM receivers. The data demonstrate [illegible] ference problems will vary considerably, depe[illegible] the quality of receiver. Most commenters agre[illegible] proved design will significantly reduce the IF in[illegible] problem. Accordingly, I support the idea that [illegible] cast and consumer electronics industries sho[illegible] new receiver performance standards. In this r[illegible] Commission should take the lead by endorsi[illegible] dustry developed standard that will balance th[illegible] additional IF protection against increased cos[illegible] sumers from higher quality radio receivers. At [illegible] in time, however, we should craft our interfer[illegible] to be consistent with the realities of the radi[illegible] marketplace. Our decision today runs the ri[illegible] creased interference to a significant number [illegible] receivers.

On balance, there is little or no evidence [illegible] relaxing the IF interference standard to 36 mV[illegible] tion level. The record in this proceeding supp[illegible] tious approach to this problem, perhaps a [illegible] examination of each potential IF interferenc[illegible] The blanket, uniform protection standard adop[illegible] proceeding is anything but cautious. I agre[illegible] majority's decision will provide a consistent s[illegible] all classes of FM facilities. However, our pub[illegible] concerns should encompass far more than an [illegible] tive uniformity. Given the lack of evidence i[illegible] ceeding that would justify such a change, I mu[illegible] the majority's decision.

FOOTNOTES FOR STATEMENT

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

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

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

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

filed in MM Docket No.
ner studies necessary before
s of the National Association
r No. 86-144, July 12, 1988 at
receiver industry establishes
edia, Inc., filed in MM Dock-
-10 (test data and real world
ng separations); Comments of
ering Standards, Inc., filed in
, 1988 at 5, Appendix 1 (en-
on & Johnson, Inc. supports
Comments of National Public
, August 26, 1986 at 11 (relax-
cant increase in interference);
& Associates, P.C., filed in MM
1986 at 7 (separation require-
fier receiver performance stan-

of the FM-IF interference in
EB-86-8," FCC/OET TM 87-4,

MM Docket No. 86-144, FCC
at para. 21.
ociation for Broadcast Engineer-

on Corporation v. FCC, 444 F.2d
ed 463 F.2d 268 (D.C. Cir. 1971).
upra 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 Revisions to Tariff F.C.C. No. 2	Transmittal No. 246
NATIONAL EXCHANGE CARRIER ASSOCIATION Revisions to Tariff F.C.C. No. 5	Transmittal No. 338
NEW YORK TELEPHONE COMPANY Revisions to Tariff F.C.C. No. 41	Transmittal No. 949
SOUTHWESTERN BELL TELEPHONE COMPANY Revisions to Tariff F.C.C. No. 68	Transmittal No. 1748
US WEST Revisions to Tariff F.C.C. No. 1	Transmittal Nos. 214 and 218

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.

4. IT IS FURTHER ORDERED that the local exchange carriers listed in paragraph 3, *supra*, may file tariff revisions, to be effective on not less than one day's notice, in order to advance the effective dates of the above-referenced transmittals. For this purpose, we waive Sections 61.56, 61.58, and 61.59 of the Commission's Rules, 47 C.F.R. §§ 61.56, 61.58, 61.59, and assign Special Permission No. 89-7.

5. IT IS FURTHER ORDERED that, pursuant to Section 204(a) of the Communications Act, 47 U.S.C. § 204(a), and Section 0.291 of the Commission's Rules, 47 C.F.R. § 0.291, the subject tariff revisions ARE SUSPENDED for one day.

6. IT IS FURTHER ORDERED that, pursuant to Sections 4(i) and 204(a) of the Communications Act, 47 U.S.C. §§ 154(i), 204(a), and Section 0.291 of the Commission's Rules, 47 C.F.R. § 0.291, all local exchange carriers subject to this investigation shall keep accurate account of all amounts received pursuant to Individual Case Basis rates for DS3 services which are the subject of such investigation.

FEDERAL COMMUNICATIONS COMMISSION

Gerald Brock
Chief, Common Carrier Bureau

FOOTNOTES

[1] We note that while the LECs' filings also propose ICB rates for other services, this Order deals only with the proposed ICB rates for DS3 and DS3-equivalent services.

