#2

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

LETTER
January 31, 1996

Released: February 13, 1996

In reply refer to:
1800B3-DEB

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

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

Gentlemen:

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

PNBC's Waiver Request

The site proposed in the application is that presently used by KNRK for its licensed Class C3 operation.[1] This site is spaced 167.4 km from first-adjacent channel Class C station KMGE, Eugene, OR, whereas § 73.207 requires a minimum separation of 188 km. Recognizing this short-spacing, PNBC has requested processing pursuant to the contour protection rule.[2] Although PNBC's proposal provides the contour protection to KMGE required by § 73.215(a), the proposed site falls 8.6 km short of the 176 km minimum spacing required by § 73.215(e). Consequently, PNBC has requested that the § 73.215(e) spacing table be waived in this instance.

In support of its request for waiver, PNBC states that finding suitable sites from which KNRK could specify Class C2 operation while still providing the required 70 dBu signal to the station's community of license (Camas, WA) is difficult. Hills around the city limit the number of transmitter sites from which KNRK would be able to have line-of-sight operation to Camas. Potential sites are said to be further restricted by the Bull Run Watershed Management Unit, which prohibits most construction activity.[3] Another site on Pepper Mountain was investigated but determined to be unsuitable due to its location within the Columbia River Gorge National Scenic Area, which would make construction difficult if not impossible. A site in this area would also arouse public opposition.[4] Grant Butte, Powell Butte, and Walters Hill were also considered but found to have land use and zoning regulations which would be unlikely to permit construction of a tower.[5] Bob's Mountain was evaluated but found to be unsuitable due to a ridge which would cause shadowing of KNRK's signal in Camas. Mt. Zion, an existing common carrier intercity microwave service and utility site, is now within the Columbia River National Scenic Area, making approval for construction of a tower unlikely.[6] Finally, a site on Cemetery Hill was evaluated but rejected due to shadowing effects and likely local opposition. Thus PNBC has concluded that its only option is to remain at its existing licensed transmitter site.

In addition, PNBC contends that the "slight" 8.6 km waiver of § 73.215(e) sought is "fully supportive of precedent." PNBC cites *St. Croix Wireless Company, Inc.*, 8 FCC Rcd 7329 (MMB 1993), wherein the staff waived § 73.215 (a)(4) to afford the station therein the flexibility to consider short-spaced transmitter sites while protecting other stations from interference in excess of that which may occur under the Commission's spacing rules. PNBC states that its showings clearly demonstrate the lack of alternate transmitter sites available to KNRK, which satisfies the threshold criteria required under the former § 73.207 spac-

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KUKN

EXIST

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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 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 alternative procedure by which an applicant could apply to use
a site which did not meet the minimum distance separation
requirements of § 73.207. No threshold or public interest
showings were required; rather, an applicant was required
to demonstrate that no prohibited contour overlap (and
hence interference), would be created with the short-spaced
station. To limit the amount of short-spacing which might
be proposed, the Commission established a new, less restrictive minimum separation table (contained in §
73.215(e)) for sole use with the contour protection rule.

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

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

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).

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

The PNBC Request for Waiver of § 73.215(e)

After review, for the reasons stated below, we find that
aiver 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 provided sufficient information to show that the proposed 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
to upgrade its operation to the next higher class a spacing
waiver comparable to the instant. 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 (20.6 km = 23 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
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.

contour protection rule was adopted in part to eliminate the inefficiencies associated with the former spacing waiver process. With the Audio Services Division currently processing in excess of [redacted] FM construction permit applications per year, and with these applications steadily increasing in difficulty as the FM band fills up, we see no justification in needlessly complicating and slowing the application process for substandard operations.

PNBC's showings have amply demonstrated that there is no fully spaced transmitter site (including the reference coordinate site) which complies with the minimum separation requirements of §73.207 and at which a Class C operation could be constructed. It also appears that PNBC has been unable to find a suitable site which complies with the separation requirements of § 73.215(e) [redacted] additional 12 km of leeway that § 73.215(e) affords when compared to § 73.207. These facts suggest that the Channel [redacted] adopted by [redacted] was [redacted] that a short-spaced transmitter site is necessary before the allotment can be used.[39] A substandard allotment is not a compelling basis for waiver of the Commission's technical rules covering construction permit applications. *Cf Chesnee and Wedgefield, SC, recon. denied*, 4 FCC Rcd 4503 (1989), *review denied*, 5 FCC Rcd 5572 (1990). Nor do we find that the other factors cited by PNBC (additional population served, reduction in existing prohibited contour overlap with KMGE) serve the public interest more than adherence to our technical rules. Consequently, the appropriate action under these circumstances is deletion of the substandard allotment. *See Pinckneyville, Illinois*, 41 RR 2d 69 (1977); *Natchitoches, Louisiana*, 52 RR 2d 1588 (1983); *Pine Knoll Shores, NC*, 60 Fed. Reg. 64348 (December 15, 1995). Accordingly, this matter is being referred to the Bureau's Allocations Branch for appropriate action.

FINAL ACTIONS

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

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.

[37] *Musicast of the South, Inc.*, 45 RR 2d 1232 (1979) (six miles (9.6 km) short-spacing requested and denied).

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

Sincerely,

Dennis Williams
Assistant Chief,
Audio Services Division
Mass Media Bureau

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

1000 FM PERMIT REQUESTS/YR

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(b) With respect to petitions for rule making which conflict with the proposal(s) in this *Notice*, they will be considered as comments in the proceeding, and Public Notice to this effect will be given as long as they are filed before the date for filing initial comments herein. If they are filed later than that, they will not be considered in connection with the decision in this docket.

(c) The filing of a counterproposal may lead the Commission to allot a different channel than was requested for any of the communities involved.

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* to which this Appendix is attached. All submissions by parties to this proceeding or by persons acting on behalf of such 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.

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on Broadcasting, Inc., 62 FCC 2d 45,

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

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

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

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

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

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

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).

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

The PNBC Request for Waiver of § 73.215(e)

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

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

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

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

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

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

Spacing Waiver *precedens*. PNBC has cited no cases in which the Commission has granted an applicant seeking to upgrade its operation to the next higher class a spacing waiver comparable to that sought. 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 (27 km vs 23 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 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 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.