[2] No petitions have been filed to reject, suspend, or investigate any of these transmittals.

[3] Local Exchange Carriers' Individual Case Basis DS3 Service Offerings, CC Docket No. 88-136, Order Designating Issues for Investigation, 3 FCC Rcd 2582 (1988) (*Designation Order*); Supplemental Order Designating Issues for Investigation, CC Docket No. 88-136, 3 FCC Rcd 6166 (1988).

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 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," 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 fror limits in the rules. Thus by adopti might be allowing round-off error design or operating parameters o lieve that these drawbacks outwe index method would provide in tion classification problem.

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

15. On March 2, 1987, we rec suant to our decision in Docke the reclassification, we decided, this proceeding, to refrain from C stations that do not meet the ments, provided that the predi mV/m field strength contour ex dicted distance to the 1 mV/m km).[13] Had we adopted the inde stations would have been reclass method we are adopting instead remain Class C.

16. Several commenters reque tions solely by field strength c reluctant to do so at this time variations that may occur whe values from the propagation ch interest of improving the consi volving values normally read fr that the commenters' requests and interpolating formula for th able merit. Accordingly, we pl ceeding addressing this proposal

Prediction of Coverage

17. *Proposal*. We proposed, in calculations for prediction of c maximum ERP of the main rad antenna, regardless of orientat require the use of the ERP in purpose of the proposed change to account for the increased us the FM service.[16] In 1970, we re

ons that would receive pri-
erference that would result,
ural services in these areas.
f these factors, we find that
agreement would serve the
ection 73.213 to allow the 1
ered station to be extended
f a short-spaced station.

o increase the precision of
e calculation equations in
Some precision in these
lost when the equations
truncated. We had received
e exact conversion factors
e the same degree of preci-
les formerly in the rules.
nenters oppose the distance
ey believe that any error
rmulas is too small to be
pect the corrected formulas
omputers.
the proposed corrections.
ason for less accurate for-
Commission's rules. H&E
of having to use one equa-
e Commission's rules, then
ccurate full-precision equa-
l topographic maps. H&E
s of the subject, comparing
ce calculations, and recom-
opt the full-precision, non-
Ring also suggests that use
which provides rounded
minutes and seconds, no
onversion factors are easier

ng the more precise coeffi-
as proposed, and revising
re is no reason to maintain
our rules when the loss of
sult of our prior English-
find the argument of in-
uasive. The limiting factor
ncerning distance should be
rovided, not the Commis-
he FM broadcast service,
and assignments are based
e also incorporating Ring's
exact conversion factors in
version table in the rules.[25]
B.

1) specify more clearly the
in Boulder County, Colo-
cular latitude and longitude
ty" of a specified point; and
replacement of the trans-
TV) broadcast station with-
ization in order to clarify
se 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. Roden And Associates, Inc.
Garamella Broadcasting Company
Hayco Broadcasting, Inc.
Hudson Broadcasting Corporation
Lakeland Broadcasting, Inc.
La Porte County Broadcasting, Inc.
Tri-Cities Broadcasting, Inc.
WBIP Broadcasting Corporation
Edward A. Schober (Radiotechniques)
Wath, Inc.
A.D. Ring & Associates, P.C.
Dick Broadcasting Company, Inc.
Lasalle County Broadcasting
WCME, Boothbay Harbor, Mawe
Kinzua Broadcasting Co., Inc.
New Jersey Class A Broadcasters Assoc.
Clear Channel Communications, Inc.
WSEA-FM, Georgetown, Del.
Beasley Broadcast Group
Capitol Broadcasting Corporation
National Public Radio
Association of Federal Communications Consulting Engineers
Southland Communications, Inc.
Bart Walker
Key Broadcasting Corporation
Mountain Tower
John J. Davis Associates
Carlos Juan Colon Ventura
Broadcast Engineering And Equipment Maintenance Co.
Russell and Susan Kinsley
Communications General Corporation
Sunshine Wireless Company
Doug C. McDonell
Association for Broadcast Engineering Standards, Inc.
Brown Broadcasting Service, Inc.
Stansell Communications, Inc
Hammett and Edison, Inc.
Columbia FM, Inc.
Eric R. Hilding Southwest Communications, Inc.
Dwyer Broadcasting, Inc.
Adventure Communications, Inc.
Corporation for Public Broadcasting
Edens Broadcasting, Inc.
Magnuson & Associates, Inc.
Scripps Howard Broadcasting Company
Harvitt Broadcasting Corporation
Fox Broadcasting Company
KGB, Incorporated
Greenup County Broadcasting, Inc.
Catawba Valley Broadcasting Company, Inc
Triple D Properties, Inc.
Lawerence Behr Associates, Inc.
Lasalle County Broadcasting, Inc.
KLOK Radio, Ltd
Voice of The Orange Empire, Inc.
National Association of Broadcasters
WDAC (FM), Lancaster, Pennsylvania
Dutreil-Rackley

of Class A broadcast stations
e Government officials filed
a suggestion made by Clear
nc. in their comments, that
for Class A stations be in-
and Order, the Commission
ggestion is outside the scope
o consider it further in this

DIX B

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Part 73 continues to read as

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nd distance computation.

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two reference points, except
tance involving stations in
od for distance computation
rnational agreement shall be
forth in this paragraph is
ceeding 475 km (295 miles)

longitude of each reference
nd format to degree-decimal

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6605 cos(2ML) + 0.00120

kilometers per degree lon-
ddle latitude calculated in

ML) - 0.09455 cos(3ML) +

(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 in accordance with paragraph (b)(1)(i) of this section, exceeds the distance to the class contour for the next lower class.

(b) *Maximum limits.* (1) The maximum ERP in any direction, reference HAAT, and distance to the class contour for the various classes of stations are listed below:

Station Class	Maximum ERP	Reference HAAT in meters (ft)	Class contour distance in kilometers
A	3kW (4.8 dBk)	100 (328)	24
B1	25kW (14.0 dBk)	100 (328)	39
B	50kW (17.0 dBk)	150 (492)	52
C2	50kW (17.0 dBk)	150 (492)	52
C1	100kW (20.0 dBk)	299 (981)	72
C	100kW (20.0 dBk)	600 (1968)	92

(i) The reference distance of a station is obtained by finding the predicted distance to the 1 mV/m contour using Figure 1 of § 73.333 and then rounding to the nearest kilometer. Antenna HAAT is determined using the procedure in § 73.313. If the HAAT so determined is less than 30 meters (100 feet), a HAAT of 30 meters must be used when finding the predicted distance to the 1 mV/m contour.

(ii) If a station's ERP is equal to the maximum for its class, its antenna HAAT must not exceed the reference HAAT, regardless of the reference distance. For example, a Class A station operating with 3 kW ERP may have an antenna HAAT of 100 meters, but not 101 meters, even though the reference distance is 24 km in both cases.

(iii) Except as provided in paragraph (b)(3) of this section, no station will be authorized in Zone I or I-A with an ERP equal to 50 kW and a HAAT exceeding 150 meters. No station will be authorized in Zone II with an ERP equal to 100 kW and a HAAT exceeding 600 meters.

(2) If a station has an antenna HAAT greater than the reference HAAT for its class, its ERP must be lower than the class maximum such that the reference distance does not exceed the class contour distance. If the antenna HAAT is so great that the station's ERP must be lower than the minimum ERP for its class (specified in paragraphs (a)(1) and (a)(3) of this section), that lower ERP will become the minimum for that station.

* * * * *

4. 47 CFR 73.213 is revised in its entirety to read as follows:

§73. 213 Grandfathered short - spaced stations.

Stations at locations authorized prior to November 16, 1964 that did not meet the separation distances required by § 73.207 and have remained short-spaced since that time may be modified or relocated provided that the predicted distance to the 1 mV/m field strength contour is

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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.

[16] Beam-tilt antennas direct the maximum radiation downwards towards the earth's surface, rather than towards the horizon. Consequently, the ERP in the horizontal plane is less than the maximum ERP.