WHERE 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.

tection rule was adopted in part to elimina
ncies associated with the former spacing waiv
th the Audio Services Division currently pr
xcess of [illegible] FM construction permit applic
year, and with these applications steadily
n difficulty as the FM band fills up, we see n
in needlessly complicating and slowing th
process for substandard operations.

showings have amply demonstrated that there i
paced transmitter site (including the referen
site) which complies with the minimum separ
rements of §73.207 and at which a Class C
could be constructed. It also appears that PNBC
unable to find a suitable site which complies wi
ation requirements of § 73.215(e) [illegible]
12 km of [illegible] that § 73.215(e) [illegible] when
to § 73.207. These facts suggest that the Channel
[illegible] adopted [illegible] was [illegible]
[illegible] transmitter site is [illegible]
[illegible] be used.[28] A substandard allotment is not a
ng basis for waiver of the Commission's technica
vering construction permit applications. *Cf Chester*
gefield, SC, recon. denied, 4 FCC Rcd 4503 (1989)
enied, 5 FCC Rcd 5572 (1990). Nor do we find tha
er factors cited by PNBC (additional population
reduction in existing prohibited contour overlap
MGE) serve the public interest more than adher
our technical rules. Consequently, the appropoiate
under these circumstances is deletion of the substan
llotment. *See Pinckneyville, Illinois*, 41 RR 2d 69
Natchitoches, Louisiana, 52 RR 2d 1588 (1983); *Pine*
Shores, NC, 60 Fed. Reg. 64348 (December 15, 1995)
lingly, this matter is being referred to the Bureau's
tions Branch for appropriate action.

FINAL ACTIONS

have afforded the requests for waiver of §73.215(e)
hard look" called for under *WAIT Radio v. FCC*, 418
1153 (D.C. Cir. 1969), but find that the facts and
mstances presented in the applicants' justifications are
ficient to establish that grant of the requested waiver
d be in the public interest. Accordingly, the request
waiver of 47 CFR § 73.215(e) made by Pacific North
Broadcasting Corporation (KNRK) IS HEREBY DE
D. In addition, pursuant to Paragraph 22 of the *Report*
Order in MM Docket 91-347, 7 FCC Rcd 5074 (1992)
e the applications requested waiver of a rule but the
vers were denied, these applications may not be amend
to rectify the deficiencies. Therefore, application BPH
0829IC IS HEREBY DISMISSED as unacceptable for
ng.

itable site for Class C3 operations in its previous applications
PH-880310MB, BMPH-920206ID, and BMPH-920831IH. [illegible]
[illegible] could not have been unaware that the Class C2 operations
roposed in Docket 92-214 could face similar problems.
Musicast of the South, Inc., 45 RR 2d 1232 (1979) [illegible] six miles
9.6 km) short-spacing requested and denied).
Not only was the proposed allotment site unsuitable for
operation at the time this application was filed, it
[illegible] site was unsuitable even

Sincerely,

Dennis Williams
Assistant Chief,
Audio Services Division
Mass Media Bureau

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

1000 FM PERMIT REQUESTS/YR

WBRU

Before the
ommunications Commission
ashington, D.C. 20554

M Docket No. 86-144

cal Parameters for
les of Part 73,
oadcast Stations

IDUM OPINION AND ORDER

988; Released: April 29, 1988

on:

INTRODUCTION

on has before it two petitions for re-
e *Second Report and Order* (*Second*
oceeding. One petition, filed by Brown
e, Inc. on November 5, 1987, requests
n reconsider and modify its action that
3.213 of the rules, which governs re-
fications of grandfathered short-spaced
ther petition, filed by Eric R. Hilding
987, requests that the Commission re-
ify its action that amended Section
, which sets forth power and antenna
ts for each of the six classes of FM
ents were filed in response to either

BACKGROUND

this proceeding with a *Notice of Pro-*
(Notice) [2] that proposed minor adjust-
les that were affected by our actions in
80-90 [3], but were not given detailed
at proceeding. In the *Notice*, we also
nethod for classifying FM stations and
technical rules that needed updating.
0 parties filed comments or reply com-
to the *Notice*. In January 1987, we
eport and Order [4] resolving two of the
e. Subsequently, in September 1987, we
d Report addressing the remaining is-
Report, we set forth a definitive meth-
FM stations according to their effective
RP) and antenna height above average
Also, we amended our rules to limit
modifications of grandfathered short-
s, allowing only those that would not
tial 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 statio staffed primarily by students at Brown University. WBR is also a grandfathered short-spaced station,[5] and thus subject to Section 73.213 of the Commission's rules, whic governs modifications and relocations for these statio Brown claims that WBRU would be adversely affected b the Commission's revision of that section of the rules.

5. Brown states that it is in the middle of an extende process to obtain a new tower site. At the new site, Brow believes that WBRU would be able to operate with 50,00 watts effective radiated power. Brown fears that new amended Section 73.213 will prevent WBRU from movin to this new site because, in effect, the amended rule limit each grandfathered short-spaced station to the predicte 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, WBR was operating with a lower power (20,000 watts) at what considers to be a temporary site.[8] Brown does not wan WBRU's coverage to be limited in the future to tha provided by the lower power at the temporary site. As remedy, Brown requests that the Commission's action tha amended Section 73.213 be modified to permit any grand fathered short-spaced station to be authorized for facilitie that would produce predicted coverage equivalent to ei ther: (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 no short-spaced.

6. *Discussion.* Prior to the *Second Report*, Section 73.21 allowed licensees to routinely modify or relocate grand fathered short-spaced stations, even if the potential fo interference were increased as a result. In the *Second Report* we affirmed our contention that licensees of grand fathered short-spaced stations have had sufficient time (2 years) to relocate and optimize their facilities under th relatively liberal provisions of the old rule. We found tha continuing to allow relocations and modifications that in crease the risk of interference is not in the public interes and is counter to our objective of promoting efficiency i the use of the spectrum. We therefore amended the rul to allow only relocations and modifications that will no increase predicted interference. We also reaffirmed and expanded our policy of accepting for consideration agree ments between grandfathered short-spaced stations tha would permit increases in both facilities.[9]

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

8. Tailoring Section 73.213, which affects all grand fathered short-spaced stations, to fit circumstances peculia to one particular grandfathered short-spaced station woul not be good public policy.[10] Because Brown's situatio with regard to the site for WBRU appears to be a individual problem, any relief that may be necessar 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 interfer ence resulting from modifications and relocations of gran dfathered short-spaced stations. The other alternative suggested by Brown[13], if made a rule, would be impie mented 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) an tenna locations. To illustrate this, Hilding provides a hy pothetical 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 para graph 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 dis tance 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 para graph 73.211(b)(2).

12. *Discussion.* Section 73.211 does not preclude a Class A FM station from using any desired antenna site, regard less 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 dif ferently 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, dis closure, 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 re lieves 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 publica tion in the Federal Register. Authority for this action is contained in Sections 4(i) and 303(r) of the Communica tions 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,

ranted, Brown has the option of requesting, with the appr
e public interest showing, a waiver of the newly amend
213. The Commission does not here evaluate or rule on
ts of any future relocation of WBRU. Rather, the Comm
's decision in this *Memorandum Opinion and Order* is ba
narily on the inappropriateness of amending a rule affect
ntire group of licensees solely in response to the concern
licensee in that group.

Under this alternative, grandfathered short-spaced FM
s could be modified or relocated in any way that wo
duce a predicted contour matching the predicted contour o
rt-spaced facility that could have been authorized under
rule.

[9] The second alternative suggested by Brown is to permit
odification or relocation of a grandfathered short-spaced
tion that would produce a predicted contour that matches
edicted contour of hypothetical facility at a non-short-spa
e. This is essentially the concept of "equivalent protection".