[17] Petition for rule making was filed by the engineering consulting firm of du Treil-Rackley, November 26, 1985. In the *Notice*, the Commission dismissed this petition without prejudice, but retained it as a part of the official record in this proceeding.

[18] Most consumer FM broadcast receivers use 10.7 MHz as their first IF. IF interference is characterized by the reception of the audio, often distorted, of one of the two stations involved, regardless of the position of the receiver's tuner dial. Thus, when it occurs, this phenomenon can prevent reception by the affected receiver of most or all of the FM stations in the area.

[19] *See Report and Order* in Docket No. 15934, FCC 65-575, 30 Fed. Reg. 8680, July 9, 1965, 5RR 2d 1679 (adopted June 30, 1965).

[20] Noticeably absent from the record are comments from FM receiver manufacturers and associations that represent the consumer electronics industry. Technical analyses and data relevant to improvement in receiver IF interference immunity due to technological advancement would have been particularly welcome. In addition, the Commission's laboratory is currently evaluating IF interference susceptibility in various categories of new FM receivers, and expects to report its findings later this year.

[21] Despite our consideration of contour overlap standards in other contexts in this proceeding, at present meeting or exceeding the required separation distances constitutes the only measure of compliance with this particular rule. Furthermore, inasmuch as we shall consider these matters in a further proceeding, at present we shall not consider alleged discrepancies between the separation distances in the rule and contour overlap calculations presumed to underlie them to constitute sufficient grounds for a waiver of § 73.207.

[22] Of those reclassified, some may have lost their grandfathered status as a result of the reduced separation requirements of the new class.

[23] *See* § 73.4235 and *Public Notice* 75-1347, released December 15, 1975. This policy has applied only to co-channel and first adjacent channel short- spacing in the past, however, we will extend it to cover second and third adjacent channel short-spacing situations upon the effective date of the rules adopted herein.

[24] *See Notice* at paragraph 24. The equations we proposed are correct for distance calculations based upon Clarke's Reference Spheroid of 1866. H&E states that these are appropriate for Commission licensees' use because USGS topographic maps are based on the Clarke spheroid.

[25] Applicants are advised to use the formulas specified in international agreements for calculations involving stations in Canada and Mexico, to the extent that these may differ from the formula we are adopting herein.

Commission recently ex-
in its July 25, 1988 Brief
FCC, No. 87-1635 (D.C.

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9, paras. 20-31, the ALJ reached
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was not financially qualified and
; (b) Bell County presently does
financial qualifications to be a
para. 55; and (c) Teresa Watts
represent her husband's financial
ure; instead, she was confused as
money market account. Id., para
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-17, 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 application of Progressive Communications, Inc. (File No. BPH-820512AP) IS GRANTED, and that the applications of MaryMc Broadcasting Co. (File No. BPH-820524BB) 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 application for an assignment can be accepted. The demand system has been used in making NCE-FM assignments throughout the rest of the United States since the earliest days of NCE-FM. Consequently, the only area where specific distance separation requirements between NCE-FMs was prescribed was in the border area.

4. Under the border area NCE-FM policy in effect prior to the *Report and Order*, a proposed station could have met the required spacing from Mexican stations, but have been denied an allotment because it did not meet the required separation to another domestic NCE-FM station in the border area. To eliminate that unnecessarily restrictive assignment policy, we initiated the instant proceeding.[3] **Because the contour method allows stations to tailor their coverage areas,**[4] the Commission predicted that NCE-FM stations would be afforded greater assignment flexibility, which would enhance the opportunities for station assignment, perhaps giving NCE-FM applicants in the border area the opportunity to squeeze new service into crowded markets. In general, we predicted that the new policy would allow broadcasters to obtain station assignments in a "quicker, easier, and less costly manner."