[10] *See Notice of Proposed Rule Making* in MM Docket 87-1
CC 88-73, released March 30, 1988). For additional ba
ound, *see Notice of Inquiry* in MM Docket 87-121, 2 FCC R
41 (1987). The Commission has requested comment as to
asibility of the use of directional antennas to permit sho
aced operation by any FM broadcast station, not just the gra
thered ones affected by §73.213.

[11] Hilding implies (although he does not explicitly state) th
aragraph 73.211(a)(3), which was added to the rule in the S
nd Report, prevents Class A stations from reducing power bel
00 watts pursuant to paragraph 73.211(b)(2), in effect limi
Class A stations to a maximum HAAT of 525 meters (1722 feet)

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

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

[18] A reference distance of 24 kilometers constitutes full co
erage for a Class A FM broadcast station. As of January 19
there are 10 Class A stations that have an antenna HAAT gre
than 525 meters. Eight of these are providing full coverage
footnote 15 *supra*.

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

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

[21] The restriction removed herein was an unintended effect
the Commission's action in the *Second Report*. Applying
newly amended rule to the processing of applications pending
received on or after the release date of that decision will eli
nate 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 visual transmitters.

2. Television program signal transmission has a picture component and its associated or "integrated" sound, each produced with separate visual and aural transmitters, respectively.[2] However, licensees may also transmit separate non-associated video and audio program signals. This allows for the broadcasting of aural programming with or without visual displays, or visual informational service with or without sound. Such service might include video-only programming of news, weather, time of day, and other reports. Prior to 1980, the separate operation of the audio and video transmitters had been prohibited and was permitted only in certain situations, such as during test pattern transmissions, equipment testing or experimentation, etc. In 1980 the Commission permitted separate audio or video service. At that time, the Commission was concerned that broadcasters might overuse this form of service by augmenting their program day with audio-only or video bulletin board-like informational services in place of normal programming during regular operational hours. Thus, the Commission specified the hours of operation as 12 midnight until 6 A.M. because these were the most common "dark" or unused hours for stations not operating 24 hours per day.[3] Recognizing, however, that many stations sign-on after 6 A.M., particularly some non-commercial educational stations, the Commission permitted these stations to broadcast audio or video informational service for no more than 15 minutes immediately prior to the start of the station's scheduled sign-on

3. The essence of the Commission's action in 1980 was to allow an additional service to be offered the public at hours where no "regular" television service was presented by the station. However, by specifying the permitted time of day and the 15 minute limit for [illegible] than 6 A.M., the Commission restricted the broadcaster's flexibility of using the informational service during the course of regular broadcast hours. We now believe that the public interest would be better served by allowing the licensee maximum flexibility to establish the duration and time of day that is most appropriate for transmitting separate audio or video services. For instance, there are some communities where certain news or special interest reports, *e. g.*, farm crops index reports, may be of significant public benefit at certain times of the regular broadcast day. Rather than broadcasting such information with an on-air announcer, stations could elect to transmit these reports more cost effectively via a video text bulletin board-like service. In general, we believe that competitive pressures from competing stations and from viewers will create incentives for broadcasters to decide whether to transmit regular integrated sound and video signal programming or to transmit non-associated audio and video informational services, depending upon the interest and desires of their viewers. In our analysis we find no basis for not allowing licensees to make this judgment within the competitive limits of their individual broadcast market areas. Therefore, we propose to amend Rule Section 73.653 to eliminate all time restrictions for the transmission of video informational services.

Power meter calibration.

4. In operating a television broadcast station, a licensee must have the capability of determining and maintaining the appropriate level of authorized transmitter power at

receiver design has minimized this problem, and
ther than on older model sets (prior 1980 vintage)
occurs on those sets in fringe areas receiving weak
10 Even so, some of the current literature indicates
e color burst signal level must be significantly re
or suppressed, so that the "color killer" circuitry is
receivers might be activated to cut off the color
ry during the reception of black-and-white transmis
That observation notwithstanding, it has nevertheless
een suggested that current technology has largely
ed the need for the color burst omission standard, a
nced above, and that compliance with the require
has become increasingly burdensome.

It also has been suggested that the current rule cre
production problems and expenses in corrective vide
g. For instance, the design of some videotape ma
es requires that a color burst signal, if absent, first b
d to a program tape before the machine will be able
operly edit the tape. Then, in order to broadcast the
rial in accordance with the current rule, the inserted
r burst signal must be deleted after editing is com
ed. Thus, two additional steps and, in most cases, a
tional piece of equipment are required to comply with
color burst omission rule. In addition, this two-step
cess can degrade the quality of the picture as a result
navoidable timing signal errors.

It is also noted that broadcast programs with no colo
st can cause serious video signal timing and synchro
ation problems in cable television retransmissions. The
le television industry in retransmitting broadcast pro
mming is using more frequently equipment known a
me synchronizers that rely on the presence of colo
rst for timing. If not properly adjusted via the colo
rst signal, these frame sychronizers will sometimes tre
ransmission without such color burst as defective. The
parent result to the cable operator is the function
uivalent of a transmitter failure at the broadcast station
his is an undesirable condition for those broadcaster
at are providing their signal for cable TV distribution

10. We note that the color burst omission requirement
a quality control regulation and does not pertain t
djacent or co-channel interference control. Thus, th
limination of this rule would be consistent with the Com
mission's regulatory policy that decisions concerning pic
ure quality should properly be left to the broadcas
icensee.[12] Although elimination of the requirement ma
ead to some measure of picture degradation for some
iewers, particularly in older model receivers or in area
where reception is marginal, we believe that in instance
in which the broadcaster chooses to retain the color burs
signal during black-and-white programming, and this re
sults in audience complaints, the broadcaster will be m
sponsive to its audience in the station's best interest. The
we are confident that the broadcaster would strike what
believes is the most appropriate balance between the co
sumers' demands for the highest quality signal and th
demands to operate its video tape processing and othe
equipment in the most efficient manner. Therefore, w
propose to delete the requirement of Note 8 of Figure 6 a
Section 73.699 that the color burst signal be omitted du
ing the transmission of monochrome programming.[13]

Antenna radiation pattern limitations.

11. Depending on the location of a television statio
transmitter, use of a directional antenna system may
more beneficial to the station and to viewers, than

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 specifications for studio equipment and the electrical properties of the transmitter. Many of these requirements are also no longer necessary for the reasons mentioned above. Also, these installation and safety specifications do not pertain to the prevention of, or limits on, adjacent and co-channel interference, which are of paramount Commission concern. Such specifications are analogous to those eliminated from the Rules in similar proceedings for AM and FM radio stations.[16] It is our view that these requirements pertaining to equipment installation and safety are redundant with respect to other state or federal requirements.[17] Thus, we conclude that the installation and safety requirements in Sections 73.687(d),(e), (f), and (h) may be unwarranted; we, therefore, propose their removal.

Reference table of minutes and seconds converted to decimal parts of a degree.