5. At the time the Commission initiated the instant proceeding there were several allotment cases pending for border area NCE-FM stations. One of these cases, MM Docket 85-230, included the mutually exclusive applicants CSU, Apple Valley Educational Broadcasters (Apple Valley), California Lutheran College (CLC), and the Regents of the University of California (Regents). The Commission proceeded with the generic rule making, MM Docket 87-140, without proposing to grandfather any pending allotment proceeding, including MM Docket 85-230. Later, when the Commission adopted the *Report and Order*, it dismissed NCE-FM allotment proceedings that were pending, including those in MM Docket 85-230, as such proceedings were no longer necessary under the new allocations policy.

PETITION

6. CSU alleges that the Commission's action in adopting the *Report and Order* "belies" its avowed interest in allocating noncommercial educational stations in a quicker, easier, and less costly manner. Instead, the petitioner states that the motivation which led to our amending the border area allocations policy was administrative convenience. Thus, the petitioner states that "(the) Commission apparently decided that, rather than resolve a multi-party rulemaking proceeding to amend the table of allotments in Section 73.504, it would simply scrap the table altogether."[5]

7. The petitioner further alleges that the Commission acted unfairly in resolving MM Docket No. 85-230 by dismissing those proceedings without precluding the filing of additional requests for assignment on the channels at issue in MM Docket No. 85-230. Thus, CSU states that the effect of not precluding additional applications for assignment would be to allow new parties to propose assignments on the contested channels. Such competing applications could require a comparative hearing under Section 307(b) of the Communications Act of 1934, as amended, as to which community should receive the new or improved service. CSU asks us to postpone the effective date of the *Report and Order* to negate the impact of the Commission's action on the parties involved in MM Docket No. 85-230.

had not dismissed the proceedings
5-230, CSU contends that a com-
CLC compromise, would have of-
he Docket 85-230 proceeding that
n the outcome of Docket 87-140.[9]
es that our acceptance of CLC's
would have required waiver of our
ermitting short-spaced allotments.
er suggests two options that we
lieu of granting all components of
al as it was submitted. Both of the
would have required that we grant
C compromise except those that
petitioner states that these options
Commission, and that we should
allotments prospectively by estab-
d in which the effective date for
uld be set far enough in the future
cants would have time to prepare
r the vacant allotments before the
ed. Finally, CSU requests that the
rder to Show Cause why its Station
be upgraded on its current chan-
that the Commission modify the
ccordingly.

ISCUSSION

hanged its allocations policy in the
ge the development and extension
Mainly because contour method
ted to meet the needs of NCE-FM
gnment system, contour method of
sed for NCE-FM stations through-
ntry since the earliest days of the
ments to the proceedings in MM
vincingly supported our proposal to
s on contour protection. All com-
f the four parties involved in the
in MM Docket No. 85-230 stated
our method assignment would im-
ethods.[7] Some commenters, among
ecommunications and Information
that the number of NCE-FMs in
increase under the new allocations
ry to the petitioner's claim, we did
in order to dispose of the alloca-
M Docket No. 85-230. Rather, we
because we concluded that the
stem was not optimally suited to
of NCE-FM; it was unnecessarily
unnecessarily costly to obtain an
ment.[8]
lfather pending NCE-FM allotment
der area, the Commission chose to
at had not yet been resolved. The
mined that the allotment-assignment
dvantageous for NCE-FM; thus, it
ing the good effects of the rule
o use the inferior assignment poli-
r, the contour method allows sta-
bility to tailor their coverage;
that several applicants would now
l obtain assignments where before
ction could encourage the submis-
on 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 below 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 contradictions 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 crafted 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).

[7] 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.

[8] Furthermore, *all* proceedings dealing with amending the border area table of allotments have been and will be subjected to new 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.

[9] 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."

[10] 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 institution 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.

[11] 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.

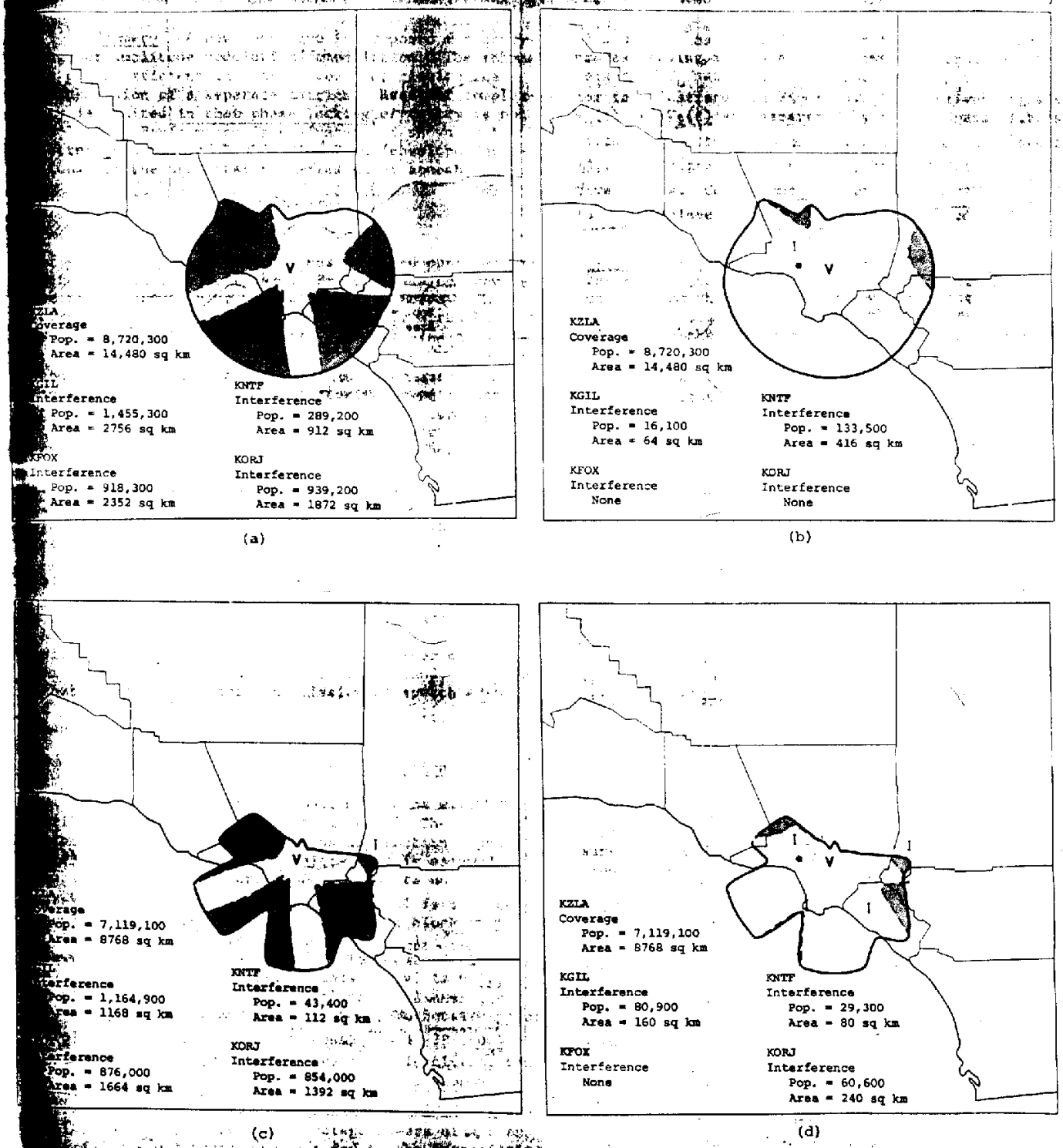

Figure 3. 55 dBμV/m coverage of station KZLA (solid contour) showing interference areas (shaded). The plots in (a) and (b) were determined using the FCC propagation curves for predicting interference and coverage while (c) and (d) were determined using the terrain sensitive ITS propagation model. The plots in (a) and (c) use a S/I = -20 dB interference threshold while (b) and (d) use a S/I = -50 dB threshold.