16. Table I of Rule Section 73.698 contains conversions for minutes-to-decimal and seconds-to-decimal parts of a degree. These values may be used in the calculation of geographical distance separations between television channel assignment locations. Such conversion factors were established in the Rules to provide the means of consistent and accurate calculations long before the advent and widespread availability of electronic calculators and computers. At that time, approximations and estimations were usually made in determining such values using slide rules or some other manual method. On occasion, such calculations yielded imprecise and inconsistent results. However, since electronic calculators and computers are universally used today for calculating coordinate distance separations, with increased accuracy and speed of computation, Table I is no longer needed. Therefore, we propose to delete Table I of Section 73.698 from the Rules.[18]

CONCLUSION

17. In this proceeding, we have reviewed [illegible] rules that we believe to be unnecessary, burdensome, or anachronistic. We encourage all interested parties to comment not only on the specific proposals detailed above, but also to comment on other related technical issues which are within the scope of this proceeding.

18. Authority for this proposed rule making is contained in Sections 1.3, 4(i) and (j), 303, 308, 309 and 403 of the Communications Act of 1934, as amended. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, interested parties may file comments on or before **June 20, 1988**, and reply comments on or before **July 5, 1988**. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. In reaching its decision, the Commission may take into consideration information and ideas not contained in the comments provided that such information or a writing indicating the nature and source of such information is placed in the public file, and provided that the fact of the Commission's reliance on such information is noted.

19. For purposes of this non-restricted notice and comment rule making proceeding, members of the public are advised that *ex parte* presentations are permitted except during the Sunshine Agenda period. *See generally* Section 1.1206(a). The Sunshine Agenda period is the period of time which commences with the release of a public notice that a matter has been placed on the Sunshine Agenda.

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* ise, are permitted unless specifically re- mission or staff for the clarification or idence or the resolution of issues in the ion 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- Any person who submits a written *ex parte* ist provide, on the same day it is submit- same to the Commission's Secretary for public record. Any person who makes an esentation that presents data or arguments ected in that person's previously-filed writ- must provide, on the day of the oral pre- morandum to the Secretary (with a copy to er or staff member involved) which sum- a and arguments. Each *ex parte* presenta- above must state on its face that the een served, and must also state by docket oceeding to which it relates. Section 1.1206.

ed by Section 603 of the Regulatory Flexi- Commission had prepared an initial regula- analysis (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 he rest of the Notice, but they must have a distinct heading designating them as re- regulatory flexibility analysis. The Secretary copy of this Notice, including the initial ibility analysis to be sent to the Chief Coun- cy of the Small Business Administration in h Section 603(a) of the Regulatory Flexibil- . No. 96-354, 94 Stat. 1164 5 U.S.C. Section 82)

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

formally in this proceeding, participants must al five copies of all comments, reply com- supporting documents. If participants want ssioner to receive a personal copy of their n original plus eleven copies must be filed. nd reply comments should be sent to Office lary, Federal Communications, Commission, D.C. 20554. Comments and reply comments ble for public inspection during regular busi- the Dockets Reference Room (Room 239) of Communications Commission, 1919 M Street, ngton, D.C. 20554.

rther information on this proceeding, contact den, Mass Media Bureau, (202) 632-9660.

FEDERAL COMMUNICATIONS COMMISSION

H. Walker Feaster, III
Acting Secretary

APPENDIX A

INITIAL REGULATORY FLEXIBILITY ANALYSIS

I. Reason for action

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

II. The objective

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

III. Legal basis

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

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

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

V. Recording, Recordkeeping, and Other Compliance R quirements

There is no additional impact.

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

There is no overlap, duplication, or conflict.

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

There are no alternatives available.

APPENDIX B

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

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

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

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

§ 73. 208 Reference points and distance computations.

* * * * *

(c) ***

(1) Convert the latitudes and longitudes of each 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 52462, December 24, 1985.

oximately 5 to 7 percent." This may suggest that a suppre
of the color burst to a level of approximately 6 percent of
al may accomplish what a signal omission would. We solic
ments on the appropriateness of suppression to 6 percent o
level of the color burst signal during monchrome transmi
s. Comments are also requested as to whether such suppre
would be sufficient to accommodate the signalling functio
he video tape processing equipment discussed in paragraph 9

[2] See A Re-examination of Technical Regulations, *supra*. Whi
Rules have generally regulated the technical quality of th
adcast transmission signal, the Commission noted in that pr
eding that it had never regulated the technical quality of th
oadcast program signal. The Commission further recogniz
at the competition among broadcasters and certain other servi
oviders was sufficient to regulate picture and sound quality.
ted that competitive market forces would create incentives f
levision stations to produce pictures and sound of a technic
ality acceptable to viewers. The fear of losing audience to oth
ations would create strong incentives for stations to maintain t
chnical quality of their sound and video in the absence of a
overnment regulation.

[13] We also seek comments as to what percentage of televisi
eceivers fall in the "older set" category and what percentage o
he audience is located in areas with marginal reception. How
ver, as suggested above, if the received picture signal is degrade
s a result of continued color burst signal during the transmissi
f black and white programming, it should be reported to, an
esolved by the particular broadcast station transmitting that si
nal, without Commission intervention.

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

[15] While proposing to delete the maximum-to-minimum
tenna radiation restrictions, we also seek comments as to whet
these restrictions should be relaxed rather than eliminated. If s
we seek further comments as to what level of radiation suppre
sion should be permitted.

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

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

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

SEPARATE STATEMENT OF COMMISSIONER PATRICIA DIAZ DENNIS

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

The proposal to eliminate rules (Sections 73.687(d), (e), (f) and (h)) related to safety procedures and requirements for constructing and installing transmission systems and studio equipment troubles me. The commenters should focus upon the extent to which other agency regulations, state or federal, actually address the safety concerns our rules currently contemplate. Are these rules, in fact, "redundant" as the Not[illegible] 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.

FM station must be spaced from other FM stations ... operate on frequencies separated by 10.6 or 10.8 MHz ... or 54 channels apart). The required spacings are inten... to reduce the likelihood of IF interference ocurring ... broadcast FM receivers that employ 10.7 MHz as ... first IF.[9] Requiring such stations to be located at leas... far apart as the specified distances limits the geograph... area within which a receiver would be likely to encou... two relatively strong FM broadcast signals from IF-re... stations. The current spacings specified for Classes A, ... and C (the original classes) were intended to avoid ... overlap of 20 mV/m field strength contours.[10] Howev... we recognized in the *Notice*, the specified distances ... insufficient to prevent such overlap. Nevertheless, ... dence of IF interference is limited to allegations made ... several parties to this proceeding, which is contradicted ... the experiences of others. We are not aware of compl... by the public or broadcasters which can be attributed ... IF interference. This suggests that the existing ... spacings are adequate.

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

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

6. Considering these factors, we concluded in the Se... *ond Report* that adoption at that time of minimum d... ance separation requirements based on the 30 mV/m ... protection level would have been premature. However, w... ated our belief that we should not indefinitely hold th... ew station classes to a stricter standard than the one th... as produced no public complaints over a period of ... ears. We also stated that a more complete record mig... nable us to determine an appropriate standard that co...

...ed to develop minimum distance separation require... ...s for all of the various class relationships, providing ...nsistent level of protection.

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

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

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

COMMENTS

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

11. Key Broadcasting, Inc. (Key), although supporting ... Commission's proposal, suggests that it does not go far ...gh. Key states that it has operated a Baltimore, Mary... ...d station (WQSR) short-spaced to an IF-related station ...r many years and has never received a complaint attrib...ble to IF interference. Key believes that IF distance ...aration requirements should be abolished entirely, but that if the Commission retains them, the protection level should be no more restrictive than 40 mV/m.[17] Timothy C. Cutforth, P.E. (Cutforth), a consulting engineer, and the Association of Federal Communications Consulting Engineers (AFCCE) both support the concept of a uniform protection level for all station class relationships. These commenters believe that the level proposed, 36 mV/m, seems about right, however, AFCCE states that additional laboratory testing should be conducted in order to verify this.

12. Greater Media, Inc. (Greater Media) opposes any change in the current IF rule on the grounds that it would cause "new IF interference to millions of receivers currently in use and likely to remain in use for many, many years." To support this contention, Greater Media supplied a statement by it's Vice President of Radio Engineering, Mr. Milford K. Smith, Jr., which relates his experiences with IF interference while serving as Chief Engineer (1967-1970) of WHMP-FM, Northampton, Massachusetts. Mr. Smith recalls receiving many complaints of IF interference during that time, resulting from the operation of a nearby IF-related station, WHCR. Mr. Smith further states that he returned to the area on July 8, 1988 with ten consumer grade FM receivers of types that he feels are likely to be used by the general public. At eight locations, Mr. Smith measured and recorded the field strengths of the two aforementioned IF related stations and noted, for each of the receivers, whether any IF interference was experienced. Because about [redacted] of the receivers did experience interference, Mr. Smith concludes that IF interference continues to be a problem and that the Commission would therefore be ill advised to change the current IF distance separation requirements. Key, in reply, asserts that the Greater Media (Smith) study is flawed because, among other things, the measured signal strengths from the two stations were not equal or nearly equal at the locations where the trials were conducted, suggesting that the interference reported by Smith was not IF interference, but interference of some other type.

13. The Association for Broadcast Engineering Standards (ABES) and Greater Media believe that the OET Study underestimates the IF interference susceptibility of FM receivers typically used by consumers, and therefore should not serve as a basis for the proposed 36 mV/m protection level. ABES also submitted an engineering statement that contains histograms showing the number of IF-related licensed FM station pairs as a function of separation distance. ABES notes that, according to this data, there are relatively few IF-related pairs separated by distances near the current minimums. From this it concludes that there is little benefit (in terms of site location flexibility) to be realized if the Commission's proposal were to be adopted. The ABES engineering statement postulates that the current disparity in protection level between the various class combinations is a result of gross rounding of the originally calculated distances and changes in the class maximum facilities over the intervening two decades.

14. The National Association of Broadcasters (NAB) recommends that the Commission "go slow" in adjusting the IF distance separation requirements. NAB states that the problem of IF interference rests in "current receiver design practice," and that "the receiver industry should be allowed time to embark upon a standardization process," the outcome of which would determine the protection

proceeding to persuade us otherwise. An FM receiver not need more protection from two IF-related Class ations than from two IF-related Class A stations. Nor this same receiver need less protection from TV b- nnel 253 IF interference than it does from two IF- ed Class C1 stations. We believe that it is good public cy for our technical allotment and assignment require- ts to be based upon reasonably derived and consis- y applied technical standards. As some commenters tioned, we may consider waivers of our technical s in cases wherein special unique or unusual cir- stances may so dictate, however, even in these cases believe that a clear understanding by all parties of the nical principles underlying the rule for which the ver is sought is essential to the proper disposition of requests.[21] In view of the foregoing, we conclude *one specific protection level for IF interference should elected and applied uniformly.*

9. In the *Further Notice*, we requested data or tes lts, particularly from receiver manufacturers or or- izations representing them, that would quantitatively port or oppose our choice of a uniform 36 mV/m tection level, or would suggest an alternative level. VCEG did submit some data bearing on this matter. we received no separate comments from receiver nufacturers. In spite of the helpful reports submitted Greater Media, 222, ABES and others, the record still s not point to any one particular protection level as an imum choice.

0. A few of the commenters made considerable effort interpret the OET Report in various, sometimes con- dictory, ways. Others challenged or criticized its meth- ology or conclusions. Boiled down to its essentials, wever, the OET Report says only that given two desired IF-related FM signals of a given equal strength, "average" commercial FM receiver[22] will provide sat- ctory reception (free of objectionable IF interference) a desired signal only if that desired signal has a certain nimum strength. Expressed another way, if the desired nal is strong enough, it can override the interference.[23] nverting the signal levels from dBm at the antenna rminals of the "average" receiver to corresponding field ength values in mV/m (which involves certain assump- ns about the antenna that would be used), the approx- ate quantitative results are as follows:

desired Strength rotection level)	Minimum necessary desired signal strength for satisfactory reception
mV/m	3 to 25 mV/m depending on frequency
mV/m	1 to 8 mV/m depending on frequency

21. Obviously, there is a trade-off between protection vel (risk of interference) and site flexibility. That is, a wer level of protection permits shorter separation dis- nces, which in turn allow a greater number of potential ansmitter sites. Greater Media states in its comments hat such a trade-off "should never favor the latter policy onsideration unless it can be proven that restrictions on censees have in fact substantially reduced opportunities or service to the public." ABES in its comments states hat the vast majority of FM stations are now separated rom IF-related stations by much more than the current inimum distance separation requirements, and therefore he benefits to be gained, in terms of site flexibility, are imited.[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 stations in ways that increase the area of overlap of the stations' 36 mV/m median field strength contours will not be accepted.

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

CONCLUSION

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

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

30. We have previously determined that Section 603(b) of the Regulatory Flexibility Act of 1980 (Pub. L. No. 96-354) does not apply to this rule making proceeding because it will not have a significant economic impact on a substantial number of small entities.

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

ORDERING CLAUSES

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

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

* * * * *

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

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

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

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

§ 73.213 Grandfathered short-spaced stations.

* * * * *

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

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

§ 73.610 Minimum distance separations between stations.

* * * * *

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

MINIMUM DISTANCE SEPARATION FROM FM CHANNEL 253 (98.5 MHz)

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

APPENDIX B

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

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

APPENDIX C

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

Department of Aeronautics, State of Nebraska

Timothy C. Cutforth, P.E.

Educational FM Associates

Key Broadcasting Corporation

WEDR, Inc.

Peter and John Radio Fellowship, Inc. (withdrawn)

Association for Broadcast Engineering Standards, Inc.

Edens Broadcasting, Inc.

Greater Media, Inc.

National Association of Broadcasters

Consumer Electronics Group/Electronic Industries Association

Association of Federal Communications Consulting Engineers

222 Corporation

Bromo Communications, Inc.