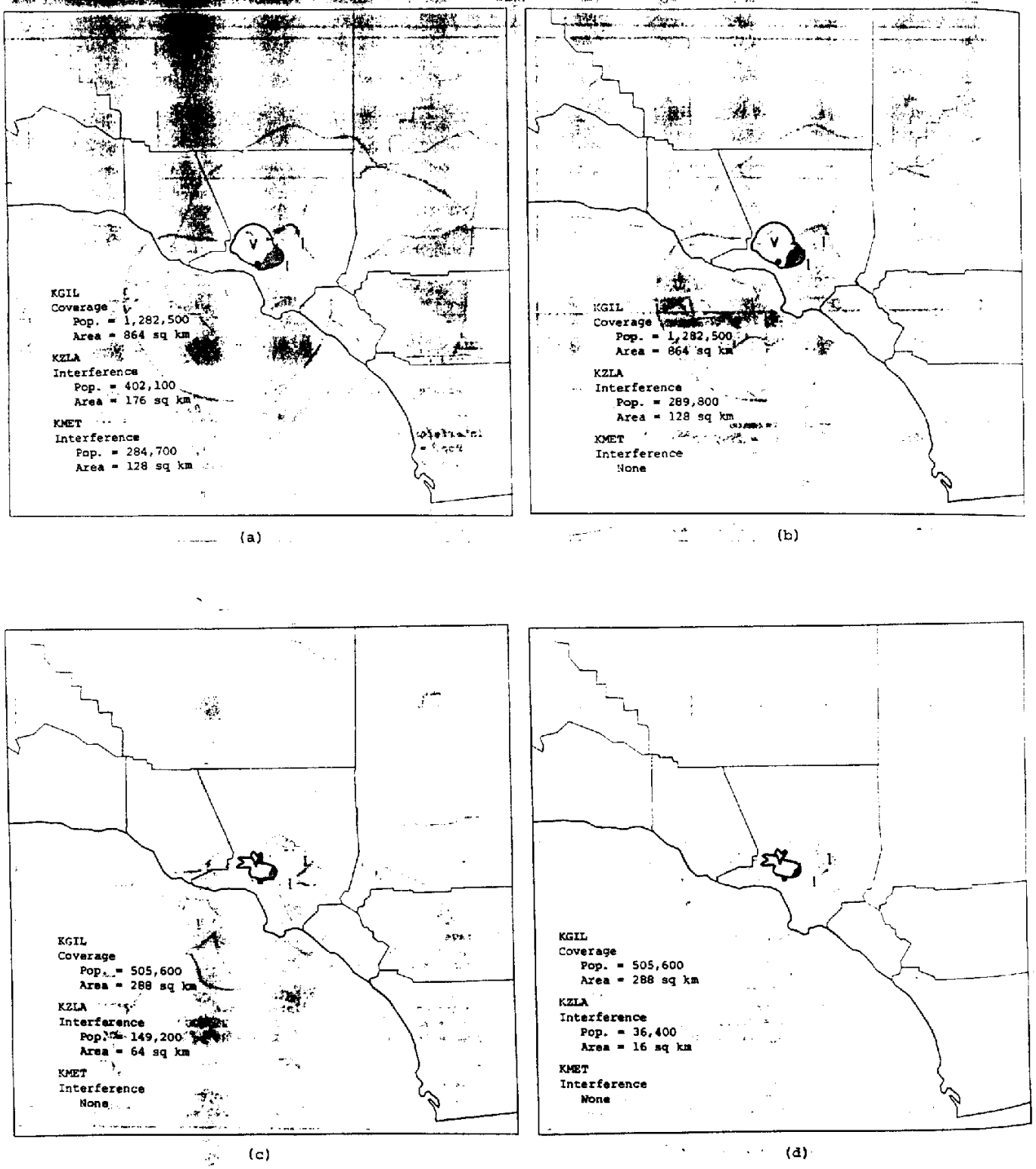

Figure 4. 55 dBμV/m coverage of station KGIL-FM (solid contour) showing interference areas (shaded). The plots in (a) and (b) were determined using the FCC propagation curves for predicting interference and coverage while (c) and (d) were determined using the terrain sensitive ITS propagation model. The plots in (a) and (c) use a S/I = -20 dB interference threshold while (b) and (d) use a S/I = -50 dB threshold.

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 co-channel, 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