Replies were filed by:

Association of Maximum Service Telecasters

Chapman S. Root Revocable Trust

Greater Media, Inc.

Key Broadcasting Corporation

Peter and John Radio Fellowship, Inc. (withdrawn)

FOOTNOTES

[1] IF interference to FM broadcast receivers causes increased background noise which degrades reception of a desired signal. In more severe cases, it is characterized by reception of the audio, often distorted, of one or both of two stations, regardless of the position of the receiver's tuner dial. When such interference occurs, this phenomenon can prevent reception by the affected receiver of most or all of the FM stations in the area.

[2] Two FM stations are considered to be IF related when their assigned frequencies are separated by 10.6 or 10.8 MHz (53 or 54 channels).

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

[4] *See Notice of Proposed Rule Making* in MM Docket 86-144, 104 FCC 2d 160 (1986), 51 Fed. Reg. 15927, published April 29, 1986.

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

[6] In BC Docket 80-90 the Commission amended its rules to expand FM service to the public by **increasing the number of station classes**, thereby providing new opportunities for additional stations and upgrading of existing stations. The Commission now authorizes six classes of commercial FM stations: A, B1, B, C2, C1 and C. Those classes, B1, C2 and C1, were created in BC Docket 80-90. [illegible] existing rules were modified merely to accommodate the new classes. In general, the approach was to apply [illegible] new Classes B1 and C2 as if they were Class B, and likewise treat new Class C1 as though it was Class C. [illegible] indicated that these rules could be refined [illegible] record addressing them in greater detail.

[7] *See First Report and Order* in MM Docket 86-144, 2 FCC Rcd 660 (1987), 52 Fed. Reg. 8259, published March 17, 1987. 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 amend the rule which provides for the classification of stations by zone based on transmitter location rather than the location of the community of license.

[8] *See Second Report and Order* in MM Docket 86-144, 2 FCC Rcd 5693 (1987), *recon. granted in part and denied in part*, 3 FCC Rcd 2477 (1988). The Commission (1) adopted a specific [illegible] for classifying FM stations according to their effective transmitting power and antenna height; (2) modified the required procedures for predicting FM station coverage to accommodate beam-tilt transmitting antennas; (3) modified the formula used for calculating the distance between FM stations to improve its accuracy; and (4) restricted modifications to grandfathered short spaced stations to those which will not increase the potential for interference.

[9] Most consumer FM broadcast receivers use 10.7 MHz as their first IF.

[10] *See Report and Order* in Docket No. 15933, 1 FCC 65-575, 30 Fed. Reg. 8680, July 9, 1965, 5 RR 2d 1679 (adopted June 30, 1965).

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

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

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

th the practice employed for the other minimum dis
eparation requirements in §73.207, all distances are
d to the nearest kilometer.

Report and Order in MM Docket 87-121, FCC 88-40
December 12, 1988. The Commission adopted rules
applicants for commercial FM broadcast stations to re
uthorization of antenna sites that are nominally short
to other co-channel and first, second, and third adjacent
l facilities, provided that the service of these other facili
protected in accordance with well established criteria
er, those rules do not allow short-spacing for IF-related
s. The Commission indicated that the technical matters
ying IF distance separation requirements are differen
hose considered in MM Docket 87-121, in that reception
nals from other nearby FM stations (as well as the two
ted stations) may be affected. *See also* footnote 21, *supra*
e *Notice of Proposed Rule Making* in MM Docket 88-37
8-251, released September 12, 1988.

DISSENTING STATEMENT OF COMMISSIONER JAMES H. QUELLO

re: Review of Technical Parameters for FM Alloca
Rules of Part 73, Subpart B, FM Broadcast Station
imum Distance Separations for IF Related Stations)

lissent of the majority's adopting a uniform IF inter
ce standard. The record does *not* demonstrate that
36 mV/m standard is sufficient to prevent additional
ference in the FM band. On the contrary, data in the
rd compel a more cautious approach. The burden in
nstant proceeding should be placed squarely on those
ies seeking to change our current IF separation re
ements. Indeed there is presumption against changing
ing policies unless the modifications are supported by
rd evidence.[1]

ata submitted in this proceeding examining various
s of receivers demonstrate that the Commission
uld not relax its IF spacing requirements. The Co
er Electronics Group of the Electronics Industry A
ation studied inexpensive Class I type receivers and
cluded that "adoption of the proposed uniform level
protection from IF interference would result in in
ased interference and a consequent reduction in the
ility of the FM broadcast service."[2] Similarly, data sub
ted by NAB argues against relaxing our IF interference
ndards.[3] A significant number of parties suggested that
Commission retain its existing rules until further
dy is conducted or standards for receiver design are
proved.[4] Even the OET report, which examined the
tential interference on higher quality Class II-IV receiv
, concluded that relaxing current IF separations may
d to increased interference in the band.[5] OET's analysis
ncerned an increase from a 20 mV/m to a 30 mV/m
otection criterion. The study noted that such an in
ease may be feasible, depending on the policy trade-off
the additional degradation versus additional FM broad
st service.[6] It should be noted however, that OET's
port examined the potential for interference using a 30
V/m protection standard. The majority's disregard for
e potential adverse interference is, therefore, exacer
ted by the fact that the item adopts a more relaxed
andard -- 36 mV/m -- than that employed in OET's
olicy 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." 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.[7] 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."[8] 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 the band will not occur. This is especially true where there is data on the record demonstrating that relaxed standards may create additional IF interference. In any event, it certainly does not justify lessening the protections for other classes of FM stations. Simply stated, the Commission lacks the hard data that is necessary to justify a change from the status quo.

Of course, the perfect solution lies with improving the design of FM receivers. The data demonstrate that interference problems will vary considerably, depending on the quality of receiver. Most commenters agree that improved design will significantly reduce the IF interference problem. Accordingly, I support the idea that the broadcast and consumer electronics industries should adopt new receiver performance standards. In this regard, the Commission should take the lead by endorsing an industry developed standard that will balance the need for additional IF protection against increased costs to consumers from higher quality radio receivers. At this point in time, however, we should craft our interference rules to be consistent with the realities of the radio receiver marketplace. Our decision today runs the risks of increased interference to a significant number of existing receivers.

On balance, there is little or no evidence to justify relaxing the IF interference standard to 36 mV/m protection level. The record in this proceeding supports a cautious approach to this problem, perhaps a case-by-case examination of each potential IF interference situation. The blanket, uniform protection standard adopted in this proceeding is anything but cautious. I agree that the majority's decision will provide a consistent standard for all classes of FM facilities. However, our public interest concerns should encompass far more than an administrative uniformity. Given the lack of evidence in this proceeding that would justify such a change, I must dissent to the majority's decision.

FOOTNOTES FOR STATEMENT

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

[2] *Comments of the Consumer Electronics Group of the Electronic Industries Association*, filed in MM Docket No. 86-143, July 12, 1988, at 1. The test primarily involved inexpensive receivers without an antenna connection. These receivers constitute a large segment of the existing radio market. The results indicated the level of interference expected with present separations would increase with 30 mV/m. However, the standard adopted by the Commission, 36 mV/m is even more relaxed thereby increasing the potential for interference.

[3] National Association of Broadcasters Department of Science and Technology, *A Review of the FM IF Taboo in Contemporary FM Broadcast Receivers in Laboratory Tests* filed in Comments of the National Association of Broadcasters filed in MM Docket No. 86-144, August 26, 1986. The study found that "there is ample evidence from these tests that the IF taboo exists and that rules to control such station configurations that contribute to its occurrence must be maintained." *Id.* 1. The report concludes that further tests are warranted because of the wide range in receiver models and general lack of information. *Id.*

[4] *See, e.g.*, Comments of the Association of Federal Communications Consulting Engineers, filed in MM Docket No. 86-144, July 12, 1988 at 3 (more definitive test data necessary to support relaxation of IF relaxation). Reply Comments of the Association

e Telecasters, filed in MM Docket No. 8 at 3 (further studies necessary before d); Comments of the National Association in MM Docket No. 86-144, July 12, 1988 at tection until receiver industry establishes of Greater Media, Inc., filed in MM Dock-2, 1988 at 9-10 (test data and real world taining existing separations); Comments of dcast Engineering Standards, Inc., filed in 144, July 12, 1988 at 5, Appendix 1 (en-Moffet, Larson & Johnson, Inc. supports parations); Comments of National Public ocket 86-144, August 26, 1986 at 11 (relax-cause significant increase in interference); A.D. Ring & Associates, P.C., filed in MM eptember 9, 1986 at 7 (separation require-nged only after receiver performance stan-

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

Order in MM Docket No. 86-144, FCC ry 15, 1989 at para. 21.

erican Association for Broadcast Engineer-note 4 at 2.

n Television Corporation v. FCC, 444 F.2d 70) *clarified* 463 F.2d 268 (D.C. Cir. 1971).

Order, *supra* note 7 at para. 21.

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

CC Docket No. 88-136

In the Matter of

AMERITECH SERVICES 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 6066 (1988).

binations 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 ... [a] point formula's effect to that of a

graphical depiction of the permissible facilities in each class formerly contained in the engineering charts of our rules.

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

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

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

13. *Discussion*. In order to license FM stations efficiently, we must be able to classify them rapidly and accurately. Our principal goal in proposing the index method was to provide a clear-cut means of classifying FM stations according to their antenna HAAT and ERP. However, the commenters are primarily concerned with how accurately the power reduction formulas derived from the proposed index numbers track the propagation curves in the rules. Although the index method would remove uncertainty from our station classification process, it would not track the propagation curves as accurately as the current equivalence method or any other contour-distance method. Furthermore, it is apparent from the record that the index method could easily be misunderstood or incorrectly applied. In some situations, the numerical rounding procedure required by the index method causes unexpectedly large departures from the maximum facilities limits in the rules. Thus by adopting the index method, we might be allowing round-off error to unduly influence the design or operating parameters of FM stations.[10] We believe that these drawbacks outweigh the benefits that the index method would provide in terms of solving the station classification problem.

14. Having considered the concerns raised in the comments, and reassessed the benefits and drawbacks, we will not adopt the index method. Instead, we are amending our rules to provide a detailed explanation of the method we have used to classify stations since the effective date of Docket 80-90. This method looks first to the maximum and minimum ERP and HAAT limits in our rules, and then, for only those stations that fall outside of these limits, it relies on a comparison of the station's "reference distance with six "class contour distances" that we are listing in the rules.[11] Exceptions to the minimum power requirements are allowed for stations with relatively high effective antenna height and for stations whose reference distance exceeds the class contour distance for the next lower class. We believe that following this procedure for station classification is the best course of action at this time.[12] *See* Rule Sections 73.210 and 73.211 in Appendix B.

15. On March 2, 1987, we reclassified FM stations pursuant to our decision in Docket 80-90. In implementing the reclassification, we decided, pending further action in this proceeding, to refrain from downgrading those Class C stations that do not meet the minimum ERP requirements, provided that the predicted distance to their 1 mV/m field strength contour exceeds the maximum predicted distance to the 1 mV/m contour for Class C1 (72 km).[13] Had we adopted the index method, some of these stations would have been reclassified. However, under the method we are adopting instead, all of these stations will remain Class C.

16. Several commenters requested that we classify stations solely by field strength contour distances. We are reluctant to do so at this time because of the reasonable variations that may occur when different persons read values from the propagation charts in our rules.[14] In the interest of improving the consistency of calculations involving values normally read from the charts, we believe that the commenters' requests for an official digitization and interpolating formula for these curves have considerable merit. Accordingly, we plan to initiate a new proceeding addressing this proposal in the near future.[15]

Prediction of Coverage

17. *Proposal*. We proposed, in the *Notice*, to require that calculations for prediction of coverage be based on the maximum ERP of the main radiated lobe of the station's antenna, regardless of orientation. Currently, our rules require the use of the ERP in the horizontal plane. The purpose of the proposed change is to modernize the rules to account for the increased use of beam-tilt antennas in the FM service.[16] In 1970, we revised the coverage predic-

stations in these new classes must meet the same separations as the largest stations, even though they operate with lower ERP and HAAT. Although this further reduces the probability of IF interference due to stations in the new classes, it also limits these stations' flexibility in choice of antenna sites.

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

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

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

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

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

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

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

Short - Spaced Stations

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

31. In the *Notice*, we proposed to update the rule, not by adding the new station classes, but instead by replacing the table and the entire text of the rule with a single paragraph that would permit grandfathered short-spaced stations to be modified or relocated, provided that their 1 mV/m field strength contours are not extended toward any short-spaced station. We also asked for comments as to whether we should retain the policy of considering facilities increases for short-spaced FM stations pursuant to an agreement between the stations and a showing that such an arrangement is in the public interest.

32. *Comments.* Eight commenters support our proposal primarily for the reasons that we presented. Of note, Dick Broadcasting Company, Inc. (DBC), licensee of WKDF(FM), Nashville, Tennessee, even though it is currently operating short-spaced, fully supports our proposal. DBC would restrict itself and other licensees of grandfathered short-spaced stations from making modifications that would further reduce the separation. On the other hand, NAB believes that the rule we proposed is not practical and that it unduly restricts flexibility for short-spaced licensees. Thirteen commenters, most of which are licensees of short-spaced FM stations, oppose our proposal because it would reduce the flexibility they now have to upgrade, modify or expand facilities. They claim that they will need this flexibility in the future in order to move their coverage areas in response to population movement and growth.

33. Beasley Broadcast Group (BBG) [illegible] several grandfathered short-spaced stations [illegible] Commission should allow such stations to disregard second and third adjacent channel short spacings rather than to include them in the proposed contour restrictions. BBG claims that second and third adjacent channel short spacings have little impact. DBC, however, cites the problem of loss of service to the listening public resulting from short-spacing on adjacent channels.

34. *Discussion.* Grandfathered short-spaced stations have had 22 years to take advantage of Section 73.213 of our rules to optimize their facilities. We believe that continuing to allow these stations to routinely modify their facilities in ways that increase the risk of interference is not in the public interest. The FM allocation is becoming increasingly occupied, and continuing to grant routinely modification requests that increase the probability of interference tends to run counter to our objective of promoting efficiency in the use of this spectrum.

35. We are therefore adopting our proposal to limit the modifications routinely permitted for grandfathered short-spaced stations to those that do not extend their 1 mV/m contour toward the 1 mV/m contour of any other station to which the minimum separation is not met. For the purposes of Section 73.213, we will consider short-spacing to apply to four of the categories specified in Section 73.207 -- co-channel, first, second and third adjacent channels.

36. We will continue, however, to consider mutual agreements between grandfathered short-spaced stations for facilities increases when it is shown that the public interest would be served.[23] When evaluating public interest showings for this purpose, we take into consideration the

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tion in order to clarify
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 sta*tions 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.
WRIP 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
Dutrell-Rackley

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NDIX B

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f 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) Ferms 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

(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 duTreil-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.

as the Commission recently ex-
Appeals in its July 25, 1988 Brief
Corp. v. FCC, No. 87-1635 (D.C.

ocess contemplates that appli-
themselves in accordance with
established criteria so as to
possible likelihood of being
lified applicant. *Alexander S.*
d [423,] 431 [(1981)]. The Com-
nonetheless, that an applicant
able formal structure on paper
preference, but in reality that
accurate depiction of how the
l be managed. Thus, limited
g stockholders, although nomi-
ce over the applicant, may ac-
(if not control) the applicant's
cess. In those instances, the
sregard the applicant's formal
and treat the nominal passive
voting stockholders or limited
were active in the management
consider them in any integra-
g., *Signal Ministries, Inc.*, 104
97 (Rev. Bd. 1986), *review de-*
9 (1987), *aff'd by judgment sub*
asting Corp. v. FCC, 838 F. 2d
table); *KIST Corp.*, 102 FCC 2d
curiam sub nom. United Ameri-
v. FCC, 808 F.2d 1436 (D.C. Cir.
nied, 107 S.Ct. 2182 (1987); *Hen-*
Co., Inc., 63 FCC 2d 419 (Rev.
Cleveland Television Corp. v.
969 (D.C. Cir. 1984). "[W]here
the record for inferring that
lers will exercise influence or
ng business," an applicant's in-
ill be disregarded. *Victory Me-*
3,] 2075 [(1988)].

logic prevails where an "inactive"
e who is also a purported *ex*
ted and continues to influence the
pal. *See Mulkey*, 3 FCC Rcd at
"limited" partner, dominates Mrs.
partner; therefore, no integration
o *Magdalene Gunden Partnership*, 3
(Rev. Bd. 1988) (discussion of
u fides").

nd hearing, the ALJ also specified
County's financial qualifications, the
ation of financial qualifications, and
the financial representations made
ra. 4 After making specific findings
SID, paras. 20-31, the ALJ reached
ions: (a) On the day it filed its
ty was not financially qualified and
was; (b) Bell County presently does
re financial qualifications to be a
id., para. 55; and (c) Teresa Watts
misrepresent her husband's financial
enture; instead, she was confused as
a money market account. Id., para.
of our conclusion that Bell County's

proposal is a sham, tantamount to a fraud, *see Mulkey, supra*, and thus can not prevail in any event, we will not reach these other issues.

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

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

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

FEDERAL COMMUNICATIONS COMMISSION

Joseph A. Marino
Chairman, Review Board

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

MM Docket No. 87-140

In the Matter of

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

MEMORANDUM OPINION AND ORDER

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

By the Commission:

INTRODUCTION

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

BACKGROUND

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

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

not dismissed the proceedings
. CSU contends that a com-
compromise, would have of-
ocket 85-230 proceeding that
e outcome of Docket 87-140.[9]
at our acceptance of CLC's
l have required waiver of our
tting short-spaced allotments.
uggests two options that we
of granting all components of
it was submitted. Both of the
l have required that we grant
ompromise except those that
tioner states that these options
mission, and that we should
tments prospectively by estab-
n which the effective date for
be set far enough in the future
s would have time to prepare
e vacant allotments before the
Finally, CSU requests that the
to Show Cause why its Station
upgraded on its current chan-
at the Commission modify the
rdingly.

CUSSION

ged its allocations policy in the
the development and extension
inly because contour method
to meet the needs of NCE-FM
ent system, contour method of
for NCE-FM stations through-
y since the earliest days of the
nts to the proceedings in MM
cingly supported our proposal to
n contour protection. All com-
he four parties involved in the
MM Docket No. 85-230 stated
method assignment would im-
hods.[7] Some commenters, among
ommunications and Information
at the number of NCE-FMs in
crease under the new allocations
to the petitioner's claim, we did
n order to dispose of the alloca-
Docket No. 85-230. Rather, we
cause we concluded that the
em was not optimally suited to
NCE-FM; it was unnecessarily
unnecessarily costly to obtain an
ent.[8]

ather pending NCE-FM allotment
r area, the Commission chose to
had not yet been resolved. The
ned that the allotment-assignment
vantageous for NCE-FM; thus, it
g the good effects of the rule
use the inferior assignment poli-
the contour method allows sta-
ility to tailor their coverage;
that several applicants would now
obtain assignments where before
tion could encourage the submis-
n assignment requests by parties
which may have been precluded from entering pending
border area allotment proceedings by the old spacing re-
strictions. In our view, this expansion of NCE-FM ap-
plicant pool is beneficial for the NCE-FM service indeed
encouraging applicants to apply for stations where before
they could not was the express goal of the generic pro-
ceeding.

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 peti-
tioner'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 com-
mitted 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 pro-
moting 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 al-
locations 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. [illegible] 1988.

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

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

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

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

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

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

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

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

[9] We also note that the Commission is not precluded from changing existing allocations policy even where *applications* had been filed for such allocations and were pending prior to the 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 in television allotment. The Commission specifically stated that the Communications Act "does not preclude the Commission from utilizing rulemaking for the orderly conduct of its business and from denying applications inconsistent with any rule ultimately adopted." *Id.* at 17. Accordingly, if existing applicants do not have vested rights in a broadcast channel to prevent its reallocation by the Commission, *a fortiori*, the petitioner in the instant case would not have any similar rights to any of the channels at issue here, nor would be able to prevent a change in allocations policy the Commission believes will promote the public interest.

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

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

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

§ 74.1204 Protection of FM broadcast stations and FM translators.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(f) An application for an FM translator station will not be accepted for filing even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (a) of this section, if the predicted 1 mV/m field strength contour of the FM translator station will overlap a populated area already receiving a regularly used, off-the-air signal of any authorized 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

CRTC - Broadcast

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

Licence amendment

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

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

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

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

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

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

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

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

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

Laura M. Talbot-Allan
Secretary General

This document is available in alternative format upon request.

Doc. #: DEC97-539_0